

**FACTORS THAT INFLUENCE ATTITUDE, BELIEFS AND
BARRIERS OF CAREGIVERS REGARDING
COMPLEMENTARY FEEDING PRACTICES OF INFANTS
AGED 6 – 12 MONTHS IN THE BREEDE VALLEY DISTRICT
OF THE WESTERN CAPE**

by
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*Thesis presented in partial fulfilment of the requirements for the degree
Master of Nutrition at the University of Stellenbosch*



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DECLARATION

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ABSTRACT

Introduction

Inappropriate feeding practices are a major cause of malnutrition in young children. Within this context, it has been well documented that the incidence of malnutrition rises sharply during the period from six to 18 months of age in most countries. Complementary feeding typically covers the period from six to 24 months of age. Renewed focus has been placed on the promotion of breastfeeding. Similar attention should be paid to complementary feeding. Six percent of deaths per year are preventable through good complementary feeding practises. To improve infant nutrition it is important to know the local infant and young child feeding practises present in communities but also to identify and understand the underlying factors that influence these practises.

Aim

The study aimed to describe the various factors that influence complementary feeding practices of infants aged 6 – 12 months in 2 communities (Avian Park and Zweletemba) in the Breede Valley district of the Western Cape.

Methods

The study was conducted from May – July 2012. A descriptive study design was used. A qualitative approach was followed with the use of focus group discussions with mothers / primary caregivers, fathers and grandmothers of infants aged 6 – 12 months.

Results

The findings of this study provide insight into different aspects regarding early cessation of breastfeeding that could lead to early introduction of complementary foods. In both Avian Park and Zweletemba the age of introduction of liquids and solids ranged from birth to 12 months. Various liquids such as water, over the counter medicine, high concentrated sugar beverages and low nutrient beverages were given to infants from as young as two days *post-partum* by means of a feeding bottle. Cow's milk was also

introduced before six months of age for reasons such as affordability, availability and because cow's milk does not need boiling water for reconstitution like formula milk, especially when access to electricity is inadequate. Infants from both communities also received *meelbol* (flour and water beverage) fed either *via* feeding bottles (as a beverage) or as porridge fed to the infant with a spoon. Porridge (especially rice cereal and maize meal porridge) was introduced to infants from one week *post-partum* and infants from both areas also received family "food from the pot" before the age of 6 months.

In this study it was found that it was most often a female (either the mother or the grandmother) in the household who was responsible for buying and preparing food and for feeding the infant. Health care workers, members of the mothers' household as well as community members were identified as key role players in conveying information regarding breastfeeding and complementary feeding from birth to 1 year. Various factors were identified in this study that influenced suboptimal infant feeding practises in Avian Park and Zweletemba. The main factors identified were i) health, ii) physiological, iii) nutritional, iv) educational, v) behavioural, vi) financial and vii) social factors. Other aspects mentioned were viii) demographic and x) commercial factors.

Conclusion

Results indicated that the current practices and factors influencing the feeding practices in Avian Park and Zweletemba were similar there was very little to no cultural differences between the two communities in terms of current practices and influencing factors. The findings of this study have highlighted the importance of involving all household members in interventions, as well as the larger community in a public nutrition approach. Factors influencing current feeding practises should be considered carefully when planning future interventions to improve infant feeding practises.

OPSOMMING

Inleiding

Onvanpaste voedingspraktyke is 'n groot oorsaak van wanvoeding in jong kinders. Binne hierdie konteks is dit goed gedokumenteer dat die voorkoms van wanvoeding skerp styg gedurende die tydperk vanaf ses tot 18 maande ouderdom in die meeste lande. Komplimentêre voeding dek tipies die tydperk van ses tot 24 maande oud. Hernude fokus word geplaas op die bevordering van borsvoeding. Komplimentêre voeding behoort soortgelyke aandag te kry. Ses persent van sterftes per jaar is voorkombaar deur goeie komplimentêre voedingpraktyke. Om kindervoeding te verbeter is dit belangrik om bekend te wees met plaaslike baba- en jong kind praktyke in gemeenskappe, en ook om die onderliggende faktore wat hierdie praktyke beïnvloed te identifiseer en verstaan.

