FACTORS INFLUENCING FEEDING PRACTICES OF PRIMARY CAREGIVERS OF INFANTS (0 – 5.9 MONTHS) IN AVIAN PARK AND ZWELETHEMBA, WESTERN CAPE, SOUTH AFRICA.

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Thesis presented in partial fulfilment of the requirements of the degree of Master of Nutrition in the Faculty of Medicine and Health Sciences at Stellenbosch University.

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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Signature: C Goosen **Date:** March 2013

ABSTRACT

Introduction

Breastfeeding is a key child survival strategy. Mixed feeding (predominant and partial breastfeeding as defined by the World Health Organisation) during the first six months of life is associated with childhood morbidity and mortality, especially in resource-limited settings, and carries the highest risk of HIV transmission through breastfeeding. When compared to exclusive breastfeeding, predominant, partial or no breastfeeding increases the risk for pneumonia and diarrhoea-related mortality. National exclusive breastfeeding rates are poor and have not improved significantly over the past fourteen years, supporting investigation into the contextual factors that influence infant feeding practices.

Aim

The study aimed to determine the feeding practices of primary caregivers of infants (0-5.9 months) and the influencing factors in Avian Park and Zwelethemba in Worcester, in the Western Cape Province of South Africa, in order to make recommendations, where appropriate.

Methods

The study was conducted from April to August 2011. A cross-sectional community-based survey was performed using a structured questionnaire. Focus group discussions were held with mothers, fathers and maternal and paternal grandmothers of infants younger than six months, and health care workers (formally trained professionals and counsellors) working in child health.

Results

One hundred and forty primary caregivers were interviewed. All caregivers were the biological mother of the infant. Seventy-seven percent (n=108) had initiated breastfeeding. At the time of the study, 6% (n=8) breastfed exclusively. Ninety-four percent (n=132) applied suboptimal breastfeeding practices: 36% (n=51) breastfed predominantly, 27% (n=38) breastfed partially, and 31% (n=43) did not breastfeed. Ninety percent (n=126) of the mothers had introduced water, of whom 83% (n=104) had done so before their infants were one month old. Forty-four percent (n=61) of the mothers had introduced food or formula milk, of whom 75% (n=46) had done so before their infants were three months old. Knowledge of the health and economic benefits of breastfeeding supported initiation but several barriers to exclusive breastfeeding remained. The main barriers were 1) the widely-held perception that infants needed water and non-prescription medicines, 2) the concern that milk alone does not satisfy the infant, 3) inadequate infant feeding education and support by the health system, 4) the lack of community-based postnatal support, 5) convention and family influence, 6) mothers separated from their infants and 7) local beliefs about maternal behaviour and breastfeeding. HIV infection exerted a significant influence on infant feeding

choice ($p<0.001$) and none of the HIV-infected mothers breastfed (n=19). Forty-five percent (n=19) of the formula feeding mothers over-diluted the milk, and early supplementation of formula milk with food was common. Health care workers and maternal grandmothers were the key role-players in infant feeding information and support.

Conclusion

Exclusive breastfeeding during the first six months of life was a rare practice in these communities. Water, formula milk and/or food were introduced at an early age. HIV-infection discouraged breastfeeding and formula feeding practices proved to be poor. Comprehensive education and support at antenatal, intrapartum and postnatal level seemed lacking and community perceptions and convention contributed to mixed feeding practices. Mothers seemed ill equipped to negotiate infant feeding practices with role-players at home.

OPSOMMING

Inleiding

Borsvoeding is ‘n sleutelstrategie ter ondersteuning van kinderoorlewing. Gemengde voeding (hoofsaaklike en gedeeltelike borsvoeding, soos omskryf deur die Wêreldgesondheidsorganisasie) gedurende die eerste ses maande van lewe, sowel as geen borsvoeding, word geassosieer met kindersiektes and -sterftes, veral in gebiede met beperkte hulpbronne waar babas vatbaar is vir wanvoeding, gastroënteritis en longontsteking. Gemengde voeding dra ook die hoogste risiko vir MIV-oordrag deur borsvoeding. Nasionale eksklusiewe borsvoedingskoerse is swak en het nie oor die laaste veertien jaar verbeter nie. Dit dien as motivering vir die ondersoek na kontekstuele faktore wat babavoedingspraktyke beïnvloed.

Doelwit

Die doelwit van die navorsingsstudie is om voedingspraktyke van primêre versorgers van babas (0-5.9 maande) en die invloedryke faktore te bepaal in Avian Park en Zwelethemba in Worcester in die Wes-Kaap Provinsie van Suid-Afrika, om sodoende aanbevelings te kan maak waar gepas.

Metodes

Die studie is uitgevoer van April tot Augustus 2011. ‘n Gemeenskapsgebaseerde deursnee-opname is uitgevoer deur gebruik te maak van ‘n gestruktureerde vraelys. Fokusgroepbesprekings is uitgevoer met moeders, vaders, en oumas (aan moeders- en vaderskant) van babas jonger as ses maande, en gesondheidswerkers (formeel opgeleide werkers en beraders) wat in kindersorg werk.

Resultate

‘n Onderhoud is met eenhonderd-en-veertig primêre versorgers gevoer. Al die versorgers was die biologiese moeder van die baba. Sewe-en-sewentig persent (n=108) het borsvoeding begin. Ten tye van die studie het 6% (n=8) eksklusief geborsvoed. Vier-en-negentig persent (n=132) het suboptimale borsvoedingspraktyke beoefen: 36% (n=51) het hoofsaaklik geborsvoed, 27% (n=38) het gedeeltelik geborsvoed en 31% (n=43) het nie geborsvoed nie. Negentig persent (n=126) van die moeders het water gegee, van wie 83% (n=104) dit gedoen het voordat hul babas een maand oud was. Vier-en-veertig persent (n=61) van die moeders het voedsel of formulemelk gegee, van wie 75% (n=46) dit gedoen het voordat hul babas drie maande oud was. Kennis van die gesondheids- en ekonomiese voordele van borvoeding het moeders ondersteun om te begin borsvoed, maar daar was steeds verskeie faktore wat eksklusiewe borsvoeding belemmer het. Die belangrikste hindernisse was 1) die algemene siening dat babas water en nie-voorskrif medisynes benodig, 2) die kommer dat alleenlik melk nie die baba bevredig nie, 3) ontoereikende babavoedingsonderrig en ondersteuning deur die gesondheidstelsel, 4) die gebrek aan gemeenskapsgebaseerde nageboorte-ondersteuning, 5) gebruike en die invloed van gesinslede, 6) moeders geskei van hul babas en 7) plaaslike sienings rakende moeders se gedrag en borsvoeding. MIV-infeksie het

'n wesenlike invloed op voedingskeuse gehad ($p<0.001$) en geen van die MIV-positiewe moeders het geborsvoed nie (n=19). Vyf-en-veertig persent (n=19) van die formule voedende moeders het die melk oorverdun en vroeë supplementasie van formulemelk met kos was algemeen. Gesondheidswerkers en oumas was die kernrolspelers ten opsigte van baba-voedingsinligting en ondersteuning.

Gevolgtrekking

Eksklusiewe borsvoeding gedurende die eerste ses maande van lewe was 'n seldsame praktyk in hierdie gemeenskappe. Water, formulemelk en/of voedsel is op 'n vroeë ouderdom bekendgestel. MIV infeksie het borsvoeding ontmoedig en formulevoedingspraktyke was swak. Omvattende opvoeding en ondersteuning op voorgeboorte-, intrapartum- en nageboortevlak het ontbreek, en sienings en gebruike het bygedra tot gemengde voedingspraktyke. Dit het geblyk dat moeders nie toegerus was om oor babavoedingspraktyke met ander belanghebbendes by die huis te onderhandel nie.

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Contributions by principal researcher and fellow researchers

The principal researcher, Ms C Goosen conceptualised the study. Guided by the fellow researchers (supervisors), Prof MH McLachlan and Ms C Schubl, Ms C Goosen designed the study, obtained the literature, performed the pilot test, and collected (with the assistance of field workers) and captured the data. Quantitative data was analysed with the assistance of a statistician, Prof DG Nel. Ms C Goosen analysed the qualitative data, interpreted all the data and drafted the thesis. Prof McLachlan and Ms Schübl critically reviewed the protocol and thesis.

DEDICATION

I dedicate this thesis to my late grandmother, Lettie Smith. She would have been very proud.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
BFHI	Baby Friendly Hospital Initiative
CHC	Community Health Centre
DoH	Department of Health
FGD	Focus group discussion
HIV	Human Immunodeficiency Virus
IMCI	Integrated Management of Childhood Illness
MBFI	Mother and Baby Friendly Initiative
MDG	Millennium Development Goals
MTCT	Mother-to-Child Transmission (of HIV)
NDP	Ndola Demonstration Project
ORS	Oral Rehydration Solution
PMTCT	Prevention of Mother-to-Child Transmission (of HIV)
SD	Standard deviation
UNICEF	United Nations Children's Fund
USDA	United States Department of Agriculture
WHO	World Health Organisation
WIC	Special Supplemental Program for Women, Infants and Children

LIST OF TERMS

AFASS criteria	Criteria set by the World Health Organisation to measure the appropriateness of replacement feeding (Acceptable, Feasible, Affordable, Sustainable and Safe).
Cohabitation	Married or unmarried mothers living with their husband or male partner.
Exclusive breastfeeding	Giving the infant breast milk only and any minerals, vitamins and prescribed medicines if needed, for the first six months.
Exclusive formula feeding	Giving the infant formula milk only and any minerals, vitamins and prescribed medicines if needed, for the first six months of life.
Father	A male parent of any offspring.
Grandmother	The mother of a person's own father or mother.
Health care worker	A person who delivers proper health care in a systematic way professionally to any individual in need of health care services.
Herbal medicines	Include herbs, herbal materials, herbal preparations and finished herbal products that contain as active ingredients parts of plants, or other plant materials, or combinations.
Household	A person, or a group of people, who occupy a common dwelling (or part of it) for at least four days a week and who provide themselves jointly with food and other essentials for living. People who occupy the same dwelling but who do not share food or other essentials are enumerated as separate households.
Low birthweight	A birthweight of a liveborn infant of less than 2 500g.
Mixed feeding	Giving the infant breast milk and other fluids or food.
Mother	A woman who has given birth to a child.
Non-nutritive liquids	Include liquids that do not contribute to energy intake e.g. water and tea without sugar or milk.
Non-prescription medicines	Over-the-counter medicines that you can buy without a prescription.
Nutritive liquids	Include liquids that contribute to energy intake e.g. formula milk, animal milk, tea with sugar or milk, juice and cold drink.
Partial breastfeeding	Giving the infant breast milk and non-nutritive and nutritive liquids and/or food.
Primary caregiver	A person who assumes the principal role of providing care and attention to an infant or child. For the purpose of this study, the primary caregiver was the infant's mother, unless she was deceased, or incapable or unwilling to care for her child, in which case the primary caregiver was the person who assumed the principle role of providing and caring for the infant.

Predominant breastfeeding	Giving the infant breast milk and non-nutritive liquids.
Replacement feeding	Refers to the process of feeding a child who is not receiving any breast milk a diet that provides all the nutrients the child needs until the child is fully fed on family food. During the first six months a suitable breast milk substitute is formula milk.

CHAPTER 1: LITERATURE REVIEW AND MOTIVATION FOR THE STUDY

1.1 INTRODUCTION

South Africa has made remarkable progress in recognizing the right to health of women and children. Access to primary health care, free health care for children younger than six years and pregnant women, antiretroviral therapy (ART) and prevention of mother-to-child transmission (PMTCT) programmes all aim to improve the health and survival of children. However, despite various programmes and initiatives, South Africa continues to fail in reducing childhood malnutrition and infant and under-five mortality rates.[1-4] The leading and underlying causes of infant and under-five mortality rates are multi-factorial and often relate to a range of demographic, health and social factors.[5] The human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS), malnutrition, diarrhoeal disease and low birthweight are the leading causes of under-five morbidity and mortality in South Africa and should be prioritized if infant and child mortality rates are to be improved.[2,3]

Nutrition plays a critical role in health, growth and development from as early as foetal life and early infant feeding practices are critical in supporting the growth and health of infants and young children.[6] Undernutrition undermines a child's right to survival and development[1] and may result in a cycle of intergenerational poverty and disease.[6-9]

Breastfeeding is a key child survival strategy. Evidence shows that the promotion of breastfeeding and adequate complementary feeding significantly improves stunting and mortality rates.[10] South Africa is not challenged by poor initiation rates but by the lack of exclusive breastfeeding during the first six months of life. Non-exclusive breastfeeding is associated with childhood morbidity and mortality, especially in resource-limited communities.[5] In order to improve a practice deeply rooted in conventional and cultural practices and influenced by various external factors, infant feeding policies need to bridge the gap between policy and practice in a manner that is accepted by communities.[11]

This literature review will focus on the infant feeding practices of primary caregivers of infants during the first six months of life and the factors that influence these practices.

The following questions are examined:

- What is the impact of undernutrition on child health?
- What are the infant feeding recommendations for the first six months of life?
- What are the current feeding practices in South Africa during the first six months of life?
- Who are the key role-players in providing infant feeding information and support?
- Which factors support breastfeeding initiation and exclusive breastfeeding?
- Which factors impede breastfeeding initiation and exclusive breastfeeding?

1.2 UNDERNUTRITION AND CHILD HEALTH

1.2.1 Infant and childhood morbidity and mortality

Globally, under-five mortality rates decreased over the past thirty years. South Africa, however, is one of the twelve countries that reported an increase in mortality rates. The increasing trend may partly be attributed to improved registrations of deaths but also to the leading causes of under-five mortality in South Africa, namely mother-to-child transmission (MTCT) of HIV, neonatal causes (including low birthweight), and diarrhoeal disease.[2,3] Low birthweight and HIV infection contribute to impaired immunity and both undernutrition and HIV may result in diarrhoeal disease or respiratory infections. Household food insecurity and suboptimal breastfeeding practices (no breastfeeding or non-exclusive breastfeeding for the first six months of life) contribute to insufficient or poor food quality and frequent illness, two immediate risk factors for undernutrition.[2] The fourth Millennium Development Goal (MDG) aims at reducing child mortality by two-thirds between 1990 and 2015.[12] The under-five mortality estimate of the 1998 South African Demographic and Health Survey was 59 deaths per 1000 live births and was used as a bench mark to determine South Africa's target for 2015. A two-thirds reduction implied a target of 20 deaths per 1000 live births for South Africa. However, the MDG Country Report of 2010 indicated an increase in the under-five mortality and reported 59 and 104 under-five deaths per 1000 live births for respectively 1998 and 2007.[4] In the Breede Valley sub-district of Cape Winelands, an under-five mortality rate of 39 per 1000 live births was reported for 2008.[13]

Worldwide, undernutrition is the underlying cause of death in 35% of children younger than five years[5] and South Africa is one of twenty countries that house 80% of the world's undernourished children.[14] In terms of the prevalence of stunting, The National Food Consumption Survey performed in South Africa in 1999 identified younger children (1-3 years) as the most severely affected with a stunting prevalence of 25.5%.[15] The follow-up National Food Consumption Survey – Fortification Baseline performed in 2005 indicated a stunting prevalence of 23.4% for this age group. Despite the decreasing trend, stunting prevalence remained high.[16] In 2000, the South African National Burden of Disease study reported that 12.3% of under-five deaths were attributable to being underweight.[17] An audit of child deaths done in participating hospitals across South Africa from 2005 to 2007 showed that 60% of children who died before the age of five were underweight-for-age and that a third were severely malnourished,[18] mostly HIV-infected.[19] Malnutrition is the highest rated risk factors for illness since it weakens the immune system and increases susceptibility to diseases.[20] Severe wasting and stunting are two of the major risk factors for death before five years. The risk of mortality increases with poor feeding practices, especially during the first six months of life. Micronutrient deficiencies, especially of Vitamin A and zinc, further increase the burden of disease.[5]

1.2.2 The causes of undernutrition

The term undernutrition encompasses underweight, wasting, stunting and micronutrient deficiencies. Hunger has also been used to describe undernutrition, especially in food insecure communities.[5] The United Nations Children's Fund (UNICEF) Conceptual Framework depicted in Figure 1.1 illustrates the various basic, underlying and immediate causes of malnutrition.[21] Poverty is both a cause and outcome of malnutrition[20,22] and plays a central role in inadequate care of mothers and children, leading to insufficient food intake, malnutrition and even death.[5] Individuals with lower incomes and less education are prone to poorer dietary habits.[23] Factors strongly correlated to underweight children of pre-school age are poverty, low food production, the lack of education, especially that of the mother, and poor water, sanitation and health facilities.[20]

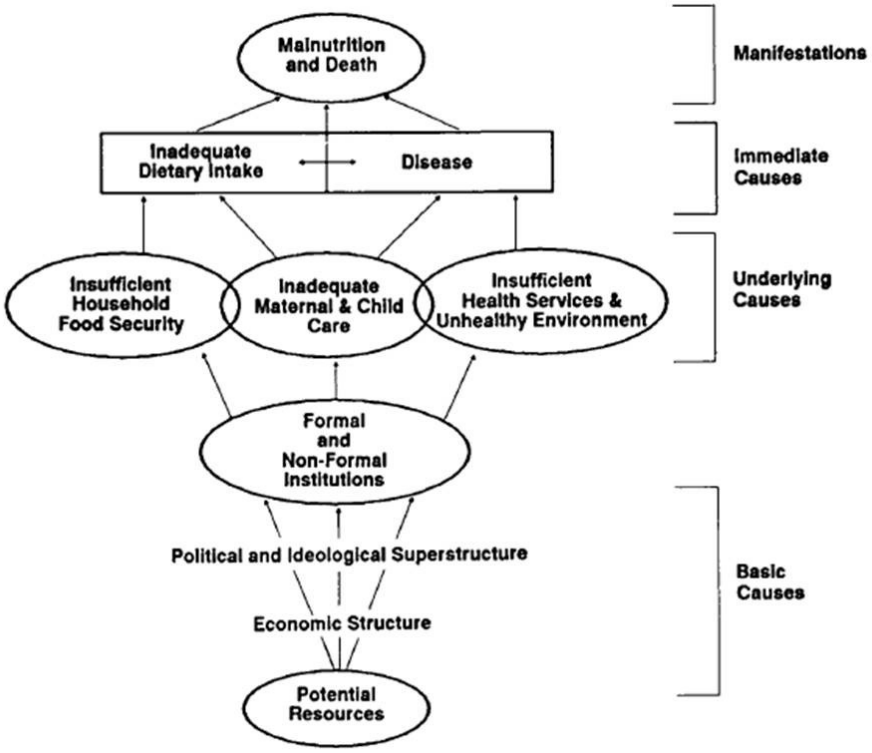

Figure 1.1: UNICEF Conceptual Framework for causes of malnutrition and death[21 p.22]

1.2.3 The consequences of undernutrition

Undernutrition is a key determinant of mother and child health.[5] Immediate consequences of undernutrition during infancy and early childhood include weight loss, growth faltering, higher susceptibility to disease, delayed mental development and mortality.[6,20,24] Prolonged undernutrition can result in stunting[20,22,24] and long-term implications include impaired height, school performance, work force capability and income generation, and in women, giving birth to low birthweight infants.[20,22,24,25]

Birthweight is an important predictor of infant health and survival.[9] A low birthweight infant may struggle to catch-up on lost growth and is more likely to become undernourished or stunted early in life.[8] The intergenerational lifecycle of malnutrition (Figure 1.2) illustrates how without intervention, an undernourished infant may grow up to become a malnourished adult who is more likely to give birth to a low birthweight infant.[7,8]

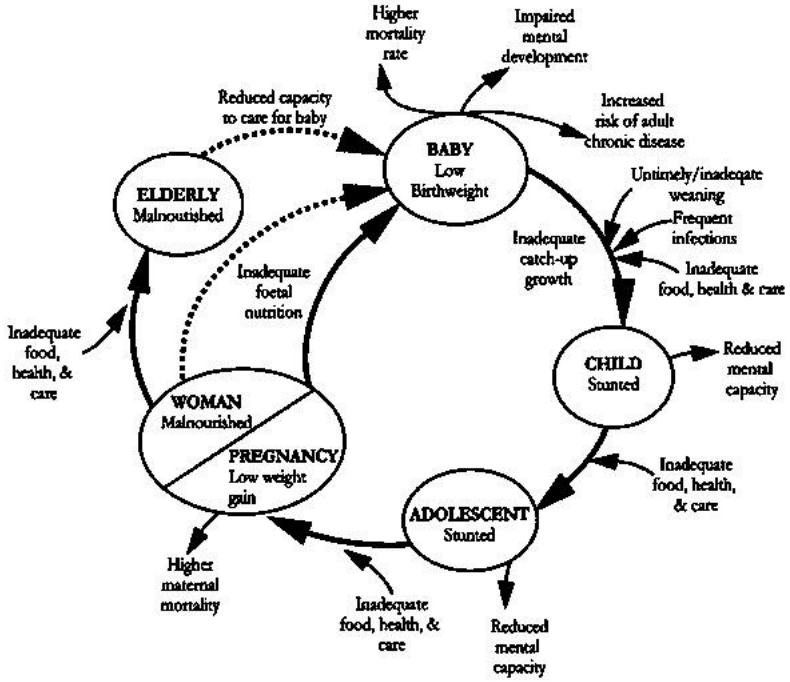

Figure 1.2: The intergenerational lifecycle of malnutrition[8 p.14]

Being stunted increases the risk of becoming overweight or obese.[26] The risk of developing non-communicable diseases later in life due to eating habits are increased when a child who was undernourished for the first two years of life, has rapid weight gain later in childhood and during adolescence.[22,27] In adults, poor health and micronutrient deficiencies adversely affect physical and mental performance. Increased susceptibility to infections reduces work capacity and household income, increases the vulnerable groups that need care at home and contributes to general poverty. This also leads to additional stress on the medical and public health sectors.[24]

1.2.4 The critical window for intervention

The first two years of life is vital for promoting growth, development and optimal health[6] and is a critical period for intervention strategies.[14] The most common period of active growth faltering, micronutrient deficiencies and childhood illnesses such as diarrhoea is between the age of six and eighteen months.[6,8] Stunting is common before the age of two since nutrient demands are high and the quantity and quality of the diet often poor, especially after breastfeeding cessation.[5] Available evidence indicates that after the

age of two, stunting is probably irreversible.[6,20,22,24] Furthermore, the impact of early child malnutrition on cognitive and psychomotor skills is difficult to overcome at later stages.[25] Adequate nutrition and timely intervention can reduce undernutrition and the short and long-term adverse effects associated therewith.[14] Evidence shows that the promotion of breastfeeding and adequate complementary feeding, Vitamin A and zinc supplementation and the appropriate management of severe malnutrition significantly improve stunting and mortality rates.[10]

1.2.5 The role of breastfeeding

Breastfeeding is regarded as the gold standard of infant feeding and significantly improves child survival by protecting against diarrhoeal disease and pneumonia while providing nutritional and psychosocial benefits.[20,28-31] Breastfeeding alone is estimated to prevent 13% of under-five child deaths in low and middle-income countries across the world. According to level 1 evidence showing sufficient evidence of effect, breastfeeding* can prevent 1 301 000 deaths in the forty-two countries burdened with high numbers of child deaths if used as individual intervention. These numbers increase when breastfeeding and other preventative interventions are combined.[30]

Initiating breastfeeding on the first day of life reduces the risk of mortality.[32] Early initiation is associated with increased breastfeeding success and establishment of milk production.[33] The risk of infant weight loss of more than 10% in the first three days of life is increased seven fold if lactation is delayed.[6]

The promotion of exclusive breastfeeding for the first six months of life is estimated to be the most effective measure to save infants from morbidity and mortality in low-income settings.[30] In 2008, Black reported that non-exclusive breastfeeding during the first six months of life contributed to 10% of disease and resulted in 1.4 million child deaths in developing countries worldwide.[5] The early introducing of liquids or food increases the risk of infectious diseases, growth retardation, undernutrition and stunting.[34-36] Predominant, partial or no breastfeeding increase the risk for pneumonia and diarrhoea related mortality when compared to exclusive breastfeeding during the first six months of life. The absence of breastfeeding carries the highest risk.[5]

Infants are only developmentally ready for food at six months of age.[37] There is no advantage to introducing food before six months in low socio-economic communities. Even in affluent conditions, the early introduction of food tends to displace breast milk and growth is generally not improved.[38] In the presence of an iron- or zinc deficiency, medical supplements are more effective than the early introduction of food and therefore the presence of deficiencies is not a reason for introducing food before six months.[6] Breast milk ensures optimal nutrition for infants[20,31] and during the first six months of life, breast milk

* Exclusive breastfeeding during the first six months of life and continued breastfeeding from six to eleven months.

provides sufficient energy and nutrients.[8,31,39,40] In cases of low birthweight and very low birthweight infants where the energy, protein and mineral needs are increased to achieve adequate catch-up growth, fortified breast milk is the preferred option.[41] The immunological benefits of breast milk protect against morbidity from infectious diseases and reduce mortality rates.[28-30] Exclusive breastfeeding during the first six months of life reduces gastrointestinal infections, protects against diarrhoeal disease[40] and promotes rapid growth, especially in poorer communities.[36,42] Breastfeeding also strengthens bonding between the mother and infant.[43] Long-term advantages of breastfeeding may include stronger intellectual development and a lowered risk of allergies, obesity, cancer and various chronic diseases.[8,28,43] South Africa struggles with high poverty and unemployment levels[15] and breastfeeding can serve as an economical feeding choice which may improve household food and economic security. Maternal health benefits include a reduced risk of postpartum haemorrhage,[44] ovarian and breast cancer[45,46] and type two Diabetes Mellitus.[47]

1.3 INFANT FEEDING RECOMMENDATIONS (0-5.9 months)[†]

1.3.1 Breastfeeding

Based on robust evidence,[31,32,48,49] optimal infant feeding practices during the first six months of life is globally described as initiation of breastfeeding within the first hour after giving birth and exclusive breastfeeding for the first six months of life.[50,51] Evidence is convincing that complementary feeding should only be introduced at the age of six months.[52]

Breastfeeding practices are categorized into three categories:

1) Exclusive breastfeeding, where the infant receives only breast milk and permitted medicines [which includes oral rehydration solution (ORS)].

2) Predominant breastfeeding, where the infant receives liquids such as water, water-based drinks and ritual fluids in addition to breast milk.

3) Partial breastfeeding, where the infant receives other liquids, non-human milk and food in addition to breast milk.[53]

1.3.2 Replacement feeding

Medical or personal reasons may result in a mother not choosing to breastfeed and an appropriate alternative to breast milk should then be used.[54] The WHO compiled criteria for safe and appropriate replacement feeding. The criteria state that the feeding option should be acceptable, feasible, affordable, sustainable and safe and aims to support mothers in making safe and appropriate feeding choices.[55]

[†] For the purpose of this study, the term 0 to 5.9 months will be used to indicate infants who are younger than six months old.

Inappropriate breast milk substitutes (e.g. condensed milk, cow's milk, other liquids) may contribute to infant health problems.[43] During the first six months of life, the only appropriate replacement nutrition for infants is formula milk.[54] Formula milk manufacturers have progressively modified and supplemented milk formulae to approximate the composition of breast milk in order to ease digestion, provide sufficient micronutrients and have an acceptable renal solute load.[56,57] Home-modified animal milk is not recommended as a replacement feeding option during the first six months of life.[58] While breast milk has a casein to whey ratio of 40:60, cow's milk contains 80% casein that forms a curd that is hard to digest at this age. It has much lower levels of various micronutrients when compared to breast milk and a much higher protein and ash content, which results in a higher renal solute load. This may cause severe dehydration since more water is required for the excretion of solutes.[56]

Correct preparation of formula milk is essential to prevent over or under-dilution. Over-dilution of formula milk compromises energy density and nutrient intake and impairs growth.[54] Formula milk has a higher protein content than breast milk and over-concentration of formula milk leads to an increased renal solute load.[56]

Safe preparation of formula milk requires a clean environment, water and an energy source since equipment should be washed and sterilized and water boiled before use.[56,57,59] Safe handling of formula milk is essential since poor hygiene increases the risk of contamination and gastro-intestinal disease and subsequently undernutrition.[56,60]

It is also important to note that formula milk is not a sterile product and that even if manufactured under excellent hygiene conditions, it may still contain pathogens associated with serious illness. The pathogens of concern are *E. sakazakii* and *Salmonella enterica* and the potential risk of infection is increased when infant formula is mixed, handled and stored inappropriately.[57]

1.3.3 Infant feeding within the context of HIV

In 2010, the estimated HIV prevalence among antenatal women was 30.2% in South Africa, 18.5% in the Western Cape Province and 14.9% in the Cape Winelands District of the Western Cape.[61] The perinatal mother-to-child HIV transmission rate at six weeks was estimated at 3.5% nationally[62] and 3-3.9% in the Western Cape.[62,63] An infected mother can transmit HIV to her uninfected infant during pregnancy, labour and through breast milk. The degree of risk depends on various factors. Maternal factors known to increase the risk of HIV transmission through breastfeeding include recent infection, advanced HIV disease, a low CD_4 count, a high viral load, mastitis and abscesses. The risk of transmission also increases with prolonged breastfeeding. Infant factors include oral thrush and damage to the intestinal mucosa due to early introduction of fluids and food (mixed feeding).[64]

Mother-to-child transmission creates a big challenge for safe infant feeding in developing countries.[64] Mixed feeding during the first six months of life increases exposure to HIV since it compromises gut integrity[65] and therefore carries a far greater risk of transmitting HIV than exclusive breastfeeding.[5,58,66-68]

The World Health Organisation (WHO) revised the HIV and infant feeding recommendations in 2009 after sufficient evidence of the protective effect of ART emerged. This was done in support of safer breastfeeding in low-income settings. They recommended the provision of lifelong ART or antiretroviral (ARV) prophylaxis to pregnant women, and ARV prophylaxis to breastfed infants where applicable.[69] Early and appropriate antiretroviral treatment combined with exclusive breastfeeding decrease the postnatal risk of transmission to 0-1%.[70] With strict adherence, ART can suppress maternal viral load to an undetectable level.[5,69,70] In light of South Africa's poor performance with reducing child mortality, the country adopted these revised recommendations to improve child survival rates.[71] Exclusive breastfeeding for the first six months of life is strongly recommended. Furthermore, the entry criteria for lifelong ART were adapted to a CD_4 count equal or less than 350/mm^3 or the presence of a WHO-defined Stage 3 or 4 illness. Mothers who do not qualify for lifelong ART, receive ARV prophylaxis from as early as fourteen weeks of pregnancy for the duration of the pregnancy and the infant receives ARV prophylaxis for the entire period of breastfeeding until one week after breastfeeding cessation.[69,71] An evaluation of the effectiveness of the national PMTCT programme measured at six weeks postpartum found a high uptake of PMTCT services (98%) and ARV treatment or prophylaxis (91.7%), and an MTCT rate of 3.5%.[62]

Within the context of HIV, expressing and heat-treating breast milk is a safer method of breastfeeding when compared to giving breast milk that has not been heat-treated.[72] Home-based flash heating entails placing a glass jar of breast milk in a pan or pot of water that is brought to boiling point. This method of pasteurization deactivates HIV while maintaining the nutritional and immunological properties of the milk.[70] Heat-treatment poses some difficulties and barriers. A study conducted in KwaZulu-Natal reported that heat-treating breast milk was not well promoted by health care facilities. Furthermore, mothers felt that less milk was expressed than when their infants breastfed; that infants still demanded the breast thereafter; that mothers did not feel confident in the method of pasteurization; that mothers felt stigmatized when practising heat-treatment and that formula milk was readily available as replacement feed.[73] Furthermore, heat-treatment is a time consuming procedure, which also requires a certain level of acceptability, feasibility, affordability, sustainability and safety as with any other replacement feed.[74] In Southern Ghana, HIV-infected mothers regard expressed heat-treated breast milk as unacceptable and not feasible.[75]

1.4 INFANT FEEDING PRACTICES IN SOUTH AFRICA

1.4.1 Breastfeeding initiation

Breastfeeding initiation is common in sub-Saharan Africa and in developing countries, breastfeeding initiation rates often exceed 95%.[5] In South Africa, the national breastfeeding initiation rate was estimated to be 88% in 2008.[76] Studies also reported high initiation rates in Cape Town (88%), Pretoria (88.1%) and the Vhembe district of Limpopo Province (100%). Initiation in Cape Town was within one to two hours, in Pretoria within half a day and the Vhembe district did not specify.[54,66,77]

The South African Demographic and Health survey conducted in 2003 indicated that 20% of infants were never breastfed during the first three months of life.[78]

1.4.2 Duration of exclusive breastfeeding

Despite high rates of breastfeeding initiation, exclusive breastfeeding for the first six months of life is uncommon and it is well documented that food is introduced early in life, in both rural and urban communities.[35,54,66,77] The two South African Demographic Health Surveys done in 1998 and 2003 respectively reported that 6.8% and 8.3% of infants younger than six months were exclusively breastfed[79,80] and the UNICEF State of the World's Children report indicated an exclusive breastfeeding rate of 7% for South Africa from 2000 to 2007.[81] The more recent South African National HIV Prevalence, Incidence, Behaviour and Communication Survey done in 2008 indicated that 25% of infants nationally were exclusively breastfed during the first six months of life.[76] This rate is significantly higher than previous national reports and should be interpreted with caution until further reports substantiate this increased rate. Resource-poor countries in southern Africa report a mean duration of one to two months for exclusive breastfeeding.[82,83] In general, exclusive breastfeeding rates were lower in African countries when compared to Asia and Latin America.[5] Magoni and Giuliano[84] described exclusive breastfeeding as an alien concept in African societies which contributed to low adherence to exclusive feeding. To give only breast milk and no water or food was further described as counterintuitive and impractical by Buskens *et al*[65] and Sibeko *et al.*[66]

Fluids and food are introduced to infants in South Africa as early as two to four weeks after birth.[35,66] By the age of four months, 80% of infants in rural areas and more than 50% of infants in urban areas received food.[85] In a study performed in Limpopo Province, exclusive breastfeeding declined from 44% at one month of age, to 10% by three months of age. Only 4% of the one hundred and seventy infants were still exclusively breastfed by the recommended age of six months. In this same population, the stunting rate for infants aged six to twelve months was 35%.[35] A study done in a peri-urban area in Cape Town reported that at the time of the study, the entire sample of one hundred and seventeen breastfeeding mothers with

infants younger than six months practised either predominant or partial breastfeeding.[66] Mothers from the Moretele district North of Pretoria considered three months as an appropriate age for introducing food and most infants between two and three months received food.[54]

A study conducted in an HIV prevalent rural district of KwaZulu-Natal showed that of the 96% of mothers who initiated breastfeeding at birth, 76% practised mixed feeding at fourteen weeks post-partum. The study concluded that poor knowledge and inadequate promotion of exclusive breastfeeding presented a great challenge for child health within the context of HIV and AIDS.[67] Studies also found that despite understanding the risks of mixed feeding, HIV-infected mothers still introduced water, medicines and food early in life.[65,75,86]

In South Africa, a combination of breast milk, formula milk, water and food is the most common practice. Maize meal porridge is the major food introduced in rural and semi-rural areas,[35,77] whereas commercial infant cereal is commonly introduced in urban areas.[35,66]

1.4.3 Replacement feeding

Formula feeding may be preferred by mothers who return to work or school or who are HIV-infected, especially in urban areas.[65] Replacement feeding is only recommended if it is acceptable, feasible, affordable, sustainable and safe (also known as the AFASS criteria) to ensure safe formula feeding practices.[64] Poor communities rarely meet these conditions and exclusive breastfeeding has shown higher survival rates, even in communities with a high burden of HIV infection.[87,88] Based on these criteria, researchers applied an assessment tool to determine if HIV-infected mothers made the appropriate choice. The assessment was done in peri-urban and rural communities in South Africa and found that 67.4% of the women who intended to formula feed did not meet all the criteria and therefore made an inappropriate choice.[89] In two South African studies, HIV-infected mothers who formula fed reported that they breastfed when there was a shortage of formula at the health care facility[86,90] or if they ran out of formula milk. Some also used the breast as a pacifier.[90]

Thairu *et al*[90] reported deliberate over-dilution to save on formula milk and reduce expenses. This has also been shown by Faber *et al*,[60] who further reported that preparation instructions on the labels were not always clearly understood due to language barriers, illiteracy or innumeracy which increased the risk of under or over-dilution. In 2008, only 61% of children in South Africa had access to basic sanitation, which raised concern that millions of children are exposed and at risk of diarrhoeal disease.[91]

1.5 DETERMINANTS OF INFANT FEEDING BEHAVIOUR

1.5.1 Factors influencing infant feeding choice of the mother

Optimal infant and young child feeding practices are crucial for growth and development.[6] Breastfeeding an infant requires the mother to actively decide to breastfeed, to go through a process of learning, to know how to persevere during difficult times and to challenge cultural norms.[8,92] The infant feeding choice of a mother and her ability to act upon that choice is influenced by physical, psychological and social support throughout pregnancy, birth and afterwards, and the availability of information on infant feeding. Essentially, all of these factors are influenced by familial, medical and cultural norms, demographic and economic conditions, resources, national and international policies, and commercial pressure (Figure 1.3).[8,93,94]

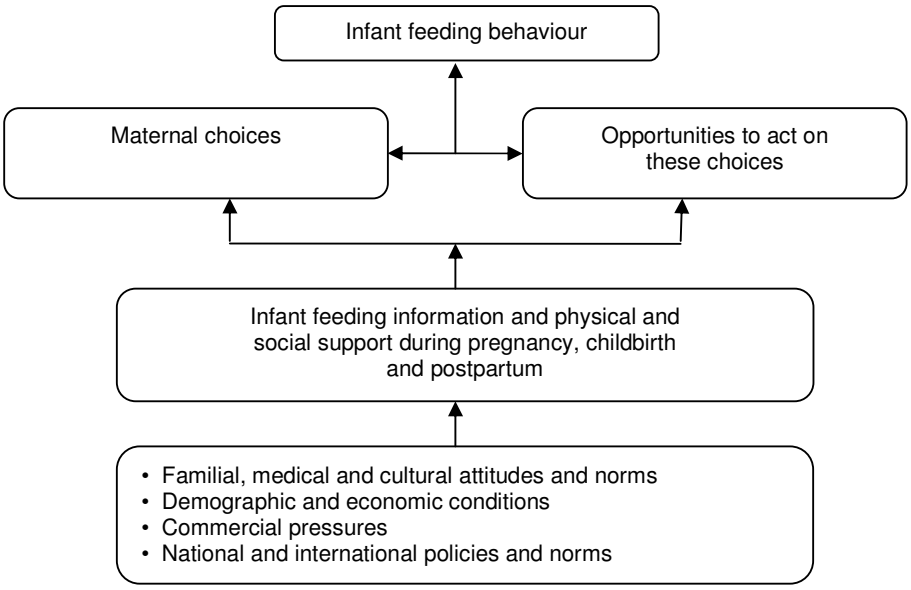

Figure 1.3: Determinants of infant feeding behaviour[8 p.49]

Figure 1.4 further summarises factors which contribute to a mother's infant feeding choice.[95-101]

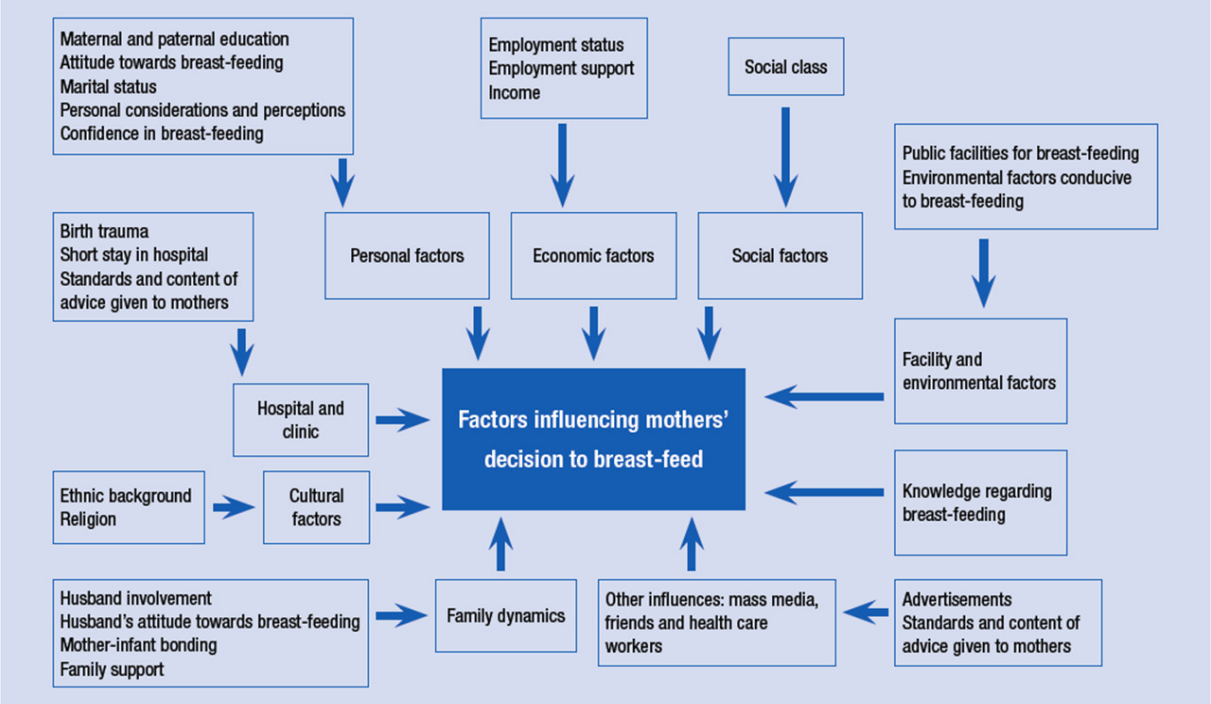

Figure 1.4: Factors influencing infant feeding choice[102 p.38]

This schematic illustration indicates the complexity and multi-factorial influence exerted on infant feeding choice.[102] Within the context of HIV, family support and disclosure also impact on infant feeding choice.[86]

1.5.2. Key role-players

1.5.2.1 Family members

Decision-making about infant feeding does not only include the mother; partners, family members, friends and neighbours all exert influence on infant feeding choices.[103-107] This was a key finding in Southern Ghana, where fathers, grandmothers, friends and community members were all identified as key role-players in infant feeding practices.[75] An American study found family support to be essential and reported that the support of fathers and grandmothers was valued the most in terms of decision-making.[93] In southern Africa, advice from mothers and older female relatives, especially grandmothers, was respected by younger mothers.[65] A Zambian study indicated that fathers and grandmothers supported the initiation of breastfeeding and disapproved if a child was not being breastfed. Fathers were frequently cited as the providers of material support.[107] Authority also played a role. Buskens *et al*[65] found that if a household member provided financially for the mother and infant, *that* person often decided what the infant would drink or eat. Reports from southern Africa indicated that in certain communities, infant feeding was considered the responsibility of the mother and fathers did not necessarily have a direct role in infant feeding decisions.

1.5.2.2 Health care workers

Hospital policy and attitudes of health care workers play an important role in infant feeding practices.[108-110] Qualitative research indicated that women relied on health care workers to guide them with their infant feeding choices and that they had great confidence in them.[107] Nurses play an important role in breastfeeding education. An American study among low-income women identified nurses as the major promoters of breastfeeding.[111] In small local studies in South Africa, 70% (n=81) of mothers in a peri-urban settlement in Cape Town identified nurses as the people who encouraged breastfeeding.[66] In Limpopo Province, 30% (n=56) of the mothers identified only health care workers and 42% (n=78) identified health care workers *and* parents as the people who encouraged them to breastfeed.[77] Bhandari *et al*[112] found that health care workers were essential in educating family members. This was of importance since family members often influenced infant feeding choices. There are also documented cases of negative associations with these key role-players. Mothers from southern Africa reported that health care workers sometimes gave different infant feeding messages, which led to confusion and mistrust in their advice.[65]

1.5.3 Factors promoting optimal breastfeeding practices

1.5.3.1 Choosing and initiating breastfeeding

Facility-based support

The WHO and UNICEF launched The Baby Friendly Hospital Initiative (BFHI) in 1991 which South Africa adopted.[8,43] In 2005, this declaration was reaffirmed and broadened.[113] The initiative is a global effort to implement practices that protect, promote and support breastfeeding.[8,43] The BFHI sets a supportive environment for breastfeeding initiation and BFHI hospitals show improvement when compared to hospitals with minimal lactation support.[114] The BFHI has shown improvement in breastfeeding initiation rates[115] and the evidence for most of The Ten Steps to Successful Breastfeeding (Table 1.1) is substantial.[33] South Africa renamed the initiative the Mother and Baby Friendly Initiative (MBFI), which includes mother friendly care, the International Code of Marketing of Breast milk Substitutes, and care for HIV-infected women and their infants as additional focus areas to the ten steps.[116] In the Western Cape, twenty of fifty-one facilities were MBFI accredited by November 2012. (Henney N. Personal interview. Western Cape Department of Health; 15 November 2012).

Table 1.1: The Ten Steps to Successful Breastfeeding[33 p.5]

Every facility providing maternity services and care for newborn infants should:	
1.	Have a written breastfeeding policy that is routinely communicated to all health care staff.
2.	Train all health care staff in skills necessary to implement this policy.
3.	Inform all pregnant women about the benefits and management of breastfeeding.
4.	Help mothers initiate breastfeeding within a half-hour of birth.
5.	Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants.
6.	Give newborn infants no food or drink other than breast milk, unless medically indicated.
7.	Practice rooming-in — allow mothers and infants to remain together — 24 hours a day.
8.	Encourage breastfeeding on demand.
9.	Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10.	Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Early infant feeding education

Mothers from an American study reported that they usually decided on a feeding practice before and during the first trimester of pregnancy. This emphasized the importance of pre-natal care and infant feeding education during the early antenatal phase. Education of the mother, father, the infant's grandmothers and other key family members had a positive impact on breastfeeding initiation. American mothers also reported that more information in magazines, books and on television would encourage them to choose breastfeeding over formula feeding.[93] A small percentage (3%) of South African mothers in rural districts reported these media channels as influential.[77]

Health of infant and bonding

South African and American mothers from different studies reported that they chose and initiated breastfeeding since they believed that breast milk was better for their infants' health, that breastfeeding was more natural, and that it promoted bonding between the mother and infant.[66,93] Mothers from various rural communities in South Africa reported in focus group discussions that based on their observations, breastfed infants were healthy and gained weight well while formula fed infants struggled with illnesses. This promoted their choice to breastfeed.[11]

Cost of formula milk

South African studies found that the financial burden of formula milk supported the choice of breastfeeding and that mothers who were economically dependent on their families experienced challenges if they chose to formula feed.[11,90]

1.5.3.2 Exclusive breastfeeding

Infant feeding education and support

A Cochrane review found that facility-based (e.g. BFHI) and community-based (e.g. breastfeeding support groups) support while pregnant and after birth increases exclusive breastfeeding rates. The review included thirty-four randomised or quasi-randomised controlled trials from fourteen developed and developing countries and concluded that all forms of additional support prolong breastfeeding, especially the combination of professional and lay support.[117] Arora *et al*[93] also found that further education on overcoming possible barriers was important to support the duration of breastfeeding.

Facility-based support

Individual and group counselling by health care professionals increases the odds of exclusive breastfeeding in the neonatal period and again at six months of age.[10] Implementation of the BFHI illustrated improvement in exclusive breastfeeding rates while in the birth hospital.[114] Antenatal and postnatal programmes at clinic level have shown good success in supporting on-going exclusive breastfeeding.[64]

Community-based care

Community intervention can help improve child health and survival[118] by extending health care to communities.[119] Community-based support is an important follow-up strategy to facility-based support to ensure continued exclusive breastfeeding.[64] When a facility-based system was compared with a facility-based system in combination with a programme of home visits, the breastfeeding prevalence was significantly higher in the combination group.[120]

Studies on home-visits in Ghana and India found a significant improvement in exclusively breastfeeding rates[112,121] and the duration of exclusive breastfeeding, with the most frequently visited participants showing the best results.[112,122] Community care worker programmes form part of community-based services and have been shown to have promising effects with promoting breastfeeding.[123] Community care workers are people from the community employed and trained to perform certain screening and health services. Community-based health care has been reported as an under-utilized resource that has the potential to significantly aid primary health care services and contribute to improving child health.[119]

Peer counselling

Peer counselling has been shown to increase the prevalence and duration of exclusive breastfeeding and is a cost-effective intervention to change behaviour.[64,122,124] The key factors to success are the number and timing of contacts sessions. Reaching women soon after delivery and again within the first month has been shown to increase the duration of exclusive breastfeeding.[8] The use of trained peer counsellors showed a significant impact on the duration of exclusive breastfeeding in Bangladesh, with 70% of participants still breastfeeding exclusively by the infant age of five months.[125] Peer counselling in Burkina Faso and Uganda also showed a significant effect on the practice of exclusive breastfeeding. In South Africa, a cluster-randomised trial indicated an increase in exclusive breastfeeding prevalence ratios at twelve and twenty-four weeks. The effect was seen as significant but the absolute increase was small.[124]

A motivational success story is the Mothers2Mothers programme which was started in Cape Town in 2001. The project employs and trains HIV-infected mothers to educate other HIV-infected mothers who are enrolled onto the PMTCT programme.[126] Clients supported by the services of Mothers2Mothers showed greater use of the PMTCT programme, better outcomes on the programme, improved rates of disclosure and better linkage with health care.[127]

Breastfeeding support groups

Already in 1993 the WHO indicated that the key to optimal breastfeeding practices was on-going, daily support to a breastfeeding mother within her home and community.[128] The last of The Ten Steps to Successful Breastfeeding is the referral of mothers to breastfeeding support groups for further follow-up and support with breastfeeding.[33] If established successfully, breastfeeding support groups might contribute to higher rates of exclusive breastfeeding. The strength of support groups lies in the fact that mothers with similar experiences and problems meet with each other to share, encourage and support each other.[119] In Zambia, breastfeeding support groups were established at some of the clinics where mothers who successfully breastfed exclusively assisted health care workers with breastfeeding education and support.[107]

The infant feeding buddy system

A pilot study in the Eastern Cape Province explored the idea of an infant feeding buddy system, where mothers were encouraged to choose a “buddy” who accompanied her to PMTCT counselling sessions and who supported her with recalling infant feeding messages, adherence to infant feeding choice, her feeding practices and dealing with possible pressures from family, the community or stigmatization. Eight focus group discussions were held and mothers affirmed that a buddy was helpful. Twelve mothers were followed post-natally. Seven mothers planned to breastfeed but only four planned to breastfeed exclusively

for the first six months. They each had an infant feeding buddy who supported them and by six months of age, all seven infants had been breastfed exclusively.[129]

Media messages

Bhutta *et al*[10] reported that exclusive breastfeeding rates in infants younger than six months showed a positive increase in response to a national media campaign. It has been suggested that mass media might contribute to improved practices in South Africa if used as communication strategy for exclusive breastfeeding.[9]

1.5.4 Barriers impeding optimal breastfeeding practices

1.5.4.1 Choosing and initiating breastfeeding

HIV and AIDS

The risk of HIV transmission from mother to infant through breast milk influenced the feeding choice of HIV-infected mothers.[64] In rural KwaZulu-Natal, a study embedded in a larger cohort study identified four clusters of influence on the feeding choice of HIV-infected women: Social stigmatization, economic circumstances, HIV transmission beliefs and beliefs about the quality of breast milk. Nearly all of the women acknowledged the good qualities of breast milk and its superiority over formula milk but some mothers feared that they would infect their infants if they chose to breastfeed.[90] Replacement feeding is a common practice among HIV-infected women, especially in urban areas.[64,65] In a study across South Africa, Namibia and Swaziland, the majority of HIV-infected women chose formula feeding if they had the means to do so. This was despite the indication that mothers regarded breast milk as superior in quality.[65]

Social stigmatization of HIV infection remains a challenge. HIV-infected women from South Africa, Namibia and Swaziland reported that negative attitudes towards HIV-infected people were still evident and that it inhibited disclosure. Fear of possible rejection, abuse, and loss of financial and social support were associated with disclosure.[65] Disclosure has a direct impact on infant feeding choice[90] and both the choice of formula feeding and exclusive breastfeeding pose certain threats to being exposed as HIV-infected.[11,65] In communities where breastfeeding was normative, replacement feeding was almost tantamount to admitting that you were HIV-infected.[11,90] Qualitative research in South Africa indicated stigmatization towards the collection of free formula milk from health care facilities.[11] Exclusive breastfeeding also led to the fear of stigmatization since the prohibition of water, herbal medicines and food conflicted with cultural beliefs in southern Africa and Ghana and raised questions from family or community members.[65,75]

Subsidized formula milk at health care facilities

The provision of subsidized formula milk to HIV-infected women may discourage breastfeeding.[2,131] Researchers reported that formula milk subsidies and the distribution of formula milk in clinics and hospitals might create the sense that formula milk was safe, trustworthy and reliable. Low-income African American and Puerto Rican mothers who qualified for the Special Supplemental Program for Women, Infants and Children (WIC) were eligible to receive subsidized formula milk from the health care system. Despite breastfeeding promotion, the economic value of formula milk was perceived as an incentive and strongly influenced infant feeding choice.[111] Similarly, in the South African context, the PMTCT Programme of the Department of Health (DoH) provided subsidized formula milk to HIV-infected mothers who chose to formula feed. The termination of the provision of subsidized formula milk by the PMTCT programme was phased in by the National Department of Health during 2012.[130]

Information gaps

Shortcomings in infant feeding counselling affect the mother's infant feeding choice. Inadequate training of health care workers, the lack of culturally sensitive tools, and very busy antenatal clinics challenge proper and complete counselling.[89] Among higher-socio-economic mothers from Cape Town, 38% (n=21) reported a lack of breastfeeding knowledge and experience as a barrier to choosing breastfeeding.[102]

In Zambia, mothers reported that HIV-infected women should not breastfeed. It was also reported that health care workers were vague when advising HIV-infected mothers of infant feeding options.[107] In other African countries including South Africa, mothers indicated that nurses explained to mothers that HIV transmission through breast milk was a certainty and not a probability. Mixed messages confused mothers, and health systems were recommended to harmonize their approach to infant feeding to avoid incorrect or conflicting messages.[65]

Cultural tradition of giving herbal medicines

In certain communities, it is unacceptable if infants are not given herbal medicines. During qualitative discussions, an HIV-infected mother from KwaZulu-Natal reported that cultural practices influenced her infant feeding choice. Her decision to formula feed was based on her understanding that if she breastfed, it had to be exclusive to prevent HIV transmission, but if she formula fed, she could adhere to cultural expectations of giving herbal medicine since it would pose no risk of HIV transmission.[11]

Social acceptability and status of formula feeding

Latham[43] hypothesized that breast milk substitutes might be perceived as a modern practice and that formula feeding had become a status symbol that might replace the conventional practice of breastfeeding.