Doelwit

Hierdie studie het gepoog om die verskillende faktore ten opsigte van die komplimentêre voeding praktyke van babas tussen 6 – 12 maande te beskryf in 2 gemeenskappe (Avian Park en Zweletemba) in die Breede Vallei distrik van die Wes-Kaap.

Metodes

Die studie is uitgevoer vanaf Mei – Julie 2012. 'n Beskrywende studie ontwerp is gebruik. 'n Kwalitatiewe benadering is gevolg met die gebruik van fokusgroepbesprekings met moeders / primêre versorgers, vaders en oumas van babas tussen 6 – 12 maande.

Resultate

Die bevindinge van hierdie studie voorsien insae in die verskillende aspekte van die vroeë beëindiging van borsvoeding wat kan lei tot vroeë bekendstelling van komplimentêre voeding. In beide Avian Park en Zweletemba het die ouderdomme van insluiting van vloeistowwe en vaste stowwe gewissel van geboorte tot 12 maande.

Verskeie vloeistowwe soos water, oor-die-toonbank-medisyne, hoë konsentrasie suiker drankies en lae voedingswaarde drankies was aan babas gegee so vroeg as twee dae *post-partum* deur middel van 'n voedingsbottel. Koeimelk was ook gegee voor 6 maande, om redes soos bekostigbaarheid, beskikbaarheid en omdat koeimelk nie kookwater benodig vir hersamestelling soos formule melk nie, veral in situasies waar toegang tot elektrisiteit onvoldoende is. Babas van beide gemeenskappe was ook *meelbol* (meel en water drankie) gevoer óf *via* voedingsbottels (as 'n vloeistof) of as 'n pap wat gevoer word met 'n lepel. Pap (veral ryspap en mieliemeelpap) was gegee vanaf een week *post-partum* en babas van beide gebiede het ook familie kookkos ontvang “vanuit die pot” voor 6 maande.

In hierdie studie is bevind dat dit heel dikwels 'n vrou (óf die moeder of ouma) in die huishouding is wat verantwoordelik is vir die koop en voorbereiding van voedsel asook die voer van die baba. Gesondheidswerkers, lede van die moeder se huishouding sowel as lede van die gemeenskap is geïdentifiseer as belangrike rolspelers in die oordrag van inligting oor borsvoeding en komplimentêre voeding vanaf geboorte tot een jaar. Die belangrikste faktore geïdentifiseer was verwant aan: i) gesondheid, ii) fisiologie, iii) voedingswaarde, iv) opvoedkunde, v) gedrag, vi) finansies en vii) sosiale faktore. Ander aspekte genoem is: viii) demografiese en ix) kommersiële faktore.

Gevolgtrekking

Resultate het aangedui dat die huidige voedingpraktyke soortgelyk was in Avian Park en Zweletemba en dat daar baie min kulturele verskille tussen die twee gemeenskappe was in soverre huidige praktyke en faktore wat dit beïnvloed. Die bevindinge van hierdie studie het die belangrikheid daarvan uitgelig om al die lede van die huishouding, sowel as die breër gemeenskap in te sluit in intervensies met 'n openbare voeding benadering. Faktore wat die huidige babavoeding praktyke beïnvloed moet versigtig oorweeg word tydens die beplanning van toekomstige intervensies om babavoeding praktyke te verbeter.

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Contributions by principle researcher and fellow researchers

The principal researcher (Ms M Matthysen) conceptualized the study. The principal researcher planned the study, undertook data collection, captured the data for analyses, analysed qualitative data, interpreted the data and drafted the thesis. Dr MJ Lombard and Ms LC Daniels (Supervisors) provided input at all stages and assisted in revision of the protocol and thesis.