A perceived link between health and wealth was illustrated by a Zambian mother who supported formula feeding since she had heard that white, European mothers formula fed their children to promote growth.[107]

Public inconvenience

Rural mothers from a Zambian study reported that it was embarrassing for some of them to show their breasts in public and that the preference to formula feed was related to pride.[107] Australian mothers of a low socio-economic area also reported feeling uncomfortable breastfeeding in public and therefore found formula feeding to be a more convenient choice.[132] The lack of privacy was indicated as one of the main reasons (75%, n=41) why high socio-economic women from the Cape Metropole had not chosen to breastfeed. This was followed by a lack of facilities accommodating breastfeeding practices at work (71%, n=39). Figure 1.5 further summarises the barriers to choosing breastfeeding that Sowden *et al*[102] identified.

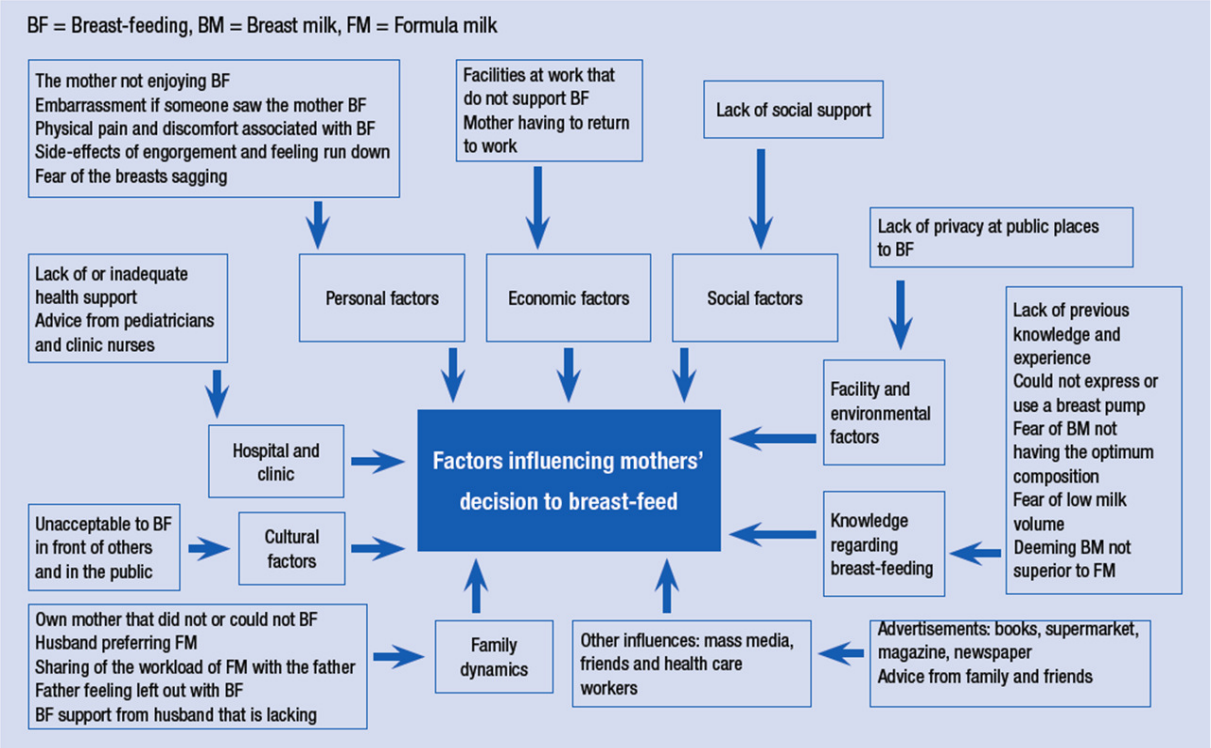

Figure 1.5: Barriers to breastfeeding in higher socio-economic circumstances[102 p.43]

Controlled feeds and shared responsibility

Both low and high income mothers from two different studies in South Africa reported that by choosing formula feeding, their infants could be fed by someone else while they were at work.[66,102] Further advantages reported were that fathers could help with feedings and that mothers knew exactly how much milk their infants were drinking.[102] During a focus group discussion, a Zambian mother indicated that formula feeding allowed her infant more time to bond with the father since he could actively help with the

feedings.[107] High-income American mothers similarly report that uncertainty of the amount of milk drunk and perceptions that fathers had negative attitudes toward breastfeeding discouraged them from choosing breastfeeding.[93]

1.5.4.2 Exclusive breastfeeding

Perceived insufficiency of the quantity and quality of breast milk

It is often cited that mothers report not having enough breast milk as the reason for introducing formula milk and/or food. This perception of inadequate breast milk production has been linked to a decline in engorgement of breasts, inadequate breastfeeding knowledge, poor breastfeeding technique, and a lack of confidence in breast milk, especially if the infant cried.[11,35,43,60,66,77,102,107,111,131,133-137] Failure to distinguish hunger from other reasons for crying led to unnecessary supplementation of breast milk with formula milk and/or food to satisfy perceived hunger.[35,43,66,77,111,133] In a study by Nor *et al* [9] both exclusive breastfeeding and exclusive formula feeding were seen to be insufficient.

A major reason for introducing formula milk and/or food early in life was the perception that the quality of breast milk was insufficient.[60] Milk was acknowledged as essential but not considered to be enough if given exclusively.[11,65] Reasons for the perceived insufficiency of breast milk included the belief that it did not provide for the nutritional needs of an infant,[11] that maternal diets were often inadequate and of poor quality, and that milk was a drink and not food.[65] Kaufman *et al*[111] echoed this in an American study where low-income mothers acknowledged that breast milk was healthy but felt that infants needed more than just milk. This perception led to supplementation of breast milk with formula milk, which subsequently led to the depletion of breast milk supply.

Family and community pressure

Various studies report that support and pressure from ill-informed family and friends lead to the early cessation of exclusive breastfeeding.[35,66,67,77,138] Thairu *et al*[90] found that older family members exerted great influence on the infant feeding practices of younger mothers since adolescents were still socially and economically dependent. Mothers from Southern Ghana reported that a subordinate role and lack of autonomy over decision-making impeded their good intentions to feed exclusively.[75] Young mothers from Zambia reported that even though they intended to breastfeed exclusively, respect for relatives and the desire not to disappoint them made them mix feed.[107] Mothers from Southern Ghana reported that cultural norms and influence from family members led them to introducing water, herbal medicines and food before the age of three months.[75] Grandmothers from Zambia reported that they did not support exclusive breastfeeding and that they would recommend their daughters or daughters-in-law to wean before six months of age. This was based on the fear of breast milk insufficiency and the belief that infants should be

exposed to other food in case the mother fell sick or died. Fathers from the same setting were also sceptical about exclusive breastfeeding; they felt that mothers might not have enough milk and that infants had to eat food.[107]

Cultural beliefs and practices

Inadequate nutrition knowledge and cultural beliefs and practices impede exclusive feeding practices.[54] Researchers also believe that there may be various other beliefs regarding herbal preparations which mothers are reluctant to share.[66]

Water was given daily in urban, peri-urban and rural communities in South Africa, Namibia and Swaziland since it was the belief and understanding that water was life[65,66] and that it cleaned an infant's stomach.[11] Mothers from rural communities in South Africa followed cultural beliefs and advice from their mothers and older relatives. Strong social pressure led mothers to giving herbal medicines[11,35] believed to treat colic symptoms[66] and together with the early introduction of food, it was believed to ensure proper functioning of an infant's digestive system.[35,66] In rural South Africa, a herbal solution called *Umfulu* was given to infants during the first month of life for cleaning purposes.[65]

Beliefs that negative emotions reduce milk production and contaminate the milk were reported in southern Africa. Some South African women from rural areas reportedly discarded a small amount of breast milk before each feed since they believed they had to rid the milk of any possible contaminants. The same was practised between far apart feeds since they thought that the milk in the breast had gone sour. Others reported that they first expressed some breast milk to ensure that they have milk and that it looked fine.[65] A belief reported by mothers from a peri-urban community in Cape Town was to wipe the areola with a wet cloth prior to a feed. This practice is not recommended since it removes some of the natural oils on the areola and may affect nipple health.[66]

Internationally, breastfeeding myths include the belief that breast milk ferments while in the breast on a hot day, that breast milk can spoil in the breasts, especially if a mother stops breastfeeding for a while, and that breast milk becomes dirty if you fall pregnant.[43,107] Mothers from rural villages in Cameroon believed that if they did not practise complementary feeding in addition to breastfeeding, it would lead to conflict with their mothers, partners or elders which could result in bad luck. One out of two mothers believed that colostrum was an inadequate feed or bad for the infant and that sexual intercourse spoiled both the milk and the infant.[138] Lebanese mothers reported concerns with expressing breast milk since they believed that it emptied the breast and decreased the quantity of breast milk. An interesting belief, common in Lebanon but not well documented elsewhere, was that a mother could transfer abdominal pain to her infant

through breast milk which then caused colic. This belief is problematic since abdominal pain postpartum is common due to uterine contractions.[133]

Conflict between recommended practices and beliefs

Health care workers give infant feeding guidelines according to international, national and provincial policies. These messages may, however, conflict with the personal perspectives of mothers and may interfere with the cultural context in which infant feeding decisions are made. Mothers from KwaZulu-Natal and the Western Cape did not agree with the infant feeding information that was given by clinic staff. This indicated the strong influence of free will, convention and cultural factors and how messages were not always accepted by communities.[11] In Zambia, health care workers reported that mothers found themselves in the middle of conflicting messages from health care workers and relatives.[107] Nor *et al*[11] identified the same dilemma in three sites across South Africa, where mothers experienced conflict between their cultural feeding norms and the feeding messages received from health care workers and peer counsellors.

Sleep as incentive to the mother and household

Low-income American and South African women reported in different studies that by giving food in addition to milk feeds, infants stopped crying and slept better which allowed a better night's rest for the mother and household. This was considered a positive development and served as justification to introduce food at an early age.[11,111]

Returning to work or school

Returning to work or school has been frequently reported as a reason for ceasing exclusive breastfeeding or breastfeeding altogether.[35,66,93,102] South Africa offers no maternity benefits to mothers who work in the informal sector and maternity benefits for the permanently employed mother only supports breastfeeding during the first four months of life.[139]

Mothers' misunderstanding of exclusive and mixed infant feeding

Qualitative findings in KwaZulu-Natal indicated a misunderstanding of exclusive and mixed feeding. It appeared that mixed feeding was understood as mixing two types of milk, i.e. breast milk and formula milk, especially when breastfeeding was the primary feeding method. Giving food with breast milk was not regarded as mixed feeding.[11]

Marketing and availability of formula milk

The increased marketing and availability of formula milk has been associated with the perceived insufficiency of breast milk.[131,135-137] Nor *et al*[11] reported that it is reasonable to believe that the marketing of formula milk may influence the breastfeeding pattern of mothers and reduce confidence in exclusive breastfeeding.

Medical challenges

Breast-related problems challenge breastfeeding practices, especially if the mother is uninformed on how to manage these problems and continue breastfeeding.[35,66,93,138] Initial breastfeeding experiences may affect breastfeeding duration with subsequent pregnancies.[140,141] Kaufman *et al*[111] reported that women who did not routinize breastfeeding struggled more with latching when compared to women who made an intense effort to establish breastfeeding. The study further reported that formula milk usage led to fluctuation in breastfeeding frequency which led to breast engorgement and eventually breastfeeding suspension.

Translating policy into practice

Flaws within a health system greatly challenge appropriate care and treatment. A report of systemic problems in South Africa was given by the WHO in 2000, where, out of 191 countries, South Africa was ranked 57th in terms of health expenditure per capita but 175th in terms of overall health system performance and 182nd in terms of performance on overall level of health.[142] From 2000 to 2009, SA's expenditure per capita on health has doubled. The effective translation of policy to practice is questionable and key national child health care programmes have been criticized for not improving childcare. The Integrated Management of Childhood Illness (IMCI) programme in South Africa has the potential to promote optimal breastfeeding practices as part of an integrated approach of monitoring, preventing and treating diseases in children under five. It has been suggested that poor implementation of this programme undermines its success in certain provinces due to sub-standard training and supervision.[1]

The International Code of Marketing of Breast milk Substitutes was adopted by the WHO in 1998 and aims to contribute to the provision of safe and adequate nutrition for infants by protecting and promoting breastfeeding and by ensuring the proper use of breast milk substitutes.[143] South Africa adopted the Code as policy but never legislated it[144] which led to less vigorous implementation and violations of the Code.[139,145] In December 2012, South Africa adopted the International Code of Marketing of Breast milk Substitutes into legislation to prohibit uncontrolled marketing of formula milk.[146]

1.6 CONCLUSION

Investing in childhood nutrition has short and long-term benefits in terms of health and development, disease prevention, health care costs, intellectual capacity, adult productivity and social and economic development.[8] Breastfeeding and appropriate complementary feeding during the first two years of life play a crucial role in reducing morbidity and mortality rates in children younger than five and in preventing long-term consequences associated with stunting before the age of two.[10] Breastfeeding practices in South Africa during the first six months of life do not reflect the universal recommendation of exclusive breastfeeding and the introduction of food happens at an earlier age.[35,54,66,77,78] This increases the risk for diarrhoeal disease, pneumonia and undernutrition.[5,34-36] The increased risk of HIV transmission through breast milk with mixed feeding further supports the urgent need for optimal infant feeding practices in South Africa.[5,58,64,66-68] Various external factors and conventional and cultural norms influence infant feeding practices which highlight the need to re-think the approach to promoting exclusive breastfeeding since with messaging alone, mothers cannot be expected to challenge their own beliefs and conventional systems.[11]

1.7 MOTIVATION FOR THIS STUDY

National exclusive breastfeeding rates are very poor and have not improved significantly over the last fourteen years,[79,80] supporting this research study's investigation into factors that influence infant feeding practices (0-5.9 months). In 2011, South Africa declared that the country commits to actively protect, promote and support exclusive breastfeeding. The scale-up of ART and ARV prophylaxis for pregnant women and breastfed infants enables large-scale promotion of exclusive breastfeeding during the first six months of life, regardless of maternal HIV status. This can minimize the risk of stigmatization and increase exclusive breastfeeding rates in both HIV positive and negative women.[11] However, there is still a gap between infant feeding guidelines and current practices in South Africa, which calls for a holistic approach to infant feeding counselling and support. To give only breast milk and no water or food has been described as an alien concept, counterintuitive and impractical by African societies.[65,66,84] It is vital to understand current practices and beliefs to allow interventions to aim at the level of underlying principles or perceptions. Research shows that mothers are unlikely to change behaviour based on health care messages alone[11] and that external factors have a strong influence on infant feeding practices. Conventional and cultural perceptions, beliefs and practices are still evident and failure to address them will only increase the gap between well-intended policies and actual practices.[75] In order to establish a culture of exclusive breastfeeding, the approach to promoting exclusive breastfeeding needs re-thinking.

This research study aimed to determine the feeding practices of primary caregivers of infants (0-5.9 months) and the influencing factors in Avian Park and Zwelethemba in Worcester, in the Western Cape Province of South Africa, in order to make recommendations, where appropriate. The study aims to provide recommendations on generalisable and tailored intervention strategies for the promotion of optimal infant feeding practices. Avian Park and Zwelethemba, two low-income areas of Worcester, were chosen as study sites since the newly established Stellenbosch University Rural Clinical School is located in Worcester and provides a platform for tailored intervention and further research in these areas.

CHAPTER 2: METHODOLOGY

2.1 AIM

The study aimed to determine the feeding practices of primary caregivers of infants (0-5.9 months) and the influencing factors in Avian Park and Zwelethemba in Worcester, in the Western Cape Province of South Africa, in order to make recommendations, where appropriate.

2.2 OBJECTIVES

2.2.1 Primary objectives

- To describe the infant feeding practices of primary caregivers of infants aged 0-5.9 months.
- To investigate which factors promote breastfeeding initiation and exclusive breastfeeding for the first six months of life.
- To investigate which factors impede breastfeeding initiation and exclusive breastfeeding for the first six months of life.

2.2.2 Secondary objectives

- To identify the key role-players who provide infant feeding information and support to the primary caregivers of infants aged 0-5.9 months.
- To describe the impact of HIV on infant feeding choice and practices in these communities.

2.3 STUDY DESIGN

The study was linked to Phase 1, the cross-sectional baseline assessment, of the Community-based Nutrition Security Project of the Division of Human Nutrition of Stellenbosch University[147] (from here on referred to as the Parent Project). The Parent Project formed the first phase of a long-term research and joint action programme with local stakeholders to develop a systemic understanding of local conditions that contribute to the persistence of malnutrition, and to explore policy and programme innovations that could help create conditions for sustainable community nutrition. The study was designed and conducted as part of Stellenbosch University's Food Security Initiative. The aim of Phase 1 of the Parent Project was to collect information regarding the nutritional status of young children (0 – 36 months) and their mothers or primary caregivers, and the household and community food security situation in Avian Park and Zwelethemba in order to describe the relationships between child nutritional status and food security conditions.

This research study focused on collecting detailed information on the feeding practices of primary caregivers in the 0-5.9 month age group and was done at the same sites at the same time as the Parent Project, following similar methods. The study had a separate protocol, collection tools and consent forms. Sampling overlap did occur, but there were cases where the sampling strategy allowed participants into

this study who were not included in the Parent Project. This occurred when two or more infants from one household were aged between 0 and 36 months and the Parent Project randomly selected the child older than six months as participating child, while this study would have included the infant aged younger than six months. Furthermore, if the maximum sample of six participants in one particular randomly selected street was reached by the Parent Project, no further sampling from that street was done, while this study continued sampling to a maximum of six participants per street.

An observational, descriptive study was performed and a multi-method approach followed. Quantitative and qualitative assessment methods were used. A cross-sectional community-based survey was performed followed by focus group discussions to obtain insight into personal views and experiences.[148] The focus group discussions allowed the participants to build on each other's comments and thereby a collective meaning attached to certain issues could be obtained; something that could not be obtained through the questionnaires.[149] Triangulation was used in this study, which involved linking findings from the quantitative and qualitative components to develop a more complete understanding of issues.

2.4 STUDY SITE

The study was conducted in Avian Park and Zwelethemba in Worcester, an urban area[150] and the administrative capital of the Breede Valley District in the Western Cape Province of South Africa. (Figure 2.1) Worcester is situated roughly one hundred kilometres east of Cape Town.

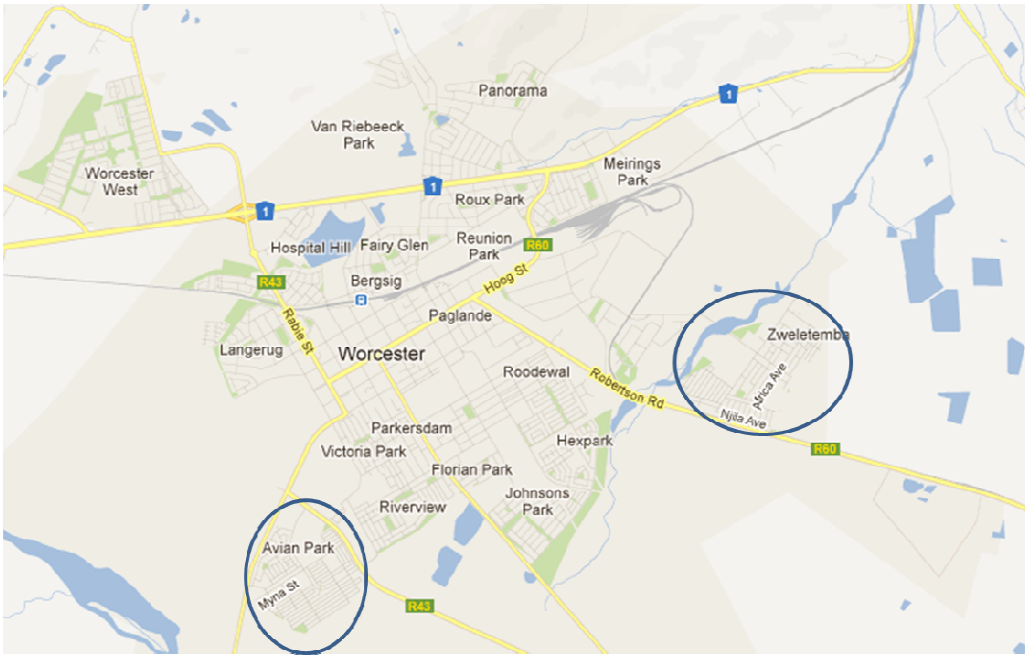

Figure 2.1: Study sites: Avian Park and Zwelethemba, Worcester

Avian Park and Zwelethemba, two low-income areas of Worcester, were chosen as study sites since the newly established Stellenbosch University Rural Clinical School is located in Worcester and provides a platform for tailored intervention and further research in these areas. This study analysed data for the total sample (both sites) and differences between the two communities were explored. The two sites were combined since one site alone did not provide a large enough sampling frame, and to ensure cultural diversity since the demographic profile of these two sites differed. Avian Park is a recently established community and an estimated 10 000 people reside there.[151] This community is predominantly Coloured[‡] and Afrikaans speaking with a very youthful population as 62% of the residents are thirty years old or younger.[152] Zwelethemba is a more established Black African community with isiXhosa as the predominant language. An estimated 20 000 people reside there.[153] These separate areas resulted from the Group Areas Act (No. 41 of 1950)[154] which created different residential areas for different ethnic groups in the pre-democratic era (prior to 1994). Both communities include formal and informal housing sections and are low-income settings, with high rates of unemployment.[152,153]

2.5 STUDY POPULATION

2.5.1 Inclusion criteria

Quantitative component

Primary caregivers:

- Of infants aged 0 to 5.9 months.
- Who spoke Afrikaans, English or isiXhosa.
- Who had lived in the settlement for at least the last five years.
- Who gave written consent to take part in the study.

Qualitative component

Mothers who breastfed exclusively or predominantly:

- Of infants aged 3 to 5.9 months.
- Who spoke Afrikaans, English or isiXhosa.
- Who had lived in the settlement for at least the last five years.
- Who gave written consent to take part in the study.

[‡] In South Africa, the term Coloured is used to refer to people of mixed-race.

Mothers who breastfed partially, mothers who did not breastfeed, fathers[§] and grandmothers[**]:

- Of infants aged 0 to 5.9 months.
- Who spoke Afrikaans, English or isiXhosa.
- Who had lived in the settlement for at least the last five years.
- Who gave written consent to take part in the study.

Health care workers[††] who:

- Were male or female.
- Were working in an antenatal, neonatal or postnatal unit, or labour ward.
- Spoke Afrikaans, English or isiXhosa.
- Gave written consent to take part in the study.

2.5.2 Exclusion criteria

Quantitative component

Primary caregivers who:

- Had another member of the household take part in the quantitative component of this research study.

Qualitative component

Participants who:

- Had another member of the household take part in the qualitative component of this research study.
- Had hearing problems.
- Could not speak clearly.

Only participants who stayed in the area for at least five years were included to prevent data distortion by seasonal workers, visitors, or new residents. To allow for a random sample of the community and to avoid introducing the possible bias of similar practices or thoughts on infant feeding in one household, only one participant per household was interviewed and/or included in the focus group discussions. To ensure successful focus group discussions and transcriptions, people with hearing problems and those who could not speak clearly were excluded.

[§] Father of infant.
[**] Maternal or paternal grandmother of infant.
[††] Health care workers included all levels i.e. formally trained staff (e.g. nurses, doctors) and staff who attended specific short course training to deliver a specific function (e.g. counsellors).

2.6 SAMPLING STRATEGY

2.6.1 Sample size

Quantitative component

One hundred and forty participants were included in this study. Data was analysed for the total sample and differences between the two communities were explored. The sample size was determined from the estimation of a single proportion by a 95% confidence interval with precision (or percentage error) Cp. Initially, a sample size of n=100 (precision of 9.8%) was determined and anticipated as a realistic sample size. However, continued sampling for the duration of the Parent Project allowed a larger sample size (n=140) which improved the precision to 8.3 % (calculated by the Centre for Statistical Consultation, Stellenbosch University).

Qualitative component

Qualitative findings were linked to quantitative results to develop a more complete understanding of issues. The number of focus group discussions was determined by the available resources, the time frame of the Parent Project and logistical implications. Thirteen focus group discussions were conducted and eight to ten participants were included in each focus group discussion. The total sample size of the qualitative sample group was one hundred and twenty participants. Figure 2.2 illustrates the six different target groups and the number of focus group discussions per target group in Avian Park and Zwelethemba. An exception was made with the health care workers' group. Only one focus group discussion was conducted since time constraints, shift duties and long working hours influenced their availability. Furthermore, a third focus group was conducted for both the mothers who never breastfed and the fathers, since their focus group discussions were very short.

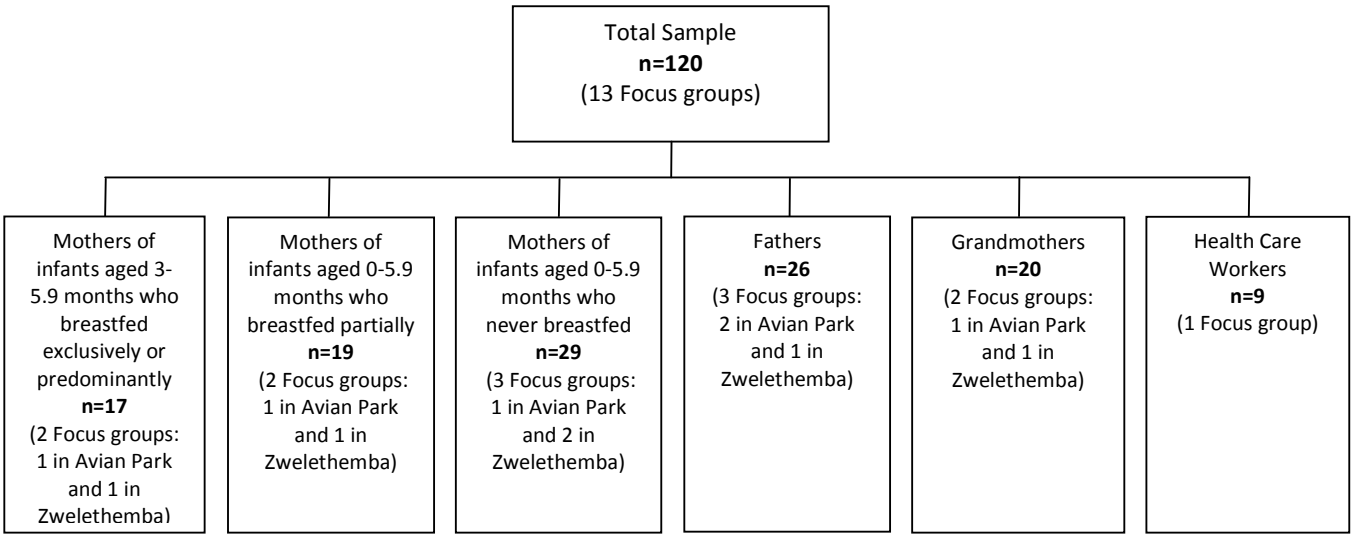

Figure 2.2: Diagrammatical representation of the qualitative sample size

2.6.2 Sampling methods

Quantitative component

The sampling method of the Parent Project was followed. Households with at least one primary-caregiver-and-infant pair (0-5.9 months) were the basic units for data collection. The sampling frame was all households within Avian Park and Zwelethemba. A simple random selection of households from the sampling frame was performed. Streets were numbered and selected using a computer generated random selection table. An equal number of houses (n=6) from every randomly selected street (n=34) were included. Avian Park and Zwelethemba both had one informal area. These informal areas were divided into blocks to represent streets. Starting points at each street were randomly selected to ensure that starting points differed from street to street. In addition, the direction of approach alternated between streets (Figure 2.3). Starting at the randomly selected point in a street or block, households were approached until the required number of houses for each street or block was included. If not enough households within a street or block qualified, another street or block was randomly selected and the process was repeated. Sampling for this project continued for the duration of the Parent Project.

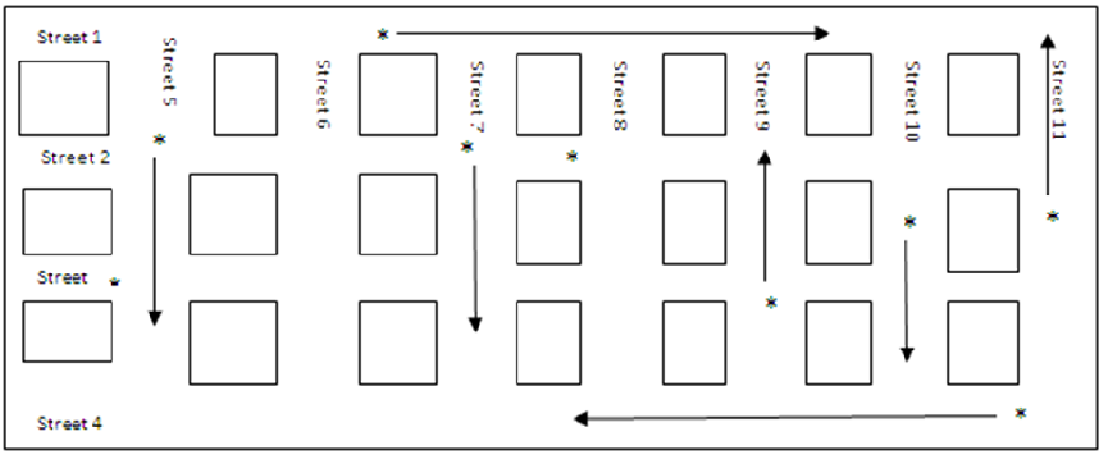

Figure 2.3: Sampling framework of the quantitative component

In every participating household, every primary-caregiver-and-infant pair who met the inclusion criteria was invited to participate in this study. If there was more than one primary-caregiver-and-infant pair within one household who was willing to participate in this study, a random selection was done by numbering the pairs and using a random numbers table for selection. The same procedure was followed for twins. An appointment was made and the home was re-visited if the primary caregiver of the infant was not at home

during the time of the visit. Selected details were captured on a participant register for record and administration purposes (Appendix 6.1).

Qualitative component

Participants were purposefully recruited for the focus group discussions. Field workers went from door to door in different demographic sections of the two communities to recruit mothers, fathers and grandmothers with topic-specific screening tools (Appendix 6.2). Health care workers were recruited at health facilities within and around the two communities [Worcester Regional Hospital, Worcester Community Health Centre (CHC) and Empilisweni Clinic]. Permission for personnel to participate in the focus group discussion during their lunch hour was formally requested from the facility managers. Selected details were captured on a participant register for record and administration purposes. The participant registers were specific for every focus group discussion (Appendix 6.3).

The researcher compiled the screening questions and qualifying criteria according to the inclusion criteria. Ideally, only exclusively breastfeeding mothers were to be recruited for the focus group discussions that explored factors which supported exclusive breastfeeding. However, quantitative results indicated that exclusive breastfeeding was a rare practice and only one mother could be identified who still breastfed exclusively by the infant age of three months. Water was introduced very early in life by most mothers from these communities (85% of breastfed infants received water before the age of one month). For this reason, the inclusion criteria and target group for this focus group discussion were extended to also include mothers who breastfed predominantly, since it still enabled exploration of factors that kept mothers from giving nutritive liquids and/or food in addition to breast milk. Only mothers of infants aged three, four or five months were included to ensure that participants actively intended to breastfeed exclusively or predominantly. This was supported by quantitative data which indicated that 79% of the breastfeeding mothers who had introduced nutritive liquids and/or food had done so before the age of three months.

2.7 DATA COLLECTION

2.7.1 Preliminary field work

Prior to data collection, the researcher and Parent Project team liaised with role-players from the Cape Winelands District Municipality, Stellenbosch University Rural Clinical School and key community members. A community meeting was held in Zwelethemba before data collection commenced and the objectives of the study were explained. A scheduled community meeting in Avian Park did not occur since none of the community members attended the meeting. This lack of attendance may have been due to the time of the meeting (late afternoon), a lack of transport (for those living on the outskirts of Avian Park), or insufficient information on the meeting.

Two field workers, one from Zwelethemba and one from Avian Park, each conducted a radio talk on two local radio stations before the field work commenced. They explained the purpose of the study and the methods of data collection. An article about the Parent Project also featured in the local newspaper, the Worcester Standard (February 2011).

2.7.2 Team composition

The quantitative data collection team comprised of the researcher and two field workers. Both field workers were fluent in English, isiXhosa and Afrikaans. The qualitative data collection team comprised of the researcher and eight teams from the Parent Project. Each team had three members, a screener, a facilitator, and an observer. The teams were gender and language specific for the different focus groups, with men screening, facilitating and observing the focus groups with fathers, while women screened, facilitated and observed all the other focus groups. Afrikaans-speaking field workers worked in Avian Park, while isiXhosa-speaking field workers worked in Zwelethemba.

2.7.3 Logistical consideration

Quantitative data collection training was conducted in February 2011, the study was piloted in March 2011, and the data was collected from April to July 2011. Training, piloting and collection of the qualitative data were done during August 2011. Field workers were trained to interview participants, to complete the infant feeding practices questionnaire, and to facilitate focus group discussions. The interviews were conducted in the participants' households. Focus groups were held in the Multi-purpose Community Centre in Zwelethemba, the Avian Park Community Health Centre (Ukwanda) and Rholihlahla crèche in Avian Park. Transport was arranged for participants from and to their homes.

2.7.4 Data collection tools

Quantitative data

The infant feeding practices questionnaire (Appendices 6.4 – 6.6) was adapted from the following questionnaires used in Africa by the Linkages Project, a project managed by the Academy for Educational Development and funded by the Bureau for Global Health of the United States Agency for International Development:

- LINKAGES: Tanzania. Integrated PMTCT baseline survey: Questionnaire for use with mothers of infants less than 12 months old; 2005.[155]
- LINKAGES: Zambia. Ndola demonstration project (NDP): Community-based survey for use with mothers of infants age 0 to less than 6 months old; 2001.[156]

The researcher adapted the questionnaire to include the following:

- Socio-demographic characteristics
- Infant feeding knowledge
- PMTCT knowledge
- Sources of infant feeding and HIV information
- Self-reported HIV status

The questionnaire had sixty-six questions in total. Not all questions had to be answered by all participants. The questionnaire guided the field worker to the relevant questions based on the participant's answers. The questionnaire was available in isiXhosa, Afrikaans and English - the three main languages spoken by residents from these communities.

Qualitative data

Socio-demographic data of the focus group participants was obtained with a shortened socio-demographic questionnaire of the Parent Project (Appendices 6.7 – 6.9). This was done to simplify the focus group administration for the field workers since all the focus groups (from this study and the Parent Project) were done at the same time. The Parent Project collected more socio-demographic information on the focus group participants than required by this study for a basic description of the focus group participants and only selected information from this questionnaire was included.

Focus group discussions were conducted according to the description of the United States Department of Agriculture's (USDA) Community Food Security Assessment Toolkit.[148] Focus group guides (Appendices 6.10 – 6.27) with a written list of questions and probes were compiled by the researcher. The key areas discussed were:

Mothers:

- The reasons for following a specific feeding practice.
- Influential and/or supporting role-players with infant feeding.
- The availability and accessibility of information on infant feeding.

Grandmothers, Fathers and Health care workers

- Knowledge/perceptions about infant feeding.
- The view of their role in caring for infants.
- The availability and accessibility of information on infant feeding.

The focus group guides were available in isiXhosa, Afrikaans and English.

2.7.5 Obtaining data

Quantitative data

Field workers worked individually and completed the informed consent form (Appendices 6.28 – 6.30) before the interview commenced. Interviews were conducted in the participants' language of choice by using the structured infant feeding practices questionnaire. The field worker captured the answers on the questionnaire. The interview was conducted in a room or area separate from any other family members, friends or field workers to ensure privacy and confidentiality. The average length of an interview was twenty minutes.

Qualitative data

The screener of every field worker team completed the informed consent form (Appendices 6.31 – 6.33) and shortened socio-demographic questionnaire of each participant before the focus group commenced. Trained facilitators led the focus group discussions and the observers took observational notes. Focus groups were conducted according to the focus group guides and every session followed the same methods.[148] The trained facilitator led and facilitated the discussion in isiXhosa, Afrikaans or English according to the language of the specific group. The observer audiotaped the discussion and made observational notes during the discussion. Focus group discussions lasted between ten and sixty minutes and were concluded once all questions were asked, prompts were given and no more responses were received. To express gratitude for participating in the focus group discussion, all participants received a small food parcel (a fruit, muffin and fruit juice).

2.8 QUALITY CONTROL

2.8.1 Content validity of questionnaire

A panel of health care professionals with extensive knowledge, understanding and experience in infant feeding reviewed the infant feeding practices questionnaire. Similarly, a panel of professionals with extensive knowledge, understanding and experience in infant feeding and/or focus group discussions reviewed the focus group guides.

2.8.2 Translation of data collection tools and consent forms

All consent forms and the infant feeding practices questionnaire were translated into Afrikaans (researcher) and isiXhosa (Stellenbosch University Language Centre). The focus group guides were translated into Afrikaans (researcher) and isiXhosa (trained isiXhosa-speaking field workers).

2.8.3 Training of field workers

A five-day training workshop was held in February 2011 for the field worker teams of the Parent Project. All field workers were trained by the researcher to facilitate and manage the data collection with the infant feeding practices questionnaire. Qualitative data collection training was done in August and teams were chosen according to skill, gender and language. The researcher and fellow researchers of the Parent Project trained the field workers to conduct focus group discussions with special focus on the aim of focus group discussions, engaging all participants, keeping the discussion on track and within time limits, and responding objectively.[148] Detailed training on the focus group guides was undertaken by an expert in qualitative methods.

2.8.4 Pilot study

The pilot study for the quantitative component followed the training workshop on quantitative data collection and was conducted during March 2011 in Avian Park and Zwelethemba. Sixteen participants were recruited to test the face validity of the infant feeding practices questionnaire. Only two minor changes were made to the questionnaire: an additional option was added to one question's answers and two questions were moved earlier in the questionnaire. The shortened socio-demographic questionnaire and focus group guides were piloted during the training of field workers since all field workers were from the two communities. Changes to the questionnaire or focus group guides were made to a level of satisfaction until no further changes were necessary.

2.8.5 Supervision

The researcher performed regular quality evaluations to ensure that data collection was done according to the protocol. The researcher or field work supervisor of the Parent Project checked all completed questionnaires for possible field errors and the researcher had regular meetings with the field workers to discuss any difficulties or problems with the data collection. Field workers went back to the participant to correct any missing or incorrect information identified. If quality control missed a mistake or omission on the questionnaire, the data for that question was indicated as "missing data" during data capturing. The researcher was present at the focus group discussion venues and assisted with the logistical arrangements but did not supervise the focus group discussions since it might have affected the participants' willingness to participate in the discussion.

2.9 DATA ANALYSIS

2.9.1 Data management and capturing

Quantitative data

The researcher captured the questionnaire data with Microsoft (MS) Excel®.

Qualitative data

Based on outstanding performance during the quantitative data collection period, selected field workers were trained to transcribe focus group discussions and translated the isiXhosa discussions into English. To ensure that the context and core meaning of the focus group discussions were preserved, field workers worked in pairs and all transcriptions and translations were checked by the partner and re-checked by a senior field worker who managed the group. The decision to use local field workers was largely due to financial constraints. Given that the focus group discussions focused on local beliefs and practices regarding infant feeding, the advantage of using local field workers to transcribe and translate data was that it could help preserve region-specific dialect and terms used in these communities. Observational notes were translated into English and captured with MS Word®.

2.9.2 Statistical analysis of data

Quantitative data

Data analysis was done by a statistician from the Centre for Statistical Consultation, Stellenbosch University.

STATISTICA version 10 [StatSoft Inc. (2010) STATISTICA (data analysis software system), www.statsoft.com.] was used to analyse the data. Summary statistics were used to describe the variables. Distributions of variables were presented with histograms and frequency tables. Medians or means were used as the measure of centre location for ordinal and continuous responses and standard deviations and quartiles as indicators of spread.

The relationship between continuous response variables and nominal input variables was analysed using appropriate analysis of variance (ANOVA). For data that was not normally distributed, non-parametric ANOVA methods (Mann-Whitney and Kruskal-Wallis tests) were used. If there were more than two nominal variables, the Bonferroni multiple comparison was used to identify which nominal variable(s) differed significantly. The relation between two nominal variables was investigated with contingency tables and likelihood ratio chi-square tests.

A p-value of $p<0.05$ represented statistical significance in hypothesis testing and the 95% confidence interval was used to describe the estimation of unknown parameters.

Qualitative data

The researcher analysed and interpreted the final transcripts and notes. Most information categories were deduced from the questions of the focus group guides in relation to the study objectives. The information from each focus group was summarised according to the predefined information categories. During the process, new categories emerged and were added to the existing categories. Focus groups with the same participant profile were grouped into a cluster e.g. mothers who breastfed predominantly. Similarities and differences within and between clusters were investigated.

2.10 ETHICAL CONSIDERATIONS

2.10.1 Ethical review committee

This research study was done according to internationally accepted ethical standards and guidelines[157-159] and was approved by the Health Research Ethics Committee of Stellenbosch University (Reference number: N10/11/362). Ethical approval was obtained prior to the pilot study and in addition to the ethical approval of the Parent Project. Since this was a community-based study, ethical approval from other committees were not required.

2.10.2 Informed consent

Participation in this study was voluntarily. Participants were allowed to withdraw from the study at any stage during the research without any repercussions. Consent forms were issued in the language of choice to all participants before participation. Different consent forms were used for the quantitative and qualitative data collection and were kept separate from the data. The consent forms were explained to the individuals and sufficient time was allocated for reading the consent form before signing it. The consent form was read to participants who could not read. Participants who could not write gave consent by making an "X" where their signatures were required. Participants were not allowed to participate in the study if consent was refused. No data was collected before a participant had signed the appropriate consent form. The Health Research Ethics Committee of Stellenbosch University gave permission that participants who were younger than 18 years old may give consent to participate in the study as they were considered emancipated adults.

2.10.3 Participant confidentiality

Confidentiality was stressed with both the structured interviews and focus group discussions. No names were documented on any questionnaire. Focus group discussions were not video recorded but tape-

recorded and no reference to any names were made with the analysis. Participants were informed that the information collected might be used for scientific publications or presentations but that no identities would be revealed.

2.10.4 HIV-section of the Infant Feeding Practices Questionnaire

The infant feeding practices questionnaire included a section on HIV and AIDS. This was the last section of the questionnaire and asked about sources of HIV information; the participant's feelings about HIV-infected mothers and breastfeeding, and self-reported HIV status. The consent form explained that the questionnaire included sensitive questions on HIV status. It was again stated to the participants that the answering of questions was voluntary and not compulsory.

The questionnaire started with the following information:

"I am going to ask you some questions about how you care for and feed your baby, as well as what you know about infant feeding and HIV and AIDS. Please understand that your answers are completely confidential. Your name will not be written on this form and will never be used in connection with any of the information you tell me. Please feel free to answer the questions and remember there is no right or wrong answer."

The section on HIV and AIDS started with the following information:

"The next couple of questions have to do with HIV and AIDS. We understand that some people feel uncomfortable discussing this but we would really like to know what you think about this issue. Your answers are completely confidential. Your name will not be written on this form and will never be used in connection with any of the information you tell me. Please feel free to answer the questions and remember there is no right or wrong answer. If you do not want to answer any of the following questions, then you do not need to do so. This will not have any bad effect on your participation."

The specific question that requested HIV status was followed by:

"Remember that all information remains confidential and that your name is not written on this form."

2.10.5 Risks

The quantitative section of this research study may have posed a risk of anxiety at the last section that focused on HIV. However, it was clearly stated that participants could choose not to answer the questions and that the interview would then be complete. Since it concerned self-reported HIV status and did not measure the person's HIV status, counselling was not required. HIV-infected participants knew their status

and had undergone counselling at the time of their test. Whenever a participant appeared anxious or requested more information, a referral to the nearest health care facility for counselling was made.

The qualitative section of this research study posed no risks to the participants.

2.10.6 Feedback of results

Two meetings, one with each of the participating communities, will be arranged to give feedback of the results of this project. Furthermore, the results will be shared with the Nutrition and HIV, AIDS, STI and TB Departments at the Department of Health Cape Winelands District Office.

CHAPTER 3: RESULTS AND FINDINGS

3.1 QUANTITATIVE RESULTS

3.1.1 Socio-demographic profile of mothers (n=140)

One hundred and forty primary caregivers from the two communities qualified to take part in the study. None refused participation. All participating primary caregivers were female and the biological mother of the infant. Fifty-one percent (n=71) of the primary caregivers were from Zwelethemba and 49% (n=69) from Avian Park. Data was analysed for the total sample and differences between the two communities were explored. The socio-demographic profiles of all mothers across the two sites are summarised in Table 3.1.

Table 3.1: Socio-demographic profile of the mothers (n=140)

Characteristics	Avian Park (n=69) (%)	Zwelethemba (n=71) (%)	Total sample (n=140) (%)
Age (years)	**n (%)**	**n (%)**	**n (%)**
15-19.9	12 (17)	11 (15)	23 (16)
20-24.9	19 (28)	18 (25)	37 (26)
25-29.9	20 (29)	17 (24)	37 (26)
30-34.9	9 (13)	14 (20)	23 (16)
35-39.9	6 (9)	8 (11)	14 (10)
40-44.9	3 (4)	2 (3)	5 (4)
45-49.9	0 (0)	1 (1)	1 (1)
Ethnicity			
Black African	21 (30)	70 (99)	91 (65)
Coloured	48 (70)	1 (1)	49 (35)
First language			
IsiXhosa	17 (25)	58 (82)	75 (54)
Afrikaans	51 (74)	3 (4)	54 (39)
Sesotho	1 (1)	4 (6)	5 (4)
IsiShona	0 (0)	5 (7)	5 (4)
Setswana	0 (0)	1 (1)	1 (1)
Marital status[‡‡]			
Married	13 (19)	14 (20)	27 (19)
Unmarried[§§]	55 (81)	57 (80)	112 (81)
Cohabitation [***]			
Cohabiting with husband/male partner	29 (43)	26 (37)	55 (40)
Not cohabiting with husband/male partner	39 (57)	45 (63)	84 (60)

[‡‡] One user missing value (Avian Park).
[§§] Include divorced and widowed.
[***] One user missing value (Avian Park).

Education			
None	0 (0)	2 (3)	2 (1)
Primary school	8 (12)	3 (4)	11 (8)
Grade 8-9	29 (42)	14 (20)	43 (31)
Grade 10-12	31 (45)	46 (65)	77 (55)
Tertiary	1 (1)	6 (8)	7 (5)
Employment status			
Employed	14 (20)	24 (34)	38 (27)
Unemployed	55 (80)	57 (66)	102 (73)
Child support grant			
Received	31 (45)	11 (15)	42 (30)
Not received	38 (55)	60 (85)	98 (70)
Birthing facility			
Government facility	69 (100)	66 (93)	135 (96)
Worcester Hospital	*31 (45)*	*28 (42)*	*59 (44)*
Worcester CHC	*38 (55)*	*38 (58)*	*76 (56)*
Private facility	0 (0)	4 (6)	4 (3)
Home	0 (0)	1 (1)	1 (1)

The age of the mothers ranged from 15 to 45 years with a median of 26.0 years and mean age of 26.4 years (SD 6.8). There was no significant difference between the mean age of mothers from Avian Park (mean age = 25.9 years) and Zwelethemba (mean age = 26.9 years) (Mann-Whitney p=0.42).

A third of the sample was self-classified as Coloured (35%, n=49) and two-thirds as Black African (65%, n=91). Thirty-five percent (n=54) of the sample spoke Afrikaans, 54% (n=75) isiXhosa and the remainder spoke Sesotho (4%, n=5), isiShona (4%, n=5) and Setswana (1%, n=1), as first language. The two communities differed significantly in terms of ethnicity (Chi-square p<0.001) and first language (Chi-square p<0.001). Avian Park mothers were mainly Coloured (70%) and Afrikaans speaking (74%) and Zwelethemba mothers Black African (99%) and isiXhosa speaking (82%).

Nineteen percent (n=27) of the mothers were married and 81% (n=112) unmarried. In terms of cohabitation, 40% (n=55) of the mothers lived with their husband or male partner and 60% (n=84) lived without their husband or male partner. Afrikaans-speaking mothers were most likely to be married (Chi-square p=0.024) or cohabit with their husband or male partner (Chi-square p=0.040). The mothers' mean ages differed significantly for marital status (Mann-Whitney p<0.01) and cohabitation with their husband or male partner (Mann-Whitney p<0.01). Older mothers were more likely to be married (mean age = 29.1 years) or cohabit with a male partner (mean age = 28.0 years) than younger mothers (mean age 25.8 years and 25.5 years, respectively).

Ninety-one percent (n=127) of the mothers had attained a high school education level or higher. Only 9% (n=13) had attained an education level lower than Grade 8. Mothers from Zwelethemba were more likely to have attained Grade 10-12 as highest level of education and mothers from Avian Park were more likely to have attained Grade 8-9 as highest level of education (Chi-square p=0.002). Mothers who reported primary school as their highest level of education were significantly older (mean age = 33.1 years) than mothers who reported Grade 8-9 (mean age 25.2) (Bonferroni p=0.025) and Grade 10-12 (mean age = 25.2) (Bonferroni p=0.003) as their highest level of education. The mean ages of the latter two groups did not differ significantly (Bonferroni p=1.000).

Seventy-three percent (n=102) of the mothers were unemployed and 27% (n=38) employed at the date of the interview. Employment included permanent employment, self-employment, day-to-day work and seasonal work. There was no significant difference between the employment status of mothers from Avian Park and Zwelethemba (Chi-square p=0.53). There was also no significant difference between the education level of employed and unemployed mothers (Chi-square p=0.13).

Nearly a third (30%, n=42) of the mothers received a child support grant. The infants' ages differed significantly over the receipt of the child support grant (Mann-Whitney p<0.01). Mothers with older infants (mean age = 2.6 months) were more likely to receive the child support grant than mothers with younger infants (mean age = 1.6 months). Mothers from Avian Park were more likely to receive the child support grant than mothers from Zwelethemba (Chi-square p<0.001). Mothers with a primary school education level were most likely to receive the child support grant and mothers with a Grade 10-12 or tertiary education level were least likely to receive the child support grant (Chi-square p=0.001).

Most mothers had given birth at a government facility (96%, n=135). Only 3% of mothers (n=4) had delivered in the private sector and 1% (n=1) had delivered at home. Of the births at a government facility, fifty-six percent (n=76) were at the Worcester CHC and 44% (n=59) at the Worcester Regional Hospital. Coloured mothers (Chi-square p=0.025) and unemployed mothers (Chi-square p=0.003) were more likely to have given birth at the Worcester CHC while Black African mothers and employed mothers were more likely to have given birth at Worcester Regional Hospital.

Ninety-four percent (n=131) of the mothers reported that they gave their infants water and/or formula milk. The source of water for nearly a fifth of these mothers (18%, n=24) was a tap outside the home (2%, n=3) or communal tap off the premises (16%, n=21). The source of water for the remainder of the mothers (66%, n=86) was a tap inside their home.

3.1.2 Socio-demographic profile of infants (n=140)

One hundred and forty infants were included in the study. Fifty-one percent (n=71) were from Zwelethemba and 49% (n=69) from Avian Park. The socio-demographic profiles of all infants across the two sites are summarised in Table 3.2.