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LIST OF DEFINITIONS

Exclusive breastfeeding	Includes no other food or drink (not even water), except breastmilk, but allows the infant to receive oral rehydration solution (ORS), drops and syrups (vitamins, minerals and medicines). ¹⁻⁵
Partial breastfeeding	When breastmilk and any liquid (including non-human milk and formula milk) or solid or semi-solid foods are given to infants. ^{1,4-8}
Mixed feeding	When breastmilk and any liquid (including non-human milk and formula milk) or solid or semi-solid foods are given to infants. ^{1,7-11}
Complementary feeding	The transition from exclusive breastfeeding to family food is referred to as complementary feeding. Breastmilk alone is no longer sufficient to meet the nutritional requirements of infants, therefore other foods and liquids are also included in the infants' diet. It typically covers the period from 6 to 18 – 24 months of age. ^{1,12-13}
Replacement feeding	A nutritionally adequate breastmilk substitute for an infant who is not receiving any breastmilk until the age at which the infant can be fully fed on family foods. ^{7,14-15}
Complementary foods	Any solid or semi-solid foods or liquids other than breastmilk or breastmilk substitutes, fed to infants by means of beverages, spoon feeding or finger foods. ¹⁶⁻¹⁷
Transition foods	Foods especially prepared for infants before they start to eat family food. The term “weaning foods” is not used because the objective is to complement breastmilk and not to replace it by initiating weaning. ¹⁶

Responsive feeding	Actions of a caregiver showing that he/she is responsive to the infant's signals for hunger and satiety and encourages the infant to eat. ¹²
Mother	A woman who has given birth to a specific child.
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 is the infant's mother, unless for any reason she is incapable or unwilling to care for her infant, in which case the person who primarily provides care to the infant is seen as the primary caregiver.
Father	The male parent of a specific child.
Grandmother	The mother of the infants' own father or mother.
Household	One or more people who occupy a common dwelling (or part of it) for at least four days a week and who share food and other basics for living. People who live in the same dwelling but who do not share food or other basics are listed as separate households. ¹⁵

CHAPTER 1

LITERATURE REVIEW AND MOTIVATION FOR THE STUDY



Photographer: Mariska Matthysen

1.1 INTRODUCTION

The importance of nutrition as a foundation for development is often underestimated. Poor nutrition leads to ill-health and ill-health contributes to deterioration in nutritional status, which in turn can lead to poor development and even result in death. These effects are seen most dramatically in infants and young children.^{1,18} The Millennium Development Goals aim to reduce child mortality with two-thirds by the year 2015, but an increase in mortality rates have been reported in South Africa.¹⁹⁻²³ South Africa continues to fail in reducing childhood malnutrition and infant- and under-five mortality rates, regardless of different programmes to accomplish the afore-mentioned goals.¹⁹

1.2 MALNUTRITION IN SOUTH AFRICA

Infant mortality is directly related to malnutrition and hunger, as these are the leading risk factors for illness and diseases.²⁴ The United Nations Children's Fund (UNICEF) stated that South Africa had 67 under-five deaths per 1000 live births in 2008.²⁵ Poor feeding practices can increase the risk for mortality in children under five, because undernutrition can lead to death.²⁵ Furthermore, the South African Child Gauge of 2008 / 2009 reported that the Western Cape, together with the Eastern Cape and North West had the highest rates of reported child hunger in 2007.²⁶ Optimal early infant feeding practices are essential in supporting the reduction of hunger in infants and young children.²⁷

According to the most recent national anthropometric data collected in 2005, 11% of infants aged 1 to 3 years in South Africa were underweight, 5% were moderately wasted, less than 2% were severely wasted and 23.4% were stunted.²⁸ Stunting and severe wasting are acknowledged as two of the key risk factors for death before five years of age.²⁹ The outcomes of undernutrition during infancy and early childhood include weight loss, growth faltering, higher susceptibility to disease, delayed mental development and mortality.^{24,30-31} Prolonged undernutrition leads to stunting^{27-28,32-33} and therefore stunting in young children is considered a measure of chronic malnutrition and an indicator of poverty.³³ Impaired height, work force capacity, school performance and income generation^{24,30-31,34} as well as an increased risk for adult overweight, obesity³⁵

and degenerative diseases³⁶ are some of the long term implications of long-lasting undernutrition and / or stunting^{24,33-37}. Evidence shows that breastfeeding and correct complementary feeding, Vitamin A and zinc supplementation and the appropriate management of undernutrition can decrease the rates for stunting and mortality.³⁴