Table 3.2: Socio-demographic profile of the infants (n=140)

Characteristics	Avian Park (n=69) (%)	Zwelethemba (n=71) (%)	Total sample (n=140) (%)
Gender	**n (%)**	**n (%)**	**n (%)**
Female	27 (39)	34 (48)	61 (44)
Male	42 (61)	37 (52)	79 (56)
Age (months)			
<1	17 (25)	15 (21)	32 (23)
1	10 (14)	21 (30)	31 (22)
2	15 (22)	15 (21)	30 (21)
3	14 (20)	8 (11)	22 (16)
4	8 (12)	7 (10)	15 (11)
5	5 (7)	5 (7)	10 (7)

Fifty-six percent (n=79) of the infants were male and 44% (n=61) female. Their ages ranged from younger than one month to five months with a median of 2.0 months and mean age of 2.0 months (SD 1.5). Two-thirds (66%, n=93) of the infants were younger than three months old. There was no significant difference between the mean age of infants from Avian Park (mean age = 2.0 months) and Zwelethemba (mean age = 1.8 months) (Mann-Whitney p=0.41).

3.1.3 Self-reported HIV status of mothers (n=140)

Mothers were asked to share their HIV status and none refused to answer. Ninety-nine percent (n=139) reported that they had been tested for HIV and had collected their results. Nineteen mothers (13.7%) reported that they had tested HIV positive. Fifty-nine percent (n=10) of the 17[†††] HIV-infected mothers (self-reported status) received antiretroviral treatment at the time of the study.

The frequency of self-reported HIV infection was significantly higher in Zwelethemba (Chi-square p=0.006) and in Black African mothers (Chi-square p=0.043). The mean age of mothers who were reportedly HIV-infected (mean age = 32.7 years) was significantly higher than the mean age of mothers who were reportedly HIV negative (mean age = 25.7 years) (Mann-Whitney p<0.01).

[†††] Two user missing values for antiretroviral treatment (self-reported status).

3.1.4 Reported HIV status of infants (n=19)

Sixty-eight percent (n=13) of the nineteen HIV-exposed infants had been tested for HIV at the time of the interview. Two mothers were still waiting for the results. Of the eleven mothers who had collected the results, 55% (n=6) reported that their infants had tested HIV positive. All six infants reportedly received antiretroviral treatment at the time of the study.

3.1.5 Infant feeding practices and influencing factors

3.1.5.1 Breastfeeding initiation (n=140)

Seventy-seven percent (n=108) of the mothers had initiated breastfeeding and all but 5% (n=5) had done so within the first hour after giving birth. Reasons for not initiating breastfeeding within one hour after giving birth included not having breast milk (n=2), the mother or infant being ill (n=2) and not being given the infant immediately (n=1). More than one fifth (23%, n=32) of the mothers reported that they never initiated breastfeeding.

Factors that promote breastfeeding initiation (n=121)

Figure 3.1 illustrates the reasons for breastfeeding. Mothers who initiated breastfeeding were allowed to give more than one reason and one hundred and twenty-one reports were received. The most frequently reported reasons for breastfeeding were the perception that it was the perfect food for infants (n=71), and that breastfed infants were healthy since breast milk protected against disease (n=26). Mothers also reported that breastfeeding was free (n=12), and that it promoted bonding between mother and child (n=6). A few mothers reported other reasons which included infant growth, advice from health care worker or family member, that they enjoyed breastfeeding, or that they felt that breastfeeding was better than formula feeding.

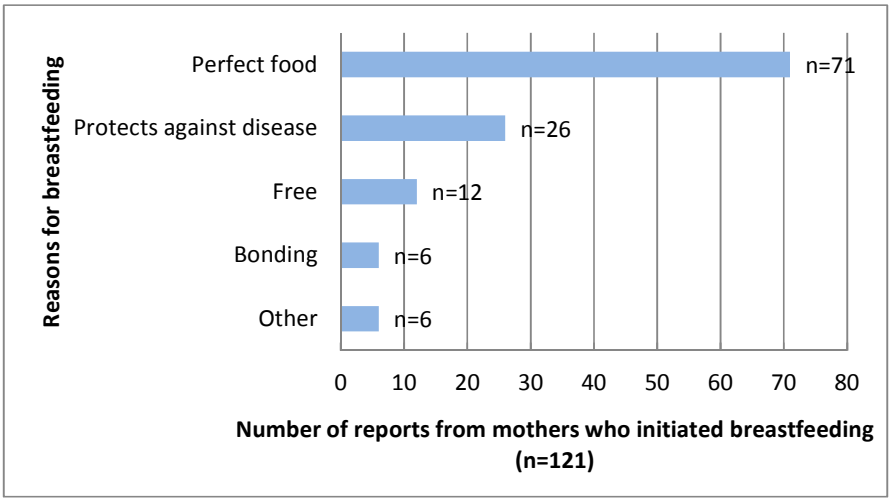

Figure 3.1: Reasons for breastfeeding

Barriers that impede breastfeeding initiation (n=32)

Mothers who never initiated breastfeeding were allowed to give more than one reason for not breastfeeding but each mother gave only one reason. Forty-four percent (n=14) of the mothers had decided not to breastfeed since they were HIV-infected and thirty-one percent (n=10) had felt that they did not have enough breast milk to breastfeed (Figure 3.2). Other reasons included their planned return to work or school (13%, n=4), maternal of infant illness at birth (6%, n=2), and that the infant refused the breast (6%, n=2).

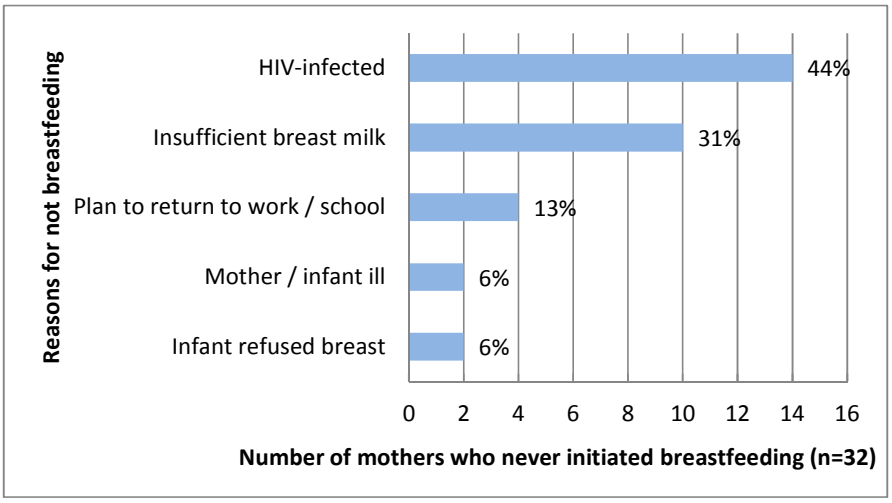

Figure 3.2: Reasons for not breastfeeding

HIV infection exerted a significant influence on infant feeding choice ($p<0.001$) and none of the HIV-infected mothers breastfed (n=19). Consequently, since there were higher self-reported HIV rates in Zwelethemba and among older mothers, breastfeeding initiation was significantly lower in Zwelethemba

(Chi-square p=0.019) and older mothers (mean age = 29.8 years) when compared to Avian Park and younger mothers (mean age = 25.4 years) (Mann-Whitney p<0.01). Seventy-four percent (n=14) of the HIV-infected mothers reported HIV infection as the reason for not breastfeeding (Figure 3.3).

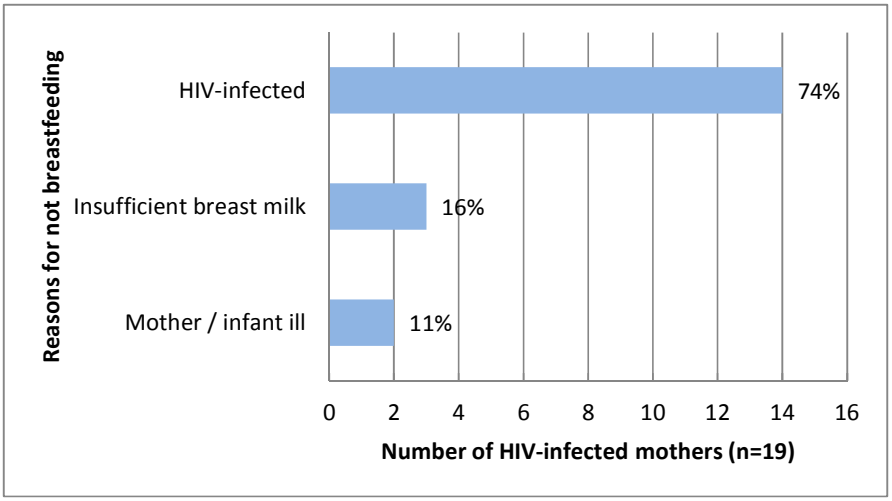

Figure 3.3: Reasons for not breastfeeding (HIV-infected mothers)

To determine overall perception of HIV infection and breastfeeding, all mothers (n=140) were asked whether an HIV-infected mother should breastfeed her infant. The majority were not in favour of breastfeeding and seventy-eight percent (n=109) answered no to the question. Thirteen percent (n=18) did not know and 9% (n=13) answered yes (Figure 3.4). Eighty-four percent (n=92) of the mothers, who answered no, reported HIV transmission as the reason why HIV-infected mothers should not breastfeed. Other reasons included that the infant might die (9%, n=13), that it is unhealthy to breastfeed if you are HIV-infected (1%, n=2), just to be safe (1%, n=1), and that they did not know why (1%, n=1).

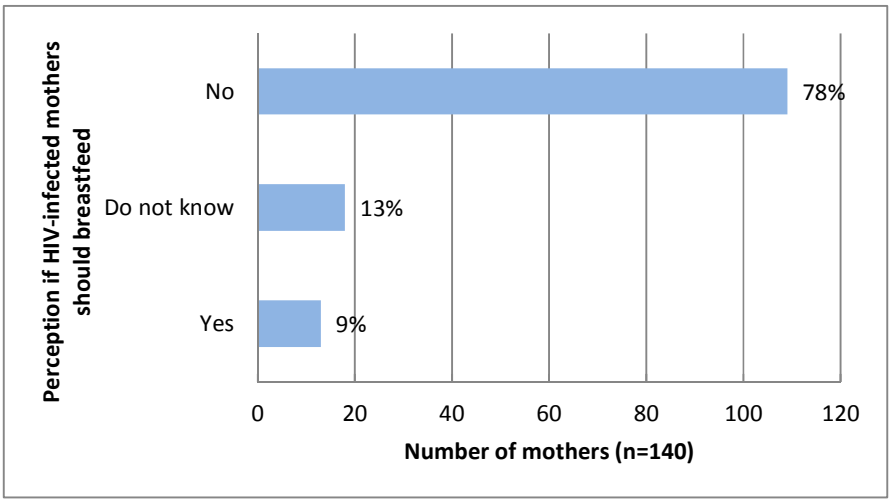

Figure 3.4: Perception if HIV-infected mothers should breastfeed

Mothers from Zwelethemba (Chi-square p<0.001), Black African (Chi-square p=0.001) and isiXhosa-speaking mothers (Chi-square p=0.049), and mothers with a self-reported HIV positive status (Chi-square p=0.040) were more likely to support breastfeeding by an HIV-infected women.

3.1.5.2 Breastfeeding cessation (n=11)

At the time of the interview, 10% (n=11) of the mothers who initiated breastfeeding had discontinued breastfeeding. Ten of these mothers had discontinued breastfeeding before the infant age of three months and one mother had discontinued breastfeeding at three months of age.

Barriers impeding breastfeeding continuation (n=11)

The most frequently reported reasons for discontinuing breastfeeding were the mothers' perceptions that their breast milk was insufficient and their infants were still hungry (36%, n=4), and returning to work or school (36%, n=4). Eighteen percent (n=2) of the mothers reported that their infants refused to take the breast and 9% (n=1) reported breast problems.

3.1.5.3 Breastfeeding practices (n=140)

At the time of the study, 6% (n=8) of the mothers breastfed exclusively. Ninety-four percent (n=132) applied suboptimal breastfeeding practices: 36% (n=51) breastfed predominantly, 27% (n=38) breastfed partially, and 31% (n=43) did not breastfeed (Figure 3.5). Mothers from Zwelethemba were more likely to breastfeed partially while mothers from Avian Park were more likely to breastfeed predominantly (Chi-square p=0.001).

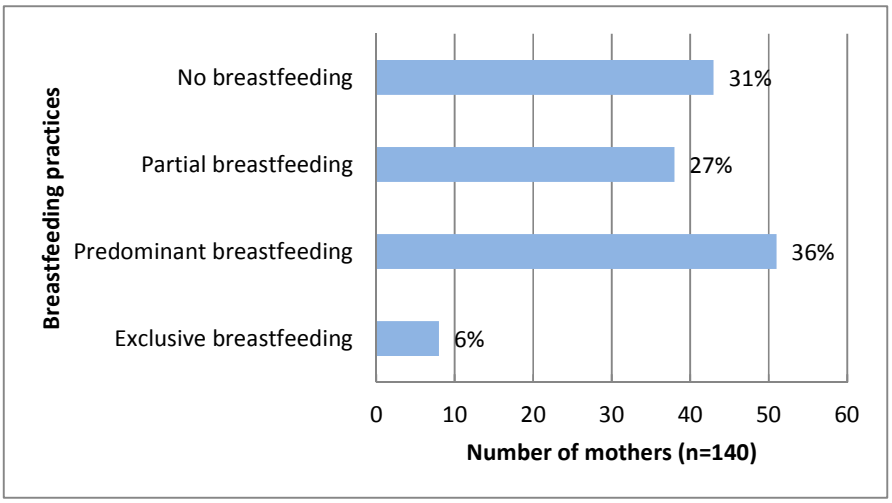

Figure 3.5: Breastfeeding practices

Figure 3.6 illustrates the breastfeeding practice by infant age. The highest proportion, respectively, of exclusively and predominantly breastfed infants were less than one month old and the highest proportion of partially breastfed infants were two months old.

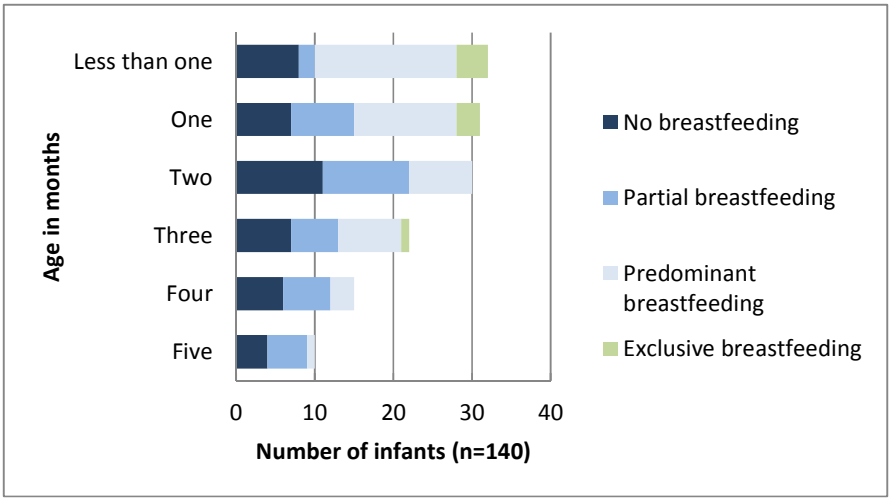

Figure 3.6: Breastfeeding practice by infant age

Replacement feeding (n=43)

All mothers who never initiated breastfeeding or who discontinued breastfeeding (31%, n=43) gave formula milk as replacement feed. Black African mothers were more likely to give nutritive liquids and/or food in addition to formula milk while Coloured mothers were more likely to give non-nutritive liquids in addition to formula milk (Chi-square p=0.008). Similarly, isiXhosa-speaking mothers were more likely to give nutritive liquids and/or food in addition to formula milk while Afrikaans-speaking mothers were more likely to give non-nutritive liquids in addition to formula milk (Chi-square p=0.005).

Introduction of non-nutritive liquids (n=126)

Figure 3.7 summarises the introduction of non-nutritive liquids.

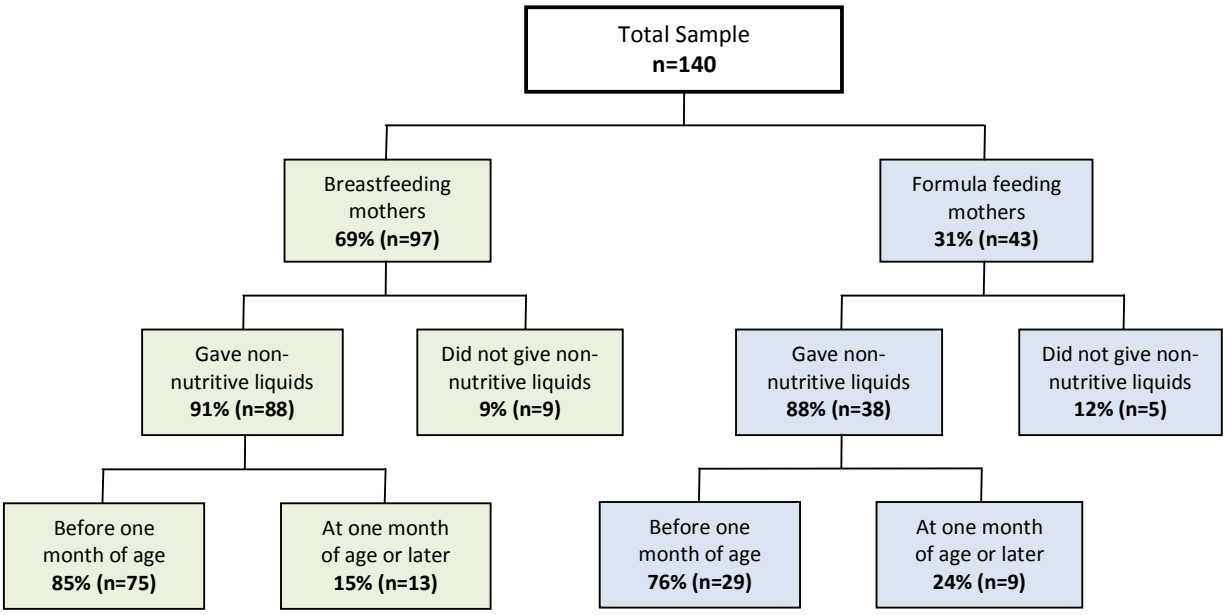

Figure 3.7: Summary of the introduction of non-nutritive liquids

Ninety-one percent (n=88) of the breastfeeding mothers and 88% (n=38) of the formula feeding mothers reported that they gave their infants supplementary non-nutritive liquids, specifically water. In total, 90% (n=126) of all mothers reported that they gave their infants water in addition to the primary feeding method. There was no significant difference between breastfeeding and formula feeding mothers and the practice of giving water (Chi-square p=0.673).

Among the breastfeeding mothers who gave water, 85% (n=75) had started doing so before their infants were one month old. Among the formula feeding mothers who gave water, 76% (n=29) had started doing so before their infants were one month old. In total, 83% (n=104) of the mothers who gave water had started doing so before their infants were one month old. There was no significant difference between breastfeeding and formula feeding mothers and the introduction of water before one month of age (Chi-square p=0.359). The Chi-square test showed that unmarried mothers (Chi-square p=0.033) and mothers who had received assistance from their mothers with breastfeeding initiation (Chi-square p=0.048) were more likely to introduce water before their infants were one month old than mothers who were married or who had received assistance from health care workers with breastfeeding initiation.

Introduction of nutritive liquids and/or food (n=61)

Figure 3.8 summarises the introduction of nutritive liquids and/or food.

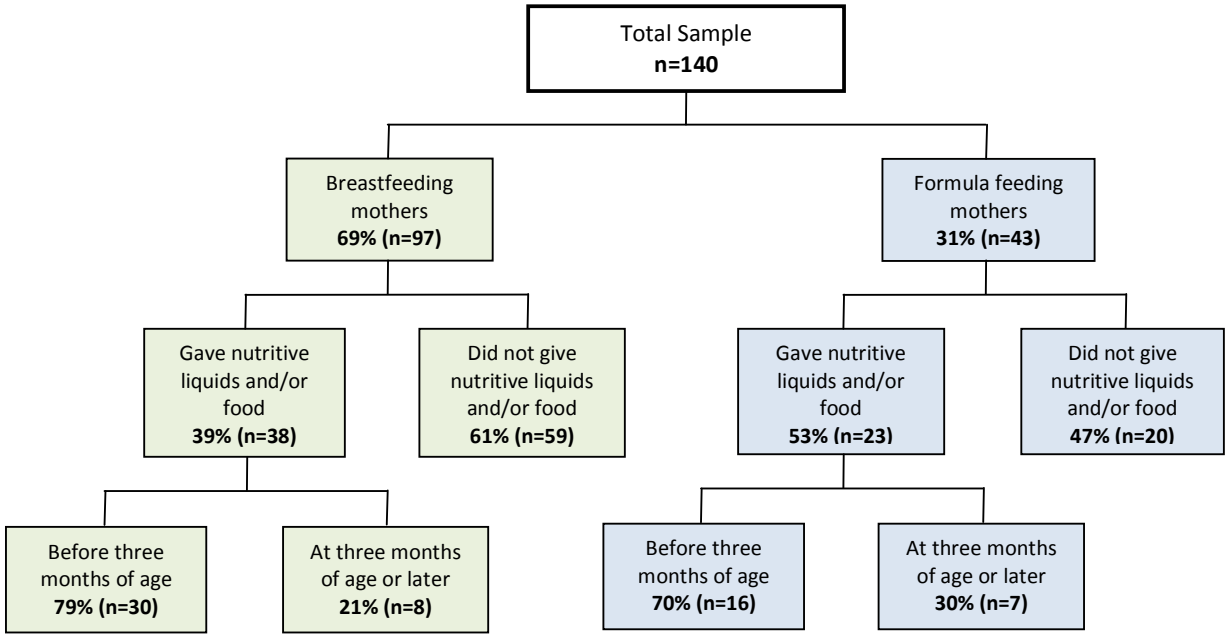

Figure 3.8: Summary of the introduction of nutritive liquids and/or food

Thirty-nine percent (n=38) of the breastfeeding mothers reported that they gave their infants supplementary nutritive liquids (including formula milk) and/or food. Fifty-three percent (n=23) of the formula feeding mothers reported that they gave their infants supplementary nutritive liquids (excluding formula milk) and/or food. In total, 44% (n=61) of all mothers reported that they gave nutritive liquids and/or food in addition to the primary feeding method. There was no significant difference between breastfeeding and formula feeding mothers and the practice of giving nutritive liquids and/or food (Chi-square p=0.116).

The Chi-square test showed that mothers from Zwelethemba (Chi-square p<0.001), Black African (Chi-square p=0.001) and isiXhosa mothers (Chi-square p=0.001) and mothers who had received infant feeding information from health care workers during pregnancy (Chi-square p=0.024) were more likely to give nutritive liquids and/or food.

Among the mothers who gave nutritive liquids and/or food in addition to breast milk, 79% (n=30) had started doing so before their infants were three months old. Among the mothers who gave nutritive liquids and/or food in addition to formula milk, 70% (n=16) had started doing so before their infants were three months old. In total, 75% (n=46) of the mothers who gave nutritive liquids and/or food in addition to the primary feeding method had started doing so before their infants were three months old. There was no

significant difference between breastfeeding and formula feeding mothers and the introduction of supplementary nutritive liquids and/or food before three months of age (Chi-square p=0.413). Unemployed mothers (Chi-square p=0.046) were more likely to introduce supplementary nutritive liquids and/or food before their infants were three months old.

Commercial infant cereal and formula milk outweighed any other supplementary liquids or food (Figure 3.9). The thirty-eight breastfeeding mothers and twenty-three formula feeding mothers who gave supplementary nutritive liquids and/or food were allowed to report all products given. Sixty-two reports were received from breastfeeding mothers and commercial infant cereal (n=28) and formula milk (n=27) were reported most frequently. Twenty-five reports were received from formula feeding mothers and commercial infant cereal (n=22) was reported most frequently.

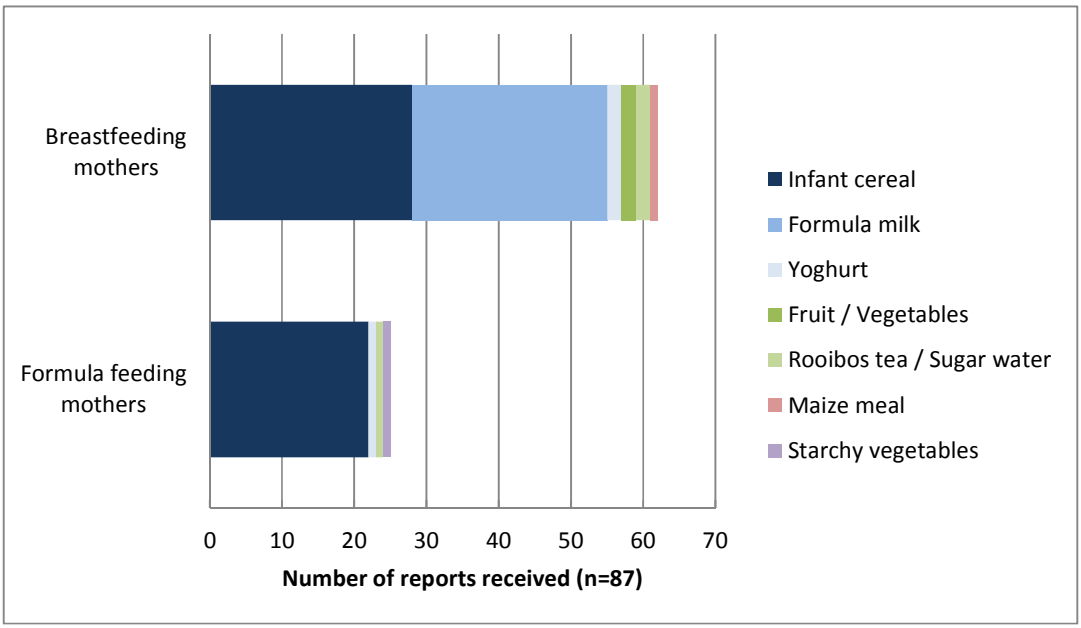

Figure 3.9: Nutritive liquids and/or food given

Barriers impeding exclusive feeding (n=68)

Hunger and that the infant needs more than milk outweighed any other reason for giving supplementary liquids and/or food (Figure 3.10). The thirty-eight breastfeeding mothers and twenty-three formula feeding mothers who gave supplementary nutritive liquids and/or food were allowed to report all reasons for giving these. Forty-four reports were received from breastfeeding mothers and the most frequently reported reasons were the mothers' perceptions that their infants were still hungry (n=27) and that their infants needed more than milk (n=12). Twenty-four reports were received from formula feeding mothers and the most frequently reported reasons were the mothers' perceptions that their infants were still hungry (n=16) and that their infants needed more than milk (n=5).

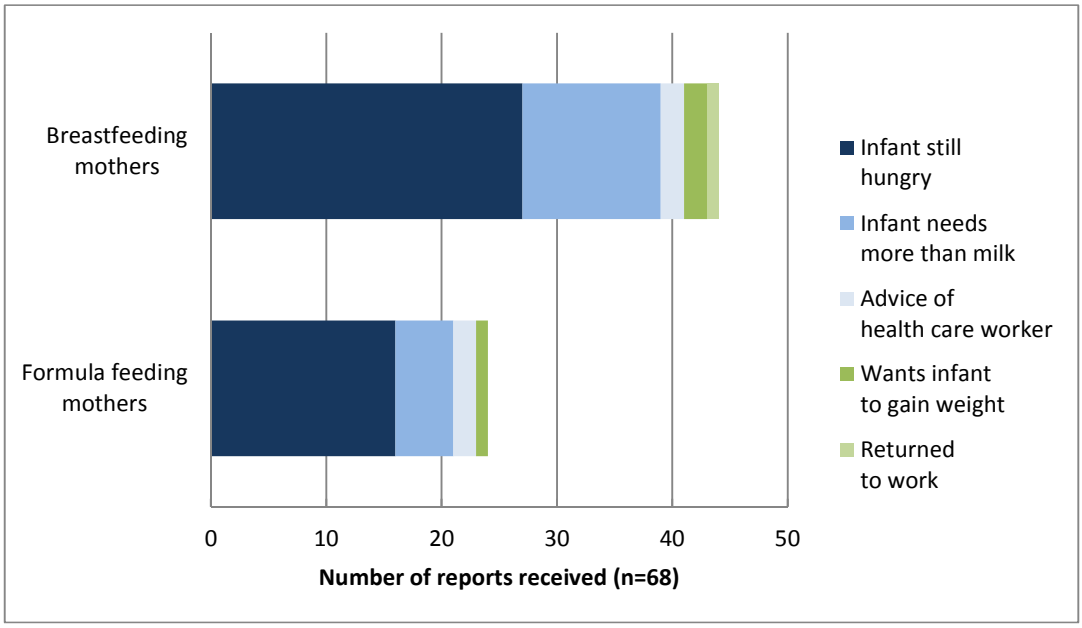

Figure 3.10: Reasons why nutritive liquids and/or food were given

Mothers from Zwelethemba (Chi-square p=0.031), Black African (Chi-square p=0.003) and isiXhosa mothers (Chi-square p=0.005), mothers with a primary school or no education (Chi-square p=0.011) and mothers who had not received assistance with breastfeeding initiation (Chi-square p=0.012) were more likely to have reported that their infants needed more than milk as the reason for giving food. There was no significant difference between breastfeeding and formula feeding mothers reporting that their infants were still hungry (Chi-square p=0.902) or that their infants needed more than milk (Chi-square p=0.401) as the reason for introducing nutritive liquids and/or food.

3.1.5.4 Preparation of formula milk (n=42)[‡‡‡]

All mothers who formula fed (primary feeding method) reported that they boiled the water before mixing the formula milk and that they used the scoop in the tin to measure level scoops of formula milk powder. According to their reports of how they reconstituted the formula milk, 45% (n=19) diluted the formula milk correctly, while 45% (n=19) over-diluted and 10% (n=4) under-diluted the formula milk (Figure 3.11).

[‡‡‡] One user missing value for reconstitution of formula milk.

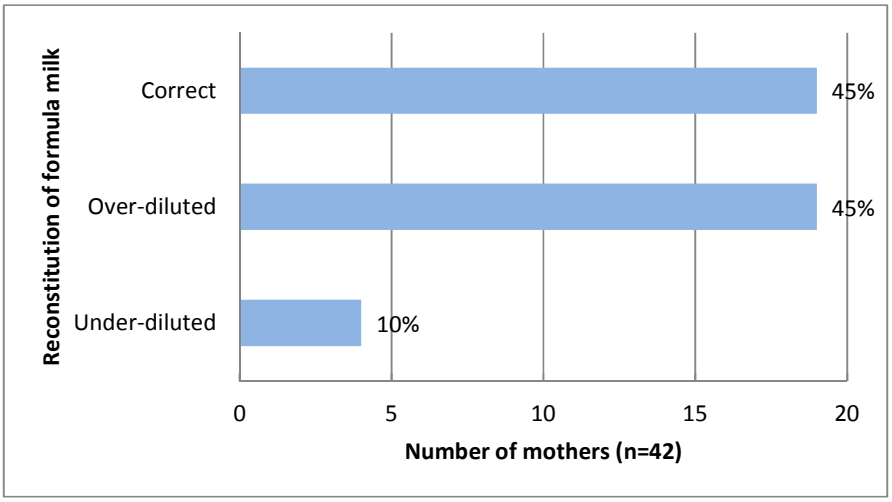

Figure 3.11: Reconstitution of formula milk

3.1.6 Infant feeding knowledge and key role-players in information and support

3.1.6.1 Basic infant feeding knowledge

Basic knowledge of early breastfeeding initiation and exclusive breastfeeding during the first six months of life were tested. Table 3.3 illustrates the infant feeding knowledge results and corresponding infant feeding practices.

Table 3.3: Infant feeding knowledge and practices

Group of participants	Action	Practice		Knowledge	
			n (%)		n (%)
Mothers who initiated breastfeeding (n=108)	Early initiation (≤1 hour).	Correct	103 (95)	Correct	95 (92)
				Incorrect	1 (1)
				Did not know	7 (7)
		Incorrect	5 (5)	Correct	3 (60)
				Incorrect	2 (40)
				Did not know	0 (0)
All mothers (n=140)	No water given before 6 months.	Correct	14 (10)	Correct	3 (21)
				Incorrect	5 (36)
				Did not know	6 (43)
		Incorrect	126 (90)	Correct	4 (3)
				Incorrect	110 (87)
				Did not know	12 (10)
All mothers (n=140)	No food given before 6 months.	Correct	79 (56)	Correct	57 (72)
				Incorrect	16 (20)
				Did not know	5 (6)
				User missing value	1 (1)
		Incorrect	61 (44)	Correct	21 (34)
				Incorrect	35 (57)
				Did not know	4 (7)
				User missing value	1 (2)
Mothers who still breastfed at the time of the interview (n=97)	Only breast milk during the first 6 months.	Correct	8 (8)	Correct	5 (63)
				Incorrect	2 (25)
				Did not know	1 (13)
		Incorrect	89 (92)	Correct	48 (54)
				Incorrect	34 (38)
				Did not know	7 (8)

Most mothers knew that breastfeeding should be initiated within the first hour after giving birth (91%, n=98). More than half of the mothers knew that food should only be introduced at six months of age (56%, n=78). Very few mothers knew that water should only be introduced by six months of age (5%, n=7) and 48% (n=67) of all the mothers reported that water should be the first feed of a newborn infant (Figure 3.12). When asked for how long an infant should drink only breast milk, 55% (n=53) of the breastfeeding mothers answered six months.

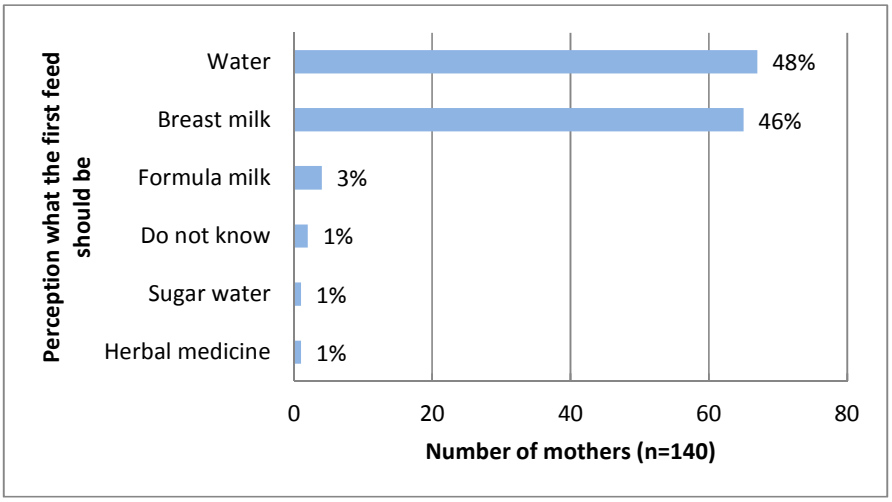

Figure 3.12: Perception of what the first feed should be

Correct knowledge was positively correlated with some infant feeding practices. Mothers who knew how soon breastfeeding should be initiated (Chi-square p=0.007), when water should be introduced (Chi-square p<0.001) and when food should be introduced (Chi-square p<0.001) were more likely to follow correct practices. The Chi-square test found no significant difference between the practices of mothers who knew and did not know for how long breastfeeding should be exclusive (Chi-square p=0.723).

Mothers from Avian Park (Chi-square p=0.028) and mothers who had received assistance with breastfeeding initiation (Chi-square p=0.027) were more likely to know how soon breastfeeding should be initiated. Mothers from Zwelethemba (Chi-square p=0.035) and Black African (Chi-square p=0.041) and isiXhosa-speaking mothers (Chi-square p=0.020) were more likely to know when water should be introduced. Mothers from Avian Park (Chi-square p<0.001), Coloured (Chi-square p<0.001) and Afrikaans-speaking mothers (Chi-square p<0.001) and mothers who had received assistance with breastfeeding initiation (Chi-square p<0.001) were more likely to know when food should be introduced.

3.1.6.2 Antenatal infant feeding information (n=140)

Mothers were allowed to report all key role-players but each mother reported only one. Two-thirds (66%, n=92) of the mothers reported that they had received infant feeding information during pregnancy. Viewed within the total study sample (including those who had not received information), 38% (n=53) of the mothers had received infant feeding information from a health care worker during pregnancy, while a quarter (25%, n=35) had received information from their mothers, and 34% (n=48) had reportedly received no information (Figure 3.13).

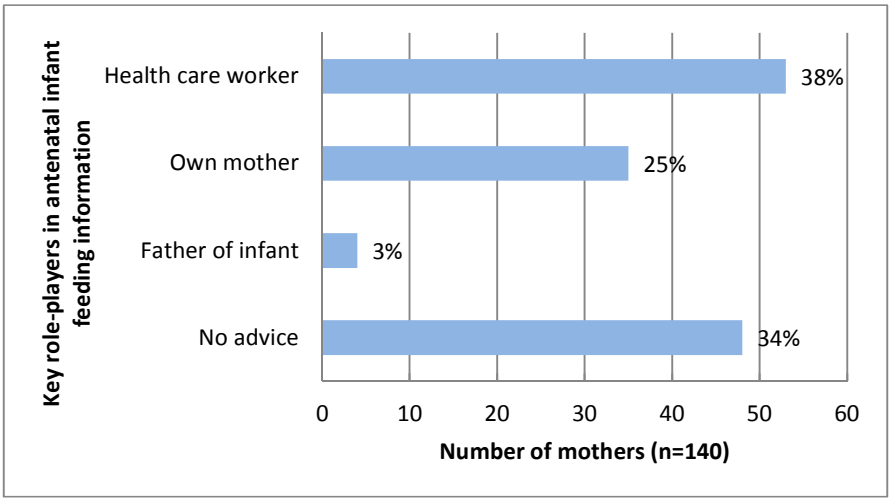

Figure 3.13: Key role-players in antenatal infant feeding information

Mothers from Avian Park were more likely to receive infant feeding information from their mothers during pregnancy while mothers from Zwelethemba were more likely to receive infant feeding information from health care workers during pregnancy (Chi square p=0.017). Of the health care worker group, nursing staff was identified as the main group of health care workers who gave information (81%, n=43).

3.1.6.3 Postnatal infant feeding information (n=140 mothers)

Nearly two-thirds (61%, n=86) of the mothers reported that they had received infant feeding information after birth while 39% (n=54) had reportedly received no information. Mothers were allowed to report all key role-players and eighty-eight reports of key role-players in postnatal infant feeding information were received. When interpreted together with the number of mothers who had received no information (total sample n=142), just over a third (33%, n=47) had received infant feeding information from a health care worker after birth, while 26% (n=37) had received information from their mothers (Figure 3.14).

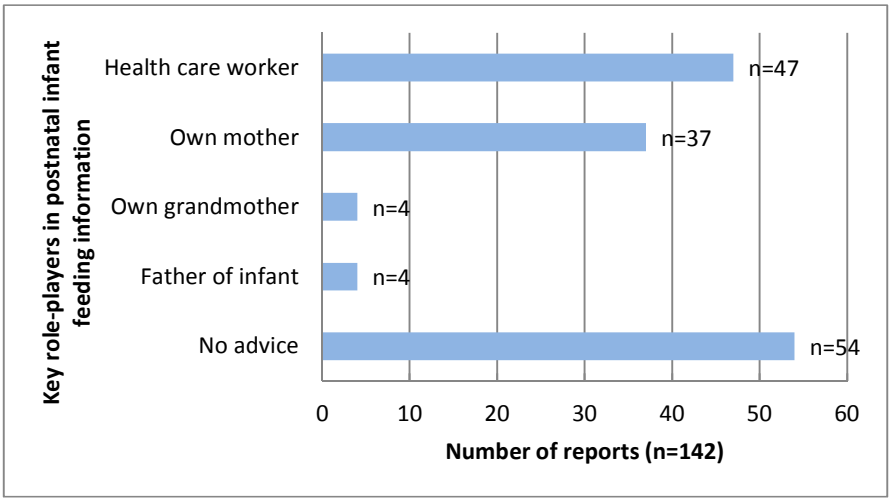

Figure 3.14: Key role-players in postnatal infant feeding information

Mothers who received postnatal infant feeding information from health care workers were significantly older (mean age = 27.3 years) than mothers who received postnatal infant feeding information from their mothers (mean age = 24.4 years) (Mann-Whitney p=0.04). Of the health care worker group, nursing staff was identified as the main group of health care workers who gave information after birth (89%, n=42).

3.1.6.4 Assistance with breastfeeding initiation (n=108)

Mothers were allowed to report all key role-players but each mother reported only one. Fifty-eight percent (n=63) of the breastfeeding mothers reported that they had received assistance with breastfeeding initiation. Viewed within the total study sample (including those who had not received information), 45% (n=49) of the breastfeeding mothers had received assistance from a health care worker, while 13% (n=14) of the breastfeeding mothers had received assistance from their mothers and 42% (n=45) had received no assistance (Figure 3.15).

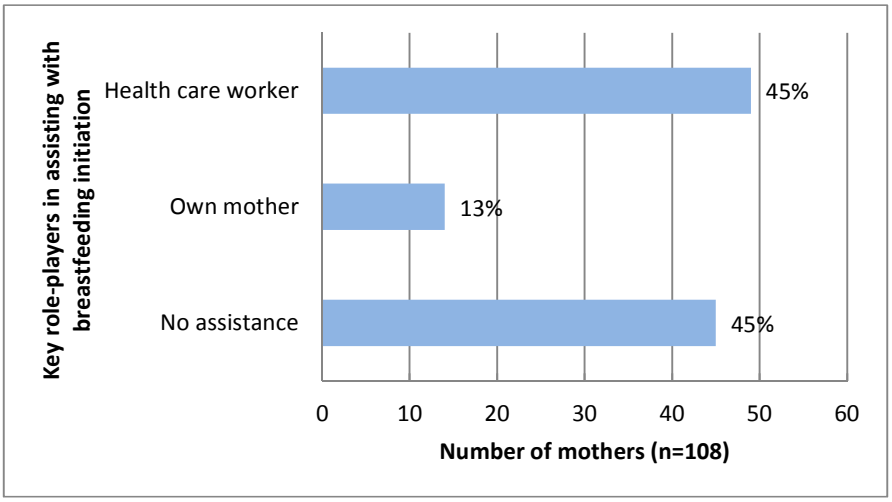

Figure 3.15: Key role-players assisting with breastfeeding initiation

Mothers who had given birth at Worcester CHC were more likely to have received assistance from a health care worker with breastfeeding initiation while mothers who had given birth at Worcester Regional Hospital were more likely to have received assistance from their mother with breastfeeding initiation (Chi-square $p<0.001$). Of the health care worker group, nursing staff were identified as the main group of health care workers who assisted with breastfeeding initiation (98%, n=48).

3.1.6.5 HIV and AIDS information sources (n=166)

Figure 3.16 illustrates the key sources of HIV and AIDS information. Mothers were allowed to give more than one key source of information and one hundred and sixty-six reports were received. Health care workers were the most frequently reported source of HIV information (54%, n=90), followed by own mother (19%, n=31), the media (8%, n=14), father of the infant (7%, n=12), and school (5%, n=9). Of the health care workers, sisters (n=39), counsellors (n=36), and nurses (n=11) were the main groups reported. Media sources reported were television (n=10) and radio (n=4).

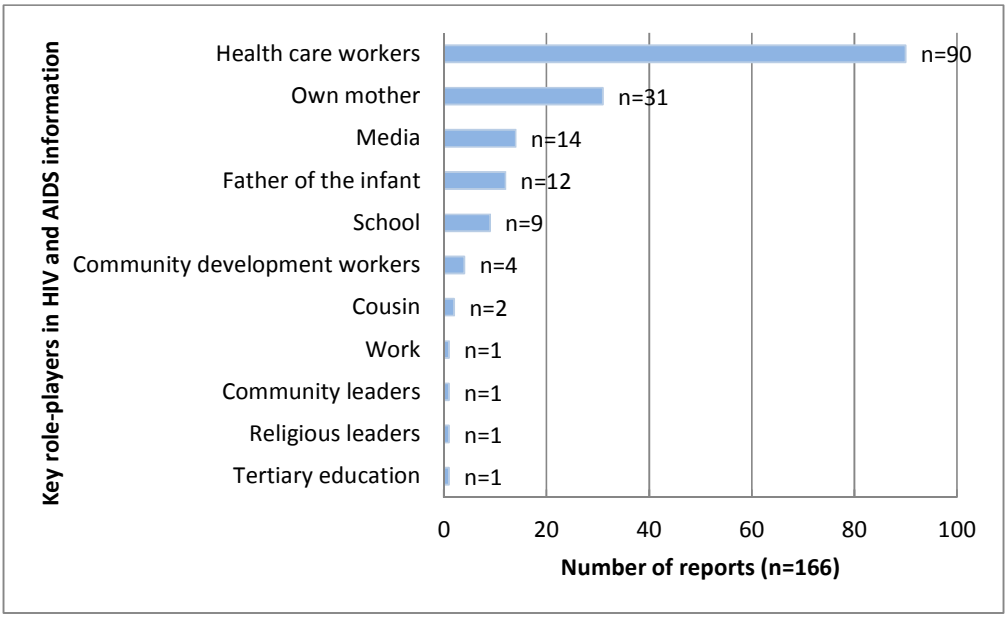

Figure 3.16: Key role-players in HIV and AIDS information

3.2 QUALITATIVE FINDINGS

3.2.1 Socio-demographic profile of focus group participants

The socio-demographic profiles of the respective focus groups are summarised in Table 3.4.

Table 3.4: Socio-demographic profile of the respective focus groups

Characteristics	Mothers who breastfed exclusively or predominantly (n=8; n=9)	Mothers who breastfed partially (n=9; n=10)	Mothers who did not breastfeed (n=10; n=10; n=9)	Fathers[§§§] (n=7; n=9; n=10)	Grandmothers[****] (n=9; n=11)	Health care workers[††††] (n=9)
Age (years)						
Mean	26.5 (SD 7.1)	25.3 (SD 7.6)	25.3 (SD 5.9)	24.3 (SD 5.1)	54.0 (SD 10.7)	44.1 (SD 10.0)
Range	15-39	16-42	16-40	14-38	31-71	28-57
Gender	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**
Female	17 (100)	19 (100)	29 (100)	0 (0)	20 (100)	9 (100)
Male	0 (0)	0 (0)	0 (0)	26 (100)	0 (0)	0 (0)
Ethnicity						
Black African	8 (47)	14 (74)	20 (69)	20 (77)	11 (55)	5 (56)
Coloured	9 (53)	5 (26)	9 (31)	6 (23)	9 (45)	3 (33)
White	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (11)
First language						
IsiXhosa	8 (47)	14 (74)	19 (66)	18 (69)	11 (55)	5 (56)
Afrikaans	9 (53)	5 (26)	10 (34)	7 (27)	9 (45)	4 (44)
Sesotho	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)
Marital status						
Married	6 (35)	3 (16)	3 (10)	2 (8)	14 (70)	3 (33)
Unmarried[‡‡‡‡]	11 (65)	16 (84)	26 (90)	24 (92)	6 (30)	6 (67)
Education						
None	0 (0)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)
Primary School	1 (6)	0 (0)	3 (10)	1 (4)	5 (25)	0 (0)
Grade 8-9	9 (53)	11 (58)	12 (41)	5 (19)	13 (65)	0 (0)
Grade 10-12	7 (41)	8 (42)	13 (45)	19 (73)	0 (0)	3 (33)
Tertiary	0 (0)	0 (0)	1 (3)	1 (4)	0 (0)	6 (67)
Employment status						
Employed	0 (0)	2 (11)	0 (0)	3 (12)	9 (45)[§§§§]	9 (100)
Unemployed	17 (100)	17 (89)	29 (100)	23 (88)	11 (55)	0 (0)
Child support grant						
Received	15 (88)	14 (74)	25 (86)	N/a	N/a	N/a
Not received	2 (12)	5 (26)	4 (14)	N/a	N/a	N/a

[§§§] Father of infant.
[****] Maternal or paternal grandmother of infant.
[††††] Health care workers included all levels i.e. formally trained staff (e.g. nurses, doctors) and staff who attended specific short course training to deliver a specific function (e.g. counsellors).
[‡‡‡‡] Include divorced and widowed.
[§§§§] Include pensioners.

3.2.2 Infant feeding practices

The focus group discussions described some infant feeding practices. Water was given by most mothers and grandmothers. Opinions on the practice of giving non-prescription and herbal medicines varied. Most grandmothers and some mothers supported this practice. In Zwelethemba, gripe water and herbal medicines were given while in Avian Park, gripe water and *Lennon's Behoedmiddel* were reported more frequently. Gripe water and *Lennon's Behoedmiddel* are over-the-counter products marketed for treating wind, stomach ache, colic and diarrhoea in children.

Many breastfeeding mothers gave additional formula milk and/or infant cereal and many formula feeding mothers gave additional infant cereal. Mothers emphasized that only soft food should be given and participants from Zwelethemba reported infant cereal and commercial infant food more frequently, while participants from Avian Park reported cooked soft porridge, starchy vegetables and Rooibos tea more frequently. Grandmothers and fathers agreed to these practices. Cow's milk was only given by one formula feeding mothers when she ran out of formula milk.

Meelbol, sometimes referred to as *ouma meelbol*, was given by both communities but appeared to be a more common practice in Avian Park. In Zwelethemba, only one grandmother mentioned *Meelbol* while in Avian Park, mothers, fathers and grandmothers reported that infants received *Meelbol*. *Meelbol* is cake or bread flour that is scorched brown and cooked like soft porridge. It was often given to the infant with a feeding bottle.

All the mothers who did not breastfeed gave formula milk as replacement feed. When asked why formula milk was given (compared to any other milk e.g. cow's milk), mothers explained that the milk in the tin was meant for infants, that clinics issued formula milk, that cow's milk was weaker and did not provide the same nutrition than formula milk, that cow's milk gave infants diarrhoea and made their stomach ache, and that it should only be drank by older children.

Mothers reported over-dilution of formula milk. Health care workers were concerned that formula fed infants were not getting enough milk, that formula milk was mixed incorrectly and that bottles were not cleaned and prepared in a hygienic manner.

"This is a new, a very young baby, maybe one month old, and then they mix one big bottle and give that same bottle right through the day till that bottle is finished..." (Health care worker, FGD)

Some mothers reported that they prepared a flask of formula milk for the night. They advised those mothers who did not have a flask to prepare a big bottle of milk and to wrap a warm napkin around it to

keep the milk warm. Others disagreed and alluded to the fact that formula milk should be drank immediately.

3.2.3 Key role-players in infant feeding

Mothers reported various people who influenced their infant feeding choices and practices but the key role-players were health care workers and their own mothers. Other sources of information and support included their grandmothers, other relatives, husbands and boyfriends.

Different degrees of support were reported by the infants' grandmothers. Some only assisted when their help was needed, while others ran the household and cared for the children while the mother was away at work or school. Grandmothers reported helping with night feeds and daily care routines like bathing the infants. Some gave formula milk in an effort to assist mothers with feeding and caring for their infants and others indicated that they supported the mothers by ensuring that they had enough food for herself. Young and first-time mothers felt more unsure and took advice from their mothers since they themselves were raised by them. One of the married mothers reported that she took advice from her husband since he bought food for the infant.

3.2.4 Factors promoting optimal breastfeeding practices

3.2.4.1 Translating correct infant feeding messages into practice

Mothers and grandmothers based their choice to breastfeed or to support breastfeeding on the understanding that breast milk was the best milk, contained all the necessary nutrients, was healthy, and satisfied the infant. Based on observations or experiences and when compared with formula feeding infants, breastfed infants were perceived to grow better, to bond better with their mothers, and to struggle less frequently with illnesses. Furthermore, mothers highlighted that breast milk was readily available and that breastfeeding was convenient, especially at night-time.

Few mothers fed exclusively. Those who did reported that they understood that water and supplementary liquids and/or food were unnecessary and unhealthy for their infants. Those who fed predominantly felt that infants needed water but not necessarily food since breast milk or formula milk provided all the necessary water and nutrients. Other reasons reported were that food was not needed, that the infant was still too young, that the gut was not ready for food, and that food led to constipation and more frequent episodes of illness. Some explained that they were told by their doctor not to give food.

There was an understanding of the importance of infant weight gain. Mothers and grandmothers frequently mentioned that health care workers assessed their infants' weights with clinic visits and that they aimed to ensure that their infants' weights were within the acceptable range.

"When I take my baby to the clinic the sister will always say your baby is at the right age, the baby is not overweight, they say the baby gets enough milk from my breast and the child is always healthy. And to add, the baby grows very healthy and very fast from breast milk." (Breastfeeding mother, FGD)

Based on this understanding, some mothers did not give food since they were scared that their infants might be overweight at the clinic visit. Furthermore, HIV-infected mothers mentioned that health care workers emphasized exclusive breastfeeding and that if something happened to their infants, health care workers would know that they gave water or food. However, when the weight of infants who received food were at an acceptable level, these mothers and grandmothers also interpreted that they were feeding correctly since their infants were growing well.

3.2.4.2 Infant reaction

Some mothers did not give food since their infants refused food or they felt that it made their infants bothersome. They also felt that some infants choked on food. Breastfeeding mothers who did not give water explained that they preferred to give breast milk until the infant was strong enough to drink water from a cup.

3.2.4.3 Cost-effectiveness of breastfeeding

Mothers reported that they saved money with breastfeeding. Some mothers reported that they could not afford formula milk or that they preferred breastfeeding to prevent dependence on others to provide money for formula milk.

One mother who breastfed predominantly indicated that breast milk was readily available irrespective of economic circumstances, while formula milk and infant cereal relied on the availability of money.

"The reason I give breast milk only is because I know that I won't have enough money to buy formula milk every time, or buy porridge every time so I know that the breast milk is always there." (Breastfeeding mother, FGD)

3.2.5 Barriers impeding optimal breastfeeding practices

3.2.5.1 Fear of transmitting HIV

Health care workers reported HIV infection as one of the most frequently reported reasons why mothers did not breastfeed. Mothers reported that they decided against breastfeeding since they feared transmitting HIV to their infants. One mother explained that since health care workers emphasized that breastfeeding had to be exclusive in order to be safe, she decided to formula feed to be able to give food without putting her infant at risk.

"Since I am HIV positive, I don't want to put my baby at risk, so that is why I decided to bottle feed and give her food, because they say at the clinic when one is HIV positive they should not breastfeed and give food at once, so that is why I decided to give formula so that she will be safe. As a parent, let's say I am HIV positive, so I won't give her my breast milk because I don't want to put her as risk." (Formula feeding mother, FGD)

A breastfeeding mother advised that mothers should breastfeed and not give formula milk since they received it for free from the clinic. One health care worker felt that the subsidized formula milk given at health care facilities undermined breastfeeding promotion and promoted formula feeding. She felt that the health care system should rather focus on education and breastfeeding promotion to HIV-infected mothers.

"Breastfeeding, it's just so… how can I put is, I love it very much and I wish a lot of mothers would breastfeed, especially mothers who are HIV positive. I think this thing that they are being given milk at the clinics, it's… it's not right, because it looks like the health care system is promoting bottle feeding because they say breast milk is the best milk and yet they give out milk to mothers and mothers have this perception that children that are being breast fed have more chances of being infected with HIV/AIDS. I think if they would promote breastfeeding and promote… mmm, give people information, tell them if you do this, if you do that your child will not be infected, you know, there are certain things and criteria that people can follow, you understand, it… it makes me mad when it seems like when you are HIV positive you cannot breastfeed your baby." (Health care worker, FGD)

Stigmatization was not explored. There were only few focus groups participants who shared that they were HIV-infected and none reported any experience of stigmatization. Nestlé Nan Pelargon® was the formula milk provided by the PMTCT programme at the time of the study. Various positive associations with Nan Pelargon® were reported by mothers and grandmothers from both communities. They descibed it as the best formula milk based on explanations from doctors that it was almost like breast milk, tasted like breast milk, contained all the vitamins and that their infants would be as healthy as breastfed infants. One grandmother felt that all brands of formula milk except Nan Pelargon® caused constipation.

3.2.5.2 The perceived need for water and non-prescription medicines

Most mothers and grandmothers reported that they gave their infants and grandchildren water. Mothers felt responsible for their infants' health and related the practice of giving water to being responsible. Water was given for good health, to clean the urine, to help with constipation, to work off the acid caused by milk, and to stop hiccups. Grandmothers agreed and added that water prevented dehydration and took away jaundice. Some mothers and grandmothers explained that only little water was needed and that it should

always be boiled and cooled. Grandmothers further explained that water should only be given at certain times of the day and never early in the morning.

A few grandmothers from Zwelethemba reported giving herbal medicines to prevent or ease cramps and flatulence and to take away jaundice. Overall, grandmothers supported the practice of giving non-prescription medicines. Gripe water (in both communities) and *Lennon's Behoedmiddel* (in Avian Park) were given to help with growth, to ease cramps and flatulence and to help with constipation. Some mothers gave these non-prescription medicines while others preferred to give only water.

Water and gripe water were given to crying infants and reportedly helped them to sleep better. Health care workers were concerned about the additional fluids given by mothers and grandmothers and felt that it was only done to keep infants quiet and asleep.

"All those extra fluids, they just make the child keep quiet and sleep." (Health care worker, FGD)

One mother from Avian Park mentioned that another mother from her community gave her infant cordial syrup to keep him quiet.

"Stronger" medicines seemed to be unacceptable and grandmothers had warned mothers against using it since they believed it weakened the infant's heart. Mothers also indicated that health care workers warned them against giving medicine since it made infants sleepy and acted like a drug.

3.2.5.3 The concern that milk alone does not satisfy the infant

Breastfeeding mothers, formula feeding mothers and grandmothers felt that infants did not get enough from breast milk or formula milk. Fathers agreed that milk was not enough and that food should be given to provide nutrients and promote growth. This perception of mothers and grandmothers was based on infant reaction, where mothers reported that their infants cried or that they could "see" that their infants were still hungry.

Crying behaviour seemed to be more important than the advice received from health care workers to breastfeed exclusively since mothers still chose to supplement the milk feeds.

"I think it's not enough because they explained to me but I saw that my baby doesn't get enough from breast milk, so I thought it's better if I fed him." (Formula feeding mother, FGD)

Mothers and grandmothers reported giving water and/or food to stop infants from crying and fathers supported the practice of giving formula milk and/or food since it made infants sleep well.

"She sleeps well, she was like that when she was full from eating and drinking, she might wake up once during the night." (Father, FGD)

Furthermore, mothers found that once fed additional formula milk (to breastfed infants) or food (to breastfed or formula fed infants), infants stopped crying.

"She does not get enough, she gets hungry soon and then she keeps on crying but if I give her a bit of that soft food, then she plays." (Breastfeeding mother, FGD)

"The baby does not get full and she cried terribly, when the bottle is finished she cries and I can see on her face that she is hungry, she still wants something. That is why I decided to buy porridge, and then she was calmer, after I gave her two spoons." (Formula feeding mother, FGD)

Fathers felt it was good to have formula milk bottles ready for when infants got difficult.

"Yes, two bottles are prepared and ready, so if he gets a bit difficult, bottle." (Father, FGD)

Health care workers agreed that mothers interpreted crying as a sign of hunger, which led to doubt in milk feeds and supplementary formula milk and/or food. They also felt that grandmothers instigated this link between crying and hunger. Health care workers further explained that mothers interpreted crying as a sign of hunger since they were unsure of the amount of milk that was drunk during a breastfeed. They reported that some mothers felt reassured if they knew exactly how much milk their infants were drinking and therefore preferred formula feeding. They were however concerned that some mothers expected infants to drink more than what was needed. They also raised concerns that formula milk and/or food were given to keep infants quiet and asleep.

3.2.5.4 Inadequate infant feeding education and support by the health system

Health care workers seemed well informed and correct infant feeding messages were reported. They emphasized exclusive breastfeeding, listed the various advantages of breastfeeding, agreed that HIV-infected mothers can breastfeed and reported that mothers should express breast milk if they were separated from their infants.

"Babies younger than six months, they should, if the mother chooses to breastfeed, she must only breastfeed exclusively if she chooses to formula feed, she must only formula feed exclusively, she mustn't give the baby water, any food, any herbal medication or any other or gripe water, nothing, only breast if she chooses to give breast milk, only breast, and if she chooses to give formula, only formula feeding for six months." (Health care worker, FGD)

"Because breastfeeding is the best milk, it makes the baby and the mother bond, both of them bond, unlike bottle feeding the baby sits there but when you're breastfeeding, you cuddle with the child, you bond with your baby in a certain way, unlike being bottle fed, so I think breast milk is the best milk." (Health care worker, FGD)

However, mothers reported different experiences with regard to the availability of infant feeding information and felt that some mothers were uninformed. Grandmothers raised a concern that infant feeding education at clinics had taken the form of pamphlets since health care workers carried a high work load and did not have enough time to educate each mother.

"Unfortunately these days the mothers come out of the clinic with a pamphlet, she must go read it at home, the clinic doesn't have a chance to sit down and teach the mother because the nurses have too much on their hands." (Grandmother, FGD)

Health care workers confirmed that they did not always have enough time to give mothers all the information but that there were always posters on the walls and pamphlets available. This apparent lack of comprehensive individual or group counselling was despite reports from health care workers that they played an essential role with infant feeding education. They felt that mothers trusted their advice and they were concerned about mothers being uninformed or misinformed and the growing problem of poor infant feeding practices in the communities.

"I would say infant feeding is a growing problem in the community because if all your kids are malnourished, what type of adult is he gonna be." [Health care worker, FGD]

Mothers reported that they did not always understand the information on posters or pamphlets. The lack of individual or group counselling resulted in mothers seeking further advice and support from relatives and key role-players.

"She will get that information from her family or from the community." (Grandmother, FGD)

Health care workers seemed frustrated with mothers who did not listen to them, who took advice from others or who did what *they* felt was right.

"Yes, there is enough information, it's just the fact that people are ignorant, people don't read things that are put up… …most places that there would be information would be the clinics there's always pamphlets, there's always posters and stuff, people are just ignorant, they believe what they believe. (Health care worker, FGD)

One health care worker felt that mothers might not have been getting all the information needed.

The thing is the information, we have it, whether we give it all to the patient is a different question, because we don't have, we don't see that patient often or that mother, we see her at six weeks, maybe sometimes a bit early if the child is sick […][*****] *So whether we have information, the question is does the mother get it?*

One mother reported conflict about infant feeding practices between herself and health care workers. There was laughter within the group insinuating that more mothers might have been familiar with such conflict. This specific mother felt that some health care workers were rude and that they should explain to her what to do rather than scold her.

"I personally have had many fights with the sisters at the clinic since what I am doing with my child, they tell me, it is not like that you should not do that, understand? But they don't show me or they don't tell me in a nicer way what to do with the child. You get very rude sisters." (Formula feeding mother, FGD)

Furthermore, mothers expressed a need to understand the underlying mechanism of infant feeding messages, since they were challenged with crying infants and relatives advising differently than health care workers, leaving them uncertain and confused. They highlighted the need to understand why nutritive liquids and/or food should not be introduced before the age of six months.

"I can say sometimes we don't get enough information because if they say six months, then the mother would ask what to do if my baby cries, the baby wants food, that six months is too far. If they say we must wait until the baby is six months before we feed solids, then they need to explain to us what happens to the baby if the baby is fed before 6 months." (Formula feeding mother, FGD)

Fathers and grandmothers questioned mothers' interest and willingness to use information, especially the younger mothers.

Mothers reported some breastfeeding challenges which could have been prevented with adequate infant feeding education and support. Mothers who wished to breastfeed reported that they were obliged to formula feed since they had no milk at birth or that the infant did not want to latch to the breast. One mother suspected her milk to be too weak or salty and reported that the infant rejected the milk. Other negative experiences and medical complications reported were sore breasts, engorgement and blocked ducts.

[*****] Indicates that text has been modified to facilitate readability.

3.2.5.5 The lack of community-based postnatal support

All participants highlighted the need for postnatal support with infant feeding. Community-based support was emphasized since they felt that the health care system was burdened with a high work load, that mothers did not necessarily visit the clinic if they had feeding problems and that mothers often found themselves in a situation where they needed help immediately. Health care workers explained that feeding problems might have already established once mothers returned to the clinic for the six-week follow-up visit.

"So what I'm saying is breastfeeding clinics and breastfeeding support groups is going to do it because then they can give information whenever it's needed because they don't come to us with breastfeeding problems, they come for weighing, immunization and that's where we pick up the problems and then it's an old problem." (Health care worker, FGD)

A need was expressed for ongoing infant feeding education, demonstrations and support, especially for young mothers, first mothers and mothers who did not have support at home.

Suggestions included more school- or community-based talks on breastfeeding, training programmes run by mothers from the community, breastfeeding support groups, and weekly home visits by breastfeeding workers.

"Why can't they like establish a group of breastfeeding workers, if there are births at the hospital, get that group to go and do home visits because we don't do it anymore, go do home visits. There are babies, they are under six months, go once a week and go see if everything is going well with that mother and the baby so that if she has a question, it can be asked there in the house." (Health care worker, FGD)

Furthermore, a recommendation was made for breastfeeding houses, where people from the community willing to assist with breastfeeding could be identified and mothers then be allowed to go to their homes for advice and support.

3.2.5.6 Convention and family influence

While health care workers illustrated good infant feeding knowledge, grandmothes and fathers were less knowledgeable and reported incorrect perceptions about infant feeding. Grandmothers felt that food should be introduced between three and four months of age. They felt that infants who ate food grew well and were more intelligent and attentive than other infants of the same age. They cautioned that infants differed and that some had to be weaned at an older age since they were not strong enough and their gut not developed well enough. Fathers reported that they observed mothers and deduced from their actions that infants younger than six months should mostly be drinking breast milk or formula milk but should also

be eating food. Fathers felt that infants should be eating porridge and most references were made to commercial infant cereal. In Zwelethemba, fathers frequently mentioned the commercial brand Purity® as suitable food for infants. Some negative connections were made to crumbly maize porridge. One father explained that he received crumbly maize porridge when he grew up and that he believed that it lacked some nutrients and had a bad influence on his development. For these reasons he did not want his child to eat crumbly maize porridge.

Inconsistent feeding messages between health care workers and people from the community caused mothers to distrust the information and some preferred following their own perceptions. Health care workers agreed that family members played a vital role with supporting mothers but raised concerns and frustrations that advice given by family members conflicted with information given at health care facilities. Health care workers felt that mothers understood messages and left with good intentions but that influence exerted by family members led mothers to practice differently from what they agreed to at the health care facility.

"Because you can talk to the client, the client will listen, yes, I'm hearing what you're saying but when she comes there, when she has to do the reality, it changes." (Health care worker, FGD)

One health care worker admitted to being overpowered herself, where despite having the knowledge, did what her grandmother advised her to do.

Mothers reported that family members advised them to give water, gripe water, formula milk and food since their infants were crying, not drinking, or not getting enough from breastfeeding. This challenge was also highlighted by a health care workers.

"You can talk until you're blue in the face at the hospital or the clinic about breastfeeding, that mother is going to get problems at home because the baby is not drinking or maybe the baby is not latched on correctly but now the elders feel the baby isn't drinking, so give water, give teat, give extra stuff, so I think the real problem lies in the community…" (Health care worker, FGD)

One mother explained that she was told at the hospital not to give non-prescription medicines. Back home, her mother questioned this practice and argued that non-prescription medicines have been given to infants for years. The mother explained that since she was unsure as to why non-prescription medicines should not be given, she could not answer or challenge her mother and eventually gave the medicines.

"All that I'm saying is that when I went to the hospital with my baby for the four days, they told me I should not give the medicine bottles. Then my mother asked why, because it has been done for years, now she

wants to know why we must should not use it anymore, they only say you should not use it anymore, you should not buy it for the children." (Formula feeding mother, FGD)

Mothers knew what health care workers expected of them and hid inappropriate practices when visiting the clinic. They reported rubbing the infant with powder and Vaseline to hide the smell of medicines. One mother explained that she fed her infant food before going to the clinic and then breastfed at the clinic. She did this to feel reassured that her infant was satisfied while also pleasing the health care workers.

Furthermore, while fathers, grandmothers and reportedly other members of the community seemed supportive of breastfeeding, they also supported and accepted formula feeding. Breastfeeding was supported on the basis that the infant was healthier and that formula milk was expensive, while formula feeding was supported on the basis that infants could be fed by anyone and that it was easier to look after formula fed infants when their mothers were away. Some of the mothers who never breastfed reported that elders advised them to formula feed since they would return to school and the elders then had to look after the infants. Some grandmothers felt that mothers should breastfeed when they were at home but that there should also be formula milk to enable grandmothers to feed infants when the mothers were not home.

"When the mother goes to or comes back from work, she must breastfeed the baby enough. If the mother is not there, then you give infant formula." (Grandmother, FGD)

Fathers seemed to play a limited role with infant feeding. Mother and fathers felt that the father's main role was to work and provide financially for the mother and infant. This was often done in the form of formula milk and food and not necessarily money. Fathers reported that they wanted to know what their infants were eating to budget and provide for that. Furthermore, both mothers and fathers identified formula feeding as a method of involving the father and sharing the work load since fathers could assist with mixing the milk or feeding the infant. Feeding the infant or giving water with a bottle was also seen as an opportunity for the father to bond with the infant. Fathers felt that information on infant feeding should be brought closer to the community and both mothers and fathers recommended support programmes for fathers. Some fathers reported feeling shy or embarrassed talking about or enquiring about infant feeding. Some shared the same views about feeding and looking after infants. They explained that their friends might make fun of them and that the sisters at the clinic would laugh at them if they came to ask about infant feeding. They also felt that mothers would laugh at them if they heard their opinions on infant feeding.

"I don't think the fathers can go to the clinic and ask the sister about the infant feeding they will laugh at us just like now if we were having ladies in this focus group they will laugh at us about these opinion." (Father, FGD)

One mother from Zwelethemba reported that her boyfriend got shy when she breastfed in public and that he would have preferred for her to formula feed. However, she felt comfortable enough and continued breastfeeding in public. She reported that women who passed by acknowledged that she was doing the right thing by breastfeeding and she felt supported in her decision.

3.2.5.7 Mother separated from infant

Some mothers decided against breastfeeding since they knew they would be separated from their infant when they returned to work or school, and that by formula feeding they were able to leave the infant with someone else.

"I decided not to breastfeed so that when I start working I can leave the baby with someone else." (Formula feeding mother, FGD)

This reason was also reported for discontinuing breastfeeding.

"And the reason why I moved him to formula is that he did not get enough from my breast, and one of these days I have to go back to work, so I am making him used to the formula." (Breastfeeding mother, FGD)

Formula feeding mothers reported that it was easier to leave a formula fed infant with caregivers and that people were reluctant to look after breastfed children since they perceived them to be too attached to the mother and naughty.

"And it is much better for us as mothers to have a child that drinks the bottle for when you have to go and work, because people do not want to look after a breastfed child, because a breastfed child is… naughty… you see." (Formula feeding mother, FGD)

One breastfeeding mother who changed to formula feeding when she returned to work explained that she feared that her infant would cry when she left him with the caregiver.

Fathers felt that mothers who went back to school did not want to breastfeed.

Only two grandmothers reported that they requested the mothers to express breast milk so that they could feed the infants breast milk when the mothers were away. The one grandmother did so since the infant did not like formula milk and the other did so since the grandmother wanted to feed the infant breast milk.

3.2.5.8 Local beliefs about maternal behaviour and breastfeeding

In Avian Park, some breastfeeding mothers and grandmothers believed that breast milk was affected by the emotions or actions of mothers. One mother reported that she breastfed while feeling stressed and that she knew the stress carried over to her infant since he slept very uneasy after that feed. She mentioned that she should have expressed the "stressed" milk before breastfeeding. Grandmothers also explained that milk can become sour in the breast if there is a long period between feeds and that the "sour" milk should be expressed before breastfeeding. They also reported that mothers should not breastfeed if they had sexual intercourse with a man other than the father of the infant, since the milk was then "upset" and would cause stomach cramps or illness. One mother reported that she experienced it herself when her child became very difficult. These beliefs were not reported in Zwelethemba.

3.2.6 Barriers to safe formula feeding

3.2.6.1 Lack of knowledge

Formula feeding mothers, fathers and health care workers were concerned that not all formula feeding mothers knew how to correctly reconstitute formula milk. They reported that mothers did not always read or understand the instructions on the label and that they took advice from elders when they were unsure about how to mix the milk.

3.2.6.2 Cost of formula milk

Formula feeding mothers and grandmothers indicated that formula milk was expensive and only lasted a few days. Some mothers depended on the child support grant or their family for financial support. Various mechanisms of saving formula milk to save on cost were reported. Some of the mothers reported over-dilution of formula milk or giving less milk than required. Fathers reported that they noticed the practice of over-dilution.

"But you know the mothers when they making bottles for the babies, they don't follow the instructions written at the back of a formula milk tin, I think they are saving because they pour small amounts of milk and lots of water, that is not right the baby can get sick." (Father, FGD)

Some mothers did not approve this practice of over-dilution and felt that weak milk was bad for infants. Another mechanism reported was to prepare less formula milk, whereby the milk was reconstituted correctly but smaller bottles were given. Health care workers raised concerns that formula feeding mothers did not feed frequently enough and that infants got too little milk.

In Avian Park, mothers and grandmothers mixed formula milk with *Meelbol* to create a "bigger bottle" in order to satisfy the infant while saving formula milk.

"That is why I say I mix it with the Meelbol *when we make it half, to come out with the tin of milk."* (Formula feeding mother, FGD)

Formula milk was also frequently supplemented with water, Rooibos tea, *Meelbol* or porridge.

"Since he doesn't drink the breast, he only drinks bottle and he doesn't get full from the bottle and there is not that much milk to give a bottle the whole day, then I found out that I must give him porridge and he got calmer because his stomach is now full." (Formula feeding mother, FGD)

One mother breastfed and one mother gave cow's milk when they ran out of formula milk. A grandmother explained that she gave water when there was nothing else to give.

3.2.7 Overview of information received from focus group discussions

Table 3.5 gives an overview of the different groups interviewed and their views in brief on the main topics discussed.

Table 3.5: Overview of the different groups interviewed and their views in brief on the main topics discussed

	Breastfeeding mothers (Four focus groups)	**Formula feeding mothers** (Three focus groups)	**Grandmothers** (Three focus groups)	**Fathers** (Two focus groups)	**Health care workers** (One focus group)
Choice of breastfeeding and initiation	Supported. Healthy. Cost-effective.	Not supported. HIV. No milk. Returning to work or school.	Supported. Healthy. Cost-effective.	Supported. Healthy. Cost-effective.	Supported. Healthy. Cost-effective. Bonding.
Water	Supported. Most within first month. Needed for health. Cleans infant's system. Constipation. Keeps infant quiet.	Supported. Most within first month. Needed for health. Cleans infant's system. Constipation. Keeps infant quiet.	Supported. Needed for health. Cleans infant's system. Constipation. Dehydration. Jaundice. Keeps infant quiet.		Not supported.
Non-prescription and herbal medicine	Gripe water and *Lennon's Behoedmiddel* supported by some. For cramps and wind.	Gripe water and *Lennon's Behoedmiddel* supported by some. For cramps and wind.	Gripe water and *Lennon's Behoedmiddel* supported – given for cramps and wind. Herbal medicine given by some for jaundice. "Stronger" medicines not supported.		Not supported.
Nutritive liquids and food	Supported. Milk insufficiency (crying, hunger). Infant left with relatives/caregiver.	Supported. Milk insufficiency (crying, hunger). High cost of formula milk.	Supported. Growth and intelligence. Milk insufficiency (crying, hunger). Infant left with relatives. High cost of formula milk.	Supported. Nutrients. Growth and intelligence. Milk insufficiency (crying, hunger). Infant sleeps well.	Not supported.
Types of nutritive liquids and food given	Formula milk. Commercial infant cereal. Soft porridge (maize meal). *Meelbol.*	Commercial infant cereal. Soft porridge (maize meal). *Meelbol.*	Commercial infant cereal. Soft porridge (maize meal). *Meelbol.*	Commercial infant cereal. Purity® products. Vegetables.	Not supported.
Cessation of breastfeeding	Returned to work or school. Infant left with caregiver. Milk insufficiency (crying, hunger).				Express breast milk and breastfeed frequently to maintain milk supply.

Formula feeding	Advises breastfeeding, but formula feeding acceptable.	Acceptable. Report over-dilution of formula milk and unhygienic practices.	Acceptable. Concerned about incorrect reconstitution of formula milk.	Acceptable. Concerned about incorrect reconstitution of formula milk.	Advises breastfeeding. Concerned about incorrect and unhygienic formula feeding practices.
Infant feeding advice and support	Health care workers. Own mother. Other relatives.	Health care workers. Own mother. Other relatives.	Draws from own experiences. Convention. Traditional beliefs.	Information not available in community. Shy/embarrassed. Not willing to go to clinic.	Offered at health care facility. Pamphlets/posters. Time constraints. Aware that family members also give advice.

CHAPTER 4: DISCUSSION

4.1 INTRODUCTION

In 2011, South Africa declared a countrywide commitment to actively protect, promote and support exclusive breastfeeding as a public health intervention to optimise child survival.[160] This provides a strong basis for role-players to influence the health system, communities, families, mothers and the media to dedicate themselves to breastfeeding and establishing a culture of exclusive breastfeeding during the first six months of life.

The study aimed to determine the feeding practices of primary caregivers of infants (0-5.9 months) and the influencing factors in Avian Park and Zwelethemba in Worcester, in the Western Cape Province of South Africa, in order to make recommendations, where appropriate. Breastfeeding improves child survival by protecting against diarrhoeal disease and pneumonia while providing nutritional and psychosocial benefits[20,28-31] and the promotion of exclusive breastfeeding for the first six months of life is estimated to be the most effective measure to save infants from morbidity and mortality in low-income settings.[30] Despite these benefits, exclusive breastfeeding for the first six months remains a rare practice in South Africa.[35,54,66,77,78] Various factors influence infant feeding choice and practices and substantiates the need to re-think the approach to promoting exclusive breastfeeding and establishing a culture of exclusive breastfeeding during the first six month of life.

This chapter will discuss the infant feeding practices and influencing factors that were explored in Avian Park and Zwelethemba. Quantitative and qualitative methods were used to obtain baseline data of infant feeding practices and to identify and explore the enabling factors and barriers to breastfeeding initiation and exclusive breastfeeding during the first six months of life.

4.2 SOCIO-DEMOGRAPHIC FINDINGS

One hundred and forty primary caregivers participated in the study, all the biological mother of the infant. Their ages ranged from 15 to 45 years with a mean age of 26.4 years and the majority were unmarried, unemployed and had attained high school education. The gender and age distribution of the infants differed from the South African population. There were more male (56%, n=79) than female infants (44%, n=61), while in South Africa, 48.7% of the population is male and 51.3% female. In general, more males are born than females and gender-ratios decrease as age increases. The gender-ratio in this study was 130 (i.e. 130 males for every 100 females) while the national gender-ratio was reported as 102 in 2011.[161] The reasons for the skewed gender distribution are unknown. Two-thirds (66%, n=93) of the infants were younger than three months compared to an expected equal distribution among the age groups. This was likely influenced by mothers who returned to work or school and had no other household members at home at the time of the sampling (in which case she could not have been contacted for an appointment).

Significant socio-demographic differences between the two communities were identified. Mothers from Avian Park were more likely to be Coloured, Afrikaans speaking, and have Grade 8-9 as highest level of education. Mothers from Zwelethemba were more likely to be Black African, isiXhosa speaking, and have Grade 10-12 as highest education level. There was no significant difference between the employment status of the two communities (p=0.53) or between the education level of employed and unemployed mothers (p=0.13). The child support grant was only received by 30% (n=42) of the mothers. This low percentage was expected since the sample was young and infant age showed a significant impact on the receipt of the child support grant. Despite no significant difference between the mean age of infants from the two communities (p=0.41), mothers from Avian Park were more likely to have received the child support grant (p<0.001). This was unexpected, since mothers from Avian Park had to travel to town to apply for the child support grant, while mothers from Zwelethemba could apply at a centre situated in Zwelethemba. It might have been that more mothers from Avian Park had ID documentation by the time they gave birth, were more informed about the child support grant or were more reliant on the child support grant.

4.3 INFANT FEEDING PRACTICES

Although breastfeeding was accepted and commonly practised by mothers from these communities, the initiation rate of 77% was lower than rates seen in developing countries (95%),[5] the national rate (88%)[76] and rates reported in other rural and peri-urban areas of South Africa (88% - 100%).[35,66,77] Similar to findings in Cape Town,[66] early initiation of breastfeeding was evident and 95% of the breastfeeding mothers had initiated breastfeeding within the first hour after giving birth.

Consistent with previous research findings in South Africa,[79,85,162-165] most of the mothers who discontinued breastfeeding had done so before the infant age of three months. The percentage of infants who were never breastfed (23%) was similar to the findings of the South African Demographic and Health survey performed in 2003 which showed that 20% of infants nationally had never been breastfed.[78]

Worldwide, most women do not practice exclusive breastfeeding for the first six months of life.[5] In Avian Park and Zwelethemba, exclusive breastfeeding was a rare practice. Despite the young infant group, only 6% (n=8) of the mothers breastfed exclusively at the time of the study. This is consistent with national exclusive breastfeeding rates for 1998 (6.8%)[79] and 2003 (8.3%)[80] and UNICEF's State of the World's Children report for 2000 to 2007 (7%),[81] but much poorer than the national exclusive breastfeeding rates reported in 2008 (25%).[76] The latter rate reported by the South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, is significantly higher than previous national reports,[79,80] and should be interpreted with caution until further reports substantiate this increased rate. The poor national

exclusive breastfeeding rates and the lack of significant improvement prompted this study's investigation into factors that influence infant feeding practices (0-5.9 months) to inform intervention strategies and future research studies.

The early introduction of water, nutritive liquids and/or food is well documented in South Africa.[35,54,66,77,79,85,162-165] Similar to findings by Fjeld *et al*,[107] mixed feeding was the conventional way to feed and consistent with the findings of Sibeko *et al*[66] in a peri-urban area of Cape Town, predominant breastfeeding was the most common method of feeding. There was a significant difference in breastfeeding practices between the two communities. Partial breastfeeding was more common in Zwelethemba while predominant breastfeeding was more common in Avian Park (p=0.001).

These two communities portrayed typical urban feeding practices. The total percentage of infants receiving nutritive liquids and/or food (44%) was fairly similar to the findings of Steyn *et al*[85] in urban communities (50%). Commercial infant cereal was the food most commonly given, similar to practices reported for urban areas[35,77,107] and dissimilar to practices reported for rural areas[35,66] in which maize meal porridge was commonly used. Consistent with previous research in Zambia,[107] qualitative findings indicated that mothers had positive attitudes towards formula milk and commercial infant cereal. Second to infant cereal, breastfeeding mothers from Avian Park and Zwelethemba gave formula milk in addition to breast milk.

Qualitative findings highlighted that in Avian Park, *Meelbol* was given to infants. A flour-based porridge is lower in energy and nutrients than breast milk,[166] inappropriate for infant feeding,[56] and may contribute to constipation. Interestingly, grandmothers and formula feeding mothers frequently reported constipation during the focus group discussions and explained that they treated it by giving water. This illustrates the spill-over effect of inappropriate practices where one inappropriate practice led to another.

Consistent with findings by Kruger *et al*,[54] most mothers in this study who breastfed predominantly or partially had introduced water within the first month of life and nutritive liquids and/or food within the first three months of life. There was no significant difference between breastfeeding and formula feeding mothers and the introduction of water before one month of age (p=0.359) and nutritive liquids and/or food before three months of age (p=0.413).

While Buskens *et al*[65] found that most mothers from South Africa used non-prescription or herbal medicines, very few accounts of this practice emerged from the quantitative reports. Qualitative findings indicated that gripe water, *Lennon's Behoedmiddel*, and herbal medicines, were still supported by some mothers and grandmothers and were given to prevent or treat cramps, flatulence and jaundice.

All mothers who never initiated breastfeeding or who had discontinued breastfeeding (31%, n=43), used formula milk as replacement feed. However, despite the correct choice of product, nearly half (45%, n=19) of the mothers over-diluted the milk. Combined with less reliable water sources (e.g. tap outside their house or communal tap) and poor hygiene practices such as mixing one big bottle for the day or keeping a flask of formula milk next to the bed at night, infants are put at risk of gastroenteritis, constipation, poor weight gain and malnutrition.[54,56,60]

4.4 KEY ROLE-PLAYERS IN INFANT FEEDING

Similar to other studies,[93,107] both quantitative and qualitative findings showed that various people influenced infant feeding choice and practices but that health care workers and maternal grandmothers were the key role-players in infant feeding and HIV information. Noteworthy, was the mention of doctors in the qualitative discussions, where Nan Pelargon® was regarded as the best formula milk based on advice from doctors. This is likely connected to the PMTCT programme, where Nan Pelargon® was the formula milk provided to HIV-infected women at the time of the study. It is possible that an assumption was made that clinics and hospitals provide the best formula milk. Alternatively, the mothers who reported this finding might have been HIV-infected and received their milk or information about Nan Pelargon® from a doctor at discharge from the labour ward. Doctors are generally trusted by clients and any reference to Nan Pelargon® by a doctor may likely have influenced the perception that it is the best formula milk.

Once back home, grandmothers were most involved with the upbringing of their grandchildren. Qualitative findings indicated that especially young and first time mothers relied on their mothers for advice and assistance. Quantitative results showed that mothers who received infant feeding advice from their own mothers after birth were significantly younger than mothers who received infant feeding advice from health care workers (p=0.04). Studies indicated that older family members exerted great influence over adolescents since they were still socially and economically dependent.[90] Furthermore, as described by Bentley *et al*,[167] adolescents might feel insecure since they are inexperienced and naturally turn to their mothers or other female relatives for advice. Buskens *et al*[65] described that unemployed mothers relied on other household members for financial support and might therefore lack autonomy in decision-making. This was illustrated by a report from a married mother who explained that she took advice from her husband since he bought the food. This subordinate role has implications for feeding practices and may prevent mothers from doing what they know is best.

4.5 FACTORS PROMOTING OPTIMAL BREASTFEEDING PRACTICES

4.5.1 Translating correct infant feeding messages into practice

From both quantitative and qualitative findings, it appeared that mothers were aware of the nutritional and protective benefits of breastfeeding to the extent that most mothers had initiated breastfeeding for these key reasons. Similar to previous findings,[65,66] mothers described breast milk as superior and the perfect food for infants. Weight gain and the absence of illness has also been associated with breastfeeding before.[11,90] Convenience and bonding were mentioned less frequently and seemed to have a smaller impact on choice than in other low-resource settings.[65]

However, while encouraging breastfeeding initiation, the understanding of these messages did not appear to impact on exclusive breastfeeding rates. Only a few mothers understood the underlying mechanism and implemented the principles of exclusive feeding.

Mothers and grandmothers understood the importance of infant weight gain and that it was related to infant feeding and growth patterns. The positive impact of this understanding was that some mothers refrained from giving food since they were scared that their infant would become overweight. However, this understanding also led to the misconception that an acceptable infant weight justified feeding practices, which resulted in mothers and grandmothers who fed partially or predominantly feeling confident that they were doing the right thing.

4.5.2 Infant reaction

Mothers deduced from their infants' reaction that they were not ready for eating food. This highlighted the positive aspect of not force feeding but suggested that mothers based some of their decisions, either positive or negative, on what they perceived their infants wanted.

4.5.3 Cost-effectiveness of breastfeeding

Both quantitative and qualitative findings revealed that some mothers chose to breastfeed since it was cost-effective. The prohibitive cost of formula milk contributed to the choice of breastfeeding and similar to previous findings,[11,90] the economic benefits of saving money and avoiding financial dependence on others were reported by breastfeeding mothers. However, some mothers reported that they breastfed since they could not afford formula milk, creating a sense that if they had the opportunity, they would have formula fed. This might have related to the description of Latham[43] in 1997 that formula feeding is sometimes perceived as a modern practice, especially by urban communities.

4.6 BARRIERS IMPEDING OPTIMAL BREASTFEEDING PRACTICES

4.6.1 Fear of transmitting HIV

Based on self-reported HIV status, 13.7% (n=19) of the mothers were HIV-infected. This rate is similar to the estimated HIV prevalence of 14.9% in the Cape Winelands District.[61] Despite the finding that mothers with a self-reported HIV positive status were more likely to support breastfeeding by an HIV-infected women, all mothers who reported a positive HIV status (n=19) had chosen to formula feed. Formula feeding has been reported as a common practice among HIV-infected women in South Africa[64,65,86] but studies seldom report that *all* HIV-infected women of a particular sample chose formula feeding. Consistent with previous research,[35,64,64,90,168] the perceived risk of HIV transmission through breastfeeding seemed to outweigh the risk of other life threatening diseases or infections if infants were not breastfed. During the focus groups discussions, mothers stated that they feared HIV transmission and quantitative results indicated maternal HIV infection as the most frequently reported reason for not breastfeeding (74%, n=14). This fear was also illustrated by HIV-infected mothers from a previous study[65] who breastfed since they could not afford formula milk but who indicated that they would have preferred formula feeding if they had the means to do so. It is unknown if mothers from this sample received comprehensive infant feeding counselling within the context of HIV i.e. how to weigh the benefits of breastfeeding and the risks of not breastfeeding against the risk of HIV transmission to make a safe and appropriate feeding choice within their resource-limited settings.

There was a negative perception about breastfeeding in the context of HIV among the majority of the mothers in this study. Most felt that HIV-infected women should not breastfeed their infants (78%, n=109). This perception was based on the understanding that if HIV-exposed infants were to be breastfed, they would become HIV infected or die. This understanding is a barrier to the implementation of the revised infant feeding guidelines in the context of HIV.

The health system's provision of subsidized formula milk to mothers who are HIV-infected has been widely criticised for creating mixed messages, promoting the use of formula milk and contributing to childhood morbidity and mortality.[2,11,131] Exclusive breastfeeding was found to be more common in countries that did not provide formula milk through the health system than in countries that did.[124] Neither quantitative nor qualitative findings indicated the provision of subsidized formula milk as the reason for formula feeding in this study. The extent to which subsidized formula milk contributed to the mothers' perception that HIV-infected women should not breastfeed is unknown. The termination of the provision of subsidized formula milk by the PMTCT programme was phased in by the National Department of Health during 2012.[130] This decision was made in concurrence with South Africa's adoption of the revised WHO guidelines on HIV and infant feeding and the declaration that the country will actively protect, promote and support exclusive

breastfeeding as a public health intervention to optimise child survival.[71,160] This has implications for HIV-infected mothers from low-income settings who would have preferred to formula feed. However, it creates the opportunity for large-scale promotion of exclusive breastfeeding regardless of maternal HIV status and enables a shift from feeding choices driven by fear of HIV transmission to feeding choices driven by an understanding of overall infant health and survival. The Western Cape Department of Health indicated in 2012 that mothers who chose to formula feed would still receive subsidized formula milk. This decision was made to allow for sufficient time and opportunity to scale up breastfeeding promotion and support by means of standardized infant feeding counselling with emphasis on the role and importance of ARV treatment, advocacy and social mobilisation.[169]

As in other studies,[11,65] HIV-infected mothers seemed to believe that they could safely give additional food if the infant is formula feed. Given the widely-held belief that infants need food before six months, this served as an additional motivation for choosing formula feeding over breastfeeding.

No mention of stigmatization was made during any phase of this study, which is contrary to other reports of social stigmatization connected to HIV[65,90] and the collection of subsidized formula milk from health care facilities.[11] Qualitative findings suggested that the provision of subsidized formula milk has created a perception among some formula feeding mothers and grandmothers that Nan Pelargon® (the product provided by health care facilities at the time of the study) was the best product.

An important finding is that of the eleven HIV-exposed infants tested at the time of the interview, six (55%) were HIV-infected. This finding raises questions about antenatal and intrapartum PMTCT care in health care facilities and the presence of breastfeeding among mothers who reportedly formula fed.

4.6.2 The perceived need for water and non-prescription medicines

Consistent with previous research[11,65,66] quantitative and qualitative reports indicated that water was given by most mothers for reasons deeply rooted in beliefs and perceptions that water contributed to infant health and solved various symptoms or ailments. Nearly half of the mothers (48%, n=67) reported that water should be the first feed of a newborn infant and the majority (83%, n=104) had given water before their infants were one month old. Giving water was supported and promoted by grandmothers, the key role-player with advice and assistance for most mothers once back home. Quantitative results also indicated that mothers who had received assistance from their mothers with breastfeeding initiation were more likely to introduce water before their infants were one month old (p=0.048). While some mothers and grandmothers highlighted that only little water was needed, the volume given by most was unclear. The practice of giving water is of concern since it may introduce contaminants, solutes or allergens,[170] cause hyponatremia if given in excessive amounts,[171] lead to a shorter duration of breastfeeding,[172,173]

cause breast milk displacement, and contribute to less frequent breastfeeds and breast milk depletion[107] which may lead to undernutrition.[34-36] Furthermore, a fifth of the mothers who gave water or formula milk ran a higher risk of infant diarrhoeal disease since their source of water was a tap outside their house or a communal tap.

Based on quantitative reports, non-prescription or herbal medicines were rarely given. Qualitative findings indicated that many mothers understood that non-prescription medicines were not needed and that they preferred to give only water. However, some mothers and especially grandmothers believed in gripe water and *Lennon's Behoedmiddel* for flatulence and cramps and gave it to infants or advised mothers to give it to their infants. "Stronger" medicines were not approved by grandmothers since they believed it weakened the infant's heart. Reports that health care workers warned mothers against medicines since it made infants drowsy suggest that medicines other than gripe water and *Lennon's Behoedmiddel* were still given by some. Few accounts of giving herbal medicines were received. It was mostly grandmothers who mentioned giving herbal medicines and contrary to practices in other rural settings where herbal medicines were given for cleaning purposes or colic,[65,66] these grandmothers gave it to ease flatulence and jaundice.

It seemed that water and gripe water served as a convenient pacifier when infants cried and were reportedly given by some mothers and grandmothers to quieten the infant. A mother from Avian Park mentioned that one mother gave her infant cordial syrup to keep him quiet. Both gripe water and cordial syrup are sweet-tasting liquids and it has been hypothesized that the taste may sooth the infant,[174] leading to the required outcome and motivation to continue this practice.

4.6.3 The concern that milk alone does not satisfy the infant

Both quantitative and qualitative reports indicated that mothers and grandmothers were not convinced that breast milk alone satisfied infants, a perception deduced from infant crying behaviour. Similar to other studies,[11,65,111] fathers also reported that in addition to breast milk, infants should eat food since milk is a drink and not food[65] and does not provide all the needed nutrients.[11] The perception of breast milk insufficiency is a well-known barrier to exclusive breastfeeding[107,136,138,175-179] and commonly cited as the reason for premature supplementation of breast milk with other liquids and/or food. Obermeyer *et al*[180] and van Esterik *et al*[106] referred to it as the "insufficient milk syndrome" where disempowered women perceive their breast milk as "not enough" in terms of quantity and "not good enough" in terms of quality. Relevant to the findings of this study, the phenomenon of breast milk insufficiency has been associated with inadequate breastfeeding knowledge, poor breastfeeding technique and infant crying behaviour.[131,135-137] Qualitative reports indicated that this perception of insufficiency was also made by formula feeding mothers, a finding not frequently reported and described as a new concept by Nor *et al* in 2011. Formula

milk insufficiency may be related to over-dilution of formula milk,[11] a practice reported by nearly half of the formula feeding mothers in this study.

Reports that some mothers could "see" that their infants "wanted more" after they finished their milk have been cited before.[11] Similar to findings by Fjeld *et al*,[107] mothers seemingly failed to distinguish hunger from other reasons for crying and assumed that a crying infant was not satisfied from drinking milk and needed additional formula milk or food to satisfy hunger. This perception outweighed the advice received from the health care worker to practice exclusive breastfeeding and supplementary formula milk or food was given. Furthermore, consistent with findings by Nor *et al*[11] and Kaufman *et al*,[111] mothers found that if they gave their crying infants additional formula milk or food, they stopped crying and slept. This was perceived as a positive development and justification for mixed feeding. This is an important finding, since it is critical to understand the underlying mechanism for the interpretation of milk insufficiency and for refining messages promoting exclusive breastfeeding. Giving complementary food based on an incorrect perception of breast milk insufficiency may result in actual breast milk insufficiency based on less frequent feeds and the physiological need for frequent suckling to maintain breast milk production.

Buskens *et al*[65] reported insufficient maternal food intake as a reason for doubt in the quantity and quality of breast milk. Similarly, a grandmother in this study related sufficient food intake to adequate production of good quality breast milk. Since they did not always have enough food at home, she doubted the quality of her daughter's breast milk and felt that the infant should also receive food to supplement the breast milk. Some micronutrients in breast milk depend on the dietary intake of the mother but in general maternal undernutrition does not have a significant impact on the quality of breast milk.[181] Breastfeeding should never be discouraged based on the belief that the maternal diet is suboptimal[45] and by providing nutritional support to a breastfeeding mother instead of the infant, both the mother and infant will benefit.[181]

Similar to other studies,[93,102] health care workers reported that some mothers preferred formula feeding to breastfeeding since they wanted to know exactly how much milk their infants were drinking to be reassured that they were drinking enough. Health care workers correctly identified the risk of this perception, where mothers might overestimate the volume of milk that had to be drunk and then assumed that their infants were not drinking enough if they did not finish the bottle of formula milk.

4.6.4 Inadequate infant feeding education and support by the health system

Both quantitative and qualitative findings revealed that health care workers, especially nurses, were most frequently reported as the source of infant feeding information. This is similar to findings by Sibeko *et al*[66] and is promising since health care workers are expected to be more knowledgeable on infant feeding than

the lay public. Individual and group counselling by health care workers has also been found to increase the odds of exclusive breastfeeding.[10] Within the limited setting of the focus group discussion, health care workers showed good knowledge of the fundamental principles of breastfeeding and exclusive breastfeeding. They also felt that mothers trusted their advice and they regarded their role as providers of infant feeding information as essential. However, many mothers in this study reported that during pregnancy, they received no infant feeding information (34%, n=48) or information from their mothers (25%, n=35) and made no mention of health care workers. Similarly, many mothers reported that after birth, they either received no infant feeding information (39%, n=54) or information from their mothers (26%, n=37) and made no mention of health care workers.

Further exploration in the focus group discussions revealed shortcomings in infant feeding counselling where pamphlets and posters seemed to replace counselling due to high workload and a lack of time. Doherty *et al*[89] found that very busy antenatal clinics challenged proper and complete counselling and that shortcomings in infant feeding counselling negatively affected the choices of mothers. Since messages on posters and pamphlets were not always understood, mothers turned to their own mothers for further advice or practised what they thought was suitable, which led to conflict with health care workers. Utilising alternative sources of infant feeding information poses a risk of misinformation, conflicting messages, confusion and a generational cycle of incorrect infant feeding practices based on conventional practices or beliefs. Health care workers were frustrated with mothers for not reading the available information or for following the advice of others but did not seem to realise that the lack or inadequacy of counselling contributed to these practices. Only one health care worker realised that having information available at the clinic did not necessarily translate to mothers being informed. Success in behaviour change is more likely when a multiple-method approach appropriate to the specific audience is used. Education and promotion are particularly effective when printed materials are used along with face-to-face communication since individuals can ask questions and get reassurance during interpersonal communication while printed materials can be taken home and viewed repeatedly.[182]

Another important shortcoming of infant feeding counselling revealed by the focus group discussions was the lack of explanation for why certain infant feeding practices were recommended. Similar to respondents in another study,[11] mothers were aware that food and other liquids should only be introduced at six months of age but wanted to understand the underlying mechanism of this practice. Without this understanding, mothers felt unsure and easily doubted this practice when faced with a crying infant. Furthermore, mothers could not convince influential family members who advised otherwise that exclusive breastfeeding was the correct practice to follow since they themselves did not understand why it was a better practice. This is an important finding and indicates that mothers have a need to *understand* the reasons for the infant feeding guidelines and to develop negotiation skills. Mothers from these

communities *want* to understand. This is a positive development towards behavioural change and the establishment of exclusive breastfeeding practices.

The lack or inadequacy of infant feeding counselling is a key finding. UNICEF's Conceptual Framework for causes of undernutrition[21] depicts inadequate education as a basic cause of malnutrition and mortality. Previous research indicates the importance of antenatal infant feeding counselling in feeding choice, breastfeeding initiation,[93] and on-going exclusive breastfeeding,[64,117] and the key role that follow-up education plays in overcoming barriers to breastfeeding.[93] The lack of infant feeding knowledge has been reported as a reason for not breastfeeding[102] and this study highlighted the significance of correct infant feeding knowledge by demonstrating an increased likelihood of early breastfeeding initiation ($p=0.007$) and the practice of not giving water ($p<0.001$) or food ($p<0.001$). Literature shows that breast-related problems challenge breastfeeding practices, especially if the mother is uninformed on how to manage these problems and continue breastfeeding.[35,66,93,138] The medical complications reported in this study were challenges that could have been prevented with adequate infant feeding education and support.

Comprehensive and explanatory counselling has the potential to greatly influence mothers' understanding and dedication to exclusive breastfeed and should form the foundation of holistic interventions to improve breastfeeding and exclusive breastfeeding rates.[10,89,93,117] It is fair to expect that in some cases mothers might not be interested in the information, choose to do what they feel is suitable or follow the advice of others, but this does not imply that infant feeding counselling at health care facilities should be compromised.

Support with the initiation and establishment of breastfeeding is a key element in the success of breastfeeding and increases exclusive breastfeeding rates.[114,117] Support with breastfeeding initiation seemed lacking, significantly more so at Worcester Regional Hospital than at Worcester CHC ($p<0.001$). While all but one mother gave birth in a hospital, less than half (45%, n=49) of the mothers who breastfed had reportedly received help from a health care worker with breastfeeding initiation. Similar to findings by Fjeld *et al*,[107] quantitative and qualitative reports reflected missed opportunities, where mothers who planned on breastfeeding never successfully initiated breastfeeding since they had difficulty latching or felt that they had no or too little milk. Difficulty with latching led to the interpretation that the infant did not want the breast and that their milk was too weak or salty. Proper support with breastfeeding initiation could have addressed such challenges and supported the successful establishment of breastfeeding. Neither Worcester Regional Hospital nor Worcester CHC was an MBFI accredited facility at the time of this study. In support of improving national breastfeeding rates, an accelerated drive to have all birthing facilities MBFI accredited by 2015 commenced after the National Consultative meeting on Breastfeeding in August 2011.[160] Accreditation of these two birthing units will positively affect breastfeeding support since

The Ten Steps to Successful Breastfeeding[33] set a supportive environment for breastfeeding initiation[114] and have been shown to improve breastfeeding initiation rates.[115]

4.6.5 The lack of community-based postnatal support

No platform for postnatal support other than the six-week clinic visit was reported. Qualitative findings highlighted that all participants expressed the need for community-based postnatal support for mothers that is easy to access when needed. Already in 1993, the WHO indicated that the key to optimal breastfeeding practices is on-going, daily support to a breastfeeding mother within her home and community.[128] The importance of follow-up support was also highlighted by Fjeld *et al*[107] who asserted that a mother in doubt is at higher risk of returning to conventional practices of mixed feeding. Breastfeeding prevalence is significantly higher when a combination of facility-based support and a programme of follow-up home visits are followed, compared to facility-based support alone.[120] Community-based support is an important follow-up strategy to facility-based support. Extending health care to communities have been seen to contribute to continued exclusive breastfeeding practices[64,119] and a combination of professional and lay support has been shown successful in prolonging breastfeeding.[117]

The Western Cape Department of Health employs community care workers who are trained to perform certain screening and health services as part of the community-based services programme and have shown promising results with breastfeeding promotion.[123] Community-based services have been reported as an under-utilized resource that might significantly aid primary health care efforts to improve child health.[119] None of the participants mentioned visits from community care workers. Home visits and community peer supported is cost-effective and have been shown to have a positive impact on exclusive breastfeeding.[112,120,122,124,125] The success of such interventions are based on regular visits, from soon after birth,[7] and frequent visits showed the best results.[112,122]

Breastfeeding support groups managed by community members is the postnatal follow-up strategy of the MBFI (the tenth step of The Ten Steps to Successful Breastfeeding[33]) and was suggested by health care workers for post-natal support. If both birthing units were to become MBFI accredited, implementing, redefining and expanding this step of establishing breastfeeding supports groups can intensify breastfeeding support. It has been reported that this step is often poorly implemented. For community support to succeed there has to be supportive action by the health system and full partnership with the community. Programmes that work closely with community leaders and members seem to have greater impact on breastfeeding outcomes.[183]

A supportive structure that proved successful in the Eastern Cape was the infant feeding buddy system where a pilot study indicated that the support of a designated person throughout pregnancy and after birth

promoted exclusive breastfeeding for six months. This method also enabled health care workers to educate and influence the role-players offering the support.

4.6.6 Convention and family influence

Literature indicates that family and community pressure lead to early cessation of exclusive breastfeeding[35,66,67,77,138] and that these role-players do not always understand the value of exclusive breastfeeding.[90] Quantitative reports indicated that of all the role-players in the community, grandmothers were most frequently reported as the source of infant feeding information. Grandmothers were less knowledgeable on infant feeding practices and seemed to give advice based on perceptions, experiences, convention, or cultural practices. Grandmothers did not seem to agree with some of the messages given by health care workers and supported the practice of giving water and certain non-prescription and herbal medicines, and introducing food between three and four months of age. This was similar to previous research findings.[54,75,107] Fathers were also convinced that infants had to eat food, similar to perceptions reported by fathers from Zambia.[107]

Different messages from different role-players led to confusion and mistrust in the information which made some mothers practice what they thought was suitable. This risked inappropriate feeding practices. Similar to other studies,[11,107] some mothers found themselves in a difficult position where they had to make a decision based on contradictory messages from health care worker and family members. Infant feeding counselling by health care workers seemed to be directive and not explanatory, which did not allow mothers to develop the understanding, reasoning skills and confidence needed to negotiate infant feeding practices with family members. It is well documented that family members, especially grandmothers and other elder relatives, exert great influence on infant feeding practices.[35,65-67,77,107,138] This was again demonstrated in this study when a health care worker explained how despite having the appropriate knowledge, she followed the advice of her grandmother. Despite good intentions, mothers might prefer to follow the advice of relatives in order not to disappoint them or to respect them.[107] Consistent with findings by Buskens *et al*[65] and Fjeld *et al*,[107] mothers also explained that they followed the advice of their mothers since they themselves were living proof of their mothers' capability to raise children.