On the other hand, an estimated twenty-two million children ≤ 5 years of age were overweight worldwide in 2007³⁸ and in 2010, approximately 10-20% of infants and toddlers in the United States (US) were overweight³⁹ ($\geq 85\%$ body mass index (BMI) percentile for age), values similar to those reported for young children in multiple countries.³⁸ Equally concerning is the finding that nearly 10% of infants and toddlers from birth – 2 years are also obese, at or above the 95th percentile of the weight for recumbent length growth charts.³⁹ Many overweight infants remain overweight into their childhood years and childhood obesity has long been known as a strong predictor of adult obesity.³⁸ Results from several systematic reviews are consistent in demonstrating evidence of a positive association between rapid infant weight gain and later risk of obesity. This risk for latter obesity clearly signals the need for intervening in the early period of life.⁴⁰

However, research indicates that inappropriate feeding practices are a major cause of the onset of malnutrition in young children.^{37,41-42} The incidence of malnutrition rises sharply during the period from six to 18 months of age in most countries.⁴³⁻⁴⁴ During the past decade, there has been considerable progress in the implementation of interventions to improve breastfeeding practices, although similar progress has not been made in the area of complementary feeding.^{22,34}

1.3 COMPLEMENTARY FEEDING

Complementary feeding is defined as the process starting when breastmilk alone is no longer sufficient to meet the nutritional requirements of infants and therefore additional food and liquids are needed.^{7,15,45} Any non-breastmilk foods or nutritive liquids that are given to infants during this period are defined as “complementary foods”.^{41,45} Care must be taken to ensure that these foods complement rather than replace breastmilk. Breastfeeding should continue through 24 months and beyond.^{41,46} The World Health

Organisation's (WHO) decision to include human milk substitutes (HMS), infant formula, and follow-on formula as "complementary food" is intended to emphasize and encourage breastfeeding.⁴⁷

Complementary feeding typically covers the period from six to 24 months of age, and is a very vulnerable period in an infant's life. It is the time when malnutrition starts in many infants, contributing significantly to the high prevalence of malnutrition in children under five years of age worldwide.^{41,45} The deficits and excesses acquired during this period are difficult to compensate for later in life.⁴⁸

There is evidence that complementary feeding practices are generally poor in most developing countries, meaning that many infants continue to be vulnerable to largely irreversible outcomes such as stunting and poor cognitive development, as well as to significantly increased risks of infectious diseases such as diarrhoea and pneumonia.^{49,50}

Appropriate complementary feeding must achieve the infant's nutritional requirements. It must be of a timely nature, complementary foods must be initiated when the need for energy and or nutrients exceeds that which can be provided by the mother through frequent breastfeeding. Complementary foods provided must be sufficient in energy, protein and micronutrients in order to satisfy the needs of a growing child. It is of the utmost importance that these food items are hygienically stored and prepared before consumption and that feeding occurs with clean hands and utensils, not bottles and teats. Ultimately complementary foods should be given consistently according to the signals of the child indicating his / her appetite and satiety. This method of feeding will lead to the child being encouraged to consume sufficient amounts of food by means of different feeding methods (fingers, spoon or self-feeding).^{37,41,43}

1.4 RECOMMENDATIONS FOR COMPLEMENTARY FEEDING

Guidelines for complementary feeding were developed from discussions at several technical consultations and documents on complementary feeding such as the WHO / UNICEF Technical Consultation on Infant and Young Child Feeding in 2000 and WHO Global Consultation on Complementary Feeding in 2001.^{41,45}

1.4.1 Introduction of complementary foods

The “optimal duration of exclusive breastfeeding” has been discussed intensively in the last decades.⁵¹ These discussions relate directly to the “appropriate age for the introduction of complementary food”, because the next stage after exclusive breastfeeding may be complementary feeding plus continued breastfeeding.⁵²

According to the WHO and UNICEF guidelines mothers / primary caregivers should practice exclusive breastfeeding from birth to 6 months of age and then introduce complementary foods at 6 months while continuing to breastfeed.^{12,45}

After six months it becomes increasingly difficult for breastfed infants to meet their nutrient needs from human milk alone.^{12,37,45} Furthermore, most infants are developmentally ready for other foods at this age.⁴¹ Infants gradually develop the ability to chew, and they start to show an interest in foods other than milk.⁴⁷

The age at which it is appropriate to introduce complementary foods depends on a range of factors which include the growth and development of the infant and the readiness of the infant to accept a different feeding mode (e.g. spoon versus suckling).^{41,47}

The observed time of introduction of complementary feeding in healthy infants in five European countries (Belgium, Germany, Italy, Poland and Spain) within a multicentre trial on the effects of different protein intakes on later growth has recently been published. According to this report, complementary foods were introduced earlier in formula-fed infants (median 19 weeks, interquartile range 17-21) than breastfed infants (median 21 weeks, interquartile range 19-24). Some 37.2% of formula-fed infants and

17.2% of breastfed infants received complementary food earlier than at 4 months. At 5 months, more than 75% of formula-fed infants, and more than 50% of breastfed infants, had received complementary food. At 6 completed months, 96.2% of formula-fed infants and 87.1% of breastfed infants had already received complementary foods.⁵²

In a scientific opinion on the appropriate age for the introduction of complementary food for infants in European Countries done by the Panel on Dietetic Products, Nutrition and Allergies, it was suggested that late introduction of fully breastfed infants, (after 6 months), could result in a decline of length and weight gain and that early introduction from 3-4 months could result in increased weight gain which could have long term negative consequences with regard to an increased risk for obesity, type 2 diabetes and cardiovascular disease in adult life.¹⁷

Complementary feeding before the age of six months leads to infants ingesting less breastmilk because breastmilk is replaced with complementary foods even when breastfeeding frequency is maintained.⁵³ Early introduction of complementary foods (e.g. < 4 months) has also been positively associated with rate of weight gain during infancy, increased weight or measures of adiposity in infants, toddlers, and preschool age children.^{40,52} The replacement of breastmilk with complementary foods is less important after 6 months. It becomes difficult after six months to meet the infant's nutrient needs with human milk alone and most infants are developmentally ready to receive complementary foods at this age.^{13,16}

1.4.2 Responsive feeding

During this complementary feeding period responsive feeding should be practiced by feeding infants directly and assisting older children when they feed themselves.^{12,37,54-56} They should therefore be sensitive to the hunger and satiety cues of the infant and minimize distractions during meals. It is important to encourage infants to eat but not to force them.⁵⁶⁻⁵⁷ Several intervention studies that included feeding behaviours as part of the recommended practices have reported positive effects of responsive feeding on infant growth,⁵⁸⁻⁵⁹ but unfortunately it is not possible to separate the influence of

responsive feeding from that of the other changes that occurred in breastfeeding practices and the types of complementary foods offered.⁵⁷

1.4.3 Energy density

The energy density of a food is the amount of calories per unit of volume or weight of the food. Figure 1 shows how the amount of energy that needs to be acquired from complementary foods increases with age.¹⁶

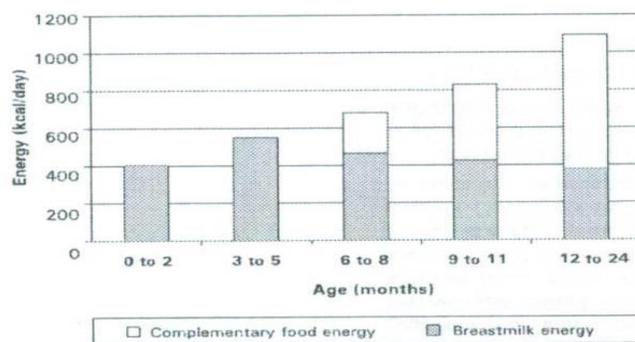


Figure 1. Energy requirements and required complementary food energy to supply the nutritional needs of children younger than 2 years.