The practice of silently rejecting the advice of health care workers by hiding inappropriate practices has been reported before[11,107] and Buskens *et al*[65] found that advice which conflicts with personal perspectives or beliefs was not easily accepted.

Despite general support for breastfeeding, relatives and fathers also accepted and supported formula feeding. Relatives who knew that they had to look after infants once the mothers returned to work or school seemed to favour formula feeding since they felt it would then be easier to look after the infants.

This is an important finding since adolescents are socially dependent[90] and less experienced,[167] making them more vulnerable to such advice. This may greatly impact on breastfeeding initiation and continuation among younger mothers.

Consistent with previous findings,[65,107] fathers were not necessarily the role-players from whom infant feeding advice was sought and both fathers and mothers reported that the father's role was to provide material support. Similar to previous research findings, formula feeding was seen as a way in which fathers could help with the workload[102] and bond with the infant.[107] However, support by means of providing or feeding formula milk and food impedes exclusive breastfeeding practices. There was a sense that fathers were interested in knowing what was best for their infants but that infant feeding was seen as a "women's thing". Fathers were not comfortable going to clinics for information or speaking with women about infant feeding and deduced their perceptions of infant feeding from mothers' actions. In Zwelethemba, some fathers made negative connections to maize meal porridge and felt that it was inferior to commercial infant cereal. Many fathers regarded infant cereal and Purity® products as appropriate food for infants.

4.6.7 Mother separated from infant

Both quantitative and qualitative findings indicated return to work or school as one of the reasons why mothers never initiated breastfeeding or ceased breastfeeding. This reason is frequently reported in the literature as a barrier to breastfeeding.[35,66,93,102] Consistent with previous research findings,[65,66,102] formula milk was given to infants when the mother was away and the infant left with caregivers. Mothers who formula fed explained that it was easier for other people to look after formula fed infants since they cried less and could be fed with a bottle, while breastfed infants were clingy, naughty, constantly wanting the breast and crying when the mother was away. A sense of independence was linked to formula fed infants and formula feeding was perceived as easy and convenient. The sense that caregivers preferred looking after formula fed infants suggests that certain conditions might have been attached to caring arrangements. As seen in this study, dependence on others to look after infants led mothers to changing their infant feeding practices.

Expressing breast milk was seldom mentioned. Only two grandmothers mentioned that they requested their daughters to express in order to feed breast milk. The perceived discomfort to look after a breastfed infant and the convenience of formula feeding may be some of the factors contributing to the rare practice of expressing breast milk. Previous studies found that some mothers made negative connections to expressing breast milk based on a lack of knowledge and understanding.[73,133] A challenge to working and school-going mothers is the lack of facilities accommodating breastfeeding or expression of breast milk at work places and schools. The Tshwane declaration committed to review legislation regarding maternity benefits in order to protect and extend maternity leave and to ensure that all workers, even if not

permanently employed, have maternity benefits.[160] A positive development after the Tshwane declaration was that the implementation plan directed the Employment Equity Unit to address the maternity protection legislation, Directorate Nutrition to advocate for the establishment of baby-friendly workplaces, Directorate Child Health to engage the Department of Education to allow learners to continue breastfeeding their infants, and Department of Labour to educate mothers on using their maternity leave optimally for breastfeeding and to educate domestic and farm workers on their maternity benefits.[184]

4.6.8 Local beliefs about maternal behaviour and breastfeeding

Mothers and grandmothers from Avian Park reported breastfeeding beliefs similar to those reported in the literature[43,65,66,107,138] There was a perception that certain actions of mothers could affect the quality of their breast milk and that "sour", "stressed" and "dirty" milk should be expressed and discarded. As cited by other studies,[65,107] there seemed to be an understanding that emotions or sickness was carried to the infant through breast milk. As describes by Buskens *et al*,[65] mothers understood and accepted that HIV was transmitted through sexual intercourse and breastfeeding. This understanding might have caused the perception that everything that happened to the mother would affect her breast milk and might transmit to the infant. It is an important finding that these beliefs are still evident in Avian Park and infant feeding education should clarify these understandings. These beliefs were not reported for Zwelethemba. This may be attributed to the difference in ethnicity and culture, but leads to the question whether these beliefs were not present, or just not reported.

A challenge at national level is violation of the International Code of Marketing of Breast milk Substitutes. Violations have been documented in 1998 already[145] but South Africa only legislated the International Code of Marketing of Breast milk Substitutes in 2012.[146] This allowed for uncontrolled marketing of breast milk substitutes and did not support exclusive and continued breastfeeding practices.[139,145]

4.7 BARRIERS TO SAFE FORMULA FEEDING

4.7.1 Lack of knowledge

Similar to previous studies,[60,90] qualitative findings indicated that health care workers, grandmothers and fathers were concerned that not all mothers understood or followed the preparation instructions on the label of the formula milk tin. Faber *et al*[60] found that language barriers, illiteracy or innumeracy challenged the correct understanding and execution of instructions on formula milk. Health care workers reported that they explained to mothers how to formula feed safely, but the extent to which they went to ensure that mothers understood is unknown.

4.7.2 Cost of formula milk

Consistent with previous research,[11,75,90] formula feeding mothers realised that formula milk was expensive and that a tin of milk only lasted a few days. From quantitative and qualitative reports it seemed that reasons such as returning to work or school and perceived breast milk insufficiency were more important than the financial implication of formula feeding and promoted the choice. However, once mothers realised how much milk was needed and the actual expense of formula feeding, financial limitations necessitated methods of saving on formula milk. Frequent reports of deliberate over-dilution to reduce expenses were given by mothers and grandmothers. The practice of over-dilution has been reported before[11] and is of concern since over-dilution lowers the energy density and nutrient concentration of formula milk, leading to decreased energy and nutrient intake.[54]

Further techniques reported were mixing the formula milk with *Meelbol* and introducing water, less expensive liquids and/or food in order to satisfy the infant. The international AFASS criteria are important indicators for safe replacement feeding practices. The lack of affordability (where a sufficient supply of formula milk cannot be afforded) is one of the conditions that identifies formula feeding as an inappropriate choice. This study illustrated that an inappropriate feeding choice led to poor feeding practices. These practices compromised nutrient density and placed infants at higher risk of malnutrition and gastrointestinal disease.[54]

4.8 STUDY LIMITATIONS

Although this research study was carefully prepared, there were some methodological and financial limitations.

The questionnaire used for the structured interview contained some questions which required that participants recall practices that may have taken place several months ago. Recall of information depends entirely on memory which can be imperfect and unreliable.[185]

The findings of the qualitative component cannot be extended to wider populations with the same degree of certainty as with quantitative findings. Focus group participants where sampled purposefully to gain deeper insight into infant feeding practices in these two communities, whereas a representative group of participants from the two communities were sampled randomly for the survey and allows conclusions to apply to a wider population. Triangulation was used in this study, which involved linking findings from the quantitative and qualitative components to develop a more complete understanding of issues.[186] Triangulation maximizes the strengths and minimizes the weaknesses of each approach and strengthens research results.[187]

As a quality measure, the questionnaire and consent forms were translated into isiXhosa by professional translators from the Stellenbosch University Language Centre. However, due to financial constraints back-translation of the isiXhosa questionnaire and consent forms could not be carried out to verify the translations. Senior field workers were trained to transcribe focus group discussions, including translating the isiXhosa discussions into English. To ensure that the context and core meaning of the focus group discussions were preserved, field workers worked in pairs and all transcriptions and translations were checked by the partner and re-checked by a senior field worker who managed the group. The decision to use local field workers was largely due to financial constraints. Given that the focus group discussions focused on local beliefs and practices regarding infant feeding, the advantage of using local field workers to transcribe and translate data was that it could help preserve region-specific dialect and terms used in these communities. Nevertheless, it is recognized that the transcription and translation process may have altered the original meaning of the text.

Aspects not included in this study which would have added to the significance of the data collected were infant birth weight, type of delivery, and length of stay in hospital after labour. Furthermore, more detailed questions with regards to the ARV treatment of HIV-infected mothers antenatally, intrapartum and postnatally could have been considered for a more comprehensive description of their risk of MTCT and their feeding choices.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Avian Park and Zwelethemba were found to be resource-limited settings with suboptimal infant feeding practices. Breastfeeding initiation rates were lower than national rates,[76] and consistent with national figures, exclusive breastfeeding was a rare practice.[79-81] The barriers to exclusive breastfeeding seemed to outweigh the enabling factors and led to poor feeding practices (0-5.9 months) in these communities. Similar to previous research,[11,65,66] water was given by most mothers from a very early age for reasons deeply rooted in beliefs and perceptions that water is essential, contributes to infant health and solves various symptoms or ailments. Gripe water and *Lennon's Behoedmiddel* were given by some mothers and grandmothers for flatulence and cramps. In selected cases, water or non-prescription medicines served as a pacifier to keep infants quiet. Formula milk and commercial infant cereal were introduced at a young age to supplement milk feeds and satisfy perceived hunger. Knowledge of the health and economic benefits of breastfeeding supported initiation but several barriers to exclusive breastfeeding remained. The main barriers were 1) the widely-held perception that infants needed water and non-prescription medicines, 2) the concern that milk alone does not satisfy the infant, 3) inadequate infant feeding education and support by the health system, 4) the lack of community-based postnatal support, 5) convention and family influence, 6) mothers separated from their infants, and 7) local beliefs about maternal behaviour and breastfeeding.

HIV infection exerted a significant influence on infant feeding choice ($p<0.001$) and none of the HIV-infected mothers breastfed (n=19). Consistent with previous research,[35,64,68,90,168] the fear of HIV transmission was most frequently reported as the reason for not breastfeeding and the perceived risk of HIV transmission through breastfeeding seemed to outweigh the risk of other life threatening diseases or infections if infants were not exclusively breastfed. Formula feeding practices proved to be poor since enough formula milk could not be afforded.

Comprehensive education and support at antenatal, intrapartum and postnatal levels seemed lacking and convention and community perceptions and norms contributed to mixed feeding practices. Maternal grandmothers proved to be the key role-players in infant feeding advice at home. Mothers and grandmothers did not appear to have sufficient knowledge and understanding of the rationale for infant feeding recommendations and mothers seemed ill equipped to negotiate infant feeding practices with role-players at home. These findings suggest that a need exists to accelerate the implementation of community-based support in these two communities to improve infant feeding practices.

5.2 RECOMMENDATIONS

Researchers, policy makers, programme implementers and communities should work closely together on improving infant feeding practices. Role-players should build on interventions that have been proven to work (e.g. individual and groups counselling about breastfeeding)[10] and invest in testing messages, behaviour change communication approaches and other intervention strategies in a systematic way.

The information collected in this study can be used as a basis for proposing improvements in health education and to inform the design of interventions aimed at improving infant feeding practices in Avian Park and Zwelethemba. In addition, a number of more general recommendations, based on the findings of this study are made.

Recommendations for immediate implementation in Avian Park and Zwelethemba

- The local health system should evaluate their staff complement and workload to ensure that a quality service is rendered to clients.

- The local health system should offer thorough baseline and follow-up infant feeding training to all health care workers working at antenatal, intrapartum and postnatal level.

- The local health system should intensify health education on addressing barriers to breastfeeding initiation and exclusive breastfeeding. The following recommendations on content arose from this study:

    - Build exclusive breastfeeding education on the positive findings that most respondents perceived breast milk as superior in nutritional and health benefits, that most breastfed infants were put to the breast within one hour after birth and that breastfeeding is cost-effective. Highlight that in addition to the economic advantage of breastfeeding, breast milk is a superior product to formula milk based on its nutritional and protective qualities.

    - Explain the underlying mechanisms and principles of exclusive breastfeeding to enable mothers to understand that breast milk is sufficient in quality, that infants do not need water or food during the first six months of life, that frequent suckling increases breast milk production, that crying is not necessarily a sign of insufficient feeding or hunger, and that additional feeds will lead to less frequent breastfeeds and lower milk production. This understanding is crucial for restoring trust in exclusive breastfeeding.

    - Explain the dangers of mixed feeding explicitly.

- Explain to mothers who wish to formula feed what impact formula feeding will have on their lives. Emphasize that safe formula feeding practices require a sufficient supply of formula milk and that feeding should also be exclusive for the first six months of life. Calculate the average monthly cost of formula feeding and discuss whether sufficient formula milk can be afforded and the practice sustained for at least six months without having a negative impact on the household. Stress the importance of safe and hygienic formula feeding practices and teach mothers how to safely prepare and store milk feeds.

- To support HIV-infected women with making safe and appropriate feeding choices, assist them to weigh the benefits of breastfeeding and the risks of not breastfeeding against the risk of HIV transmission, while emphasizing the importance of ARV treatment.

- Explore with mothers and other caregivers the feeding options for situations in which mothers need to be separated from their infants. Explain the value of expressing breast milk to maintain breastfeeding and empower them with the knowledge and skills to express breast milk successfully.

- Prepare mothers for familial and community influence (in particular promotion of mixed feeding and formula feeding) that conflicts with exclusive breastfeeding guidelines. Use participatory approaches to enable mothers to develop negotiating skills to build their confidence and empower them to defend their feeding choices and practices.

- Explore the presence of any adverse beliefs about breastfeeding and clarify these understandings.

- Health care workers should be diligent with history taking and follow-up questions at every visit to reinforce positive practices, and to identify misinterpreted messages, suboptimal practices or barriers to successful breastfeeding at an early stage. Include information on weight monitoring and interpretation into infant feeding education sessions.

Recommendations for future implementation in Avian Park and Zwelethemba

- The Western Cape Department of Health should pursue MBFI accreditation of both birthing units and actively implement all ten steps of The Ten Steps of Successful Breastfeeding.

- The health system should extend infant feeding and health information beyond their facilities by collaborating with stakeholders that work in the communities to educate grandmothers (especially maternal grandmothers but not excluding paternal grandmothers) and fathers on the value of exclusive breastfeeding and ways in which they can support the mother to breastfeed successfully, emphasizing that breastfeeding can be supported by providing the mother with an adequate and healthy diet, that

mothers should be motivated to express breast milk and that they can assist the mother with feeding the infant by giving expressed breast milk.

- Community leaders should consider implementing a pilot programme on community based support for mothers with young infants.

Generalised recommendations for policy consideration and system-wide collaboration

- Policy makers should re-think the current model of infant feeding counselling to strengthen both the quantity and quality of health education, to intensify one-on-one or group infant feeding counselling and support, and to integrate services in settings where workloads are high.

- Policy makers should develop and implement a standardised infant feeding counselling guideline that follows a step-by-step approach of facilitating appropriate feeding choice, supported by the appropriate messages for the feeding choice and the age of the infant.

- Policy makers should consider expanding community-based health care services and integrating infant feeding support and HIV messages into the service package of community care workers.

- The health systems should engage with the broader community to align breastfeeding support programmes to real time challenges and information requirements. Large-scale promotion of exclusive breastfeeding, explicit demotion of mixed feeding and appropriate feeding choices within the context of HIV should be prioritized to influence the understandings and attitudes of mothers, families and communities.

- The Department of Health, Department of Labour and Department of Education should accelerate efforts to protect and extend maternity benefits while also educating employers and schools on how they can support breastfeeding mothers by providing them with adequate facilities and time to express breast milk.

- A variety of communication channels should be used to reach as many people as possible with consistent messages.

Recommendations on research

The recommendations made for immediate implementation can be used as the basis for intervention studies in this age group in Phase Two of the Parent Project.

Furthermore, to inform the improvement of existing services and the design of new interventions, research is needed to provide information on the following:

- The duration and quality of routine infant feeding counselling sessions.
- The duration and quality of counselling to HIV-infected mothers on making appropriate infant feeding choices.
- Factors influencing the development of mothers' reasoning and negotiation skills on infant feeding.
- Factors influencing fathers' perceptions about infant feeding and infant-specific food products.
- Acceptable pathways for communicating infant feeding information to men.

Finally, alternative approaches to improving exclusive breastfeeding rates, using different combinations of health facility and community-based interventions should be tested, using rigorous research designs. Options to study would include the redesign of infant feeding messages and approaches to counselling; approaches to developing negotiation skills; community-based approaches such as a breastfeeding buddy-system, 'breastfeeding houses', support groups, as well as integrated media-campaigns, and school- and workplace interventions.

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APPENDICES

Appendix 6.1: Register: Quantitative data collection

A Community Nutrition Security Research Project in the Breede Valley, Western Cape Province, South Africa – baseline study

Stellenbosch University Food Security Initiative

Division of Human Nutrition
Stellenbosch University

PARTICIPANT REGISTER – CHARLENE GOOSEN ZWELETHEMBA (ALL PARTICIPANTS WHO QUALIFY)

Date	Participant number	Second participant number if also part of big study (ask Tani)	Participant name and surname	Participant address	Reason for withdrawal if they refused participation
	Z001				
	Z002				
	Z003				
	Z004				
	Z005				
	Z006				
	Z007				

Appendix 6.2: Screening tools for focus group discussions

FOCUS GROUP 1: Mothers who breastfeed predominantly

Screening questions

1. Is the baby 3, 4 or 5 months old?

Yes / No

2. Do you give your baby breast milk?

Yes / No

3. Do you give your baby water?

Yes / No

4. Do you give your baby formula milk?

Yes / No

5. Do you give your baby any food?

Yes / No

Qualifying criteria:

Yes *to Question 1 and 2.*
No *to Question 4* ***and*** *5.*

FOCUS GROUP 2: Mothers who breastfeed partially

Screening questions

1. Is the baby younger than 6 months?

Yes / No

2. Do you give your baby breast milk?

Yes / No

3. Do you give your baby water?

Yes / No

4. Do you give your baby formula milk/animal milk?

Yes / No

5. Do you give your baby any food?

Yes / No

Qualifying criteria:

Yes *to Question 1 and 2.*
Yes *to Question 4* ***or*** *5.*

FOCUS GROUP 3: Mothers who do not breastfeed

Screening questions

1. Is the baby younger than 6 months?

Yes / No

2. Do you give your baby breast milk?

Yes / No

Qualifying criteria:

Yes *to Question 1.*
No *to Question 2.*

FOCUS GROUP 4: Fathers

Screening questions

Tick the correct answer that applies to the person being screened.

Focus Group Topic	Inclusion Criteria	Yes	No
Breastfeeding practices	Males		
	Father of a baby younger than 6 months old.		

Qualifying criteria:

If you answer no to any of the questions, thank the person and explain that they cannot be included in the focus group.

FOCUS GROUP 5: Grandmothers

Screening questions

Tick the correct answer that applies to the person being screened.

Focus Group Topic	Inclusion Criteria	Yes	No
Breastfeeding practices	Females		
	Grandmother of a baby younger than 6 months old.		

Qualifying criteria:

If you answer no to any of the questions, thank the person and explain that they cannot be included in the focus group.

FOCUS GROUP 6: Health care workers

Screening questions

Tick the correct answer that applies to the person being screened.

Focus Group Topic	Inclusion Criteria	Yes	No
Breastfeeding practices	Females and Males		
	Nurse, Sister, Counsellor, Doctor who works with pregnant women and/or mothers of babies in a primary health care clinic, or antenatal, neonatal or postnatal unit of a hospital.		

Qualifying criteria:

If you answer no to any of the questions, thank the person and explain that they cannot be included in the focus group.

Appendix 6.3: Register: Qualitative data collection

Example:

FGD: E26 Topic: Breastfeeding Practices (Grandmothers) Zwelethemba

Date	Participant number					Participant name	Participant address	Participant contact number	FGD team	Language
	E	26	Z	0	1					
	E	26	Z	0	2					
	E	26	Z	0	3					
	E	26	Z	0	4					
	E	26	Z	0	5					
	E	26	Z	0	6					
	E	26	Z	0	7					
	E	26	Z	0	8					
	E	26	Z	0	9					
	E	26	Z	1	0					
	E	26	Z	1	1					
	E	26	Z	1	2					

Appendix 6.4: Infant feeding practices questionnaire (English)

Participant Number					**Birth Date**	D	D	M	M	Y	Y	Y	Y

Interviewer:	**Date of interview**	D	D	M	M	Y	Y	Y	Y

INFANT FEEDING PRACTICES QUESTIONNAIRE (0-5.9 months)

Only to be completed by primary caregivers of infants aged 0-5.9 months.*

** The primary caregiver is the infant's mother, unless she is incapable or unwilling to care for her child, in which case the person who assumes the principal role of providing care and attention to the infant is seen as the primary caregiver.*

First, I am going to ask you some questions about yourself and your baby. Please understand that your answers are completely confidential. Your name or your baby's name will not be written on this form and will never be used in connection with any of the information you tell me. Please feel free to answer the questions and remember there is no right or wrong answer.

BACKGROUND OF THE PRIMARY CAREGIVER				
What is your baby's name? **Tell the mother that you are not writing this name down. Use this name in the questions when [NAME] is indicated.**				
1	When were you born?	|_____/_____/19____| DAY / MONTH / YEAR		
2	How would you describe yourself in terms of ethnic population group? **Only one answer.**	Black Coloured Indian White Other Other (Specify) _____	**B** **C** **I** **W** **O**	
3	What is your first language? **Only one answer.**	IsiXhosa Afrikaans English Other Other (Specify) _____	**X** **A** **E** **O**	

4	What is your highest formal education level? **Only one answer.**	Never attended any school Primary school Grade 8-9 Grade 10-12 Tertiary education Other Other (Specify) _____	**N** **P** **J** **S** **T** **O**	
5	What is your current employment status? **Only one answer.**	Permanent Seasonal worker Day-to-day basis Self employed Unemployed and looking for work Unemployed and not looking for work Housewife by choice Other Other (Specify) _____	**P** **SW** **D** **S** **UL** **UN** **H** **O**	
6	What is your current marital status? **Only one answer.**	Unmarried and living with a partner Unmarried and not living with a partner Married and living with a partner Married and not living with a partner Other Other (Specify) _____	**UP** **U** **MP** **M** **O**	
7	Do you receive any grants for [NAME]? **Only one answer.**	Yes No	**Y** **N**	**Go to 8** **Go to 9**
8	Which grants do you receive for [NAME]? **Multiple answers accepted.** **Do not read the list.** **Circle "Y" for all answers mentioned.**	Child support Foster child grant Other Other (Specify) _____	**Y N** **Y N** **Y N**	

9	What is the main source of drinking water for members of your household? **Only one answer.**	Own tap in house Own tap outside of house Communal tap River/dam Borehole/well Other Other (Specify) _____	**TI** **TO** **TC** **R** **B** **O**		
10	Do you treat your water in any way to make it safer to drink? **Only one answer.**	Yes No	**Y** **N**		**Go to 11** **Go to 12**
11	What do you usually do to make it safer to drink? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "Anything else" once.** **Circle "Y" for all answers mentioned.**	Boil Add bleach/chlorine Use water filter Let it stand and settle Other Other (Specify) _____	**Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N**	
BACKGROUND OF THE INFANT					
12	Gender of infant **Only one answer.**	Boy Girl	**B** **G**		
13	When was [NAME] born?	|_____/_____/20_____| DAY / MONTH / YEAR			
14	Ask to see the Road-to-Health card/booklet (clinic card) or birth certificate. **Check that the child is 0-5.9 months.** **If the child is 6 months or older, thank the mother for her time and end the questionnaire.**	Card seen, date of birth verified No card, cannot verify	**V** **N**		

15	Where was [NAME] born? **Only one answer.**	Public clinic/hospital Specify name_____ Private clinic/hospital Specify name_____ At home Do not know Other Other (Specify)_____	**PU** **PR** **H** **D** **O**	
16	Are you [NAME's] biological mother? **Only one answer.**	Yes No	**Y** **N**	**Go to 19** **Go to 17**
17	What is your relation to the baby? **Only one answer.**	Father Mother's partner but not father of the baby Grandmother Other family member Specify who_____ Friend of parent Other Other (Specify) _____	**F** **P** **G** **FM** **FP** **O**	
18	Why does [NAME's] mother not look after him/her? **Only one answer.**	Too ill Died Not living with baby Other Other (Specify) _____	**I** **D** **NL** **O**	**Go to 36**

Now I would like to ask you a few questions about how you are feeding [NAME].

INFANT FEEDING PRACTICES				
19	Did you ever receive advice on how to feed [NAME] while you were pregnant? **Only one answer.**	Yes No	**Y** **N**	**Go to 20** **Go to 21**

20	From whom or where did you receive advice on infant feeding while you were pregnant? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anyone or anything else*" once.** **Circle "Y" for all answers mentioned.**	Father of the baby Own mother Other family member Specify who_____ Friend Health care worker Specify who_____ Community support group Media (Print, radio or television) Specify _____ Other Other (Specify) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
21	Did you ever receive advice on feeding [NAME] after he/she was born? **Only one answer.**	Yes No	**Y** **N**		**Go to 22** **Go to 23**
22	From whom or where did you receive advice on feeding [NAME] after he/she born? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anyone or anything else*" once.** **Circle "Y" for all answers mentioned.**	Father of the baby Own mother Other family member Specify who_____ Friend Health care worker Specify who_____ Community support group Media (Print, radio or television) Specify _____ Other Other (Specify) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
23	Have you ever breastfed [NAME]? **Only one answer.**	Yes No	**Y** **N**		**Go to 25** **Go to 24**

24	Why did you choose not to breastfeed [NAME]? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Mother or baby ill Not enough milk Mother went back to work/school Baby refused breast HIV positive Previous problems/bad experience Advice of health care worker Specify who_____ Advice of family member Specify who_____ Advice of friend Other Other (Specify) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	**Go to 36** **Go to 36** **Go to 36** **Go to 36** **Go to 36** **Go to 36** **Go to 36** **Go to 36** **Go to 36** **Go to 36**
25	Why did you choose to breastfeed [NAME]? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Perfect food for babies Healthy baby/Protects against diseases Free Bonding between mother and baby Easy/Less trouble Other Other (Specify) _____	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
26	How long after birth did you first put [NAME] to the breast? **Only one answer.**	Within one hour Within the first day Within three days Other Other (Specify) _____	**H** **D** **T** **O**		**Go to 28** **Go to 27** **Go to 27** **Go to 27**
27	Was there a reason for not starting breastfeeding soon after birth? **Only one answer.**	Mother or baby ill Not given the baby immediately Other Other (Specify) _____	**I** **G** **O**		
28	Did you squeeze out and throw away the first yellowish milk (colostrum) which you had right after [NAME] was born? **Only one answer.**	Yes No	**Y** **N**		**Go to 29** **Go to 30**

29	Why did you throw away this first yellowish milk (colostrum)? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Gets the milk flowing It is bad for the baby Advice of health care worker Specify who_____ Advice of family member Specify who_____ Advice of friend Other Other (Specify) _____	**Y N** **Y N** **Y N** **Y N** **Y N** **Y N**	
30	Did you receive help to start breastfeeding [NAME]? **Only one answer.**	Yes No	**Y** **N**	**Go to 31** **Go to 32**
31	Who mainly gave you help to start breastfeeding? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anyone else*" once.** **Circle "Y" for all answers mentioned.**	Health care worker Specify who_____ Own mother Own grandmother Other family member Specify who_____ Friend Other Other (Specify) _____	**Y N** **Y N** **Y N** **Y N** **Y N** **Y N**	
32	Are you still breastfeeding [NAME]? **Only one answer.**	Yes No	**Y** **N**	**Go to 33** **Go to 34**
33	Up to what age do you plan on breastfeeding [NAME]? **Round to nearest month if mother answers in weeks or years.** **If less than 1 month, enter "0" months.**	Months Do not know	_____ **#**	**Go to 38** **Go to 38**
34	For how long did you breastfeed [NAME]? **Round to nearest month if respondent answers in weeks.** **If less than 1 month, enter "0" months.**	Months Do not know	_____ **#**	

35	Why did you stop breastfeeding? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Mother or baby ill Breast problems Not enough milk/baby still hungry Mother went back to work/school Baby refused breast HIV positive Previous problems/bad experience Advice of health care worker Specify who_____ Advice of family member Specify who_____ Advice of friend Other Other (Specify) _____	**Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N**		
36	Since [NAME] is not being breastfed, what do you feed him/her instead of breast milk? **Only one answer.**	Infant formula milk Specify name_____ Animal milk (e.g. cow or goat) Soft porridge Specify_____ Sugar water Other Other (Specify)_____	**F** **A** **P** **W** **O**		**Go to 37** **Go to 38** **Go to 38** **Go to 38** **Go to 38**
37	How do you mix the infant formula milk? **Let the caregiver describe the method.** **Prompt for all 4 fields.** **Show the scoop when asking about the number of scoops.** **Complete all fields and describe further if she mentioned anything else.**	Water boiled and cooled Amount of water Number of scoops Are the scoops level If scoops are not level, describe:_____ _____ Other:_____ _____	**Y** **N** **____ml** **_____** **Y** **N**		
38	Have you ever given [NAME] water to drink? **Only one answer.**	Yes No	**Y** **N**		**Go to 39** **Go to 40**

39	How old was [NAME] when you first gave water? **Round to nearest month if respondent answers in weeks.** **If less than 1 month, enter "0" months.**	Months Do not know	_____ #		
40	Have you ever given [NAME] soft food or other liquids to drink? **Only one answer.**	Yes No	**Y** **N**		**Go to 41** **Go to 44**
41	How old was [NAME] when you first gave soft food or other liquids? **Round to nearest month if respondent answers in weeks.** **If less than 1 month, enter "0" months.**	Months Do not know	_____ #		
42	What soft foods or liquids did you give [NAME]? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Infant formula milk Sugar water/Rooibos tea English tea/Coffee Cold drink/Fruit juice Animal milk (e.g. cow or goat) Cooked soft porridge (e.g. mealiemeal) Specify_____ Infant porridge(e.g. Nestum) Specify_____ Ready-to-eat cereal (e.g. Weetbix) Specify_____ Potato/pumpkin/butternut/sweet potato Fruit/other vegetables Yoghurt Other food Specify_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** 	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N** **N** **N** 	

43	Why did you give other soft foods or other liquids to [NAME]? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Not enough milk /baby still hungry Baby needs more than only milk Advice of health care worker Specify who_____ Advice of family member Specify who_____ Advice of friend Other Other (Specify) _____	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
44	Does [NAME] drink anything from a bottle sometimes? **Only one answer.**	Yes No Do not know	**Y** **N** **D**		

Now I would like to ask you a few questions about what you think about infant feeding.

KNOWLEDGE				
45	What do you think should the first feed of a newborn baby be? **Only one answer.**	Water Glucose water Breast milk Infant formula milk Medicines Other Other (Specify) _____ Do not know	**W** **G** **B** **I** **M** **O** **D**	
46	In your opinion, how soon after birth should a baby start breastfeeding? **Only one answer.** **Translate answer to hours if answer is given in minutes or days.** **If immediately, enter "0" hours.**	Hours Do not know	_____ **#**	
47	What do you think should a mother who has just delivered do with the first yellow breast milk? **Only one answer.**	Give it to the baby Through it away Other Other (Specify) _____ Do not know	**G** **T** **O** **D**	

48	In your opinion, at what age should a baby start taking water? **Round to nearest month if respondent answers in weeks.** **If less than one month, enter "0" months.**	Months Do not know	_____ #		
49	For how long do you think should a baby receive only breast milk and nothing else? **Round to nearest month if respondent answers in weeks.** **If less than one month, enter "0" months.**	Months Do not know	_____ #		
50	If a woman is struggling to breastfeed, what can she do to have more breast milk? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Breastfeed more often Consume more food and liquids Massage breasts Other Other (Specify) _____ Do not know	**Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N**	
51	In your opinion, until what age can a baby continue to drink breast milk? **Round to nearest month if respondent answers in weeks.** **If less than 1 month, enter "0" months.**	Months Do not know	_____ #		
52	What do you think are the advantages of breastfeeding for the baby? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "Anything else" once.** **Circle "Y" for all answers mentioned.**	Perfect food for babies Healthy baby/Protects against diseases Bonding between mother and baby Other Other (Specify) _____ No advantages Do not know	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	

53	What do you think are the advantages of breastfeeding for the mother? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Easy/Less trouble Helps with child spacing Bonding between mother and baby Free Mother loses weight faster Other Other (Specify) _____ No advantages Do not know	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
54	In your opinion, at what age should a baby start taking soft foods? **Round to nearest month if respondent answers in weeks.** **If less than 1 month, enter "0" months.**	Months Do not know	_____ **#**		

The next couple of questions have to do with HIV and AIDS. We understand that some people feel uncomfortable discussing this but we would really like to know what you think about this issue. Your answers are completely confidential. Your name or your baby's name will not be written on this form and will never be used in connection with any of the information you tell me. Please feel free to answer the questions and remember there is no right or wrong answer. If you do not want to answer any of the following questions, then you do not need to do so. This will not have any bad effect on your participation.

HIV					
55	From whom or where do you receive most of your information on HIV and AIDS? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anyone or anything else*" once.** **Circle "Y" for all answers mentioned.**	Father of the baby Own mother Other family member Specify who_____ Friend Health care worker Specify who_____ Community support group Media (Print, radio or television) Specify _____ Community leaders Religious leaders Other Other (Specify) _____ Do not want to answer	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	

56	Do you think that an HIV positive mother should breastfeed her baby? **Only one answer.**	Yes No Do not know	**Y** **N** **D**		**Go to 58** **Go to 57** **Go to 59**
57	Why do you think an HIV positive mother should not breastfeed her baby? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Baby will get HIV infection Baby can die Other Other (Specify) _____ Do not want to answer	**Y** **Y** **Y** **Y**	**N** **N** **N** **N**	**Go to 59**
58	Why do you think an HIV positive mother should breastfeed her baby? **Multiple answers accepted.** **Do not read the list.** **Probe by only asking: "*Anything else*" once.** **Circle "Y" for all answers mentioned.**	Perfect food for babies Healthy baby/Protects against diseases Free Bonding between mother and baby Otherwise people will suspect she is HIV+ Other Other (Specify) _____ Do not want to answer	**Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N**	
59	Have you ever had an HIV test? **Only one answer.**	Yes No Do not want to answer	**Y** **N** **D**		**Go to 60** **Go to 63** **Go to 63**
60	Did you get or collect the results of your test? **Only one answer.**	Yes No Do not want to answer	**Y** **N** **D**		**Go to 61** **Go to 63** **Go to 63**
61	If you are willing to share this result, please tell me your HIV status. ***Remember that all information remains confidential and that your name is not written on this form.*** **Only one answer.**	Positive Negative Do not want to answer	**P** **N** **D**		**Go to 62** **Go to 63** **Go to 63**
62	Are you on ARV medication for the HIV as prescribed by a doctor? **Only one answer.**	Yes No Do not want to answer	**Y** **N** **D**		

63	Has [NAME] ever had an HIV test? **Only one answer.**	Yes No Do not want to answer	**Y** **N** **D**	**Go to 64** **END** **END**
64	Did you get or collect the results of her/his test? **Only one answer.**	Yes No Do not want to answer	**Y** **N** **D**	**Go to 65** **END** **END**
65	If you are willing to share this result, please tell me the HIV status of [NAME]. ***Remember that all information remains confidential and that your baby's name is not written on this form.*** **Only one answer.**	Positive Negative Do not want to answer	**P** **N** **D**	**Go to 66** **END** **END**
66	Is [NAME] on ARV medication for the HIV as prescribed by a doctor? **Only one answer.**	Yes No Do not want to answer	**Y** **N** **D**	**END** **END** **END**

Thank you very much for your time and for helping us. Do you have any questions?

Check the questionnaire to make sure that all responses have been provided and coded.

Appendix 6.5: Infant feeding practices questionnaire (Afrikaans)

Participant Number					**Birth Date**	D	D	M	M	Y	Y	Y	Y

Interviewer:	**Date of interview**	D	D	M	M	Y	Y	Y	Y

BABA VOEDINGSPRAKTYK VRAELYS (0-5.9 maande)

Word slegs voltooi deur permanente versorgers van babas van die ouderdom 0-5.9 maande.*

** Die permanente versorger is die baba se moeder, tensy sy nie vir die baba kan of wil sorg nie, waar die person wat dat die hoofrol van sorg en aandag vir die baba aanneem as die permanente versorger gesien word.*

Eerstens gaan ek vir u vrae vra oor jouself en jou baba. Alle antwoorde is konfidensieël. Nie jou of jou baba se naam word op hierdie vorm geskryf nie en dit sal nooit gebruik word in konneksie met enige van die inligting wat u gee nie. Voel asseblief vry om die vrae te antwoord en onthou dat daar geen regte of verkeerde antwoorde is nie.

AGTERGROND VAN DIE PERMANENTE VERSORGER				
Wat is jou baba se naam? **Sê vir die ma dat jy nie hierdie naam neerskryf nie. Gebruik die naam in die vrae waar [NAAM] aangedui word.**				
1	Wanneer is jy gebore	|_____/_____/19____| DAG / MAAND / JAAR		
2	Hoe sal jy jouself beskryf in terme van etniese populasiegroep? **Slegs een antwoord.**	Swart Kleurling Indies Wit Ander Ander (Spesifiseer) _____	**B** **C** **I** **W** **O**	
3	Wat is jou eerste taal? **Slegs een antwoord.**	IsiXhosa Afrikaans Engels Ander Ander (Spesifiseer) _____	**X** **A** **E** **O**	

4	Wat is jou hoogste opvoedingsvlak? **Slegs een antwoord.**	Het nooit skool bygewoon nie Laerskool Graad 8-9 Graad 10-12 Tersiêre opleiding Ander Ander (Spesifiseer) _____	**N** **P** **J** **S** **T** **O**		
5	Wat is jou werkstatus tans? **Slegs een antwoord.**	Permanent Seisoenwerker Dag-tot-dag basis Werk vir self Werkloos en soek werk Werkloos en soek nie werk nie Huisvrou by keuse Ander Ander (Spesifiseer) _____	**P** **SW** **D** **S** **UL** **UN** **H** **O**		
6	Wat is jou huwelikstatus tans? **Slegs een antwoord.**	Ongetroud en bly saam met ‘n maat Ongetroud en bly nie saam met ‘n maat nie Getroud en bly saam met man Getroud en bly nie saam met man nie Ander Ander (Spesifiseer) _____	**UP** **U** **MP** **M** **O**		
7	Ontvang jy enige fondse *(grants)* vir [NAAM]? **Slegs een antwoord.**	Ja Nee	**Y** **N**		**Go to 8** **Go to 9**
8	Watter fondse *(grants)* ontvang jy vir [NAAM]? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Omkring “Y” vir alle antwoorde wat genoem word.**	Kindersorg Pleegsorg Ander Ander (Spesifiseer) _____	**Y** **Y** **Y**	**N** **N** **N**	

9	Wat is die hoofbron van drinkwater vir lede van die huishouding? **Slegs een antwoord.**	Eie kraan binne huis Eie kraan buite huis Gemeenskaplike kraan Rivier/dam Boorgat/put Ander Ander (Spesifiseer) _____	**TI** **TO** **TC** **R** **B** **O**		
10	Behandel jy die water in enige manier om dit veiliger te maak om te drink? **Slegs een antwoord.**	Ja Nee	**Y** **N**		**Go to 11** **Go to 12**
11	Wat doen jy gewoonlik om dit veiliger te maak om te drink? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Kook Voeg bleikmiddel/chloor by Gebruik 'n water filter Laat dit staan en sak Ander Ander (Spesifiseer) _____	**Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N**	
AGTERGROND VAN DIE BABA					
12	Geslag van die baba. **Slegs een antwoord.**	Seun Dogter	**B** **G**		
13	Wanneer is [NAAM] gebore?	|_____/_____/20_____| DAG / MAAND / JAAR			
14	Vra om die baba se *Road-to-Health* kaart/boekie (kliniekkaart) of geboortesertifikaat te sien. **Kyk of die baba wel tussen 0-5.9 maande oud is.** **Indien die baba 6 maande of ouer is, bedank die moeder vir haar tyd en beeïndig die vraelys.**	Kaart gesien, geboortedatum bevestig Geen kaart, kan nie bevestig nie	**V** **N**		

15	Waar was [NAME] gebore? **Slegs een antwoord.**	Staatskliniek/hospitaal Spesifiseer naam_____ Privaat kliniek/hospitaal Spesifiseer naam_____ By die huis Weet nie Ander Ander (Spesifiseer) _____	**PU** **PR** **H** **D** **O**	
16	Is jy [NAAM] se biologiese ma? **Slegs een antwoord.**	Ja Nee	**Y** **N**	**Go to 19** **Go to 17**
17	Wat is jou verwantskap tot die baba? **Slegs een antwoord.**	Pa Ma se maat maar nie die baba se pa nie Ouma Ander familielid Spesifiseer_____ Vriend van ouer Ander Ander (Spesifiseer)_____	**F** **P** **G** **FM** **FP** **O**	
18	Hoekom sorg [NAAM] se ma nie vir haar/hom nie? **Slegs een antwoord.**	Te siek Gesterf Bly nie saam met baba nie Ander Ander (Spesifiseer)_____	**I** **D** **NL** **O**	**Go to 36**

Nou wil ek graag 'n paar vrae vra oor hoe jy vir [NAAM] voed.

BABA VOEDINGS PRAKTYKE				
19	Het jy ooit raad ontvang oor hoe om [NAAM] te voed terwyl jy nog swanger was? **Slegs een antwoord.**	Ja Nee	**Y** **N**	**Go to 20** **Go to 21**

20	Vanaf wie of waar het jy raad ontvang oor babavoeding terwyl jy swanger was? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets of enigeen anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Pa van die baba Eie ma Ander familielid Spesifiseer_____ Vriend Gesondheidswerker Spesifiseer wie_____ Gemeenskaps ondersteuningsgroep Media (Print, radio of televisie) Spesifiseer_____ Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N**	
21	Het jy ooit raad ontvang oor hoe om [NAAM] te voed nadat hy/sy gebore is?	Ja Nee	**Y** **N**		**Go to 22** **Go to 23**
22	Vanaf wie of waar het jy raad ontvang oor babavoeding nadat hy/sy gebore is? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Pa van die baba Eie ma Ander familielid Spesifiseer_____ Vriend Gesondheidswerker Spesifiseer wie_____ Gemeenskaps ondersteuningsgroep Media (Print, radio of televisie) Spesifiseer_____ Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N**	
23	Het jy al ooit vir [NAAM] geborsvoed? **Slegs een antwoord.**	Ja Nee	**Y** **N**		**Go to 25** **Go to 24**

24	Hoekom het jy gekies om [NAAM] nie te borsvoed nie? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Ma of baba siek Nie genoeg melk Ma is terug na werk/skool Baba het bors geweier HIV positief Vorige problem/slegte ervaring Raad van gesondheidswerker Spesifiseer wie_____ Raad van familielid Spesifiseer wie_____ Raad van vriend Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	**Go to 36**
25	Hoekom het jy gekies om [NAAM] te borsvoed? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Perfekte kos vir babas Gesonde baba/Beskerm teen siektes Gratis Band wat vorm tussen ma en baba Maklik/Minder moeite Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
26	Hoe lank na geboorte het jy vir [NAAM] aan die bors gesit? **Slegs een antwoord.**	Binne een uur Binne die eerste dag Binne drie dae Ander Ander (Spesifiseer)_____	**H** **D** **T** **O**		**Go to 28** **Go to 27** **Go to 27** **Go to 27**
27	Was daar 'n rede hoekom jy nie kort na geboorte begin borsvoed het nie? **Slegs een antwoord.**	Ma of baba siek Het nie die baba dadelik gekry nie Ander Ander (Spesifiseer)_____	**I** **G** **O**		

28	Het jy die eerste gelerige melk (kolostrum) wat jy reg na geboorte gehad het uitgedruk en weggegooi? **Slegs een antwoord.**	Ja Nee	**Y** **N**	**Go to 29** **Go to 30**
29	Hoekom het jy die eerste gelerige melk (kolostrum) weggegooi? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Dit laat die melk vloei Dit is sleg vir die baba Raad van gesondheidswerker Spesifiseer wie_____ Raad van familielid Spesifiseer wie_____ Raad van vriend Ander Ander (Spesifiseer)_____	**Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N**	
30	Het jy hulp ontvang om [NAAM] te begin borsvoed? **Slegs een antwoord.**	Ja Nee	**Y** **N**	**Go to 31** **Go to 32**
31	Wie het jou hoofsaaklik gehelp om te begin borsvoed? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Gesondheidswerker Spesifiseer wie_____ Eie ma Eie ouma Ander familielid Spesifiseer wie_____ Vriend Ander Ander (Spesifiseer)_____	**Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N**	
32	Borsvoed jy steeds vir [NAAM]? **Slegs een antwoord.**	Ja Nee	**Y** **N**	**Go to 33** **Go to 34**
33	Tot op watter ouderdom beplan jy om vir [NAAM] te borsvoed? **Rond af tot die naaste maand indien die ma antwoord in weke of maande.** **Indien minder as 1 maand, skryf "0" maande.**	Maande Weet nie	_____ **#**	**Go to 38**

34	Vir hoe lank het jy [NAAM] geborsvoed? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf "0" maande.**	Maande Weet nie	_____ #		
35	Hoekom het jy opgehou borsvoed? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Ma of baba siek Borsprobleme Nie genoeg melk/baba steeds honger Ma is terug na werk/skool Baba het bors geweier HIV positief Vorige problem/slegte ervaring Raad van gesondheidswerker Spesifiseer wie_____ Raad van familielid Spesifiseer wie_____ Raad van vriend Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	
36	Aangesien [NAAM] nie geborsvoed word nie, wat voed jy hom/haar in plaas van borsmelk? **Slegs een antwoord.**	Baba formule melk Spesifiseer naam_____ Dierlike melk (bv. Koei of bok) Sagte pap Spesifiseer_____ Suiker water Ander Ander (Spesifiseer)_____	**F** **A** **P** **W** **O**		**Go to 37** **Go to 38** **Go to 38** **Go to 38** **Go to 38**
37	Hoe meng jy die baba formule melk? **Laat die person die metode beskryf.** **Hits al vier velde se inligting aan.** **Wys die *scoop* wanneer jy vra oor die aantal *scoops*.** **Vul al die velde in en beskryf verder indien sy enigeiets anders noem.**	Water gekook en afgekoel Hoeveelheid water Getal *scoops* Is die *scoops* plat afgemeet Indien die scoops nie plat afgemeet is nie, beskryf:_____ Ander:_____	**Y N** ____**ml** _____ **Y N**		

38	Het jy al ooit vir [NAAM] water gegee om te drink? **Slegs een antwoord.**	Ja Nee	**Y** **N**		**Go to 39** **Go to 40**
39	Hoe oud was [NAAM] toe jy die eerste keer water gegee het? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf "0" maande.**	Maande Weet nie	**_____** **#**		
40	Het jy al ooit vir [NAAM] sagte kos gegee of ander vloeistowwe om te drink? **Slegs een antwoord.**	Ja Nee	**Y** **N**		**Go to 41** **Go to 44**
41	Hoe oud wat [NAAM] toe jy vir die eerste keer sagte kos of ander vloeistowwe gegee het? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf "0" maande.**	Maande Weet nie	**_____** **#**		
42	Watter sagte kos of vloeistowwe het jy vir [NAAM] gegee? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Formule melk Suiker water/Rooibos tee Engelse tee/Koffie Koeldrank/Vrugtesap Dierlike melk (bv. koei of bok) Gekookte sagte pap (bv. mieliepap) Spesifiseer_____ Babapap (bv. Nestum) Spesifiseer_____ Reg-om-te-eet pap (bv. Weetbix) Spesifiseer_____ Aartappel/pampoen/butternut/patat Vrugte/ander groente Yoghurt Ander kos Spesifiseer_____	**Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N** 		

43	Hoekom het jy sagte kos of ander vloeistowwe vir [NAAM] gegee? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Nie genoeg melk/baba steeds honger Baba het meer as net melk nodig Raad van gesondheidswerker Spesifiseer wie_____ Raad van familielid Spesifiseer wie_____ Raad van vriend Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
44	Drink [NAAM] soms enigeiets vanuit 'n bottle? **Slegs een antwoord.**	Ja Nee Weet nie	**Y** **N** **D**		

Nou wil ek graag 'n paar vrae vra oor wat jy dink van babavoeding.

KENNIS				
45	Wat dink jy moet die eerste voeding van 'n pasgebore baba wees? **Slegs een antwoord.**	Water Glukose water Borsmelk Baba formule melk Medisyne Ander Ander (Spesifiseer)_____ Weet nie	**W** **G** **B** **I** **M** **O** **D**	
46	Volgens jou opinie, hoe gou na geboorte moet 'n baba begin borsvoed? **Slegs een antwoord.** **Translate answer to hours if answer is given in minutes or days.** **If immediately, enter "0" hours.**	Ure Weet nie	**_____** **#**	
47	Wat dink jy moet 'n ma wat geboorte gegee het doen met die eerste gelerige borsmelk? **Slegs een antwoord.**	Gee dit vir die baba Gooi dit weg Ander Ander (Spesifiseer)_____ Weet nie	**G** **T** **O** **D**	

48	Volgens jou opinie, op watter ouderdom moet ‘n baba begin water drink? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf “0” maande.**	Maande Weet nie	_____ #		
49	Vir hoe lank dink jy moet ‘n baba slegs borsmelk ontvang en niks anders nie? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf “0” maande.**	Maande Weet nie	_____ #		
50	As ‘n vrou sukkel met borsvoeding, wat kan sy doen om meer borsmelk te hê? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: “*Enigeiets anders*”.** **Omkring “Y” vir alle antwoorde wat genoem word.**	Borsvoed meer gereeld Eet en drink meer kos en vloeistowwe Masseer borste Ander Ander (Spesifiseer)_____ Weet nie	**Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N**	
51	Volgens jou opinie, tot op watter ouderdom kan ‘n baba nog borsmelk drink? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf “0” maande.**	Maande Weet nie	_____ #		
52	Wat dink jy is die voordele van borsvoeding vir ‘n baba? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: “*Enigeiets anders*”.** **Omkring “Y” vir alle antwoorde wat genoem word.**	Perfekte kos vir babas Gesonde baba/Beskerm teen siektes Band wat vorm tussen ma en baba Ander Ander (Spesifiseer)_____ Geen voordele Weet nie	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	

53	Wat dink jy is die voordele van borsvoeding vir die ma? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Maklik/Minder moeite Help met kinderbeplanning (voorbehoed) Band wat vorm tussen ma en baba Gratis Ma verloor vinniger gewig Ander Ander (Spesifiseer)_____ Geen voordele Weet nie	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
54	Volgens jou opinie, teen watter ouderdom moet 'n baba sagte kos begin eet? **Rond af tot die naaste maand indien die ma antwoord in weke.** **Indien minder as 1 maand, skryf "0" maande.**	Maande Weet nie	_____ **#**		

Die volgende paar vrae het te doen met HIV en VIGS. Ons verstaan dat sommige mense ongemaklik voel om hieroor te praat, maar ons wil regtig graag weet wat jy hiervan dink. Jou antwoorde word konfidensieël gehou. Jou naam of jou baba se naam sal nie op hierdie vorm neergeskryf word nie en dit sal nooit in konneksie met enige inligting wat jy vir my gee gebruik word nie. Voel asseblief vry om die vrae te beantwoord en onthou dat daar geen regte of verkeerde antwoorde is nie. Indien jy enige van die vrae nie wil beantwoord nie, dan hoef jy dit nie te beantwoord nie. Dit sal geen newe-effek op jou deelname hê nie.

HIV					
55	Vanaf wie of waar kry jy meeste van jou inligting oor HIV en VIGS? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeen of Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Pa van die baba Eie ma Ander familielid Spesifiseer_____ Vriend Gesondheidswerker Spesifiseer wie_____ Gemeenskaps ondersteuningsgroep Media (Print, radio of televisie) Spesifiseer_____ Gemeenskapsleiers Kerk leiers Ander Ander (Spesifiseer)_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** 	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N** 	

		Wil nie antwoord nie	**Y**	**N**	
56	Dink jy dat 'n HIV positiewe ma haar baba moet borsvoed? **Slegs een antwoord.**	Ja Nee Weet nie	**Y** **N** **D**		**Go to 58** **Go to 57** **Go to 59**
57	Hoekom dink jy moet 'n HIV positiewe ma nie haar baba borsvoed nie? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Baba sal HIV infeksie kry Baba kan sterf Ander Ander (Spesifiseer)_____ Wil nie antwoord nie	**Y** **Y** **Y** **Y**	**N** **N** **N** **N**	**Go to 59**
58	Hoekom dink jy moet 'n HIV positiewe ma haar baba borsvoed? **Meer as een antwoord aanvaar.** **Moenie die lys lees nie.** **Hits aan deur om een keer te vra: "*Enigeiets anders*".** **Omkring "Y" vir alle antwoorde wat genoem word.**	Perfekte kos vir babas Gesonde baba/Beskerm teen siektes Gratis Band wat vorm tussen ma en baba Andersins sal mense vermoed sy is HIV+ Ander Ander (Spesifiseer)_____ Wil nie antwoord nie	**Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N**	
59	Het jy al ooit 'n HIV toets gehad? **Slegs een antwoord.**	Ja Nee Wil nie antwoord nie	**Y** **N** **D**		**Go to 60** **Go to 63** **Go to 63**
60	Het jy die resultate van die toets gekry? **Slegs een antwoord.**	Ja Nee Wil nie antwoord nie	**Y** **N** **D**		**Go to 61** **Go to 63** **Go to 63**
61	Indien jy bereid is om dit met ons te deel, sê asseblief vir my wat jou HIV status is. ***Onthou dat alle inligting konfidensieel is en dat jou naam nie op hierdie vorm geskryf word nie.*** **Slegs een antwoord.**	Positief Negatief Wil nie antwoord nie	**P** **N** **D**		**Go to 62** **Go to 63** **Go to 63**
62	Is jy op ARV medikasie vir die HIV soos deur 'n dokter voorgeskryf? **Slegs een antwoord.**	Ja Nee Wil nie antwoord nie	**Y** **N** **D**		

63	Het [NAAM] al ooit ‘n HIV toets gehad? **Slegs een antwoord.**	Ja Nee Wil nie antwoord nie	**Y** **N** **D**	**Go to 64** **END** **END**
64	Het jy die resultate van sy/haar toets gekry? **Slegs een antwoord.**	Ja Nee Wil nie antwoord nie	**Y** **N** **D**	**Go to 65** **END** **END**
65	Indien jy bereid is om dit met ons te deel, sê asseblief vir my wat sy/haar HIV status is. ***Onthou dat alle inligting konfidensieel is en dat jou baba se naam nie op hierdie vorm geskryf word nie.***	Positief Negatief Wil nie antwoord nie	**P** **N** **D**	**Go to 66** **END** **END**
66	Is [NAAM] op ARV medikasie vir die HIV soos deur ‘n dokter voorgeskryf? **Slegs een antwoord.**	Ja Nee Wil nie antwoord nie	**Y** **N** **D**	**END** **END** **END**

Baie dankie vir jou tyd en hulp. Het jy enige vrae?

Gaan die vraelys na en maak seker dat al die antwoorde ingevul en gekodeer is.

Appendix 6.6: Infant feeding practices questionnaire (isiXhosa)

Participant Number					**Birth Date**	D	D	M	M	Y	Y	Y	Y

Interviewer:	**Date of interview**	D	D	M	M	Y	Y	Y	Y

IPHEPHA ELINEMIBUZO NGOKUTYISWA KWEENTSANA (Ezineenyanga ezi-0 ukuya kwezi-5.9)

Iza kuzaliswa ngabanonophei abasigxina kuphela beentsana ezineenyanga ezi-0 ukuya kwezi-5.9.*

** Umnonopheli osigxina ngumama wosana, ngaphandle kokuba akakwazi okanye akanamdla wokulukhathalela usana lwakhe, apho kwimiba enjalo iba ngoyena mntu udlala indima yokulukhathalela usana oye abonwe njengomnonopheli osigxina.*

Kuqala ndiza kukubuza eminye imibuzo ngawe nangosana lwakho. Nceda wazi ukuba iimpendulo zakho ziyimfihlo. Igama lakho okanye lomntwana lakho alizi kubhalwa kule fomu kwaye alisoze lisetyenziswe ngokunxulumene nazo naziphi na iinkcukacha osixelela zona. Nceda ukhululeke ukuphendula imibuzo kwaye ukhumbule ukuba akukho zimpendulo zichanekileyo okanye zingachanekanga.

IMVELAPHI YOMNONOPHELI OSIGXINA				
1	Wazalelwa phi?	|_____/_____/19____| UMHLA / INYANGA / UNYAKA		
2	Ungazichaza njani ngokwamaqela eentlanga zabantu? **Impendulo enye kuphela**	OMnyama WeBala Indiya OMhlophe Okunye Okunye (Cacisa) _____	**B** **C** **I** **W** **O**	
3	Loluphi ulwimi lwakho lweenkobe? **Impendulo enye kuphela**	IsiXhosa IsiBhulu IsiNgesi Olunye Olunye (Cacisa) _____	**X** **A** **E** **O**	

4	Leliphi ibanga onalo eliphezulu lemfundo? **Impendulo enye kuphela**	Zange ndaya esikolweni Kwisikolo samabanga aphantsi Kwibakala lesi-8-9 Kwibakala le-10-12 Imfundo ephakamileyo Okunye Okunye (Cacisa) _____	**N** **P** **J** **S** **T** **O**	
5	Ithini imeko yakho yengqesho? **Impendulo enye kuphela**	Osigxina Umsebenzi wamaxesha athile Imihla ngemihla Ndiziqeshile Andiphangeli kwaye ndikhangela umsebenzi Andiphangeli kwaye andikhangeli msebenzi Ndingumama ohlala ekhaya ngokuzithandela Ezinye Ezinye (Cacisa) _____	**P** **SW** **D** **S** **UL** **UN** **H** **O**	
6	Sithini isimo sakho ngezomtshato? **Impendulo enye kuphela**	Anditshatanga kwaye ndihlala nomlingane Anditshatanga kwaye andihlali namlingane Nditshatile kwaye ndihlala nomlingane Nditshatile kwaye andihlali namlingane Esinye Esinye (Cacisa) _____	**UP** **U** **MP** **M** **O**	
7	Ingaba ikhona na igranti oyifumanayo [IGAMA]? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**	**Go to 8** **Go to 9**
8	Yeyiphi igranti oyifumanayo [IGAMA LAYO]? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Eyabantwana Igranti yabantwana abakhuliswa njengabakho Enye Enye (Cacisa) _____	**Y** **N** **Y** **N** **Y** **N**	

9	Ngowuphi owona mthombo enifumana kuwo amanzi okusela amalungu akwikhaya lakho? **Impendulo enye kuphela.**	Itepu yakho endlwini Itepu yakho engekho sendlwini Itepu yabantu abaninzi Umlambo/idama Umngxuma wesitsala-manzi/iqula Eminye Eminye (Cacisa) _____	**TI** **TO** **TC** **R** **B** **O**		
10	Ingaba uyawalungisa na amanzi ukuwenza ukuba kukhuseleke ukuwasela? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**		**Go to 11** **Go to 12**
11	Yintoni osoloko uyenza ukuwenza ukuba kukhuseleke ukuwasela? **Iimpendulo ezininzi zamkelekile.** **Mphande ngokumbuza oku kuphela: "Ikhona enye into" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo**	Ukuwabilisa Ukugalela iblitshi/iiklorini Ukusebenzisa isihluzo samanzi Uwayeka ahlale ukuze angcwenge Ezinye Ezinye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N**	
IMVELAPHI YOMNTWANA					
Ngubani igama losana lwakho? **Xelela umama ukuba awuzi kulibhala phantsi eli gama. Lisebenzise eli gama kwimibuzo xa [IGAMA] libonakalisiwe.**					
12	Isini somntwana **Impendulo enye kuphela.**	Yikwenkwe Yintombazana	**B** **G**		
13	Wazalwa nini [IGAMA LAKHE]?	|_____/_____/20_____| UMHLA / INYANGA / UNYAKA			
14	Cela ukubona ikhadi/incwadana yakhe yasekliniki okanye isetifikethi sakhe sokuzalwa. **Mjonge umntwana ukuba ingaba uneenyanga ezi-0 ukuya kwei-5.9.** **Ukuba umntwana uneenyanga ezi-6 okanye nangaphezulu, mbulele umama ngexesha lakhe uyiyeke imibuzo.**	Ikhadi libonwe, umhla wokuzalwa uqinisekisiwe Akukho khadi, andikwazi kuqiniseka	**V** **N**		

15	Wazalelwa phi [IGAMA LAKHE]? **Impendulo enye kuphela.**	KwIKliniki / kwisibhedlele sikawonke-wonke Cacisa igama_____ Ikliniki/isibhedlele sabucala Cacisa igama_____ Ekhaya Andazi Ezinye Ezinye (Cacisa)_____	**PU** **PR** **H** **D** **O**	
16	Ingaba wena [IGAMA LAKHO] ungumama womntwana omzeleyo? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**	**Go to 19** **Go to 17**
17	Unxulumene njani wena nosana? **Impendulo enye kuphela.**	Ngutata Liqabane likamama kodwa ingengotata womntwana Umakhulu Elinye ilungu losapho Cacisa _____ Umhlobo womzali Olunye Olunye (Cacisa) _____	**F** **P** **G** **FM** **FP** **O**	
18	Kutheni le nto engajongwa ngumama wakhe [IGAMA LIKAMAMA WAKHE]? **Impendulo enye kuphela.**	Ugula kakhulu Wasweleka Akahlali nosana Okunye Okunye (Cacisa) _____	**I** **D** **NL** **O**	**Go to 36**

Ngoku singathanda ukukubuza imibuzo embalwa ngendlela omtyisa ngayo [IGAMA LAKHE].

UKUTYISWA KOSANA				
19	Wakhe wazifumana iingcebiso zokuba utyiswa njani [IGAMA LAKHE] ngeli xesha ubukhulelwe? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**	**Go to 20** **Go to 21**

20	Ubuzifumana kubani okanye ubuzifumana phi iingcebiso ngokutyiswa kosana ngeli xesha ubukhulelwe? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Kutata wosana Kumama wakhe Kwelinye ilungu losapho Cacisa _____ Kumhlobo Kumsebenzi wezempilo Cacisa ngubani_____ Kwiqela labaxhasanayo ekuhlaleni Kumajelo eendaba (Ezishicilelweyo, kwezikanomathotholo okanye kumabonakude) Cacisa _____ Amanye Amanye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
21	Ubukhe wafumana iingcebiso ngokumncancisa ibele [IGAMA LAKHE] emva kokuzalwa kwalo?	Ewe Hayi	**Y** **N**		**Go to 22** **Go to 23**
22	Ubuzifumene phi okanye kubani iingcebiso ngokumncancisa [IGAMA LAKHE] emva kokuzalwa kwalo? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Kutata wosana Kumama wakhe Kwelinye ilungu losapho Cacisa _____ Kumhlobo Kumsebenzi wezempilo Cacisa kubani_____ Kwiqela elixhasanayo lasekuhlaleni Kwezosasazo lweendaba (Kushicilelo, kunomathotholo, kumabonakude) Cacisa _____ Abanye Abanye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
23	Wakhe wamncancisa ibele [IGAMA LAKHE]? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**		**Go to 25** **Go to 24**

24	Kutheni le nto ukhethe ukungamncancisi ibele [IGAMA LAKHE]? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Umama okanye usana luyagula Akukho lubisi lwaneleyo Umama ubuyele emsebenzini/esikolweni Usana alufunanga kuncanca ibele NdineNtsholongwane kaGawulayo Bekukho iingxaki ngaphambili/ndifumene amava amabi Ziingcebiso zabasebenzi bezempilo Cacisa ngubani_____ Iingcebiso kwilungu losapho Cacisa ngubani_____ Iingcebiso kumhlobo Ezinye Ezinye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	**Go to 36**
25	Yintoni ebangele ukhethe ukumncancisa ibele [IGAMA LAKHE]? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Ukutya kweentsana okufanelekileyo Usana olusempilweni/ukulukhusela kwizifo Aluhlawulelwa Ukusondelelana konxibelelwano phakathi komama nosana Kulula/zimbalwa iingxaki Ezinye Ezinye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
26	Emva kokubeleka umhlalise ixesha elingakanani ebeleni [IGAMA LAKHE]? **Impendulo enye kuphela.**	Kwisithuba seyure Kwisithuba sosuku olunye Kwisithuba seentsuku ezintathu Elinye Elinye (Cacisa) _____	**H** **D** **T** **O**		**Go to 28** **Go to 27** **Go to 27** **Go to 27**
27	Ingaba isizathu sokungancancisi sense kanye emva kokubeleka after birth? **Impendulo enye kuphela.**	Umama okanye usana belugula Alunikwanga kwangoko usana Esinye Esinye (Cacisa) _____	**I** **G** **O**		
28	Uye walicudisa na waze walulahla ubusu lokuqala olumthubi (ubisi lokuwala) obunayo emva kokumbeleka [IGAMA LAKHE]? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**		**Go to 29** **Go to 30**

29	Yintoni ebangele ukuba ululahle ubisi lokuqala lwebele olumthubi (ubisi lokuwala)? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Lwenze ubisi lwatsitsa Alululungelanga usana Iingcebiso ezisuka kumsebenzi wezempilo Cacisa kubani_____ Iingcebiso zelungu losapho Cacisa kubani_____ Iingcebiso zomhlobo Ezinye Ezinye (Cacisa) _____	**Y N** **Y N** **Y N** **Y N** **Y N** **Y N**	
30	Ingaba lukhona uncedo oye walufumana ukuqala kwakho ukumncancisa ibele [IGAMA LAKHE]?	Ewe Hayi	**Y** **N**	**Go to 31** **Go to 32**
31	Ngubani oyena mntu oye wakunceda ukuqala kwakho ukuncancisa ibele? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Umsebenzi wezempilo Cacisa kubani_____ Kumama wakhe Kumakhulu wakhe Kwelinye ilungu losapho Cacisa kubani_____ Kumhlobo Abanye Abanye (Cacisa) _____	**Y N** **Y N** **Y N** **Y N** **Y N** **Y N**	
32	Ingaba usamncancisa ibele [IGAMA LAKHE]?	Ewe Hayi	**Y** **N**	**Go to 33** **Go to 34**
33	Ucinga ukumncancisa ibele de abenangaphi [IGAMA LAKHE]? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki okanye ngokweminyaka.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	_____ **#**	**Go to 38**
34	Umncancise de waba nangaphi [IGAMA LAKHE]? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	_____ **#**	

35	Uyekeleni ukumncancisa ibele? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Umama okanye usana ebegula Iingxaki zebele Bekungekho lubisi lwaneleyo/usana belusoloko lulambile Umama uye wabuyela emsebenzini/esikolweni Usana khange lufune ukuncanca BendineNtsholongwane kaGawulayo Iingxaki zangaphambili/ndifumene amava amabi Iingcebiso zomsebenzi wezempilo Cacisa kubani_____ Iingcebiso zelungu losapho Cacisa kubani_____ Iingcebiso kumhlobo Okunye Okunye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	
36	Njengoko [IGAMA LAKHE] engancanci bele, umselisa ntoni endaweni yokumncancisa? **Impendulo enye kuphela.**	Ubisi lwebhotile losana Cacisa igama_____ Ubisi lwezilwanyana (umz. lwenkomo okanye lwebhokhwe) Ipapa ethambileyo Cacisa _____ Amanzi aneswekile Okunye Okunye (Cacisa)_____	**F** **A** **P** **W** **O**	**Go to 37** **Go to 38** **Go to 38** **Go to 38** **Go to 38**	
37	Uluxuba njani ubisi lwebhotile losana? **Myeke umnonopheli achaze indlela enza ngayo.** **Mkhokelele kwiindawo ezi-4** **Mbonise iskupu xa umbuza ngenani lezikupu.** **Zalisa zonke iindawo uchaze ngakumbi ukuba ikhona enye into ayichazayo.**	Amanzi abilisiweyo apholiswa Umlinganiselo wamanzi Inani lezikupu Ingaba izikupu azichuchumali Ukuba izikupu azichuchumali, chaza:_____ _____ Okunye: _____ _____	**Y N** **____ml** **_____** **Y N**		
38	Wakhe wamnika [IGAMA LAKHE] amanzi okusela? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**	**Go to 39** **Go to 40**	

39	Ebenangaphi [IGAMA LOMNTWANA] ukuqala kwakho ukumnika amanzi? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	_____ #		
40	Wakhe wamnika [IGAMA LAKHE] ukutya okuthambileyo okanye ezinye izinto eziselwayo? **Impendulo enye kuphela.**	Ewe Hayi	**Y** **N**		**Go to 41** **Go to 44**
41	Ebenangaphi [IGAMA LOMNTWANA] ukuqala kwakho ukumnika ukutya okuthambileyo okanye ezinye izinto eziselwayo? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	_____ #		
42	Kokuphi ukutya okuthambileyo okanye izinto eziselwayo omnike zona [IGAMA LAKHE]? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Ubisi lwebhotile losana Amanzi aneswekile/ Iti yeRooibos Iti yamaNgesi/iKofu Iziselo ezibandayo/ijusi yeziqhamo Ubisi lwezilwanyana (umz. olwenkomo okanye olwebhokhwe) Ipapa ethambileyo ephekiweyo (umz. eyomgubo) Cacisa _____ Ipapa yeentsana (umz. iNestum) Cacisa _____ Ipapa ezilungele ukutyiwa (umz. iWeetbix) Cacisa_____ Iitapile/ithanga/ibhatata Iziqhamo/eminye imifuno IYogathi Okunye ukutya Cacisa_____	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	

43	Kutheni le nto uye wamnika ukutya okuthambileyo okanye izinto eziselwayo [IGAMA LAKHE]? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Bekungekho lubisi lwaneleyo /usana belusoloko lulambile Usana alufuni nje kuphela ubisi lodwa Iingcebiso kumsebenzi wezempilo Cacisa kubani_____ Iingcebiso kwilungu losapho Cacisa kubani_____ Iingcebiso kumhlobo Abanye Abanye (Cacisa) _____	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
44	Ingaba [IGAMA LAKHE] ikhona enye into ayiselayo ebhotileni ngamanye amaxesha? **Impendulo enye kuphela.**	Ewe Hayi Andazi	**Y** **N** **D**		

Ngokundingathanda ukukubuza eminye imibuzo ngokucingayo ngokutyiswa kweentsana.

ULWAZI					
45	Ucinga ukuba kufuneka iyintoni into yokuqala oluyityiswayo usana olusandul'ukuzalwa? **Impendulo enye kuphela.**	Amanzi Amanzi aneGlucose Ubisi lwebele Ubisi lwebhotile lweentsana Amayeza Okunye Okunye (Cacisa) _____ Andazi	**W** **G** **B** **I** **M** **O** **D**		
46	Ngokwezimvo zakho, ucinga ukuba usana emva kokubelekwa kufuneka luluncance nini na ubisi lwebele? **Impendulo enye kuphela.** **Guqula iimpendulo zibe ziiyure ukuba impendulo yimizuzu okanye ziintsuku.** **Ukuba uthe kwakamsinya, faka iiyure ezingu-"0".**	Iiyure Andazi	**_____** **#**		

47	Ucinga ukuba umama osandul'ukubeleka kufuneka enze ntoni ngobisi lwebele lokuqala olumthubi? **Impendulo enye kuphela.**	Alunike usana Alulahle Okunye Okunye (Cacisa) _____ Andazi	**G** **T** **O** **D**	
48	Ngokwezimvo zakho, kufuneka usana luqale ukuwafumana amanzi xa lungakanani? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	**_____** **#**	
49	Ucinga ukuba usana kufuneka luncance ubisi lwebele lodwa lungafumani enye into ixesha elingakanani? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".one month, enter "0" months.**	Iinyanga Andazi	**_____** **#**	
50	Ukuba umama uyasokola ukuncancisa ibele, yintoni ekufuneka ayenze ukufumana ubisi oluninzi? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Mncancise ibele rhoqo Thenga ukutya okuninzi nezinto eziselwayo Liphulule ibele Okunye Okunye (Cacisa) _____ Andazi	**Y** **N** **Y** **N** **Y** **N** **Y** **N** **Y** **N**	
51	Ngokoluvo lwakho, ucinga ukuba usana kufuneka luqhubeke luncanca ubisi lwebele de lube nangaphi? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	**_____** **#**	

52	Ucinga ukuba ziintoni eziluncedo kusana luncanca ubisi lwebele? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Ukutya okulungele iintsana Ukulukhusela kwizifo Ukusondelelana kubekho unxibelelwano phakathi komama nosana Ezinye Ezinye (Cacisa) _____ Akukho zinto ziluncedo Andazi	**Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N**	
53	Ucinga ukuba ziintoni eziluncedo kumama xa eluncancisa usana lwakhe? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Kulula/zimbalwa iingxaki Kunceda ukunika isithuba sosana Ukusondelelana kubekho unxibelelwano phakathi komama nosana Akuxabisi kakhulu Umama wehla ngokukhawuleza emzimbeni Okunye Okunye (Cacisa) _____ Akukho zinto ziluncedo Andazi	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N**	
54	Ngokoluvo lwakho, ucinga ukuba usana lufanele ukukutya ukutya okuthambileyo xa lunangaphi? **Rhangqela inyanga esondeleyo ukuba umama uphendula ngokweeveki.** **Ukuba zingaphantsi kwenyanga e-1, faka iinyanga ezi-"0".**	Iinyanga Andazi	_____ **#**		

Le mibuzo ilandelayo inento yokwenza noGawulayo neNtsholongwane yakhe. Siyaqonda ukuba abanye abantu abakwazi kukhululeka ngokuxoxa ngoku, kodwa singathanda ukwazi ukuba ucinga ntoni na ngalo mba. Iimpendulo zakho ziyimfihlo. Igama lakho okanye losana lwakho alizi kubhalwa kule fomu kwaye alisoze lisetyenziswe ngokunxulumene nazo naziphi na iimpendulo ondinika zona. Nceda ukhululeke ukuphendula imibuzo kwaye ukhumbule ukuba akukho zimpendulo zichanekileyo nezingachanekanga. Ukuba awufuni kuphendula nayiphi na imibuzo kule ilandelayo, ngoko ke akunyanzelekanga ukuba uyiphendule. Oku akuzi kuba nento embi ekuchaphazelayo ekuthatheni kwakho inxaxheba.

INTSHOLONGWANE KAGAWULAYO					
55	Uzifumana phi okanye kubani iinkcukacha ezininzi zakho ngoGawulayo neNtsholongwane yakhe? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Kutata wosana Kumama wakho Kwelinye ilungu losapho Cacisa _____ Kumhlobo Kumsebenzi wezempilo Cacisa kubani _____ kwiqela elixhasanayo ekuhlaleni kumajelo eendaba (kwashicilelayo, kunomathotholo okanye kumabonakude) Cacisa _____ Kwiinkokheli zasekuhlaleni Kwiinkokheli kwezenkolo Abanye Abanye (Cacisa) _____ Andifuni kuphendula	**Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N** **N** **N** **N** **N**	
56	Ingaba ucinga ukuba umama oneNtsholongwane kaGawulayo kufuneka eluncancisile usana lwakhe? **Impendulo enye kuphela.**	Ewe Hayi Andazi	**Y** **N** **D**		**Go to 58** **Go to 57** **Go to 59**
57	Kutheni le nto ucinga ukuba umama oneNtsholongwane kaGawulayo kufuneka engaluncancisanga usana lwakhe? **Iimpendulo ezininzi zamkelekile.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Usana luza kosuleleka yiNtsholongwane kaGawulayo Usana lusenokusweleka Okunye Okunye (Cacisa) _____ Andifuni kuphendula	**Y** **Y** **Y** **Y**	**N** **N** **N** **N**	**Go to 59**

58	Kutheni le nto ucinga ukuba umama oneNtsholongwane kaGawulayo kufuneka eluncancisile usana lwakhe? **Iimpendulo ezininzi zamkelekile.** **S'ukulufunda uluhlu.** **Mphande ngokumbuza oku kuphela: "*Ikhona enye into*" kubekanye.** **Rhangqela u-"Y" kuzo zonke iimpendulo zakho ozichazileyo.**	Ukutya kweentsana okufanelekileyo Usana olusempilweni/ukulukhusela kwizifo Aluhlawulelwa Ukusondelelana konxibelelwano phakathi komama nosana Okanye abantu baza kumkrokrela ukuba uneNtsholongwane kaGawulayo Okunye Okunye (Cacisa) _____ Andifuni kuphendula	**Y** **Y** **Y** **Y** **Y** **Y** **Y**	**N** **N** **N** **N** **N** **N** **N**	
59	Wakhe wahlolwa na ukuba awunayo iNtsholongwane kaGawulayo? **Impendulo enye kuphela.**	Ewe Hayi Andifuni kuphendula	**Y** **N** **D**		**Go to 60** **Go to 63** **Go to 63**
60	Waye wazifumana okanye waya kuzilanda iziphumo zakho zokuba uhloliwe? **Impendulo enye kuphela.**	Ewe Hayi Andifuni kuphendula	**Y** **N** **D**		**Go to 61** **Go to 63** **Go to 63**
61	Ukuba unomdla wokwabelana nathi ngezi ziphumo, nceda usixelele ukuba sithini na isimo sakho seNtsholongwane kaGawulayo? ***Khumbula ukuba zonke iinkcukacha zihleli ziyimfihlo kwaye igama lakho alizi kubhalwa kule fomu.*** **Impendulo enye kuphela.**	Ndinayo Andinayo Andifuni kuphendula	**P** **N** **D**		**Go to 62** **Go to 63** **Go to 63**
62	Ingaba usebenzisa ii-ARV kuba uneNtsholongwane kaGawulayo njengoko umiselwe ngugqirha ukuba wenze njalo? **Impendulo enye kuphela.**	Ewe Hayi Andifuni kuphendula	**Y** **N** **D**		
63	Ingaba [IGAMA LAKHE] wakhe wahlolwa ukuba akanayo na iNtsholongwane kaGawulayo? **Impendulo enye kuphela.**	Ewe Hayi Andifuni kuphendula	**Y** **N** **D**		**Go to 64** **END** **END**
64	Waye wazifumana okanye waya kuzilanda iziphumo zakho zokuba ehloliwe? **Impendulo enye kuphela.**	Ewe Hayi Andifuni kuphendula	**Y** **N** **D**		**Go to 65** **END** **END**

65	Ukuba unomdla wokwabelana nathi ngezi ziphumo, nceda usixelele ukuba sithini na isimo sakhe seNtsholongwane kaGawulayo [IGAMA LAKHE]? ***Khumbula ukuba zonke iinkcukacha zihleli ziyimfihlo kwaye igama lakho alizi kubhalwa kule fomu.*** **Impendulo enye kuphela.**	Ndinayo Andinayo Andifuni kuphendula	**P** **N** **D**	**Go to 66** **END** **END**
66	Ingaba [IGAMA LAKHE] usebenzisa ii-ARV kuba eneNtsholongwane kaGawulayo njengoko emiselwe ngugqirha ukuba enze njalo? **Impendulo enye kuphela.**	Ewe Hayi Andifuni kuphendula	**Y** **N** **D**	**END** **END** **END**

Ndibulela kakhulu ngexesha lakho nangokusinceda kwakho. Ingaba ikhona imibuzo onayo?

Jonga iphepha elinemibuzo ukuqinisekisa ukuba zonke iimpendulo uye wazinikwa kwaye zineekhowudi.

Appendix 6.7: Socio-demographic questionnaire for focus group participants (English)

Participant Number							**Birth Date**	D	D	M	M	Y	Y	Y	Y

Interviewer:	**Date of interview**	D	D	M	M	Y	Y	Y	Y

SOCIO-DEMOGRAPHIC QUESTIONNAIRE

1. How would you describe yourself in terms of population group	African	Colored	Indian	White	Other (Specify)

2. What is your first language?	Afrikaans	English	Xhosa	Zulu	Other

3. What is your marital status?	Unmarried	Married	Divorced	Separated	Widowed	Living together	Traditional marriage	Other: Specify

4. What is your highest formal education level? ***(Circle one number only)***	None	Primary School	Std 6-8 Grade 8-10	Std 9-10 Grade 11-12	Tertiary education (1 year certificate)

5. What is your employment status? ***(Circle one number only)***	Un-employed (looking for work)	Home-maker by choice (not looking for work)	Self-employed	Wage-earner	Self-employed professional	Other (Specify)

6. Who decides on what types of food are bought for this household? **Child's**	Father	Mother	Husband	Grandma	Grandpa	Aunt	Uncle	Brother	Sister	Friend	Self	Other
7. Who decides how much money is spent on Food for this household? **Child's**	Father	Mother	Husband	Grandma	Grandpa	Aunt	Uncle	Brother	Sister	Friend	Self	Other
8. Who is mainly responsible to buy food for the household? **Child's**	Father	Mother	Husband	Grandma	Grandpa	Aunt	Uncle	Brother	Sister	Friend	Self	Other

9. Who is mainly responsible for food preparation in the house?	**Child's**	Father	Mother	Husband	Grandma	Grandpa	Aunt	Uncle	Brother	Sister	Friend	Self	Other
10. Who is mainly responsible for feeding / serving the children?	**Child's**	Father	Mother	Husband	Grandma	Grandpa	Aunt	Uncle	Brother	Sister	Friend	Self	Other

Household data

11. Which one of the following housing types best describes the type of dwelling this household occupies ***(circle only ONE answer)***	**Housing type**
	House
	Flat
	Hostel / Compound
	Hotel / Boarding house
	Room in backyard
	Room in house
	Room in flat
	Squatter hut / shack
	Mobile home
	Other: Specify

12. How many people sleep in this house for at least 4 nights per week for most of the year?	
13. How many rooms does this house have? (excluding bathroom, toilet and kitchen if separate)	

14. What is the number of people in the household per living / sleeping in a room (for inside and outside rooms) ***(Tick one)***	0-2 persons	3-4 Persons	More than 4 persons		
15. Where do the household get drinking water most of the time ***(Circle one number)***	Own tap	Communal tap	River / dam	Borehole / well	Other (Specify)
16. What type of toilet does this household have? ***(Circle as many numbers as necessary)***	Flush	Pit / VP	Bucket / pot	None	Other (Specify)

17. What fuel is used for cooking most of the time? ***(Circle as many numbers as necessary)***	Electric	Gas	Paraffin	Wood	Coal	Other (Specify)
18. Does this home have a working: Refrigerator / Freezer			Fridge	Freezer	Both	None

19. Stove (oven & hob)	Yes	No	If yes, circle all relevant options Gas Coal Electricity
20. Primus or Paraffin stove			Yes / No

21. Microwave													Yes	No
22. Hot Plate													Yes	No
23. Radio / television								Radio			TV		Both	None
24. Telephone								Land line			Cell		Both	None
25. Do members of this household receive any grants? ***(You may circle more than one number)***	None	Child support	Social relief	Disability	Old age pension	Other (Specify)								
26. Has anyone in the household worked in a food-related business in the last six months?													Yes	No
26 a. Which	Food production and agriculture	Food processing / packaging	Food transport	Food retail	Restaurant / fast food	Informal trading	Recycling / waste disposal	NA						
27. Which member(s) of the family worked in a food-related business in the last six months? **Child's**	Father	Mother	Husband	Grandma	Grandpa	Aunt	Uncle	Brother	Sister	Friend	Self	Other		
28. How many people contribute to the total income (money) in this household? ***(Circle one number only)***	1 person	2 persons	3-4 persons	5-6 persons	More than 6									
29. What is the total household income per month (including wages, rent, grants, sales of vegetables etc.) ***(Circle one number only)***	None	R1 - R500	R501 - R1000	R1001 - R3000	R3001 - R5000	Over R5000	Don't know							
30. How much money is spent on food monthly? (including food eaten away from home) ***(Circle only one option)***	R0-50	51-R100	R101-R150	R151-R200	R201-R250	R251-R300	R301-R350	R351-R400	Over R400	Don't know				
31. Do members of this household regularly receive food from a feeding scheme?													Yes	No
32. Does this household have a person or persons living and working elsewhere?													Yes	No

Appendix 6.8: Socio-demographic questionnaire for focus group participants (Afrikaans)

Participant Number							**Birth Date**	D	D	M	M	Y	Y	Y	Y

Interviewer:	**Date of interview**	D	D	M	M	Y	Y	Y	Y

SOSIO-DEMOGRAFIESE VRAELYS

1. Tot watter bevolkingsgroep sou jy sê behoort jy? *(Bevolkingsgroep soos vrou dit self beskou)*	Swart	Bruin	Indiër	Wit	Ander (sê asb watter groep)

2. Wat is jou eerste taal (die taal waarin jy grootgeword het)?	Afrikaans	Engels	Xhosa	Zoeloe	Ander

3. Wat is jou huwelikstaat?	Ongetroud	Getroud	Geskei	Uitmekaar	Weduwee	Bly saam	Tradisionele huwelik	Ander (verduidelik asseblief)

4. Hoe ver het jy geleer? *(Omkring net een nommer)*	Glad nie geleer nie	Laerskool	St 6–8/ graad 8–10	St 9–10/ graad 11–12	Ná skool verder geleer

5. Wat is jou werksituasie? (Omkring net een nommer)	Werkloos	Het gekies om huisvrou te wees	Werk vir myself	Loonwerker	Beroeps-persoon in eie diens	Ander (verduidelik asseblief)

	Die kind se/my	Pa	Ma	Man	Ouma	Oupa	Tannie	Oom	Broer	Suster	Vriend	Ekself	Ander
6. Wie besluit watter soort kos vir hierdie huishouding gekoop word?													
7. Wie besluit hoeveel geld aan kos vir hierdie huishouding bestee word?													
8. Wie is hoofsaaklik verantwoordelik om kos vir die huishouding te koop?													
9. Wie is hoofsaaklik verantwoordelik om die kos vir die huis te maak?													

10. Wie is hoofsaaklik verantwoordelik om die kinders kos te gee? Die kind se/my	Pa	Ma	Man	Ouma	Oupa	Tannie	Oom	Broer	Suster	Vriend	Ekself	Ander

Huishoudelike data

11. Watter van die volgende beskryf hierdie huishouding se soort woonplek die beste? *(MOENIE hardop lees nie – omkring net EEN antwoord)*	**Soort woonplek**
	Huis
	Meenthuis
	Woonstel
	Hostel/kampong
	Hotel/losieshuis
	Kamer in agterplaas
	Kamer in huis
	Kamer in woonstel
	Plakkershut
	Mobiele huis
	Ander: Sê asseblief watter soort

12. Hoeveel mense slaap vir die grootste gedeelte van die jaar minstens vier nagte per week in hierdie woonplek?	
13. Hoeveel vertrekke het hierdie woonplek? (Moenie badkamer, toilet en kombuis bytel indien dit apart is nie.)	

14. Hoeveel mense is daar per leef-/slaapkamer? *(Merk een)*	0–2	3–4	Meer as 4

15. Waar kry julle gewoonlik drinkwater vandaan? *(Omkring een nommer)*	Eie kraan	Gemeenskap-like kraan	Rivier/dam	Boorgat/put	Ander (verduidelik asseblief)
16. Watter soort toilet het hierdie huishouding? *(Omkring so veel nommers as wat nodig is)*	Spoel	Put, met óf sonder ventilasie	Emmer/pot	Geen	Ander (verduidelik asseblief)

17. Watter brandstof word meestal gebruik om kos te kook? *(Omkring so veel nommers as wat nodig is)*	Elektrisiteit	Gas	Paraffien	Hout	Steenkool	Ander (verduidelik asseblief)
18. Het hierdie huis 'n werkende: Ys-/vrieskas			Yskas	Vrieskas	Albei	Geen
19. Stoof (oond en kookblad)		Ja	Nee	Indien wel, omkring alle tersaaklike antwoorde Gas Steenkool Elektrisiteit		
20. Primus- of paraffienstoof					Ja	Nee
21. Mikrogolf					Ja	Nee
22. Kookplaat					Ja	Nee
23. Radio/televisie			Radio	TV	Albei	Geen
24. Telefoon			Landlyn	Sel	Albei	Geen

25. Ontvang lede van hierdie huishouding enige toelaes? *(Jy kan meer as een nommer omkring)*	Geen	Kinder-toelaag	Maatskap-like nood-leniging	Onge-skiktheids-toelaag	Ouder-doms-pensioen	Ander (verduidelik asseblief)

26. Het enigeen in die huishouding in die afgelope ses maande by ’n plek gewerk wat met kos te doen het?										Ja		Nee
26 a. Watter?	Voedsel-produksie en landbou		Voedsel-verwerking/ -verpakking		Voedsel-vervoer		Kos-kleinhandel		Restaurant/ kitskosplek		Informele handel	Herwin-ning/afval -verwy-dering
27. Watter lid/lede van die familie het in die afgelope ses maande by ’n plek gewerk wat met kos te doen het? Die kind se/my	Pa	Ma	Man	Ouma	Oupa	Tannie	Oom	Broer	Suster	Vriend	Ekself	Ander
28. Hoeveel mense dra by tot die totale inkomste (geld) in hierdie huishouding? *(Omkring net een nommer)*		1		2		3–4		5–6		Meer as 6		
29. Hoeveel geld bring die huishouding altesaam elke maand in (wat lone, huur, toelaes, groenteverkope, ensovoorts insluit)? *(Omkring net een nommer)*	Niks		R1–R500		R501–R1 000		R1 001–R3 000		R3 001–R5 000		Meer as R5 000	Weet nie
30. Hoeveel geld gee julle weekliks aan kos uit? (Tel kos by wat weg van die huis geëet word.) *(Omkring net een nommer)*	R0–R50	R51–R100		R101–R150		R151–R200		R201–R250		R251–R300		R301–R350	R351–R400	Meer as R400	Weet nie
31. Kry lede van hierdie huishouding gereeld kos van ’n voedingskema?											Ja	Nee
32. Is daar enigiemand wat tot hierdie huishouding behoort, maar nou iewers anders woon en werk?											Ja	Nee

Appendix 6.9: Socio-demographic questionnaire for focus group participants (isiXhosa)

Participant Number							**Birth Date**	D	D	M	M	Y	Y	Y	Y

Interviewer:	**Date of interview**	D	D	M	M	Y	Y	Y	Y

IPHEPHA LEMIBUZO NGEZENTLALO NAMANANI ABANTU BENDAWO ETHILE

1. Ungazichaza njani ngokwamaqela abemi *(Iqela labemi njengoko lithathwa njalo ngobhinqileyo ngenkqu}*	Mnyama	WeBala	UMndiya	OMhlophe	Omnye (cacisa)

2. Loluphi ulwimi lwakho lokuqala?	IsiBhulu	IsiNgesi	isiXhosa	isiZulu	Olunye

3. Sithini isimo sakho somtshato?	Anditshatanga	Nditshatile	Siqhawule umtshato	Sohlukene	Ndingumlolo/nding umhlolokazi	Sihlala kunye	Sitshate umtshato wesintu	Okunye: cacisa

4. Leliphi izinga lakho eliphezulu lemfundo esesikweni? *(Rhangqela inombolo enye kuphela)*	Ayikho	Isikolo samabanga aphantsi	Ibanga lesi-6-8 Ibanga lesi-8-10	Ibanga le-9-10 Ibanga le-11-12	Imfundo ephakamileyo

5. Sithini isimo sakho sengqesho? *(Rhangqela inombolo enye kuphela)*	Andisebenzi	Ndihlala ekhaya ngokuzithandela	ndiyazisebenzela	Ndifumana umvuzo	Ndiyazisebenzela umsebenzi onobugcisa	Okunye (cacisa)

6. Ngubani ogqiba ngeentlobo zokutya ezithengwayo kweli khaya? Umntwana	Utata	Umama	Umyeni	Umakhulu	Utatomkhulu	Umakazi/ udabawo	Umalume/ utatomncinci	Umnakwe	Udade	Umhlobo	Mna buqu	Okunye

7. Ngubani ogqiba ukuba yimalini echithwayo ekutyeni kweli khaya? Umntwan	Utata	Umama	Umyeni	Umakhulu	Utatomkhulu	Umakazi/ udabawo	Umalume/ utatomncinci	Umnakwe	Udade	Umhlobo	Mna buqu	Okunye

8. Luxanduva lukabani ukuthenga ukutya ekhaya? Womntwan	Utata	Umama	Umyeni	Umakhulu	Utatomkhulu	Umakazi/udabawo	Umalume/utatomncinci	Umnakwe	Udade	Umhlobo	Mna buqu	Okunye
9. Ngubani oyena mntu onoxanduva lokulungisa ukutya ekhaya? Womntwan	Utata	Umama	Umyeni	Umakhulu	Utatomkhulu	Umakazi/ udabawo	Umalume/ utatomncinci	Umnakwe	Udade	Umhlobo	Mna buqu	Okunye
10. Ngubani oyena mntu unoxanduva lokondla / lokuphakela abantwana? Womntwan	Utata	Umama	Umyeni	Umakhulu	Utatomkhulu	Umakazi/ udabawo	Umalume/ utatomncinci	Umnakwe	Udade	Umhlobo	Mna buqu	Okunye

Iinkcukacha zekhaya

11. yeyiphi kwezi ntlobo zilandelayo zezindlu eyona ichaza uhlobo lwendlu yokuhlala ohlala kuyo *(Sukumfundeka UMKHWAZELE – rgangqela impendulo ENYE kuphela)*	Uhlobo lwendlu
	Indlu
	Indlu esedolophini
	Iflethi
	Emaholweni / Indawo ehlanganisa abantu
	Ehotele / Indlu obhoda kuyo
	Indlu enmgemva
	Igumbi endlwini
	Igumbi eflethini
	Indlu ongxungxa kuyo / ityotyombe
	Indlu ehambayo
	Enye: Cacisa

12. Bangaphi abantu abalala kule ndlu ubuncinane malunga nobusuku obu-4 ngeveki ixesha elininzi enyakeni?	
13. Mangaphi amagumbi enawo le ndlu? (ngaphandle kwegumbi lokuhlambela, kwegumbi langasese nekhitshi ukuba awodwa)	

14. Bangaphi abantu kwigumbi ngalinye lokuhlala / lokulala *(Rhangqela ibenye)*	Abantu aba-0-2	Abantu aba-3-4	Ngaphezu kwabantu aba-4

15. Uwafumana phi amanzi aselwayo ixesha elininzi *(Rhangqela ibenye)*	Itepu yakho	Itepu esekuhlaleni	Umlambo / idama	Umngxuma wesitsala-manzi / iqula	Amanye (cacisa)
16. Loluphi uhlobo lwendlu yangasese eli khaya elinayo? *(Rhangqela iinombolo zibeninzi kangangoko kuyimfuneko)*	Egungxulwayo	Umgodi / umgodi okhupha umoya	Amabhakethi / ipoti	Akukho nanye	Olunye (Cacisa)

17. Zeziphi izibaso ezisetyenziswa ekuphekeni ixesha elininzi? *(Rhangqela iinombolo zibeninzi kangangoko kuyimfuneko)*	Umbane	Irhasi	iParafini	Iinkuni	Amalahle	Ezinye (cacisa)
18. Ingaba elikhaya lineFriji / Isikhenkcezisi esisebenzayo			Ifriji	Isikhenkcezisi	Zombini	Akukho nanye

19. Istovu (i-oveni nehobhu)	Ewe	Hayi	Ukuba uthi ewe, rhangqela zonke izinto ezifanelekileyo Irhasi Amalahle Umbane
20. Isitovu sePrimus okanye separafini		Ewe	Hayi
21. IMicrowave		Ewe	Hayi
22. IHot Plate		Ewe	Hayi

23. Unomathotholo / umabonakude	Unomathotholo	ITV	Zombini	Akukho nanye
24. Umnxeba	Eyasendlini	Iselula	Zombini	Akukho nanye

25. Ingaba amalungu eli khaya zikhona iigranti azifumanayo? *(Ungarhangqela iinombolo ezingaphezu kwesinyer)*	Akukho nanye	Inkxaso yabantwana	Uncedo lwentlalo	Ukukhubazeka	Umhlala-phantsi wabantu abadala	Ezinye (cacisa)

26. Ingaba ukhona kwikhaya lakho owakhe wasebenza kwishishini elinxulumene nokutya kwiinyanga ezintandathu ezidlulileyo?	Ewe	Hayi

26 a. Ngowuphi?	Kwimveliso yokutya nakwezolimo	Ukwenziwa kokutya kungonakali / ukupakishwa kwako	Ukuthuthwa kokutya	Ukuthengiswa kokutya	KwiRestaurant / ukutya okukhawulezileyo	Ushishino olungekho sesikweni	Ukulungiswa kwezinto ebezisetyenzisiwe ziphinde zibentsha / ukulahlwa kwako

27. Leliphi/ngawaphi la malungu osapho akhe asebenza kwishishini elinxulumene nokutya kwiinyanga ezintandathu ezidlulileyo?	womntwana	Utata	Umama	Umyeni	Umakhulu	Utatomkhulu	Umakazi/udabawo	Umalume/utatomn	Umnakwe	Udade	Umhlobo	Mna buqu	Okunye

28. Bangaphi abantu abanegalelo kumvuzo uwonke (imali) kweli khaya? *(Rhangqela inombolo ibenye kuphela)*	Umntu o-1	Abantu aba-2	Abantu aba-3-4	Abantu aba-5-6	Abantu abangaphezu kwesi-6

29. Uthini uwonke umvuzo weli khaya ngenyanga nganye (kubandakanywa umvuzo, irenti, ukuthengiswa kwemifuno njlnjl) *Rhangqela inombolo ibenye kuphela)*	Akukho nanye	R1-R500	R501-R1000	R1001-R3000	R3001-R5000	Ngaphezu kwama-R5000	Andazi

30. Yimalini echithwayo ekutyeni rhoqo ngeveki? (kubandakanywa ukutya okungatyiwa usekhaya) *Rhangqela ibenye kuphela)*	R0-50	R51-R100	R101-R150	R151-R200	R201-R250	R251-R300	R301-R350	R351-R400	Ngaphezu kwama-R400	Andazi

31. Ingaba amalungu eli khaya akufumana rhoqo ukutya kwizikimu zokutya?	Ewe	Hayi
32. Ingaba eli khaya linaye umntu abantu abahlala nabaphangela kwezinye iindawo? *(Ukuba eli khaya linelungu losapho elihlala nelisebenza kwezinye iindawo – qhubekeka uye kwicandelo elingezantsi.)*	Ewe	Hayi

Appendix 6.10: Focus group guide 1: Mothers who breastfeed exclusively/predominantly (English)

FOCUS GROUP GUIDE 1:
Mothers who breastfeed exclusively/predominantly

Introduction

- Good afternoon ladies and welcome to this focus group discussion. I am __*facilitator's name and surname*__ and I will be facilitating the focus group today. That is __*observer's name and surname*__ and she will record our conversation and make some notes.
- Thank you for agreeing to be part of a focus group discussion on feeding babies younger than six months.
- The purpose of this discussion is to help us understand why you make certain choices with feeding your babies.
- This discussion is part of a larger effort to understand and support your community in terms of food security and health.
- For those of you who have never participated in a focus group before, please be assured that this is a research technique commonly used to gather information.
- You are invited to respond to a series of questions.
- Your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all information you provide today is valuable.
- **There are NO right or wrong answers.**
- **Please feel free to participate.**
- When a person is speaking, I kindly request that the rest of the group stay quiet and listen.
- Please respect each other's comments by not criticising it.
- If the discussion goes too far off the topic, I will interrupt and move along to the following question.
- Please be assured that all your responses are confidential and will be used for research purposes only.
- We are voice recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one hour.
- Before we start recording, let us go around the room and introduce ourselves. Instead of telling us just your name, why not tell everyone your name, how long you have lived in this area, and what your favourite colour is.

FOCUS GROUP DISCUSSION STARTS

Ladies, we are now going to start the focus group discussion. We are now starting the recording.

Questions

Rephrase any question which is not understood or which does not provoke discussion.

1. Why did you decide to give only breast milk to your baby?

   → Prompt for more detail if needed, for example – If the mother answers that it is good for the baby, ask that she explain why she thinks it is good for the baby.

2. Do you feel you get enough support in your choice to feed your baby only breast milk?

   → What kind of support do you get and who provides this support?

3. Do you feel is it important to give water to babies younger than six months?

   → Why?

4. Why did you decide not to give any formula milk or food to your baby?
5. Why do you think do some women throw away the first, yellowish milk that they have right after the baby is born?
6. Do you feel that there is enough information on feeding babies available to mothers in your community?
7. Who has the biggest influence on your decisions and actions when feeding your baby?

   → If fathers are not mentioned, ask what role the father of the baby plays in this decision.

8. Is there anything else that you would like to share about your breastfeeding experience?

Closing

- Thank you for joining this focus group discussion. Your responses are very valuable.
- Enjoy the rest of your day.

<u>Observer's Guide to the Focus Groups</u>

The following should be captured per question:

- Dynamics of the group e.g. excitement versus lack of interest.
- Are some people more outspoken and some more reluctant?
- Do some people dominate the conversation while some are silent?
- Do the group agree or are there differences of opinion?
- Non-verbal communications e.g. face expressions, nodding in agreement, shaking head.

Appendix 6.11: Focus group guide 1: Mothers who breastfeed exclusively/predominantly (Afrikaans)

FOKUSGROEP GIDS 1:
Moeders wat uitsluitlik/hoofsaaklik borsvoed

Inleiding

- Goeiemiddag dames en welkom by hierdie fokusgroep bespreking. Ek is __*fasiliteerder se naam en van*__ en ek sal hierdie fokusgroep fasiliteer vandag. Daardie is __*waarnemer se naam en van*__ en sy sal ons gesprek opneem en notas neem.
- Dankie dat julle ingestem het om deel te wees van hierdie fokusgroep bespreking oor die voeding van babas jonger as ses maande.
- Die doel van hierdie bespreking is om ons te help verstaan waarom jy sekere keuses maak wanneer dit kom by die voeding van jou baba.
- Die bespreking is deel van ‘n groter doel om die voedselsekuriteit en gesondheid van jul gemeenskap te verstaan en te ondersteun.
- Vir die van julle wat nog nooit aan ‘n fokusgroep deelgeneem het nie, wees asseblief gerus dat hierdie ‘n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- Julle word almal uitgenooi om te reageer op ‘n reeks vrae.
- Jul antwoorde en besprekings sal ons baie help op ‘n gemeenskapsgebaseerde aksieplan te ontwikkel – alle inligting wat jul vandag verskaf is waardevol.
- **Daar is GEEN regte of verkeerde antwoorde nie.**
- **Voel asseblief vrymoedig om deel te neem.**
- Ek vra vriendelik dat wanneer ‘n persoon praat, die res van die groep sal stilbly en luister.
- Respekteer asseblief mekaar se antwoorde deur om dit nie te kritiseer nie.
- Indien die bespreking te ver vanaf die onderwerp dwaal, sal ek die gesprek onderbreek en aanbeweeg na die volgende vraag.
- Wees asseblief verseker dat al jul antwoorde konfidensieël is en dat dit slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem hierdie bespreking op band op om ‘n opsomming van die gesprek te kan saamstel. Geen verwysing na name sal gemaak word nie.
- Ons sal binne een uur klaar wees.
- Voordat ons begin opneem, kom ons stel onsself voor. Maar in plaas daarvan dat jy slegs jou naam se, vertel vir ons jou naam, hoe lank jy al hier woon, en wat jou gunsteling kleur is.

FOKUSGROEPBESPREKING BEGIN

Dames, ons gaan nou begin met die fokusgroepbespreking. Ons begin nou opneem.

Vrae

Herfraseer enige vraag wat nie verstaan word nie of wat nie tot bespreking lei nie.

1. Hoekom het jy besluit om vir jou baba slegs borsmelk te gee.

   → Vra vir meer detail indien nodig, bv. – As 'n ma antwoord dat dit goed is vir die baba, vra dat sy verduidelik waarom sy dink dit is goed vir die baba.

2. Voel jy dat jy genoeg ondersteuning kry in jou keuse om jou baba te voed met slegs borsmelk?

   → Watter tipe ondersteuning kry jy?

   → Wie voorsien hierdie ondersteuning?

3. Voel jy dit is belangrik om vir babas jonger as ses maande water te gee?

   → Hoekom?

4. Hoekom het jy besluit om nie enige formule melk of kos vir jou baba te gee nie?
5. Hoekom dink jy gooi sommige vroue die eerste, gelerige melk wat hul reg na geboorte het, weg?
6. Voel jy dat daar genoeg inligting beskikbaar is vir ma's in jul gemeenskap oor hoe om babas te voed?
7. Wie het die grootste invloed op jou besluite en aksies wanneer dit kom by jou baba se voeding?

   → Indien pa's nie genoem word nie, vra wat die rol van die baba se pa is met hierdie besluite.

8. Is daar enigeiets anders wat jy met ons wil deel oor jou ondervinding met babavoeding?

Afsluiting

- Dankie dat julle by ons aangesluit het vir hierdie fokusgroep bespreking. Jul antwoorde is baie waardevol.
- Geniet die res van julle dag.

<u>Waarnemer se Gids tot Fokusgroepe</u>

Die volgende moet vir elke vraag neergeskryf word:

- Dinamiek van die groep, bv: opgewondenheid teenoor geen belangstelling.
- Is sommige mense meer uitgesproke en ander meer onwillig?
- Domineer sommige die groep terwyl ander stilbly?
- Stem die groep saam of is daar verskille van opinie?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, knik kop wanneer saamstem, skud kop.

Appendix 6.12: Focus group guide 1: Mothers who breastfeed exclusively/predominantly (isiXhosa)

ISIKHOKELO SOKU-1 SEQELA ESIGXILE KULO:
Omama abancancisayo ubukhulu becala

Intshayelelo

- Molo ngale mva-kwemini kwaye wamkelekile kweli qela leengxoxo esigxile kulo. Ndingu__*igama lomququzeleli nefani yakhe*__kwaye ndiza kuququzelela eli qela siqwalasela kulo namhlanje. Lo ngu__*igama lalowo uza kuba liliso nefani yakhe*__kwaye uza kushicilela intetho yethu kwaye athathe namanqaku.
- Ndiyabulela ngokuvuma kwakho ukuthatha inxaxheba kwezi ngxoxo zeli qela sigxile kulo ngokondliwa kweentsana ezingaphantsi kweenyanga ezisibhozo.
- Injongo yezi ngxoxo kukusinceda sikwazi ukuqonda ngcono ukuba kutheni le nto ukhetha izinto ezithile ekondleni iintsana zakho.
- Ezi ngxoxo ziyinxalenye yeenzame ezininzi zokuba sikwazi ukuqonda nokuxhasa uluntu ngokoncedo lokufumaneka kokutya nangokusempilweni.
- Kwabo benu bangazange bathatha nxaxheba ngaphambili kumaqela eengxoxo, siya kuqinisekisa ukuba ezi ziindlela zophando ezisetyenziswayo eziqhelekileyo ukufuze kufumaneke iinkcukacha.
- Umenyiwe ukuba uphendule kuluhlu lwemibuzo.
- Iimpendulo neengxoxo zakho ziza kuba luncedo kakhulu kuthi njengoko sizama ukwenza isicwangciso esibhekisele kuluntu sokusebenza – zonke iinkcukacha osinika zona namhlanje zibalulekile.
- **AKUKHO zimpendulo zichanekileyo okanye ezingachanekanga.**
- **Nceda uzive ukhululekile xa uthatha inxaxheba.**
- Xa umntu ethetha, ndicela ukuba abanye abantu abalapha bathi cwaka baphulaphule.
- Nceda uzihlonele izimvo zabanye ngokungazigxeki.
- Ukuba iingxoxo ziyaphuma emxholweni, ndiza kukuphazamisa ndikumise ndigqithele kumbuzo olandelayo.
- Ndiya kuqinisekisa ukuba iimpendulo zakho ziyimfihlo kwaye ziza kusetyenziselwa iinjongo zophando kuphela.
- Siza kuyishicilela intetho eyenziwa kwezi ngxoxo ukuze sibe nengxelo eshwankathelayo kwaye igama lakho aliz'ukwaziwa.
- Siza kugqiba kwiyure enye.
- Phambi kokuba siqalise ukushicilela, masizazise sonke thina abakweli gumbi. Kodwa endawnei yokusixelela nje igama lakho, kutheni le nto ungasixeleli ngegama lakho, unexesha elingakanani uhlala kule ndawo, kwaye ngowuphi umbala owuthandayo.