The amount of energy that must be obtained from complementary foods varies according to the volume and energy density of the breastmilk ingested by the infants.^{12,16} The energy density of human milk is lower in developing countries (0.53 to 0.70 kcal/g) when compared to human milk in industrial countries (0.60 to 0.83 kcal/g).^{37,43} Infants compensate for this variation in energy density by varying their intake of breastmilk.^{12,16,43}

A low energy density diet will prevent infants from meeting their energy requirements, as they have a limited gastric capacity of 30 – 40 ml/kg of body weight.^{12,41} However, if a large amount of the infant's energy consumption is from complementary foods, they can reduce their intake of breastmilk, which is not desirable in infants.⁴¹ Overconsumption of energy-dense complementary foods may induce excessive weight gain in infancy, which has been associated with a 2- to 3-fold higher risk of obesity in

school age and childhood. Semi-liquid complementary foods with a high energy density designed for bottle-feeding have recently been marketed. Bottle-feeding of complementary foods with a high energy density, close to 1 kcal/mL, may noticeably increase the risk of overfeeding and this practice should be discouraged.⁴⁷

In addition to providing complementary foods that meet nutritional requirements, feeding practices (particularly frequency of feeding, and feeding style) are also determinants of adequate growth.⁶⁰

1.4.4 Amount and frequency

The amount of complementary foods must be increased gradually. Breastfeeding frequency does not have to be altered because of complementary feeding. New foods should also be introduced gradually, one at a time, initially with an interval of 3 to 7 days so that the possible adverse reactions of each food can be observed separately.^{16,37}

The energy needs from complementary foods for infants in developing countries³⁷ are approximately 200 kcal per day at 6 - 8 months of age, 300 kcal per day at 9 - 11 months of age, and 550 kcal per day at 12 - 23 months of age. In practice, the amount of food to be offered should be based on the principles of responsive feeding, while assuring that energy density and meal frequency are adequate to meet the infant's needs.^{37,41,43}

The appropriate number of feedings depends on the energy density of the local foods and the usual amounts consumed at each feeding. It is difficult to assess the amount of breastmilk ingested by infants, therefore the WHO recommends that for the average healthy infant, meals of complementary foods should be provided 2 - 3 times per day at 6 - 8 months of age, 3 - 4 times per day at 9 - 11 and 12 - 24 months of age, with additional nutritious snacks (such as fruit or bread) offered 1 - 2 times per day.^{37,41,43} Snacks are defined as foods eaten between meals – usually self-fed, convenient and easy to prepare.¹²

Complementary foods are often of lesser nutritional quality than breastmilk. In addition, they are often given in insufficient amounts and, if given too early or too frequently,

displace breastmilk.^{46,48} Even with optimum breastfeeding, infants could become stunted if they do not receive sufficient quantities of good quality complementary foods after six months of age.^{46,50}

1.4.5 Variety and consistency

It is important that a variety of foods are given to the infant to ensure that nutrient needs are met and that fortified complementary foods are used where possible.⁵⁴ As infants' diet change from mostly baby foods that are specially formulated to meet their high nutritional needs to mostly table foods, parents need to take care that their infants' diet does not become reduced in variety or nutritional value.^{41,61}