IINGXOXO ZEQELA ESIGXILE KULO ZIYAQALA

Ngoku siza kuqala ngeengxoxo zeqela koko sigxile kuko.Ngoku siyaqalisa ukushicilela.

Imibuzo

Phinda uyibeke ngenye indlela nayiphi na imibuzo engaqondakaliyo okanye engakhokeleli kwingxoxo.

1. Kutheni le nto ugqibe ukuba usana lwakho uluncancise ibele kuphela?

   →Mkhokelele ukuba akunike ezinye iinkcukacha ukuba kuyimfuneko, umzekelo – ukuba impendulo kamama ithi oko kulungile kusana, mcele ukuba acacise ukuba kutheni ecinga ukuba lulungile kusana.
2. Ucinga ukuba ufumana inkxaso eyaneleyo xa ukhetha ukuluncancisa ibele kuphela usana lwakho?

   →Yeyiphi le nkxaso uyifumanayo kwaye ngubani okunika le nkxaso?
3. Ucinga ukuba kubalulekile na ukuba uzinike amanzi iintsana ezingaphantsi kweenyanga ezintandathu? Ngoba?
4. Kutheni le nto ugqibe ukuba usana lwakho ungaluniki naluphi na ubisi lweentsana olusetotini okanye ukutya?
5. Ucinga ukuba kutheni le nto abanye oomama belulahla ubisi lokuqala olumthubi kanye xa begqib'obeleka?
6. Ucinga ukuba zanele na iinkcukacha ngokondliwa kwabantwana ezifunyanwa ngoomama kwindawo ohlala kuyo?
7. Ngubani oyena unefuthe kuwe ekuthatheni izigqibo nasekwenzeni izinto xa usondla usana lwakho?

   →Ukuba ootata abachazwa, mbuze ukuba yeyiphi indima edlalwa ngutata wosana ekuthatheni esi sigqibo.
8. Ingaba ikhona enye into ongathanda ukwabelana ngayo malunga namava onawo ngokuncancisa ibele?

Ukuvala

- Ndiyabulela ngokuzibandakanya kwakho neli qela leengxoxo sigxile kulo.Iimpenduo zakho zibaluleke kakhulu.
- Ulonwabele usuku lwakho.

<u>Isikhokelo salowo uliliso kumaQela ekugqalwe kuwo</u>

Oku kufuneka kujongwe kumbuzo ngamnye:

- Ukohlukana kwemidla yeqela umz. uchulumanco nokungabi namdla.
- Ingaba abanye abantu bathetha ngokuphandle na kwaye abanye bayenqena ukuthetha?
- Ingaba abanye abantu bathetha kakhulu kwiingxoxo njengokuba abanye bethula cwaka?
- Ingaba iqela bayavumelana ngembono okanye ziyohluka ezabo iimbono?
- Unxibelelwano olungeyontetho umz. ukudlala ngobuso, ukunqwala kuba uvuma, ukunikina intloko.

Appendix 6.13: Focus group guide 2: Mothers who breastfeed partially (English)

FOCUS GROUP GUIDE 2:
Mothers who breastfeed partially

Introduction

- Good afternoon ladies and welcome to this focus group discussion. I am __*facilitator's name and surname*__ and I will be facilitating the focus group today. That is __*observer's name and surname*__ and she will record our conversation and make some notes.
- Thank you for agreeing to be part of a focus group discussion on feeding babies younger than six months.
- The purpose of this discussion is to help us understand why you make certain choices with feeding your babies.
- This discussion is part of a larger effort to understand and support your community in terms of food security and health.
- For those of you who have never participated in a focus group before, please be assured that this is a research technique commonly used to gather information.
- You are invited to respond to a series of questions.
- Your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all information you provide today is valuable.
- There are NO right or wrong answers.
- Please feel free to participate.
- When a person is speaking, I kindly request that the rest of the group stay quiet and listen.
- Please respect each other's comments by not criticising it.
- If the discussion goes too far off the topic, I will interrupt and move along to the following question.
- Please be assured that all your responses are confidential and will be used for research purposes only.
- We are voice recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one hour.
- Before we start recording, let us go around the room and introduce ourselves. Instead of telling us just your name, why not tell everyone your name, how long you have lived in this area, and what your favourite colour is.

FOCUS GROUP DISCUSSION STARTS

Ladies, we are now going to start the focus group discussion. We are now starting the recording.

Questions

Rephrase any question which is not understood or which does not provoke discussion.

1. Why did you decide to give formula milk and/or food with breast milk to your baby?

   → Prompt for more detail if needed, for example – If the mother answers that breast milk is not enough, ask that she explain why she thinks breast milk is not enough.
2. Do you feel you get enough support in your choice to feed your baby breast milk and formula milk and/or food?

   → What kind of support do you get and who provides this support?
3. Do you feel is it important to give water to babies younger than six months?

   → Why?
4. Why did you decide not to give only breast milk to your baby?
5. Why do you think do some women throw away the first, yellowish milk that they have right after the baby is born?
6. Do you feel that there is enough information on feeding babies available to mothers in your community?
7. Who has the biggest influence on your decisions and actions when feeding your baby?

   → If fathers are not mentioned, ask what role the father of the baby plays in this decision.
8. Is there anything else that you would like to share about your experience of feeding your baby?

Closing

- Thank you for joining this focus group discussion. Your responses are very valuable.
- Enjoy the rest of your day.

<u>Observer's Guide to the Focus Groups</u>

The following should be captured per question:

- Dynamics of the group e.g. excitement versus lack of interest.
- Are some people more outspoken and some more reluctant?
- Do some people dominate the conversation while some are silent?
- Do the group agree or are there differences of opinion?
- Non-verbal communications e.g. face expressions, nodding in agreement, shaking head.

Appendix 6.14: Focus group guide 2: Mothers who breastfeed partially (Afrikaans)

FOKUSGROEP GIDS 2:
Moeders wat gedeeltelik borsvoed

Inleiding

- Goeiemiddag dames en welkom by hierdie fokusgroep bespreking. Ek is __*fasiliteerder se naam en van*__ en ek sal hierdie fokusgroep fasiliteer vandag. Daardie is __*waarnemer se naam en van*__ en sy sal ons gesprek opneem en notas neem.
- Dankie dat julle ingestem het om deel te wees van hierdie fokusgroep bespreking oor die voeding van babas jonger as ses maande.
- Die doel van hierdie bespreking is om ons te help verstaan waarom jy sekere keuses maak wanneer dit kom by die voeding van jou baba.
- Die bespreking is deel van ‘n groter doel om die voedselsekuriteit en gesondheid van jul gemeenskap te verstaan en te ondersteun.
- Vir die van julle wat nog nooit aan ‘n fokusgroep deelgeneem het nie, wees asseblief gerus dat hierdie ‘n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- Julle word almal uitgenooi om te reageer op ‘n reeks vrae.
- Jul antwoorde en besprekings sal ons baie help op ‘n gemeenskapsgebaseerde aksieplan te ontwikkel – alle inligting wat jul vandag verskaf is waardevol.
- **Daar is GEEN regte of verkeerde antwoorde nie.**
- **Voel asseblief vrymoedig om deel te neem.**
- Ek vra vriendelik dat wanneer ‘n persoon praat, die res van die groep sal stilbly en luister.
- Respekteer asseblief mekaar se antwoorde deur om dit nie te kritiseer nie.
- Indien die bespreking te ver vanaf die onderwerp dwaal, sal ek die gesprek onderbreek en aanbeweeg na die volgende vraag.
- Wees asseblief verseker dat al jul antwoorde konfidensieël is en dat dit slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem hierdie bespreking op band op om ‘n opsomming van die gesprek te kan saamstel. Geen verwysing na name sal gemaak word nie.
- Ons sal binne een uur klaar wees.
- Voordat ons begin opneem, kom ons stel onsself voor. Maar in plaas daarvan dat jy slegs jou naam se, vertel vir ons jou naam, hoe lank jy al hier woon, en wat jou gunsteling kleur is.

FOKUSGROEPBESPREKING BEGIN

Dames, ons gaan nou begin met die fokusgroepbespreking. Ons begin nou opneem.

Vrae

Herfraseer enige vraag wat nie verstaan word nie of wat nie tot bespreking lei nie.

1. Hoekom het jy besluit om vir jou baba formule melk en/of kos saam met die borsmelk te gee.

   → Vra vir meer detail indien nodig, bv. – As 'n ma antwoord dat borsmelk nie genoeg is nie, vra dat sy verduidelik waarom sy dink borsmelk is nie genoeg nie.
2. Voel jy dat jy genoeg ondersteuning kry in jou keuse om jou baba te voed met borsmelk en formule melk en/of kos?

   → Watter tipe ondersteuning kry jy?

   → Wie voorsien hierdie ondersteuning?
3. Voel jy dit is belangrik om vir babas jonger as ses maande water te gee?

   → Hoekom?
4. Hoekom het jy besluit om nie net borsmelk vir jou baba te gee nie?
5. Hoekom dink jy gooi sommige vroue die eerste, gelerige melk wat hul reg na geboorte het, weg?
6. Voel jy dat daar genoeg inligting beskikbaar is vir ma's in jul gemeenskap oor hoe om babas te voed?
7. Wie het die grootste invloed op jou besluite en aksies wanneer dit kom by jou baba se voeding?

   → Indien pa's nie genoem word nie, vra wat die rol van die baba se pa is met hierdie besluite.
8. Is daar enigeiets anders wat jy met ons wil deel oor jou ondervinding met babavoeding?

Afsluiting

- Dankie dat julle by ons aangesluit het vir hierdie fokusgroep bespreking. Jul antwoorde is baie waardevol.
- Geniet die res van julle dag.

<u>Waarnemer se Gids tot Fokusgroepe</u>

Die volgende moet vir elke vraag neergeskryf word:

- Dinamiek van die groep, bv: opgewondenheid teenoor geen belangstelling.
- Is sommige mense meer uitgesproke en ander meer onwillig?
- Domineer sommige die groep terwyl ander stilbly?
- Stem die groep saam of is daar verskille van opinie?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, knik kop wanneer saamstem, skud kop.

Appendix 6.15: Focus group guide 2: Mothers who breastfeed partially (isiXhosa)

ISIKHOKELO SOKU-2 SEQELA ESIGXILE KULO: Oomama abangancancisi rhoqo

Intshayelelo

- Molo ngale mva-kwemini kwaye wamkelekile kweli qela leengxoxo esigxile kulo. Ndingu__*igama lomququzeleli nefani yakhe*__kwaye ndiza kuququzelela eli qela siqwalasela kulo namhlanje. Lo ngu__*igama lalowo uza kuba liliso nefani yakhe*__kwaye uza kushicilela intetho yethu kwaye athathe namanqaku.
- Ndiyabulela ngokuvuma kwakho ukuthatha inxaxheba kwezi ngxoxo zeli qela sigxile kulo ngokondliwa kweentsana ezingaphantsi kweenyanga ezisibhozo.
- Injongo yezi ngxoxo kukusinceda sikwazi ukuqonda ngcono ukuba kutheni le nto ukhetha izinto ezithile ekondleni iintsana zakho.
- Ezi ngxoxo ziyinxalenye yeenzame ezininzi zokuba sikwazi ukuqonda nokuxhasa uluntu ngokoncedo lokufumaneka kokutya nangokusempilweni.
- Kwabo benu bangazange bathatha nxaxheba ngaphambili kumaqela eengxoxo, siya kuqinisekisa ukuba ezi ziindlela zophando ezisetyenziswayo eziqhelekileyo ukufuze kufumaneke iinkcukacha.
- Umenyiwe ukuba uphendule kuluhlu lwemibuzo.
- Iimpendulo neengxoxo zakho ziza kuba luncedo kakhulu kuthi njengoko sizama ukwenza isicwangciso esibhekisele kuluntu sokusebenza – zonke iinkcukacha osinika zona namhlanje zibalulekile.
- **AKUKHO zimpendulo zichanekileyo okanye ezingachanekanga.**
- **Nceda uzive ukhululekile xa uthatha inxaxheba.**
- Xa umntu ethetha, ndicela ukuba abanye abantu abalapha bathi cwaka baphulaphule.
- Nceda uzihlonele izimvo zabanye ngokungazigxeki.
- Ukuba iingxoxo ziyaphuma emxholweni, ndiza kukuphazamisa ndikumise ndigqithele kumbuzo olandelayo.
- Ndiya kuqinisekisa ukuba iimpendulo zakho ziyimfihlo kwaye ziza kusetyenziselwa iinjongo zophando kuphela.
- Siza kuyishicilela intetho eyenziwa kwezi ngxoxo ukuze sibe nengxelo eshwankathelayo kwaye igama lakho aliz'ukwaziwa.
- Siza kugqiba kwiyure enye.
- Phambi kokuba siqalise ukushicilela, masizazise sonke thina abakweli gumbi. Kodwa endawnei yokusixelela nje igama lakho, kutheni le nto ungasixeleli ngegama lakho, unexesha elingakanani uhlala kule ndawo, kwaye ngowuphi umbala owuthandayo.

IINGXOXO ZEQELA ESIGXILE KULO ZIYAQALA

Ngoku siza kuqala ngeengxoxo zeqela koko sigxile kuko.Ngoku siyaqalisa ukushicilela.

Imibuzo

Phinda uyibeke ngenye indlela nayiphi na imibuzo engaqondakaliyo okanye engakhokeleli kwingxoxo.

1. Kutheni le nto ugqibe ukuba usana lwakho ulunike ubisi olusetotini losana kwaye/okanye uluncancise ibele?

   → Mkhokelele ukuba akunike ezinye iinkcukacha ukuba kuyimfuneko, umzekelo – ukuba impendulo kamama ithi ubisi lwebele alwanelanga, mcele ukuba acacise ukuba kutheni ecinga ukuba lubisi lwebele alwanelanga.

2. Ucinga ukuba ufumana inkxaso eyaneleyo xa ukhetha ukuluncancisa ibele nobisi lweentsana olusetotini usana lwakho?

   → Yeyiphi le nkxaso uyifumanayo kwaye ngubani okunika le nkxaso?

3. Ucinga ukuba kubalulekile na ukuba uzinike amanzi iintsana ezingaphantsi kweenyanga ezintandathu?

   → Ngoba?

4. Kutheni le nto ugqibe ukuba usana lwakho ungaluniki ubisi lwebele kuphela?
5. Ucinga ukuba kutheni le nto abanye oomama belulahla ubisi lokuqala olumthubi kanye xa begqib'obeleka?
6. Ucinga ukuba zanele na iinkcukacha ngokondliwa kwabantwana ezifunyanwa ngoomama kwindawo ohlala kuyo?
7. Ngubani oyena unefuthe kuwe ekuthatheni izigqibo nasekwenzeni izinto xa usondla usana lwakho?

   → Ukuba ootata abachazwa, mbuze ukuba yeyiphi indima edlalwa ngutata wosana ekuthatheni esi sigqibo.

8. Ingaba ikhona enye into ongathanda ukwabelana ngayo malunga namava onawo ngokondla usana lwakho?

Ukuvala

- Ndiyabulela ngokuzibandakanya kwakho neli qela leengxoxo sigxile kulo.Iimpenduo zakho zibaluleke kakhulu.
- Ulonwabele usuku lwakho.

Isikhokelo salowo uliliso kumaQela ekugqalwe kuwo

Oku kufuneka kujongwe kumbuzo ngamnye:

- Ukohlukana kwemidla yeqela umz. uchulumanco nokungabi namdla.
- Ingaba abanye abantu bathetha ngokuphandle na kwaye abanye bayenqena ukuthetha?
- Ingaba abanye abantu bathetha kakhulu kwiingxoxo njengokuba abanye bethula cwaka?
- Ingaba iqela bayavumelana ngembono okanye ziyohluka ezabo iimbono?
- Unxibelelwano olungeyontetho umz. ukudlala ngobuso, ukunqwala kuba uvuma, ukunikina intloko.

Appendix 6.16: Focus group guide 3: Mothers who do not breastfeed (English)

FOCUS GROUP GUIDE 3:
Mothers who do not breastfeed

Introduction

- Good afternoon ladies and welcome to this focus group discussion. I am __*facilitator's name and surname*__ and I will be facilitating the focus group today. That is __*observer's name and surname*__ and she will record our conversation and make some notes.
- Thank you for agreeing to be part of a focus group discussion on feeding babies younger than six months.
- The purpose of this discussion is to help us understand why you make certain choices with feeding your babies.
- This discussion is part of a larger effort to understand and support your community in terms of food security and health.
- For those of you who have never participated in a focus group before, please be assured that this is a research technique commonly used to gather information.
- You are invited to respond to a series of questions.
- Your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all information you provide today is valuable.
- There are NO right or wrong answers.
- Please feel free to participate.
- When a person is speaking, I kindly request that the rest of the group stay quiet and listen.
- Please respect each other's comments by not criticising it.
- If the discussion goes too far off the topic, I will interrupt and move along to the following question.
- Please be assured that all your responses are confidential and will be used for research purposes only.
- We are voice recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one hour.
- Before we start recording, let us go around the room and introduce ourselves. Instead of telling us just your name, why not tell everyone your name, how long you have lived in this area, and what your favourite colour is.

FOCUS GROUP DISCUSSION STARTS

Ladies, we are now going to start the focus group discussion. We are now starting the recording.

Questions

Rephrase any question which is not understood or which does not provoke discussion.

1. Why did you decide not to breastfeed or to stop breastfeeding?
2. Do you feel you get enough support in your choice not to breastfeed your baby?

   → **What kind of support do you get and who provides this support?**
3. Please list all the possible foods or drinks that you think people in the community are giving their babies younger than six months.

   → **How do you feel about each of these choices?**
4. If you are giving infant formula, why did you decide to give it to your baby, rather than giving something like cow's milk?
5. If you are giving cow's milk, food or any other food or drinks, why did you decide to give this rather than infant formula?
6. Do you think that most women mix infant formula as instructed on the tin?
7. Why do you think might some women not mix the infant formula as directed on the tin, for example, add more water to less infant formula powder than recommended?
8. Do you feel that there is enough information on feeding babies available to mothers in your community?
9. Who has the biggest influence on your decisions and actions when feeding your baby?

   → **If fathers are not mentioned, ask what role the father of the baby plays in this decision.**
10. Is there anything else that you would like to share about your experience of feeding your baby?

Closing

- Thank you for joining this focus group discussion. Your responses are very valuable.
- Enjoy the rest of your day.

<u>Observer's Guide to the Focus Groups</u>

The following should be captured per question:

- Dynamics of the group e.g. excitement versus lack of interest.
- Are some people more outspoken and some more reluctant?
- Do some people dominate the conversation while some are silent?
- Do the group agree or are there differences of opinion?
- Non-verbal communications e.g. face expressions, nodding in agreement, shaking head.

Appendix 6.17: Focus group guide 3: Mothers who do not breastfeed (Afrikaans)

FOKUSGROEP GIDS 3:
Moeders wat nie borsvoed nie

Inleiding

- Goeiemiddag dames en welkom by hierdie fokusgroep bespreking. Ek is __*fasiliteerder se naam en van*__ en ek sal hierdie fokusgroep fasiliteer vandag. Daardie is __*waarnemer se naam en van*__ en sy sal ons gesprek opneem en notas neem.
- Dankie dat julle ingestem het om deel te wees van hierdie fokusgroep bespreking oor die voeding van babas jonger as ses maande.
- Die doel van hierdie bespreking is om ons te help verstaan waarom jy sekere keuses maak wanneer dit kom by die voeding van jou baba.
- Die bespreking is deel van ‘n groter doel om die voedselsekuriteit en gesondheid van jul gemeenskap te verstaan en te ondersteun.
- Vir die van julle wat nog nooit aan ‘n fokusgroep deelgeneem het nie, wees asseblief gerus dat hierdie ‘n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- Julle word almal uitgenooi om te reageer op ‘n reeks vrae.
- Jul antwoorde en besprekings sal ons baie help op ‘n gemeenskapsgebaseerde aksieplan te ontwikkel – alle inligting wat jul vandag verskaf is waardevol.
- **Daar is GEEN regte of verkeerde antwoorde nie.**
- **Voel asseblief vrymoedig om deel te neem.**
- Ek vra vriendelik dat wanneer ‘n persoon praat, die res van die groep sal stilbly en luister.
- Respekteer asseblief mekaar se antwoorde deur om dit nie te kritiseer nie.
- Indien die bespreking te ver vanaf die onderwerp dwaal, sal ek die gesprek onderbreek en aanbeweeg na die volgende vraag.
- Wees asseblief verseker dat al jul antwoorde konfidensieël is en dat dit slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem hierdie bespreking op band op om ‘n opsomming van die gesprek te kan saamstel. Geen verwysing na name sal gemaak word nie.
- Ons sal binne een uur klaar wees.
- Voordat ons begin opneem, kom ons stel onsself voor. Maar in plaas daarvan dat jy slegs jou naam se, vertel vir ons jou naam, hoe lank jy al hier woon, en wat jou gunsteling kleur is.

FOKUSGROEPBESPREKING BEGIN

Dames, ons gaan nou begin met die fokusgroepbespreking. Ons begin nou opneem.

Vrae

Herfraseer enige vraag wat nie verstaan word nie of wat nie tot bespreking lei nie.

1. Hoekom het jy besluit om nie te borsvoed nie of om te stop met borsvoeding?
2. Voel jy dat jy genoeg ondersteuning kry in jou keuse om jou baba nie te borsvoed nie?

   → Watter tipe ondersteuning kry jy?

   → Wie voorsien hierdie ondersteuning?
3. Lys asseblief al die moontlike kossoorte en drinkgoed wat julle dink mense in die gemeenskap vir hul babas jonger as ses maande gee.

   → Hoe voel julle oor elkeen van hierdie keuses?
4. Vir die van julle wat formule melk gee, hoekom het jy besluit om dit te gee teenoor iets soos byvoorbeeld koeimelk?
5. Vir die van julle wat koeimelk, kos of enige ander kos of drinkgoed gee, hoekom het jy besluit om dit te gee teenoor iets soos byvoorbeeld formule melk?
6. Dink julle dat die meeste vroue die formule melk aanmaak volgens die instruksies op die blik?
7. Hoekom dink julle mag sommige vroue dalk die formule melk nie aanmaak volgens die instruksies op die blik nie, byvoorbeeld, hul voeg dalk meer water by minder formule melk poeier as wat aanbeveel word?
8. Voel jy dat daar genoeg inligting beskikbaar is vir ma's in jul gemeenskap oor hoe om babas te voed?
9. Wie het die grootste invloed op jou besluite en aksies wanneer dit kom by jou baba se voeding?

   → Indien pa's nie genoem word nie, vra wat die rol van die baba se pa is met hierdie besluite.
10. Is daar enigeiets anders wat jy met ons wil deel oor jou ondervinding met babavoeding?

Afsluiting

- Dankie dat julle by ons aangesluit het vir hierdie fokusgroep bespreking. Jul antwoorde is baie waardevol.
- Geniet die res van julle dag.

<u>Waarnemer se Gids tot Fokusgroepe</u>

Die volgende moet vir elke vraag neergeskryf word:

- Dinamiek van die groep, bv: opgewondenheid teenoor geen belangstelling.
- Is sommige mense meer uitgesproke en ander meer onwillig?
- Domineer sommige die groep terwyl ander stilbly?
- Stem die groep saam of is daar verskille van opinie?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, knik kop wanneer saamstem, skud kop.

Appendix 6.18: Focus group guide 3: Mothers who do not breastfeed (isiXhosa)

ISIKHOKELO SOKU-3 SEQELA ESIGXILE KULO: Oomama abangancancisiyo

Intshayelelo

- Molo ngale mva-kwemini kwaye wamkelekile kweli qela leengxoxo esigxile kulo. Ndingu__*igama lomququzeleli nefani yakhe*__kwaye ndiza kuququzelela eli qela siqwalasela kulo namhlanje. Lo ngu__*igama lalowo uza kuba liliso nefani yakhe*__kwaye uza kushicilela intetho yethu kwaye athathe namanqaku.
- Ndiyabulela ngokuvuma kwakho ukuthatha inxaxheba kwezi ngxoxo zeli qela sigxile kulo ngokondliwa kweentsana ezingaphantsi kweenyanga ezisibhozo.
- Injongo yezi ngxoxo kukusinceda sikwazi ukuqonda ngcono ukuba kutheni le nto ukhetha izinto ezithile ekondleni iintsana zakho.
- Ezi ngxoxo ziyinxalenye yeenzame ezininzi zokuba sikwazi ukuqonda nokuxhasa uluntu ngokoncedo lokufumaneka kokutya nangokusempilweni.
- Kwabo benu bangazange bathatha nxaxheba ngaphambili kumaqela eengxoxo, siya kuqinisekisa ukuba ezi ziindlela zophando ezisetyenziswayo eziqhelekileyo ukufuze kufumaneke iinkcukacha.
- Umenyiwe ukuba uphendule kuluhlu lwemibuzo.
- Iimpendulo neengxoxo zakho ziza kuba luncedo kakhulu kuthi njengoko sizama ukwenza isicwangciso esibhekisele kuluntu sokusebenza – zonke iinkcukacha osinika zona namhlanje zibalulekile.
- **AKUKHO zimpendulo zichanekileyo okanye ezingachanekanga.**
- **Nceda uzive ukhululekile xa uthatha inxaxheba.**
- Xa umntu ethetha, ndicela ukuba abanye abantu abalapha bathi cwaka baphulaphule.
- Nceda uzihlonele izimvo zabanye ngokungazigxeki.
- Ukuba iingxoxo ziyaphuma emxholweni, ndiza kukuphazamisa ndikumise ndigqithele kumbuzo olandelayo.
- Ndiya kuqinisekisa ukuba iimpendulo zakho ziyimfihlo kwaye ziza kusetyenziselwa iinjongo zophando kuphela.
- Siza kuyishicilela intetho eyenziwa kwezi ngxoxo ukuze sibe nengxelo eshwankathelayo kwaye igama lakho aliz'ukwaziwa.
- Siza kugqiba kwiyure enye.
- Phambi kokuba siqalise ukushicilela, masizazise sonke thina abakweli gumbi. Kodwa endawnei yokusixelela nje igama lakho, kutheni le nto ungasixeleli ngegama lakho, unexesha elingakanani uhlala kule ndawo, kwaye ngowuphi umbala owuthandayo.

IINGXOXO ZEQELA ESIGXILE KULO ZIYAQALA

Ngoku siza kuqala ngeengxoxo zeqela koko sigxile kuko.Ngoku siyaqalisa ukushicilela.

Imibuzo

Phinda uyibeke ngenye indlela nayiphi na imibuzo engaqondakaliyo okanye engakhokeleli kwingxoxo.

1. Kutheni le nto ugqibe ukuba usana lwakho ulunike ungaluniki ubisi lwebele okanye uyeke ukuncancisa?
2. Ucinga ukuba ufumana inkxaso eyaneleyo xa ukhetha ukungaluncancisi ibele usana lwakho?

   → Yeyiphi le nkxaso uyifumanayo kwaye ngubani okunika le nkxaso?
3. Nceda ubhale uluhlu lokutya okanye lweziselo ocinga ukuba abantu abakwindawo ohlala kuyo abakunika iintsana zabo ezingaphantsi kweenyanga ezintandathu.

   → Ucinga ntoni ngento nganye kwezi zinto uzikhethileyo?
4. Ukuba umnika ubisi olusetotini lweentsana, yintoni ekubangele ugqibe ukulunika lona usana lwakho, endaweni yokulunika ubisi olufana nolwenkonzo?
5. Ukuba umnika ubisi lwenkomo, ukutya okanye nakuphi na okunye ukutya okanye into eselwayo, yintoni ekubangele ugqibe ukulunika oko usana lwakho, endaweni yokulunika ubisi lweentsana olusetotini?
6. Ucinga ukuba oomama abaninzi baluxuba ubisi lweentsana olusetotini ngendlela ekuyalelwe ngayo kumbhalo osetotini?
7. Kutheni le nto ucinga ukuba abanye oomama basenokuba abaluxubi ubisi lweentsana olusetotini ngendlela ekuyalelwe ngayo kumbhalo osetotini, umzekelo, bongeza amanzi amaninzi kubisi lweentsana olusetotini oluncinci kunokuba beyalelwe?
8. Ucinga ukuba zanele na iinkcukacha ngokondliwa kwabantwana ezifunyanwa ngoomama kwindawo ohlala kuyo?
9. Ngubani oyena unefuthe kuwe ekuthatheni izigqibo nasekwenzeni izinto xa usondla usana lwakho?

   → Ukuba ootata abachazwa, mbuze ukuba yeyiphi indima edlalwa ngutata wosana ekuthatheni esi sigqibo.
10. Ingaba ikhona enye into ongathanda ukwabelana ngayo malunga namava onawo ngokondla usana lwakho?

Ukuvala

- Ndiyabulela ngokuzibandakanya kwakho neli qela leengxoxo sigxile kulo.Iimpenduo zakho zibaluleke kakhulu.
- Ulonwabele usuku lwakho.

Isikhokelo salowo uliliso kumaQela ekuggalwe kuwo

Oku kufuneka kujongwe kumbuzo ngamnye:

- Ukohlukana kwemidla yeqela umz. uchulumanco nokungabi namdla.
- Ingaba abanye abantu bathetha ngokuphandle na kwaye abanye bayenqena ukuthetha?
- Ingaba abanye abantu bathetha kakhulu kwiingxoxo njengokuba abanye bethula cwaka?
- Ingaba iqela bayavumelana ngembono okanye ziyohluka ezabo iimbono?
- Unxibelelwano olungeyontetho umz. ukudlala ngobuso, ukunqwala kuba uvuma, ukunikina intloko.

Appendix 6.19: Focus group guide 4: Fathers (English)

FOCUS GROUP GUIDE 4:
Fathers

Introduction

- Good afternoon gentlemen and welcome to this focus group discussion. I am __*facilitator's name and surname*__ and I will be facilitating the focus group today. That is __*observer's name and surname*__ and she will record our conversation and make some notes.
- Thank you for agreeing to be part of a focus group discussion on feeding babies younger than six months.
- You are all fathers of infants younger than six months and the purpose of this discussion is to help us understand how you think your babies should be fed.
- This discussion is part of a larger effort to understand and support your community in terms of food security and health.
- For those of you who have never participated in a focus group before, please be assured that this is a research technique commonly used to gather information.
- You are invited to respond to a series of questions.
- Your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all information you provide today is valuable.
- There are NO right or wrong answers.
- Please feel free to participate.
- When a person is speaking, I kindly request that the rest of the group stay quiet and listen.
- Please respect each other's comments by not criticising it.
- If the discussion goes too far off the topic, I will interrupt and move along to the following question.
- Please be assured that all your responses are confidential and will be used for research purposes only.
- We are voice recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one hour.
- Before we start recording, let us go around the room and introduce ourselves. Instead of telling us just your name, why not tell everyone your name, how long you have lived in this area, and what your favourite sport is.

FOCUS GROUP DISCUSSION STARTS

Gentlemen, we are now going to start the focus group discussion. We are now starting the recording.

Questions

Rephrase any question which is not understood or which does not provoke discussion.

1. Tell me about your relationship with your baby?
2. What food is your baby currently receiving?
3. Is it important to you to know what food your baby is receiving?

   → **Why do you say so?**
4. What do you think should babies younger than six months be drinking or eating?

   → **Why do you think so?**
5. How do you see your role in caring for your baby?
6. How can a man make it easier for a mother to feed a baby?
7. Do you feel that there is enough information on feeding babies available to fathers in your community?

   → **If they answer no, ask: Would you like this to change and how?**
8. Is there anything else about feeding babies that you would like to share with the group?

Closing

- Thank you for joining this focus group discussion. Your responses are very valuable.
- Enjoy the rest of your day.

<u>Observer's Guide to the Focus Groups</u>

The following should be captured per question:

- Dynamics of the group e.g. excitement versus lack of interest.
- Are some people more outspoken and some more reluctant?
- Do some people dominate the conversation while some are silent?
- Do the group agree or are there differences of opinion?
- Non-verbal communications e.g. face expressions, nodding in agreement, shaking head.

Appendix 6.20: Focus group guide 4: Fathers (Afrikaans)

FOKUSGROEP GIDS 4:
Vaders

Inleiding

- Goeiemiddag menere en welkom by hierdie fokusgroep bespreking. Ek is __*fasiliteerder se naam en van*__ en ek sal hierdie fokusgroep fasiliteer vandag. Daardie is __*waarnemer se naam en van*__ en hy sal ons gesprek opneem en notas neem.
- Dankie dat julle ingestem het om deel te wees van hierdie fokusgroep bespreking oor die voeding van babas jonger as ses maande.
- Julle is almal pa's van babas jonger as ses maande en hierdie bespreking gaan ons help om te verstaan hoe jul dink jul babas gevoed moet word.
- Die bespreking is deel van 'n groter doel om die voedselsekuriteit en gesondheid van jul gemeenskap te verstaan en te ondersteun.
- Vir die van julle wat nog nooit aan 'n fokusgroep deelgeneem het nie, wees asseblief gerus dat hierdie 'n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- Julle word almal uitgenooi om te reageer op 'n reeks vrae.
- Jul antwoorde en besprekings sal ons baie help op 'n gemeenskapsgebaseerde aksieplan te ontwikkel – alle inligting wat jul vandag verskaf is waardevol.
- **Daar is GEEN regte of verkeerde antwoorde nie.**
- **Voel asseblief vrymoedig om deel te neem.**
- Ek vra vriendelik dat wanneer 'n persoon praat, die res van die groep sal stilbly en luister.
- Respekteer asseblief mekaar se antwoorde deur om dit nie te kritiseer nie.
- Indien die bespreking te ver vanaf die onderwerp dwaal, sal ek die gesprek onderbreek en aanbeweeg na die volgende vraag.
- Wees asseblief verseker dat al jul antwoorde konfidensieël is en dat dit slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem hierdie bespreking op band op om 'n opsomming van die gesprek te kan saamstel. Geen verwysing na name sal gemaak word nie.
- Ons sal binne een uur klaar wees.
- Voordat ons begin opneem, kom ons stel onsself voor. Maar in plaas daarvan dat jy slegs jou naam se, vertel vir ons jou naam, hoe lank jy al hier woon, en wat jou gunsteling sport is.

FOKUSGROEPBESPREKING BEGIN

Menere, ons gaan nou begin met die fokusgroepbespreking. Ons begin nou opneem.

Vrae

Herfraseer enige vraag wat nie verstaan word nie of wat nie tot bespreking lei nie.

1. Vertel vir my meer oor jou verhouding met jou baba.
2. Watter kos kry jou baba tans?
3. Is dit vir jou belangrik om te weet watter kos jou baba kry?

   → Hoekom sê jy so?
4. Wat dink jy moet babas jonger as ses maande eet of drink?

   → Hoekom dink jy so?
5. Hoe sien jy jou rol in die versorging van jou baba?
6. Hoe kan 'n man dit makliker maak vir 'n ma om 'n baba te voed?
7. Voel jy dat daar genoeg inligting beskikbaar is vir pa's in jul gemeenskap oor hoe om babas te voed?

   → As hulle nee antwoord, vra: Sal jy graag wil hê dat dit moet verander en hoe?
8. Is daar enigeiets anders wat jy met ons wil deel oor babavoeding?

Afsluiting

- Dankie dat julle by ons aangesluit het vir hierdie fokusgroep bespreking. Jul antwoorde is baie waardevol.
- Geniet die res van julle dag.

<u>Waarnemer se Gids tot Fokusgroepe</u>

Die volgende moet vir elke vraag neergeskryf word:

- Dinamiek van die groep, bv: opgewondenheid teenoor geen belangstelling.
- Is sommige mense meer uitgesproke en ander meer onwillig?
- Domineer sommige die groep terwyl ander stilbly?
- Stem die groep saam of is daar verskille van opinie?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, knik kop wanneer saamstem, skud kop.

Appendix 6.21: Focus group guide 4: Fathers (isiXhosa)

ISIKHOKELO SOKU-4 SEQELA ESIGXILE KULO:
Oootata

Intshayelelo

- Molo ngale mva-kwemini kwaye wamkelekile kweli qela leengxoxo esigxile kulo. Ndingu__*igama lomququzeleli nefani yakhe*__kwaye ndiza kuququzelela eli qela siqwalasela kulo namhlanje. Lo ngu__*igama lalowo uza kuba liliso nefani yakhe*__kwaye uza kushicilela intetho yethu kwaye athathe namanqaku.
- Ndiyabulela ngokuvuma kwakho ukuthatha inxaxheba kwezi ngxoxo zeli qela sigxile kulo ngokondliwa kweentsana ezingaphantsi kweenyanga ezisibhozo.
- Nonke ningootata beentsana ezingaphantsi kweenyanga ezintandathu kwaye iinjongo zezi ngxoxo kukuba sifuna zisincede sikwazi ukuqonda ukuba nicinga ukuba abazntwana benu kufuneka bondliwe njani na.
- Injongo yezi ngxoxo kukusinceda sikwazi ukuqonda ngcono ukuba kutheni le nto ukhetha izinto ezithile ekondleni iintsana zakho.
- Ezi ngxoxo ziyinxalenye yeenzame ezininzi zokuba sikwazi ukuqonda nokuxhasa uluntu ngokoncedo lokufumaneka kokutya nangokusempilweni.
- Kwabo benu bangazange bathatha nxaxheba ngaphambili kumaqela eengxoxo, siya kuqinisekisa ukuba ezi ziindlela zophando ezisetyenziswayo eziqhelekileyo ukufuze kufumaneke iinkcukacha.
- Umenyiwe ukuba uphendule kuluhlu lwemibuzo.
- Iimpendulo neengxoxo zakho ziza kuba luncedo kakhulu kuthi njengoko sizama ukwenza isicwangciso esibhekisele kuluntu sokusebenza – zonke iinkcukacha osinika zona namhlanje zibalulekile.
- **AKUKHO zimpendulo zichanekileyo okanye ezingachanekanga.**
- **Nceda uzive ukhululekile xa uthatha inxaxheba.**
- Xa umntu ethetha, ndicela ukuba abanye abantu abalapha bathi cwaka baphulaphule.
- Nceda uzihlonele izimvo zabanye ngokungazigxeki.
- Ukuba iingxoxo ziyaphuma emxholweni, ndiza kukuphazamisa ndikumise ndigqithele kumbuzo olandelayo.
- Ndiya kuqinisekisa ukuba iimpendulo zakho ziyimfihlo kwaye ziza kusetyenziselwa iinjongo zophando kuphela.
- Siza kuyishicilela intetho eyenziwa kwezi ngxoxo ukuze sibe nengxelo eshwankathelayo kwaye igama lakho aliz'ukwaziwa.
- Siza kugqiba kwiyure enye.
- Phambi kokuba siqalise ukushicilela, masizazise sonke thina abakweli gumbi. Kodwa endawnei

yokusixelela nje igama lakho, kutheni le nto ungasixeleli ngegama lakho, unexesha elingakanani uhlala kule ndawo, kwaye ngowuphi umbala ezemidlalo.

IINGXOXO ZEQELA ESIGXILE KULO ZIYAQALA

Ngoku siza kuqala ngeengxoxo zeqela koko sigxile kuko.Ngoku siyaqalisa ukushicilela.

Imibuzo

Phinda uyibeke ngenye indlela nayiphi na imibuzo engaqondakaliyo okanye engakhokeleli kwingxoxo.

1. Ndichazele ngonxibelelwano onalo nosana lwakho?
2. Kokuphi ukutya usana lwakho olukutyayo?
3. Ingaba kubalulekile na ukuba ukwazi ukutya okutywa ngumntana wakho?

   → Kutheni usitsho?
4. Ucinga ukuba iintsana ezingaphantsi kweenyanga ezintandathu kufuneka zisele okanye zityentoni na?

   → Kutheni ucinga njalo?
5. Uyibona njani indima yakho ekukhathalaleni umntwana wakho?
6. Indoda ingakwenza kubelula njani na ukuba umama akwazi ukutyisa usana lwakhe?
7. Ucinga ukuba zanele iinkcukacha ezaneleyo zokondliwa kwabantwana ezinokufunyanwa ngootata ekuhlaleni?

   → Ukuba impendulo nguhayi, buza oku: Ungathanda ukuba oku kutshintshe kwaye kufuneka kwenzeke njani?
8. Ingaba ikhona enye into malunga nokondliwa kweentsana ofuna ukwabelana ngayo neli qela?

Ukuvala

- Ndiyabulela ngokuzibandakanya kwakho neli qela leengxoxo sigxile kulo.Iimpenduo zakho zibaluleke kakhulu.
- Ulonwabele usuku lwakho.

<u>Isikhokelo salowo ulilise kumaQela ekuggalwe kuwo</u>

Oku kufuneka kujongwe kumbuzo ngamnye:

- Ukohlukana kwemidla yeqela umz. uchulumanco nokungabi namdla.
- Ingaba abanye abantu bathetha ngokuphandle na kwaye abanye bayenqena ukuthetha?
- Ingaba abanye abantu bathetha kakhulu kwiingxoxo njengokuba abanye bethula cwaka?
- Ingaba iqela bayavumelana ngembono okanye ziyohluka ezabo iimbono?
- Unxibelelwano olungeyontetho umz. ukudlala ngobuso, ukunqwala kuba uvuma, ukunikina intloko.

Appendix 6.22: Focus group guide 5: Grandmothers (English)

FOCUS GROUP GUIDE 5:
Grandmothers

Introduction

- Good afternoon ladies and welcome to this focus group discussion. I am __*facilitator's name and*
- *surname*__ and I will be facilitating the focus group today. That is __*observer's name and surname*__ and she will record our conversation and make some notes.
- Thank you for agreeing to be part of a focus group discussion on feeding babies younger than six months.
- You are all grandmothers of babies younger than six months and the purpose of this discussion is to help us understand how you think your grandchildren should be fed.
- This discussion is part of a larger effort to understand and support your community in terms of food security and health.
- For those of you who have never participated in a focus group before, please be assured that this is a research technique commonly used to gather information.
- You are invited to respond to a series of questions.
- Your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all information you provide today is valuable.
- **There are NO right or wrong answers.**
- **Please feel free to participate.**
- When a person is speaking, I kindly request that the rest of the group stay quiet and listen.
- Please respect each other's comments by not criticising it.
- If the discussion goes too far off the topic, I will interrupt and move along to the following question.
- Please be assured that all your responses are confidential and will be used for research purposes only.
- We are voice recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one hour.
- Before we start recording, let us go around the room and introduce ourselves. Instead of telling us just your name, why not tell everyone your name, how long you have lived in this area, and what your favourite colour is.

FOCUS GROUP DISCUSSION STARTS

Ladies, we are now going to start the focus group discussion. We are now starting the recording.

Questions

Rephrase any question which is not understood or which does not provoke discussion.

1. Do you know what food your grandchild is receiving?
2. Is it important to you to know what food your grandchild is receiving?

   → Why do you say so?
3. What do you think should babies younger than six months be drinking or eating?

   → Why do you think so?
4. How do you see your role in caring for your grandchild?
5. How can a grandmother make it easier for a mother to feed a baby?
6. Do you feel is it important to give water to babies younger than six months?

   → Why?
7. Why do you think do some women throw away the first, yellowish milk which they have right after the baby is born?
8. Do you feel that there is enough information on feeding babies available in your community?
9. Is there anything else about feeding babies that you would like to share with the group?

Closing

- Thank you for joining this focus group discussion. Your responses are very valuable.
- Enjoy the rest of your day.

<u>Observer's Guide to the Focus Groups</u>

The following should be captured per question:

- Dynamics of the group e.g. excitement versus lack of interest.
- Are some people more outspoken and some more reluctant?
- Do some people dominate the conversation while some are silent?
- Do the group agree or are there differences of opinion?
- Non-verbal communications e.g. face expressions, nodding in agreement, shaking head.

Appendix 6.23: Focus group guide 5: Grandmothers (Afrikaans)

FOKUSGROEP GIDS 5:
Oumas

Inleiding

- Goeiemiddag dames en welkom by hierdie fokusgroep bespreking. Ek is __*fasiliteerder se naam en van*__ en ek sal hierdie fokusgroep fasiliteer vandag. Daardie is __*waarnemer se naam en van*__ en sy sal ons gesprek opneem en notas neem.
- Dankie dat julle ingestem het om deel te wees van hierdie fokusgroep bespreking oor die voeding van babas jonger as ses maande.
- Julle is almal oumas van babas jonger as ses maande en hierdie bespreking gaan ons help om te verstaan hoe jul dink jul kleinkinders gevoed moet word.
- Die bespreking is deel van ‘n groter doel om die voedselsekuriteit en gesondheid van jul gemeenskap te verstaan en te ondersteun.
- Vir die van julle wat nog nooit aan ‘n fokusgroep deelgeneem het nie, wees asseblief gerus dat hierdie ‘n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- Julle word almal uitgenooi om te reageer op ‘n reeks vrae.
- Jul antwoorde en besprekings sal ons baie help op ‘n gemeenskapsgebaseerde aksieplan te ontwikkel – alle inligting wat jul vandag verskaf is waardevol.
- **Daar is GEEN regte of verkeerde antwoorde nie.**
- **Voel asseblief vrymoedig om deel te neem.**
- Ek vra vriendelik dat wanneer ‘n persoon praat, die res van die groep sal stilbly en luister.
- Respekteer asseblief mekaar se antwoorde deur om dit nie te kritiseer nie.
- Indien die bespreking te ver vanaf die onderwerp dwaal, sal ek die gesprek onderbreek en aanbeweeg na die volgende vraag.
- Wees asseblief verseker dat al jul antwoorde konfidensieël is en dat dit slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem hierdie bespreking op band op om ‘n opsomming van die gesprek te kan saamstel. Geen verwysing na name sal gemaak word nie.
- Ons sal binne een uur klaar wees.
- Voordat ons begin opneem, kom ons stel onsself voor. Maar in plaas daarvan dat jy slegs jou naam se, vertel vir ons jou naam, hoe lank jy al hier woon, en wat jou gunsteling kleur is.

FOKUSGROEPBESPREKING BEGIN

Dames, ons gaan nou begin met die fokusgroepbespreking. Ons begin nou opneem.

Vrae

Herfraseer enige vraag wat nie verstaan word nie of wat nie tot bespreking lei nie.

1. Weet jy watter kos jou kleinkind tans kry?
2. Is dit vir jou belangrik om te weet watter kos jou kleinkind kry?

   → **Hoekom sê jy so?**
3. Wat dink jy moet babas jonger as ses maande eet of drink?

   → **Hoekom dink jy so?**
4. Hoe sien jy jou rol in die versorging van jou kleinkind?
5. Hoe kan ‘n ouma dit makliker maak vir ‘n ma om ‘n baba te voed?
6. Voel jy dit is belangrik om vir babas jonger as ses maande water te gee?

   → **Hoekom?**
7. Hoekom dink jy gooi sommige vroue die eerste, gelerige melk wat hul reg na geboorte het, weg?
8. Voel jy dat daar genoeg inligting beskikbaar is in jul gemeenskap oor hoe om babas te voed?
9. Is daar enigeiets anders wat jy met ons wil deel oor babavoeding?

Afsluiting

- Dankie dat julle by ons aangesluit het vir hierdie fokusgroep bespreking. Jul antwoorde is baie waardevol.
- Geniet die res van julle dag.

<u>Waarnemer se Gids tot Fokusgroepe</u>

Die volgende moet vir elke vraag neergeskryf word:

- Dinamiek van die groep, bv: opgewondenheid teenoor geen belangstelling.
- Is sommige mense meer uitgesproke en ander meer onwillig?
- Domineer sommige die groep terwyl ander stilbly?
- Stem die groep saam of is daar verskille van opinie?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, knik kop wanneer saamstem, skud kop.

Appendix 6.24: Focus group guide 5: Grandmothers (isiXhosa)

ISIKHOKELO SOKU-5 SEQELA ESIGXILE KULO:
Oomakhulu

Intshayelelo

- Molo ngale mva-kwemini kwaye wamkelekile kweli qela leengxoxo esigxile kulo. Ndingu__*igama lomququzeleli nefani yakhe*__kwaye ndiza kuququzelela eli qela siqwalasela kulo namhlanje. Lo ngu__*igama lalowo uza kuba liliso nefani yakhe*__kwaye uza kushicilela intetho yethu kwaye athathe namanqaku.
- Ndiyabulela ngokuvuma kwakho ukuthatha inxaxheba kwezi ngxoxo zeli qela sigxile kulo ngokondliwa kweentsana ezingaphantsi kweenyanga ezisibhozo.
- Nonke ningoomakhulu beentsana ezingaphantsi kweenyanga ezintandathukwaye iinjongo zezi ngxoxo kukuba sifuna zisincede sikwazi ukuqonda ukuba nicinga ukuba abazukulwana benu kufuneka bondliwe njani na.
- Injongo yezi ngxoxo kukusinceda sikwazi ukuqonda ngcono ukuba kutheni le nto ukhetha izinto ezithile ekondleni iintsana zakho.
- Ezi ngxoxo ziyinxalenye yeenzame ezininzi zokuba sikwazi ukuqonda nokuxhasa uluntu ngokoncedo lokufumaneka kokutya nangokusempilweni.
- Kwabo benu bangazange bathatha nxaxheba ngaphambili kumaqela eengxoxo, siya kuqinisekisa ukuba ezi ziindlela zophando ezisetyenziswayo eziqhelekileyo ukufuze kufumaneke iinkcukacha.
- Umenyiwe ukuba uphendule kuluhlu lwemibuzo.
- Iimpendulo neengxoxo zakho ziza kuba luncedo kakhulu kuthi njengoko sizama ukwenza isicwangciso esibhekisele kuluntu sokusebenza – zonke iinkcukacha osinika zona namhlanje zibalulekile.
- **AKUKHO zimpendulo zichanekileyo okanye ezingachanekanga.**
- **Nceda uzive ukhululekile xa uthatha inxaxheba.**
- Xa umntu ethetha, ndicela ukuba abanye abantu abalapha bathi cwaka baphulaphule.
- Nceda uzihlonele izimvo zabanye ngokungazigxeki.
- Ukuba iingxoxo ziyaphuma emxholweni, ndiza kukuphazamisa ndikumise ndigqithele kumbuzo olandelayo.
- Ndiya kuqinisekisa ukuba iimpendulo zakho ziyimfihlo kwaye ziza kusetyenziselwa iinjongo zophando kuphela.
- Siza kuyishicilela intetho eyenziwa kwezi ngxoxo ukuze sibe nengxelo eshwankathelayo kwaye igama lakho aliz'ukwaziwa.
- Siza kugqiba kwiyure enye.

- Phambi kokuba siqalise ukushicilela, masizazise sonke thina abakweli gumbi. Kodwa endawnei yokusixelela nje igama lakho, kutheni le nto ungasixeleli ngegama lakho, unexesha elingakanani uhlala kule ndawo, kwaye ngowuphi umbala owuthandayo.

IINGXOXO ZEQELA ESIGXILE KULO ZIYAQALA

Ngoku siza kuqala ngeengxoxo zeqela koko sigxile kuko.Ngoku siyaqalisa ukushicilela.

Imibuzo

Phinda uyibeke ngenye indlela nayiphi na imibuzo engaqondakaliyo okanye engakhokeleli kwingxoxo.

1. Uyakwazi ukutya okutyiwa ngumzukulwana wakho?
2. Ingaba kubalulekile na ukuba ukwazi ukutya okutyiwa ngumzukulwana wakho?

   → Kutheni usitsho?
3. Ucinga ukuba iintsana ezingaphantsi kweenyanga ezintandathu kufuneka zisele okanye zityе ntoni na?

   → Kutheni ucinga njalo?
4. Uyibona njani indima yakho ekukhathalaleni umzukulwana wakho?
5. Umakhulu angakwenza kubelula njani na ukuba umama akwazi ukutyisa usana lwakhe?
6. Ucinga ukuba kubalulekile ukuba usana lwakho olungaphantsi kweenyanga ezintandathu ulunike amanzi?

   → Ngoba?
7. Ucinga ukuba kutheni oomama abaninzi belulahla ubusi lokuqala olungumthubi ababanalo kanye xa begqiba kubeleka?
8. Ucinga ukuba zanele iinkcukacha ezaneleyo zokondliwa kwabantwana ezifumanekayo ekuhlaleni?
9. Ingaba ikhona enye into malunga nokondliwa kweentsana ofuna ukwabelana ngayo neli qela?

Ukuvala

- Ndiyabulela ngokuzibandakanya kwakho neli qela leengxoxo sigxile kulo.Iimpenduo zakho zibaluleke kakhulu.
- Ulonwabele usuku lwakho.

<u>Isikhokelo salowo uliliso kumaQela ekugqalwe kuwo</u>

Oku kufuneka kujongwe kumbuzo ngamnye:

- Ukohlukana kwemidla yeqela umz. uchulumanco nokungabi namdla.
- Ingaba abanye abantu bathetha ngokuphandle na kwaye abanye bayenqena ukuthetha?
- Ingaba abanye abantu bathetha kakhulu kwiingxoxo njengokuba abanye bethula cwaka?
- Ingaba iqela bayavumelana ngembono okanye ziyohluka ezabo iimbono?
- Unxibelelwano olungeyontetho umz. ukudlala ngobuso, ukunqwala kuba uvuma, ukunikina intloko.

Appendix 6.25: Focus group guide 6: Health care workers (English)

FOCUS GROUP GUIDE 6:
Health care workers

Introduction

- Good afternoon ladies (and gentlemen) and welcome to this focus group discussion. I am __*facilitator's name and surname*__ and I will be facilitating the focus group today. That is __*observer's name and surname*__ and she will record our conversation and make some notes.
- Thank you for agreeing to be part of a focus group discussion on feeding babies younger than six months.
- You are all health care workers and the purpose of this discussion is to help us understand how you think babies younger than six months should be fed.
- This discussion is part of a larger effort to understand and support your community in terms of food security and health.
- For those of you who have never participated in a focus group before, please be assured that this is a research technique commonly used to gather information.
- You are invited to respond to a series of questions.
- Your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all information you provide today is valuable.
- There are NO right or wrong answers.
- Please feel free to participate.
- When a person is speaking, I kindly request that the rest of the group stay quiet and listen.
- Please respect each other's comments by not criticising it.
- If the discussion goes too far off the topic, I will interrupt and move along to the following question.
- Please be assured that all your responses are confidential and will be used for research purposes only.
- We are voice recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one hour.
- Before we start recording, let us go around the room and introduce ourselves. Instead of telling us just your name, why not tell everyone your name, how long you have lived in this area, and what your favourite colour is.

FOCUS GROUP DISCUSSION STARTS

Ladies, we are now going to start the focus group discussion. We are now starting the recording.

Questions

Rephrase any question which is not understood or which does not provoke discussion.

1. Do you think a health care worker should provide infant feeding counselling and assistance to mothers?
2. How big a part of the job of a health care worker should it be?
3. Do you think mothers find health worker support with feeding their babies helpful?
   → **Why do you think so?**
4. How important do you think is health worker support to mothers with feeding their babies after they have given birth?
5. How do you see your role in caring for babies?
6. How can you make it easier for a mother to feed a baby?
7. What do you think should babies younger than six months be drinking or eating?
   → **Probe by asking "Why" for each answer, for example: If 'water' is mentioned, ask why.**
8. Why do you feel do many mothers give other fluids, formula milk or food with breast milk to their babies younger than six months?
9. Why do you think do some women throw away the first, yellowish milk that they have right after the baby is born?
10. Do you feel that there is enough correct information on feeding babies available in your community?
11. Is there anything else about feeding babies that you would like to share with the group?

Closing

- Thank you for joining this focus group discussion. Your responses are very valuable.
- Enjoy the rest of your day.

<u>Observer's Guide to the Focus Groups</u>

The following should be captured per question:

- Dynamics of the group e.g. excitement versus lack of interest.
- Are some people more outspoken and some more reluctant?
- Do some people dominate the conversation while some are silent?
- Do the group agree or are there differences of opinion?
- Non-verbal communications e.g. face expressions, nodding in agreement, shaking head.

Appendix 6.26: Focus group guide 6: Health care workers (Afrikaans)

FOKUSGROEP GIDS 6:
Gesondheidswerkers

Inleiding

- Goeiemiddag dames (en here) en welkom by hierdie fokusgroep bespreking. Ek is __*fasiliteerder se naam en van*__ en ek sal hierdie fokusgroep fasiliteer vandag. Daardie is __*waarnemer se naam en van*__ en sy sal ons gesprek opneem en notas neem.
- Dankie dat julle ingestem het om deel te wees van hierdie fokusgroep bespreking oor die voeding van babas jonger as ses maande.
- Julle is almal gesondheidswerkers en hierdie bespreking gaan ons help om te verstaan hoe jul dink babas jonger as ses maande gevoed moet word.
- Die bespreking is deel van 'n groter doel om die voedselsekuriteit en gesondheid van jul gemeenskap te verstaan en te ondersteun.
- Vir die van julle wat nog nooit aan 'n fokusgroep deelgeneem het nie, wees asseblief gerus dat hierdie 'n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- Julle word almal uitgenooi om te reageer op 'n reeks vrae.
- Jul antwoorde en besprekings sal ons baie help op 'n gemeenskapsgebaseerde aksieplan te ontwikkel – alle inligting wat jul vandag verskaf is waardevol.
- **Daar is GEEN regte of verkeerde antwoorde nie.**
- **Voel asseblief vrymoedig om deel te neem.**
- Ek vra vriendelik dat wanneer 'n persoon praat, die res van die groep sal stilbly en luister.
- Respekteer asseblief mekaar se antwoorde deur om dit nie te kritiseer nie.
- Indien die bespreking te ver vanaf die onderwerp dwaal, sal ek die gesprek onderbreek en aanbeweeg na die volgende vraag.
- Wees asseblief verseker dat al jul antwoorde konfidensieël is en dat dit slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem hierdie bespreking op band op om 'n opsomming van die gesprek te kan saamstel. Geen verwysing na name sal gemaak word nie.
- Ons sal binne een uur klaar wees.
- Voordat ons begin opneem, kom ons stel onsself voor. Maar in plaas daarvan dat jy slegs jou naam se, vertel vir ons jou naam, hoe lank jy al hier woon, en wat jou gunsteling kleur is.

FOKUSGROEPBESPREKING BEGIN

Dames, ons gaan nou begin met die fokusgroepbespreking. Ons begin nou opneem.

Vrae

Herfraseer enige vraag wat nie verstaan word nie of wat nie tot bespreking lei nie.

1. Dink jy dat 'n gesondheidswerker babavoeding inligting moet voorsien en hulp verleen aan moeders?
2. Hoe groot 'n deel van 'n gesondheidswerker se werkslading moet dit wees?
3. Dink jy dat moeders ondersteuning vanaf gesondheidswerkers met babavoeding behulpsaam vind?

   → **Hoekom dink jy so?**
4. Hoe belangrik dink jy is ondersteuning vanaf gesondheidswerkers rakende babavoeding aan moeders nadat hul geboorte geskenk het?
5. Hoe sien jy jou rol in die versorging van babas?
6. Hoe kan jy dit makliker maak vir 'n ma om haar baba te voed?
7. Wat dink jy moet babas jonger as ses maande eet of drink?

   → **Vra waarom vir elke antwoord, bv: Indien "water" genoem word, vra waarom?**
8. Hoekom, voel jy, gee baie moeders ander vloeistowwe, formule melk of kos saam met borsmelk aan hul babas jonger as ses maande oud?
9. Hoekom dink jy gooi sommige vroue die eerste, gelerige melk wat hul reg na geboorte het, weg?
10. Voel jy dat daar genoeg korrekte inligting oor babavoeding beskikbaar is in jou gemeenskap?
11. Is daar enigeiets anders wat jy met ons wil deel oor babavoeding?

Afsluiting

- Dankie dat julle by ons aangesluit het vir hierdie fokusgroep bespreking. Jul antwoorde is baie waardevol.
- Geniet die res van julle dag.

<u>Waarnemer se Gids tot Fokusgroepe</u>

Die volgende moet vir elke vraag neergeskryf word:

- Dinamiek van die groep, bv: opgewondenheid teenoor geen belangstelling.
- Is sommige mense meer uitgesproke en ander meer onwillig?
- Domineer sommige die groep terwyl ander stilbly?
- Stem die groep saam of is daar verskille van opinie?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, knik kop wanneer saamstem, skud kop.

Appendix 6.27: Focus group guide 6: Health care workers (isiXhosa)

ISIKHOKELO SOKU-6 SEQELA ESIGXILE KULO:
Oonompilo

Intshayelelo

- Molo ngale mva-kwemini kwaye wamkelekile kweli qela leengxoxo esigxile kulo. Ndingu__*igama lomququzeleli nefani yakhe*__kwaye ndiza kuququzelela eli qela siqwalasela kulo namhlanje. Lo ngu__*igama lalowo uza kuba liliso nefani yakhe*__kwaye uza kushicilela intetho yethu kwaye athathe namanqaku.
- Ndiyabulela ngokuvuma kwakho ukuthatha inxaxheba kwezi ngxoxo zeli qela sigxile kulo ngokondliwa kweentsana ezingaphantsi kweenyanga ezisibhozo.
- Injongo yezi ngxoxo kukusinceda sikwazi ukuqonda ngcono ukuba kutheni le nto ukhetha izinto ezithile ekondleni iintsana zakho.
- Nonke ningoonompilo kwaye iinjongo zezi ngxoxo kukuba sifuna zisincede sikwazi ukuqonda ukuba nicinga ukuba iintsana ezingaphantsi kweenyanga ezintandathu kufuneka zondliwe njani na.
- Ezi ngxoxo ziyinxalenye yeenzame ezininzi zokuba sikwazi ukuqonda nokuxhasa uluntu ngokoncedo lokufumaneka kokutya nangokusempilweni.
- Kwabo benu bangazange bathatha nxaxheba ngaphambili kumaqela eengxoxo, siya kuqinisekisa ukuba ezi ziindlela zophando ezisetyenziswayo eziqhelekileyo ukufuze kufumaneke iinkcukacha.
- Umenyiwe ukuba uphendule kuluhlu lwemibuzo.
- Iimpendulo neengxoxo zakho ziza kuba luncedo kakhulu kuthi njengoko sizama ukwenza isicwangciso esibhekisele kuluntu sokusebenza – zonke iinkcukacha osinika zona namhlanje zibalulekile.
- **AKUKHO zimpendulo zichanekileyo okanye ezingachanekanga.**
- **Nceda uzive ukhululekile xa uthatha inxaxheba.**
- Xa umntu ethetha, ndicela ukuba abanye abantu abalapha bathi cwaka baphulaphule.
- Nceda uzihlonele izimvo zabanye ngokungazigxeki.
- Ukuba iingxoxo ziyaphuma emxholweni, ndiza kukuphazamisa ndikumise ndigqithele kumbuzo olandelayo.
- Ndiya kuqinisekisa ukuba iimpendulo zakho ziyimfihlo kwaye ziza kusetyenziselwa iinjongo zophando kuphela.
- Siza kuyishicilela intetho eyenziwa kwezi ngxoxo ukuze sibe nengxelo eshwankathelayo kwaye igama lakho aliz'ukwaziwa.
- Siza kugqiba kwiyure enye.

- Phambi kokuba siqalise ukushicilela, masizazise sonke thina abakweli gumbi. Kodwa endawnei yokusixelela nje igama lakho, kutheni le nto ungasixeleli ngegama lakho, unexesha elingakanani uhlala kule ndawo, kwaye ngowuphi umbala owuthandayo.

IINGXOXO ZEQELA ESIGXILE KULO ZIYAQALA

Ngoku siza kuqala ngeengxoxo zeqela koko sigxile kuko.Ngoku siyaqalisa ukushicilela.

Imibuzo

Phinda uyibeke ngenye indlela nayiphi na imibuzo engaqondakaliyo okanye engakhokeleli kwingxoxo.

1. Ucinga ukuba oonompilo kufuneka bebonelelo ngeengcebiso sokondliwa kwabantwana nangoncedo koomama?
2. Ucinga ukuba kufuneka ibe ngakanani na indima edlalwa ngoonompilo?
3. Ucinga ukuba oomama bayifumanisa inkxaso yoonompilo iluncedo ekondleni iintsana zabo?

   → Kutheni ucinga njalo?
4. Ucinga ibaluleke kangakanani na inkxaso enikezelwa ngoonompilo koomama ngokuncanciswa kweentsana zabo emva kokuba bebelekile?
5. Uyibona njani indima yakho ekukhathalaleni iintsana zakho?
6. Ungenza njani kube lula kumama ukuba ondle usana lwakhe?
7. Ucinga ukuba iintsana ezingaphantsu kweenyanga ezintandathu kufuneka zisele okanye zityentoni?

   → Mkhokele ngokumbuza oku "Ngoba" kwimpendulo nganye, umzekelo: Ukuba uchaza amanzi, mbuze ukuba ngoba.
8. Kutheni le nto ucinga ukuba oomama abaninzi bazinika iintsana zabo ezinye izinto eziselwayo, ubisi olusetotini lweentsana okanye ukutya bancanvise kananjalo?
9. Ucinga ukuba kutheni oomama abaninzi belulahla ubusi lokuqala olungumthubi ababanalo kanye xa begqiba kubeleka?
10. Ucinga ukuba zanele iinkcukacha ezaneleyo zokondliwa kwabantwana ezifumanekayo ekuhlaleni?
11. Ingaba ikhona enye into malunga nokondliwa kweentsana ofuna ukwabelana ngayo neli qela?

Ukuvala

- Ndiyabulela ngokuzibandakanya kwakho neli qela leengxoxo sigxile kulo.Iimpenduo zakho zibaluleke kakhulu.
- Ulonwabele usuku lwakho.

Isikhokelo salowo uliliso kumaQela ekuggalwe kuwo

Oku kufuneka kujongwe kumbuzo ngamnye:

- Ukohlukana kwemidla yeqela umz. uchulumanco nokungabi namdla.
- Ingaba abanye abantu bathetha ngokuphandle na kwaye abanye bayenqena ukuthetha?
- Ingaba abanye abantu bathetha kakhulu kwiingxoxo njengokuba abanye bethula cwaka?
- Ingaba iqela bayavumelana ngembono okanye ziyohluka ezabo iimbono?
- Unxibelelwano olungeyontetho umz. ukudlala ngobuso, ukunqwala kuba uvuma, ukunikina intloko.

Appendix 6.28: Consent form for quantitative data collection (English)

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: Factors influencing feeding practices of primary caregivers of infants (0 – 5.9 months) in Avian Park and Zwelethemba, Western Cape, South Africa.

REFERENCE NUMBER: N10/11/362

PRINCIPAL INVESTIGATOR: Mrs Charlene Goosen

ADDRESS: Division Human Nutrition
Clinical Building, 3rd Floor
Faculty of Medicine and Health Sciences
Stellenbosch University
Francie van Zijl Drive
Tygerberg, 7505

CONTACT NUMBER: 021 938 9259

You are invited to take part in a research study. Please take some time to read the information below, which will explain the details of this study. Please ask the study staff any questions about any part of this study that you do not fully understand. It is very important that you clearly understand what this study is about and how you will be involved. Also, your participation is **entirely voluntary** and therefore your own choice. You are free to say no to participate. If you say no, this will not have any bad effect on you. You are also free to stop taking part in this study at any time, even if you do agree to take part.

This study has been approved by the **Committee for Human Research at Stellenbosch University** and will be done according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- This study will be done in Avian Park and Zwelethemba.
- One hundred mother and caregivers will be visited.
- We are doing this research to see how mothers and caregivers feed their babies. This will help us find areas where support or education is needed.
- The field worker will ask you questions from the questionnaire and she will write down all your answers. It will take more or less 30 minutes to complete.
- There are questions about your HIV status in the questionnaire but you do not need to answer them if you do not want to do so.
- We are not visiting all the houses in this area and we randomly chose to visit your house.

Why have you been invited to participate?

- You are a mother or caregiver with a baby younger than 6 months old.

What will your responsibilities be?

- You only need to answer the questions that the field worker asks. You have no other responsibilities.

Will you benefit from taking part in this research?

- This research will help us find areas where support or education is needed with feeding babies. This will help you and your community to take the best care of your babies and have happy and healthy children.

Are there any risks involved in your taking part in this research?

- Some questions may cause you discomfort or anxiety. You can immediately tell the researcher and if you need help, you will be referred to a professional to help you.

If you do not agree to take part, what alternatives do you have?

- You can decide if you want to take part in this study or not. You are not being forced to take part and if you decide that you do not want to take part, nothing bad will happen to you.

Who will have access to your answers?

- Only the research team will see your answers.
- Your name will not be written on the answer form and no one will know that these are your answers.
- This form will be the only form where you sign your name and we will keep it separate from any of the answers that you give us.

What will happen in the unlikely event of some form of injury occurring as a direct result of you taking part in this research study?

- This study will not likely cause any harm or injury to you.

Will you be paid to take part in this study and are there any costs involved?

- You will not be paid to take part in this study.
- You will not have to pay to take part in this study.

Is there anything else that you should know or do?

- You can contact the researcher, Charlene Goosen, at 021 938 9259 if you have any further questions or problems.
- You can contact the Committee for Human Research at 021 938 9207 if you have any concerns or complaints about this study or the staff.
- You will receive your own copy of this information and consent form.

Declaration by participant

By signing below, I …….. agree to take part in a research study entitled *Factors influencing feeding practices of primary caregivers of infants (0 – 5.9 months) in Avian Park and Zwelethemba, Western Cape, South Africa.*

I declare that:

- I have read or had read to me this information and consent form and it is written in a language in which I am comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the study staff feel it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) ..... on (*date*) ..... 2011.

..... **.....**
Signature of participant Signature of witness

Declaration by investigator

I *(name)* ..... declare that:

- I explained the information in this document to .....
- I encouraged her/him to ask questions and took adequate time to answer them.
- I am satisfied that she/he adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) ..... on (*date*) ..... 2011.

..... **.....**
Signature of investigator Signature of witness

Declaration by interpreter

I *(name)* ..... declare that:

- I assisted the investigator (*name*) ..... to explain the information in this document to (*name of participant*) ..... using the language medium of Afrikaans/isiXhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) ..... on (*date*) ..... 2011.

..... **.....**
Signature of interpreter Signature of witness

Appendix 6.29: Consent form for quantitative data collection (Afrikaans)

DEELNEMERINLIGTINGSBLAD EN -TOESTEMMINGSVORM

TITEL VAN DIE NAVORSINGSPROJEK: Faktore wat die voedingspraktyke van primêre versorgers van babas (0 tot 5.9 maande) beïnvloed in Avian Park en Zwelethemba, Wes-Kaap, Suid-Afrika.

VERWYSINGSNOMMER: N10/11/362

HOOFNAVORSER: Mev Charlene Goosen

ADRES: Afdeling Menslike Voeding, Kliniese Gebou, 3de Vloer
Fakulteit Gesondheidswetenskappe, Universiteit van Stellenbosch
Francie van Zijl Rylaan, Tygerberg, 7505

KONTAKNOMMER: 021 938 9259

U word genooi om deel te neem aan 'n navorsingsprojek. Lees asseblief hierdie inligtingsblad op u tyd deur aangesien die detail van die navorsingsprojek daarin verduidelik word. Indien daar enige deel van die navorsingsprojek is wat u nie ten volle verstaan nie, is u welkom om die navorsingspersoneel of dokter daaroor uit te vra. Dit is baie belangrik dat u ten volle moet verstaan wat die navorsingsprojek behels en hoe u daarby betrokke kan wees. U deelname is ook **volkome vrywillig** en dit staan u vry om deelname te weier. U sal op geen wyse hoegenaamd negatief beïnvloed word indien u sou weier om deel te neem nie. U mag ook te eniger tyd aan die navorsingsprojek onttrek, selfs al het u ingestem om deel te neem.

Hierdie navorsingsprojek is deur die **Etiek Komitee oor Gesondheidsnavorsing van die Universiteit Stellenbosch** goedgekeur en sal uitgevoer word volgens die etiese riglyne en beginsels van die Internasionale Verklaring van Helsinki en die Etiese Riglyne vir Navorsing van die Mediese Navorsingsraad (MNR).

Wat behels hierdie navorsingsprojek?

- Hierdie studie word gedoen in Avian Park en Zwelethemba.
- Een honderd moeders en versorgers sal besoek word.
- Ons doen hierdie navorsing om te sien hoe moeders en versorgers hul babas voed. Dit sal ons help om die areas te vind waar meer ondersteuning en opvoeding nodig is.
- Die veldwerker gaan die vrae vanaf die vraelys vra en sy sal jou antwoorde neerskryf. Dit gaan ongeveer 30 minute neem om te voltooi.
- Daar is vrae rakende u HIV status in die vraelys, maar jy hoef dit nie te antwoord indien jy nie wil nie.
- Ons besoek nie al die huise in hierdie area nie en u huis was ewekansig gekies.

Waarom is u genooi om deel te neem?

- U is 'n moeder of versorger van 'n baba jonger as 6 maande.

Wat sal u verantwoordelikhede wees?

- U hoef slegs die vrae te beantwoord wat die veldwerker vra. U het geen ander verantwoordelikhede nie.

Sal u voordeel trek deur deel te neem aan hierdie navorsingsprojek?

- Hierdie navorsing sal ons help om areas te find waar meer ondersteuning en opvoeding benodig word met babavoeding. Dit sal u en u gemeenskap help om die beste sorg vir babas te bied en dus gesonde en gelukkige kinders te hê.

Is daar enige risiko's verbonde aan u deelname aan hierdie navorsingsprojek?

- Van die vrae mag ongemak of angstigheid veroorsaak. Jy kan dadelik die navorser inlig en indien nodig sal jy verwys word na 'n professionele person vir hulp.

Watter alternatiewe is daar indien u nie instem om deel te neem nie?

- Jy besluit of jy aan hierdie studie wil deelneem of nie. Jy word nie gedwing om deel te neem nie en indien jy besluit dat jy nie wil deelneem nie sal daar niks slegs met jou gebeur nie.

Wie sal toegang hê tot u mediese rekords?

- Slegs die navorsingsspan sal jou antwoorde sien.
- Jou naam word nie op die antwoordvorm geskryf nie en niemand sal weet dat dit jou antwoorde is nie.
- Hierdie vorm is die enigste vorm waar jy jou naam gaan teken, en dit word apart gehou van enige van die antwoorde wat jy vir ons gee.

Wat sal gebeur in die onwaarskynlike geval van 'n besering wat mag voorkom as gevolg van u deelname aan hierdie navorsingsprojek?

- Hierdie studie behoort geen skade of beserings te veroorsaak nie.

Sal u betaal word vir deelname aan die navorsingsprojek en is daar enige koste verbonde aan deelname?

- Jy word nie betaal om deel te neem aan die studie nie.
- Jy hoef niks te betaal om aan die studie deel te neem nie.

Is daar enigiets anders wat u moet weet of doen?

- U kan die navorser, Charlene Goosen, kontak by 021 938 9259 indien u enige verdere vrae of probleme het.
- U kan die Etiek Komitee oor Gesondheidsnavorsing kontak by 021 938 9207 indien u enige bekommernis of klagte het wat nie bevredigend deur u studiedokter hanteer is nie.
- U sal 'n afskrif van hierdie inligtings- en toestemmingsvorm ontvang vir u eie rekords.

Verklaring deur deelnemer

Met die ondertekening van hierdie dokument onderneem ek, ……., om deel te neem aan 'n navorsingsprojek getiteld *Faktore wat die voedingspraktyke van primêre versorgers van babas (0 tot 5.9 maande) beïnvloed in Avian Park en Zwelethemba, Wes-Kaap, Suid-Afrika.*

Ek verklaar dat:

- Ek hierdie inligtings- en toestemmingsvorm gelees het of aan my laat voorlees het en dat dit in 'n taal geskryf is waarin ek vaardig en gemaklik mee is.
- Ek geleentheid gehad het om vrae te stel en dat al my vrae bevredigend beantwoord is.
- Ek verstaan dat deelname aan hierdie navorsingsprojek **vrywillig** is en dat daar geen druk op my geplaas is om deel te neem nie.
- Ek te eniger tyd aan die navorsingsprojek mag onttrek en dat ek nie op enige wyse daardeur benadeel sal word nie.
- Ek gevra mag word om van die navorsingsprojek te onttrek voordat dit afgehandel is indien die studiedokter of navorser van oordeel is dat dit in my beste belang is, of indien ek nie die ooreengekome navorsingsplan volg nie.

Geteken te *(plek)* ..... op *(datum)* ..... 2011.

……	**……**
Handtekening van deelnemer	Handtekening van getuie

Verklaring deur navorser

Ek *(naam)* …….....…….…… verklaar dat:

- Ek die inligting in hierdie dokument verduidelik het aan ……..…….
- Ek hom/haar aangemoedig het om vrae te vra en voldoende tyd gebruik het om dit te beantwoord.
- Ek tevrede is dat hy/sy al die aspekte van die navorsingsprojek soos hierbo bespreek, voldoende verstaan.
- Ek nie ’n tolk gebruik het nie.

Geteken te *(plek*) ..... op *(datum*) ……..…….....…….. 2011.

…… **……**

Handtekening van navorder Handtekening van getuie

Appendix 6.30: Consent form for quantitative data collection (isiXhosa)

INCWADANA ENGOLWAZI NGOMTHATHI-NXAXHEBA KUNYE NEFOMU YEMVUMELWANO

ISIHLOKO SEPROJEKTHI YOPHANDO: *Izinto ezichaphazela iinkqubo zokutyisa iintsana zabanonopheli-mpilo bezonyango olusisiseko (0-5.9 iinyanga) eAvian Park naseZwelethemba, eNtshona Koloni, eMzantsi Afrika.*

INOMBOLO YONXULUMANO: N10/11/362

UMPHANDI OYINTLOKO: Nskz Charlene Goosen

IDILESI: Division Human Nutrition, Clinical Building, 3rd Floor
Faculty of Medicine and Health Sciences, Stellenbosch University
Francie van Zijl Drive, Tygerberg, 7505

INOMBOLO YOQHAGAMSHELWANO: 021 938 9259

Uyamenywa ukuba athathe inxaxheba kwiprojekthi yophando. You are being invited to take part in a research project. Nceda thatha ixesha lokufunda ulwazi oluvezwe apha, oluzakuthi luchaze iinkcukacha zale projekthi. Nceda buza nayiphina imibuzo emalunga nayiphina indawo ongayiqondiyo ngokupheleleyo kubasebenzi besi sifundo okanye kugqirha. Kubaluleke kakhulu ukuba waniliseke ngokupheleleyo yinto yokuba ucacelwe kakuhle ukuba yintoni ebangwa sesi sifundo kwaye ungabandakanyeka njani. Kwakhona, ukuthatha kwakho inxaxheba **kungentando yakho ngokupheleleyo** kwaye ukhululekile ukuba ungarhoxa ekuthatheni inxaxheba. Ukuba uthi hayi, oku akusayi kuchaphazela ukungavumi kwakho nangayiphina indlela. Ukwakhululekile ukuba uyeke kwesi sifundo naninina, nkqu nokokuba uyavuma ukuthatha inxaxheba ekuqaleni.

Olu phando luvunywe ziinqobo ezisesikweni **zeKomiti yoPhando Lomntu kwiYunivesithi yaseStellenbosch** kwaye luzakwenziwa ngokwemigaqo esesikweni lophando elamkelekileyo kwiSaziso sehlabathi sika-Helsinki, iMigaqo eLungileyo yoMzantsi Afrika yokuSebenza eKliniki kunye neBhunga lezoPhando ngamaYeza (MRC) iMigaqo yeNqobo yezoPhando.

Simalunga nantoni esi sifundo sophando?

- Esi sifundo siza kwenziwa e-Avian Park naseZwelethemba.
- Kuza kutyelelwa oomama abalikhulu nabanonopheli.
- Olu phando silwenzela ukubona indlela oomama nabanonopheli ababatyisa ngayo abantwana babo. Oku kuza kusinceda sifumane iindawo ezifuna uncedo okanye ukufundiswa kuzo.
- Osebenza kuphando ngaphandle uza kukubuza imibuzo ekwiphepha elinemibuzo kwaye uza kubhala phantsi zonke iimpendulo zakho. Kuza kuthatha imizuzu engaphezu okanye engaphantsi kwama-30 ukuyizalisa.
- Kukho imibuzo ebuthathaka ngesimo sakho malunga neNtsholongwane kaGawulayo ekwiphepha elinemibuzo, kodwa awunyanzelekanga ukuba uyiphendule ukuba awufuni kuyiphendula.
- Asiyi kuyo yonke imizi ekule ndawo kwaye siye sakhetha ngendlela ethatha apha napha ukuba size kumzi wakho.

Kutheni umenyiwe ukuba uthathe inxaxheba?

- Ungumama okanye umnonopheli onomntwana ongaphantsi kweenyanga ezi-6 ubudala.

Luyakuba yintoni uxanduva lwakho?

- Kufuneka uphendule kuphela imibuzo oyibuzwa ngumphandi osebenza ngaphandle. Alukho olunye uxanduva onalo.

Ingaba uza kuzuza ekuthatheni inxaxheba kolu phando?

- Olu phando luza kusinceda sifumane iindawo ezifuna uncedo nokufundiswa ngokutyiswa kwabantwana. Oku kuza kukunceda wena nendawo ohlala kuyi ukuba nibakhathalele ngcono abantwana kwaye nibe nabantwana abonwabileyo nabasempilweni.

Ingaba zikho iingozi ezibandakanyekayo ekuthatheni kwakho inxaxheba kolu phando?

- Eminye imibuzo izakwenza ungonwabi. Kangangokuba ungakawuleza uxeleleugqira naxa ufuna uncedo lemntu oqeqeshelwe oko.

Ukuba awuvumi ukuthatha inxaxheba, loluphi olunye unyango onalo?

- Kumaxesha athile imibuzo ingakwenza ungadi mnandi okanye uphakuzele. Khawuleza uxelele umphandi ukuba udinga uncedo uzakuthunyelwa kumntu onokukunceda.

Ngubani oza kufikelela kwiimpendulo zakho?

- Liqela labaphandi kuphela eliza kuzibona iimpendulo zakho.
- Igama lakho alizi kubhalwa kwifomu eneempendulo kwaye akukho namnye oza kwazi ukuba ezi ziimpendulo zakho.
- Le fomu iza kubayiyo kuphela apho uza kutyikitya khona igama lakho, kwaye siza kuyigcina ingadibani neempendulo osinike zona.

Kuza kwenzeka ntoni kwimeko yesiganeko esingalindekanga sokwenzakala ngenxa yokuthatha kwakho inxaxheba kwesi sifundo sophando?

- Esi sifundo asizi kubangela bungozi okanye umonzakalo kuwe.

Ingaba uza kuhlawulwa ngokuthatha inxaxheba kwesi sifundo kwaye ingaba kukho iindleko ezibandakanyekayo?

- Awuzi kuhlawulwa ngokuthatha kwakho inxaxheba kwesi sifundo.
- Akuzi kufuneka uhlawule ukuze ukwazi ukuthatha inxaxheba kwesi sifundo.

Ingaba ikho enye into ekumele uyazi okanye uyenze?

- Ungaqhagamshelana nomphandi, uCharlene Goosen, kwa-021 938 9259 ukuba uneminye imibuzo okanye iingxaki.
- Ungaqhagamshelana neKomiti yoPhando ngoMntu kwa-021 938 9207 ukuba zikhona izinto ezikuxhalabisayo okanye izikhalazo onazo ngesi sifundo okanye ngabasebenzi baso.
- Uza kufumana ikopi yakho yale fomu ineenkcukacha neyesivumelwano.
- Uza kufumana ikopi yolu lwazi kunye nefomu yemvumelwano ukwenzela iingxelo zakho.

Isifungo somthathi-nxaxheba

Ngokutyikitya ngezantsi, mna ……. ndiyavuma ukuthatha inxaxheba kwisifundo sophando esinesi sihloko *Izinto ezichaphazela iinkqubo zokutyisa iintsana zabanonopheli-mpilo bezonyango olusisiseko (0-5.9 iinyanga) eAvian Park naseZwelethemba, eNtshona Koloni, eMzantsi Afrika.*

Ndazisa ukuba:

- Ndilufundile okanye ndalufunda olu lwazi kunye nefomu yemvumelwano kwaye ibhalwe ngolwimi endiliciko nendikhululekileyo kulo

- Bendinalo ithuba lokuba ndibuze imibuzo kwaye yonke imibuzo yam iphendulwe ngokwanelisayo.
- Ndiyakuqonda ukuba ukuthatha inxaxheba kolu phando kube **kukuzithandela kwam** kwaye andikhange ndinyanzelwe ukuba ndithathe inxaxheba.
- Ndingakhetha ukusishiya isifundo naninina kwaye andisayi kohlwaywa okanye uqal' ugwetywe nangayiphi indlela.
- Usenokucelwa ukuba usishiye isifundo phambi kokuba siphele, ukuba ugqirha wesifundo okanye umphandi ukubona kuyinzuzo kuwe, okanye ukuba andisilandeli isicwangciso sesifundo, ekuvunyelenwe ngaso.

Kutyikitywe e-(indawo) ..... ngo-(usuku) ..... 2011.

..... **.....**

Umtyikityo womthathi-nxaxheba **Umtyikityo wengqina**

Isifungo somphandi

Mna *(igama)* ..... ndiyafunga ukuba:

- Ndilucacisile ulwazi olu kweli xwebhu ku-.....
- Ndimkhuthazile ukuba abuze imibuzo kwaye athathe ixesha elifanelekileyo ukuba ayiphendule.
- Ndiyaneliseka kukuba uyakuqonda ngokwanelisayo konke okumalunga nophando okuxoxwe ngasentla.
- Andisebenzisanga toliki.

Kutyikitywe e-(indawo) ..... ngo-(usuku) ..... 2011.

..... **.....**

Umtyikityo womphandi **Umtyikityo wengqina**

Appendix 6.31: Consent form for qualitative data collection (English)

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: Factors influencing feeding practices of primary caregivers of infants (0 – 5.9 months) in Avian Park and Zwelethemba, Western Cape, South Africa.

REFERENCE NUMBER: N10/11/362

PRINCIPAL INVESTIGATOR: Mrs Charlene Goosen

ADDRESS: Division Human Nutrition
Clinical Building, 3rd Floor
Faculty of Medicine and Health Sciences
Stellenbosch University
Francie van Zijl Drive
Tygerberg, 7505

CONTACT NUMBER: 021 938 9259

You are invited to take part in a research study. Please take some time to read the information below, which will explain the details of this study. Please ask the study staff any questions about any part of this study that you do not fully understand. It is very important that you clearly understand what this study is about and how you will be involved. Also, your participation is **entirely voluntary** and therefore your own choice. You are free to say no to participate. If you say no, this will not have any bad effect on you. You are also free to stop taking part in the study at any time, even if you do agree to take part.

This study has been approved by the **Committee for Human Research at Stellenbosch University** and will be done according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- This study will be done in Avian Park and Zwelethemba.
- Ninety people will take part in these group discussions.
- We are doing this research to find out how you feel about infant feeding. This will help us find areas where support or education is needed.
- You will be part of a small group of people who will discuss infant feeding. A facilitator will ask the group questions and all the discussions will be recorded with a tape recorder.
- The discussion will last for 60 minutes with snacks served at the end.

Why have you been invited to participate?

- You are a mother of a baby who is younger than 6 months old, a father, a grandmother or a health care worker and we would like to know what you think about infant feeding.

What will your responsibilities be?

- You only need to answer and discuss the questions that the field worker asks. You have no other responsibilities.

Will you benefit from taking part in this research?

- This research will help us find areas where support or education is needed with feeding babies. This will help you and your community to take the best care of babies and have happy and healthy children.

Are there any risks involved in your taking part in this research?

- There are no risks involved in taking part in this study.

If you do not agree to take part, what alternatives do you have?

- You can decide if you want to take part in this study or not. You are not being forced to take part and if you decide that you do not want to take part, nothing bad will happen to you.

Who will have access to your answers?

- Only the research team will listen to the discussions.
- No names will be mentioned in the discussions and no one will know which answers were yours.
- This form will be the only form where you sign your name and we will keep it separate from any of the answers that you give us.

What will happen in the unlikely event of some form of injury occurring as a direct result of you taking part in this research study?

- This study will not likely cause any harm or injury to you.

Will you be paid to take part in this study and are there any costs involved?

- You will not be paid to take part in this study.
- You will not have to pay to take part in this study.
- Any transport costs will be paid by us and refreshments will be provided at the discussion.

Is there anything else that you should know or do?

- You can contact the researcher, Charlene Goosen, at 021 938 9259 if you have any further questions or problems.
- You can contact the Committee for Human Research at 021 938 9207 if you have any concerns or complaints about this study or the staff.
- You will receive your own copy of this information and consent form.

Declaration by participant

By signing below, I …….. agree to take part in a research study entitled *Factors influencing feeding practices of primary caregivers of infants (0 – 5.9 months) in Avian Park and Zwelethemba, Western Cape, South Africa.*

I declare that:

- I have read or had read to me this information and consent form and it is written in a language in which I am comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the study staff feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) ..... on (*date*) …….. 2011.

…… ……

Signature of participant Signature of witness

Declaration by investigator

I *(name)* …… declare that:

- I explained the information in this document to ……..
- I encouraged her/him to ask questions and took adequate time to answer them.
- I am satisfied that she/he adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) ..... on (*date*) ……. 2011.

…… ……

Signature of investigator Signature of witness

Declaration by interpreter

I *(name)* …… declare that:

- I assisted the investigator (*name*) …… to explain the information in this document to (*name of participant*) …….. using the language medium of Afrikaans/isiXhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) ..... on (*date*) ……. 2011.

…… ……

Signature of interpreter Signature of witness

Appendix 6.32: Consent form for qualitative data collection (Afrikaans)

DEELNEMERINLIGTINGSBLAD EN -TOESTEMMINGSVORM

TITEL VAN DIE NAVORSINGSPROJEK: Faktore wat die voedingspraktyke van primêre versorgers van babas (0 tot 5.9 maande) beïnvloed in Avian Park en Zwelethemba, Wes-Kaap, Suid-Afrika.

VERWYSINGSNOMMER: N10/11/362

HOOFNAVORSER: Mev Charlene Goosen

ADRES: Afdeling Menslike Voeding, Kliniese Gebou, 3de Vloer
Fakulteit Gesondheidswetenskappe, Universiteit van Stellenbosch
Francie van Zijl Rylaan, Tygerberg, 7505

KONTAKNOMMER: 021 938 9259

U word genooi om deel te neem aan 'n navorsingsprojek. Lees asseblief hierdie inligtingsblad op u tyd deur aangesien die detail van die navorsingsprojek daarin verduidelik word. Indien daar enige deel van die navorsingsprojek is wat u nie ten volle verstaan nie, is u welkom om die navorsingspersoneel of dokter daaroor uit te vra. Dit is baie belangrik dat u ten volle moet verstaan wat die navorsingsprojek behels en hoe u daarby betrokke kan wees. U deelname is ook **volkome vrywillig** en dit staan u vry om deelname te weier. U sal op geen wyse hoegenaamd negatief beïnvloed word indien u sou weier om deel te neem nie. U mag ook te eniger tyd aan die navorsingsprojek onttrek, selfs al het u ingestem om deel te neem.

Hierdie navorsingsprojek is deur die **Etiek Komitee oor Gesondheidsnavorsing van die Universiteit Stellenbosch** goedgekeur en sal uitgevoer word volgens die etiese riglyne en beginsels van die Internasionale Verklaring van Helsinki en die Etiese Riglyne vir Navorsing van die Mediese Navorsingsraad (MNR).

Wat behels hierdie navorsingsprojek?

- Hierdie studie word gedoen in Avian Park en Zwelethemba.
- Negentig mense gaan deelneem aan hierdie fokusgroep gesprekke.
- Ons doen hierdie navorsing om uit te vind hoe jy voel oor babavoeding. Dit sal ons help om die areas te vind waar meer ondersteuning en opvoeding nodig is.
- Jy gaan deel wees van 'n klin groep mense wat oor babavoeding gaan gesels. 'n fasiliteerder sal vrae aan die groep vrae en al die besprekekings gaan met 'n bandopnemer opgeneem word.
- Die bespreking sal 60 minute lank duur waarna eetgoed bedien sal word.

Waarom is u genooi om deel te neem?

- U is 'n moeder van 'n baba jonger as 6 maande, 'n pa, 'n ouma of 'n gesondheidswerker en ons wil graag weet wat jy dink van babavoeding.

Wat sal u verantwoordelikhede wees?

- U hoef slegs die vrae te beantwoord wat die veldwerker vra. U het geen ander verantwoordelikhede nie.

Sal u voordeel trek deur deel te neem aan hierdie navorsingsprojek?

- Hierdie navorsing sal ons help om areas te find waar meer ondersteuning en opvoeding benodig word met babavoeding. Dit sal u en u gemeenskap help om die beste sorg vir babas te bied en dus gesonde en gelukkige kinders te hê.

Is daar enige risiko's verbonde aan u deelname aan hierdie navorsingsprojek?

- Daar is geen risiko's verbonde met jou deelname aan hierdie studie nie.

Watter alternatiewe is daar indien u nie instem om deel te neem nie?

- Jy besluit of jy aan hierdie studie wil deelneem of nie. Jy word nie gedwing om deel te neem nie en indien jy besluit dat jy nie wil deelneem nie sal daar niks slegs met jou gebeur nie.

Wie sal toegang hê tot u mediese rekords?

- Slegs die navorsingsspan sal jou antwoorde sien.
- Geen name word tydens die besprekings genoem nie en niemand sal weet watter antwoorde joune was nie.
- Hierdie vorm is die enigste vorm waar jy jou naam gaan teken, en dit word apart gehou van enige van die antwoorde wat jy vir ons gee.

Wat sal gebeur in die onwaarskynlike geval van 'n besering wat mag voorkom as gevolg van u deelname aan hierdie navorsingsprojek?

- Hierdie studie behoort geen skade of beserings te veroorsaak nie.

Sal u betaal word vir deelname aan die navorsingsprojek en is daar enige koste verbonde aan deelname?

- Jy word nie betaal om deel te neem aan die studie nie.
- Jy hoef niks te betaal om aan die studie deel te neem nie.
- Enige vervoerkoste sal deur ons gedek word en daar sal verversings by die fokusgroep wees.

Is daar enigiets anders wat u moet weet of doen?

- U kan die navorser, Charlene Goosen, kontak by 021 938 9259 indien u enige verdere vrae of probleme het.
- U kan die Etiek Komitee oor Gesondheidsnavorsing kontak by 021 938 9207 indien u enige bekommernis of klagte het wat nie bevredigend deur u studiedokter hanteer is nie.
- U sal 'n afskrif van hierdie inligtings- en toestemmingsvorm ontvang vir u eie rekords.

Verklaring deur deelnemer

Met die ondertekening van hierdie dokument onderneem ek, ……., om deel te neem aan 'n navorsingsprojek getiteld *Faktore wat die voedingspraktyke van primêre versorgers van babas (0 tot 5.9 maande) beïnvloed in Avian Park en Zwelethemba, Wes-Kaap, Suid-Afrika.*

Ek verklaar dat:

- Ek hierdie inligtings- en toestemmingsvorm gelees het of aan my laat voorlees het en dat dit in 'n taal geskryf is waarin ek vaardig en gemaklik mee is.
- Ek geleentheid gehad het om vrae te stel en dat al my vrae bevredigend beantwoord is.
- Ek verstaan dat deelname aan hierdie navorsingsprojek **vrywillig** is en dat daar geen druk op my geplaas is om deel te neem nie.
- Ek te eniger tyd aan die navorsingsprojek mag onttrek en dat ek nie op enige wyse daardeur benadeel sal word nie.
- Ek gevra mag word om van die navorsingsprojek te onttrek voordat dit afgehandel is indien die studiedokter of navorser van oordeel is dat dit in my beste belang is, of indien ek nie die ooreengekome navorsingsplan volg nie.

Geteken te *(plek)* ..... op *(datum)* ……..... 2011.

……	**……**
Handtekening van deelnemer	Handtekening van getuie

Verklaring deur navorser

Ek *(naam)* …….....…….…… verklaar dat:

- Ek die inligting in hierdie dokument verduidelik het aan ……..…….
- Ek hom/haar aangemoedig het om vrae te vra en voldoende tyd gebruik het om dit te beantwoord.
- Ek tevrede is dat hy/sy al die aspekte van die navorsingsprojek soos hierbo bespreek, voldoende verstaan.
- Ek nie ’n tolk gebruik het nie.

Geteken te *(plek*) ..... op *(datum*) ……..…….....…… 2011.

…… **……**

Handtekening van navorder Handtekening van getuie

Appendix 6.33: Consent form for qualitative data collection (isiXhosa)

INCWADANA ENGOLWAZI NGOMTHATHI-NXAXHEBA KUNYE NEFOMU YEMVUMELWANO

ISIHLOKO SEPROJEKTHI YOPHANDO: *Izinto ezichaphazela iinkqubo zokutyisa iintsana zabanonopheli-mpilo bezonyango olusisiseko (0-5.9 iinyanga) eAvian Park naseZwelethemba, eNtshona Koloni, eMzantsi Afrika.*

INOMBOLO YONXULUMANO: N10/11/362

UMPHANDI OYINTLOKO: Nskz Charlene Goosen

IDILESI: Division Human Nutrition, Clinical Building, 3rd Floor
Faculty of Medicine and Health Sciences, Stellenbosch University
Francie van Zijl Drive, Tygerberg, 7505

INOMBOLO YOQHAGAMSHELWANO: 021 938 9259

Uyamenywa ukuba athathe inxaxheba kwiprojekthi yophando. You are being invited to take part in a research project. Nceda thatha ixesha lokufunda ulwazi oluvezwe apha, oluzakuthi luchaze iinkcukacha zale projekthi. Nceda buza nayiphina imibuzo emalunga nayiphina indawo ongayiqondiyo ngokupheleleyo kubasebenzi besi sifundo okanye kugqirha. Kubaluleke kakhulu ukuba waniliseke ngokupheleleyo yinto yokuba ucacelwe kakuhle ukuba yintoni ebangwa sesi sifundo kwaye ungabandakanyeka njani. Kwakhona, ukuthatha kwakho inxaxheba **kungentando yakho ngokupheleleyo** kwaye ukhululekile ukuba ungarhoxa ekuthatheni inxaxheba. Ukuba uthi hayi, oku akusayi kuchaphazela ukungavumi kwakho nangayiphina indlela. Ukwakhululekile ukuba uyeke kwesi sifundo naninina, nkqu nokokuba uyavuma ukuthatha inxaxheba ekuqaleni.

Olu phando luvunywe ziinqobo ezisesikweni **zeKomiti yoPhando Lomntu kwiYunivesithi yaseStellenbosch** kwaye luzakwenziwa ngokwemigaqo esesikweni lophando elamkelekileyo kwiSaziso sehlabathi sika-Helsinki, iMigaqo eLungileyo yoMzantsi Afrika yokuSebenza eKliniki kunye neBhunga lezoPhando ngamaYeza (MRC) iMigaqo yeNqobo yezoPhando.

Simalunga nantoni esi sifundo sophando?

- Esi sifundo siza kwenziwa e-Avian Park naseZwelethemba.
- Abantu abangamashumi alithoba baza kuthatha inxaxheba kwezi ngxoxo zamaqela.
- Senza olu phando ukuze sikwazi ukufumanisa ukuba uziva njani na ngokondla usana lwakho. Oku kuza kusinceda sikwazi ukubona iindawo esifuna inkxaso okanye ezifuna imfundo.
- Uza kuba yinxalenye yeqela elincinci labantu abaza kuxoxa ngokondla iintsana.Umququzeleli uza kubuza iqela umbuzo kwaye zonke iingxoxo ziza kushicilelwa kwiteyipu.
- Iingxoxo ziza kuthatha imizuzu engama-60 kwaye kuza kukho neziphungo namaqebengwana xa ziphelayo ezi ngxoxo.

Kutheni umenyiwe ukuba uthathe inxaxheba?

- Ungumama wosana olungaphantsi kweenyanga ezi-6 ubudala, utata, umakhulu okanye unompilo kwaye sifuna ukwazi ukuba ucinga ntoni na ngokondla usana lwakho.

Luyakuba yintoni uxanduva lwakho?

- Kufuneka uphendule kuphela imibuzo oyibuzwa ngumphandi osebenza ngaphandle. Alukho olunye uxanduva onalo.

Ingaba uza kuzuza ekuthatheni inxaxheba kolu phando?

- Olu phando luza kusinceda sifumane iindawo ezifuna uncedo nokufundiswa ngokutyiswa kwabantwana. Oku kuza kukunceda wena nendawo ohlala kuyi ukuba nibakhathalele ngcono abantwana kwaye nibe nabantwana abonwabileyo nabasempilweni.

Ingaba zikho iingozi ezibandakanyekayo ekuthatheni kwakho inxaxheba kolu phando?

- Akukho bungozi buza kubakho ngokuthatha kwakho inxaxheba kwesi sifundo.

Ukuba awuvumi ukuthatha inxaxheba, loluphi olunye unyango onalo?

- Kumaxesha athile imibuzo ingakwenza ungadi mnandi okanye uphakuzele. Khawuleza uxelele umphandi ukuba udinga uncedo uzakuthunyelwa kumntu onokukunceda.

Ngubani oza kufikelela kwiimpendulo zakho?

- Liqela labaphandi kuphela eliza kuzibona iimpendulo zakho.
- Akukho magama aza kuchazwa kwiingxoxo kwaye akukho mntu uzokwazi ukuba zeziphi ezakho iimpendulo.
- Le fomu iza kubayiyo kuphela apho uza kutyikitya khona igama lakho, kwaye siza kuyigcina ingadibani neempendulo osinike zona.

Kuza kwenzeka ntoni kwimeko yesiganeko esingalindekanga sokwenzakala ngenxa yokuthatha kwakho inxaxheba kwesi sifundo sophando?

- Esi sifundo asizi kubangela bungozi okanye umonzakalo kuwe.

Ingaba uza kuhlawulwa ngokuthatha inxaxheba kwesi sifundo kwaye ingaba kukho iindleko ezibandakanyekayo?

- Awuzi kuhlawulwa ngokuthatha kwakho inxaxheba kwesi sifundo.
- Akuzi kufuneka uhlawule ukuze ukwazi ukuthatha inxaxheba kwesi sifundo.
- Naziphi na iindlelo zokukhwela ziza kuhlawulwa sithi kwaye uza kufumana neziselo kwiingxoxo.

Ingaba ikho enye into ekumele uyazi okanye uyenze?

- Ungaqhagamshelana nomphandi, uCharlene Goosen, kwa-021 938 9259 ukuba uneminye imibuzo okanye iingxaki.
- Ungaqhagamshelana neKomiti yoPhando ngoMntu kwa-021 938 9207 ukuba zikhona izinto ezikuxhalabisayo okanye izikhalazo onazo ngesi sifundo okanye ngabasebenzi baso.
- Uza kufumana ikopi yakho yale fomu ineenkcukacha neyesivumelwano.
- Uza kufumana ikopi yolu lwazi kunye nefomu yemvumelwano ukwenzela iingxelo zakho.

Isifungo somthathi-nxaxheba

Ngokutyikitya ngezantsi, mna …….. ndiyavuma ukuthatha inxaxheba kwisifundo sophando esinesi sihloko *Izinto ezichaphazela iinkqubo zokutyisa iintsana zabanonopheli-mpilo bezonyango olusisiseko (0-5.9 iinyanga) eAvian Park naseZwelethemba, eNtshona Koloni, eMzantsi Afrika.*

Ndazisa ukuba:

- Ndilufundile okanye ndalufunda olu lwazi kunye nefomu yemvumelwano kwaye ibhalwe ngolwimi endiliciko nendikhululekileyo kulo
- Bendinalo ithuba lokuba ndibuze imibuzo kwaye yonke imibuzo yam iphendulwe ngokwanelisayo.
- Ndiyakuqonda ukuba ukuthatha inxaxheba kolu phando kube **kukuzithandela kwam** kwaye andikhange ndinyanzelwe ukuba ndithathe inxaxheba.

- Ndingakhetha ukusishiya isifundo naninina kwaye andisayi kohlwaywa okanye uqal' ugwetywe nangayiphi indlela.
- Usenokucelwa ukuba usishiye isifundo phambi kokuba siphele, ukuba ugqirha wesifundo okanye umphandi ukubona kuyinzuzo kuwe, okanye ukuba andisilandeli isicwangciso sesifundo, ekuvunyelenwe ngaso.

Kutyikitywe e-(indawo) ..... ngo-(usuku) ..... 2011.

..... **.....**

Umtyikityo womthathi-nxaxheba **Umtyikityo wengqina**

Isifungo somphandi

Mna *(igama)* ..... ndiyafunga ukuba:

- Ndilucacisile ulwazi olu kweli xwebhu ku-.....
- Ndimkhuthazile ukuba abuze imibuzo kwaye athathe ixesha elifanelekileyo ukuba ayiphendule.
- Ndiyaneliseka kukuba uyakuqonda ngokwanelisayo konke okumalunga nophando okuxoxwe ngasentla.
- Andisebenzisanga toliki.

Kutyikitywe e-(indawo) ..... ngo-(usuku) ..... 2011.

..... **.....**

Umtyikityo womphandi **Umtyikityo wengqina**