Food consistency and variety should gradually increase as the infant gets older. Infants can eat pureed, mashed and semi-solid foods at six months.^{12,41} At this stage, transition foods should be especially prepared for infants.¹⁶ By eight months most infants can also eat "finger foods" (snacks that the infant can eat by himself / herself by using their hands). By 12 months, most infants can eat the same types of foods as consumed by the rest of the family with some adaptation in consistency.^{37,45,54} This age also includes new challenges like self-feeding with a spoon, drinking from a cup, and experimenting with self-feeding of finger foods.^{62,63}

Infants should be exposed early to different kinds of food on a regular basis so that they easily accept and not reject new foods. Therefore, if they are exposed to these foods on a regular basis, they end up accepting it, and then these foods may be incorporated into their regular diet.⁶³

1.4.6 Milk and other liquids during the complementary feeding period

Continued breastfeeding is recommended along with the introduction of complementary feeding. Infant formula or follow-on formula may be used in addition to or instead of breastmilk.⁴⁷

Pasteurized milk and milk products can form part of complementary foods that are introduced after six months, but should not replace the intake of breastmilk.⁵⁴ There are

major differences between the composition of cow's milk and that of breastmilk and infant formulae. Cow's milk has a higher content of protein, minerals, and saturated fat, and a different composition of long-chain polyunsaturated fatty acid (LCPUFA), with a low content of linoleic acid but a lower ratio of linoleic acid to a linolenic acid ratio than most infant formulae.⁴⁷ Because cow's milk has a very high renal solute load it might cause dehydration and hypernatremia during illness. The high protein content will contribute considerably to the total protein intake during complementary feeding. Cow's milk that has not been heat-treated, can cause gastrointestinal bleeding, especially during the first 6 months of life.^{60,64} Therefore cow's milk should be heat-treated before offering it to infants younger than 12 months, even with small amounts thereof.⁵⁴

The Feeding Infants and Toddlers Study (FITS) conducted in 2008 found that 17% of infants aged 9 to 11 months were receiving cow's milk before they reached 12 months of age.⁶² When cow's milk are placed in a bottle for feeding, the risk for contamination in unhygienic surroundings is increased, therefore the promotion of liquid cow's milk is not advised in settings with poor sanitation.⁵⁴

The study also found that juices were usually introduced later, after 6 months of age, and fewer infants were consuming juice among the age group 4 to 11 months than in FITS 2002.⁶² This was more in line with the recommendations of no juice before the age of 6 months. Nevertheless, some mothers and primary caretakers in FITS 2008 still fed juices earlier than called for in recommendations.^{37,41} After six months, fruit juice should not be included in excessive amounts in the infant's diet, as it will displace nutrient-dense foods. Breastmilk should be the infant's main source of liquid and should also not be replaced by the intake of fruit juice.⁵⁴

1.4.7 Hygiene of complementary foods

Hygiene of complementary foods, which includes preparation, later storage and administration, is important for the promotion of infant nutrition.^{37,65} It is estimated that annually, approximately 1.8 million children die from the direct effect of diarrheal diseases^{35,48}; and contaminated complementary foods play a vital role in the transmission of diarrheal diseases.⁶⁰

Contamination of complementary foods is very common in developing countries due to contaminated water, poor personal hygiene (contaminated hands of whom is preparing the food) and inadequate storage of foods after preparation.⁴¹ Food contamination is common when it is stored at room temperature as the proliferation of pathogenic bacteria is favoured.^{16,60} Frequently, in poverty-stricken populations, foods that are stored under unfavourable conditions are given to infants without being heated or are inadequately reheated, resulting in the intake of a great number of pathogenic germs.^{60,66}

WHO concluded that infants who continued to be exclusively breastfed to age 6 months or more appeared to have a significantly reduced risk of one or more episodes of gastrointestinal infections.⁶²

1.5 FACTORS INFLUENCING ADEQUATE COMPLEMENTARY FEEDING

1.5.1 Appetite / Anorexia

Lack of appetite could lead to a significant reduction in energy intake and therefore growth deficiencies. Gastric capacity limits the amount of food that an infant can consume during each meal. The incidence of anorexia during the first year of life increases with age from 2.2% in the first month to 31.7% in the 12th month.³⁷ The factors that cause anorexia or low intake of complementary foods include micronutrient deficiencies, especially iron and zinc; and emotional problems.⁴¹ Infants who are sleepy or have waited too long before being fed may lose their appetite and not eat properly.¹⁶ Repeated infections also reduce appetite and increase the risk of inadequate intakes.⁵⁴ When breastfed infants are anorexic, the intake of energy from complementary foods is markedly reduced if compared to the intake from breastmilk itself.^{37,44} Infants and young children in many situations lack the company of a caring adult or other responsible person who not only selects and offers appropriate foods, but assists and encourages them to consume these foods in sufficient quantities.^{12,37,59}

1.5.2 Maternal education

In 2008 a panel of researchers for the Center for Food Safety and Applied Nutrition, Food and Drug Administration; the Division of Nutrition, Physical Activity, and Obesity; the National Center for Chronic Disease Prevention and Health Promotion; and Centers for Disease Control and Prevention, analyzed the prevalence of 14 feeding practices and their association to the mothers' education. A significant inverse association between maternal education and the prevalence of unhealthy infant feeding practices were documented. The unhealthy feeding practices include: early introduction of solids before the age of 4 months; including juice before 6 months; pre-mastication of food for infants and feeding their infants <1 daily serving of either a fruit or a vegetable at 9, 10.5, or 12 months. An explanation for this association may be that information about the transition to complementary foods is conveyed in ways that are less accessible to lower-educated mothers, such as written materials, whether in pamphlets from a doctor, books, or Web materials.⁶⁷⁻⁶⁹

The FITS 2002 study also revealed that lower-educated mothers were more likely to engage in unhealthy infant feeding practices.⁶²

1.5.3 Acceptance of new food items

Acceptance of new foods is not always so rapid. Nearly 30% of 7– 11 month old infants were described by their caretakers as being “picky eaters” in that they accepted a limited number of foods, were unwilling to try new foods, and showed strong food preferences.⁷⁰ Carruth *et al.*, (2004) also found that less than 7% of caretakers offered an initially disliked food more than 3–5 times before deciding that it was not worth offering it again.⁷¹

This finding was confirmed in a recent survey of weaning practices in Southern Germany where 85% of mothers reported that, during the first few months of weaning, their infant refused to eat at least one vegetable. Among the mothers reporting refusal, 6% said they immediately decided their infant definitively disliked the vegetable, 33% after 2 meals, 57% after 3–5 meals, and only 4% continued trying for longer. In

addition, infants given a greater variety of vegetables early in weaning also accepted new foods more readily, at least over the next few days.⁷²

Manella *et al.*, (2007) suggested that not only can infants clearly discriminate the flavors of different fruits and vegetables but repeated opportunities to experience a particular fruit or vegetable or a variety of these foods promote the willingness to eat these foods and hopefully, in the long term, preferences for the ‘tastes’ of these foods.⁶³

The mother’s attitude to new foods may influence her infant’s food acceptance: Pliner *et al.*, (2006) reported a significant but modest correlation ($r = 0.31$) in food neophobia scores between infants and their mothers.⁷²

1.5.4 Socio-economic Status

In some studies earlier introduction of complementary foods were found to be associated with lower socio-economic status.⁵³ One study focussing on families with a low socio-economic income in the United States of America reported that mothers delayed introduction of complementary foods because they perceived that the infant was not interested. In this study mothers and grandmothers reported that one should wait until the infant shows hunger before giving any kinds of foods, suggesting that the perception of an infant’s hunger can play a major role.³⁵

A multicentre intervention trial conducted in 5 European countries by the European Childhood Obesity Project also showed that higher parental socio-economic status and educational level are associated with later introduction of complementary foods.⁵²

1.5.5 Maternal and community attitudes, beliefs and barriers

Regardless of the importance of correct complementary feeding practices, feeding behaviours remain anchored in a wider belief system that influences what, when, where and how people feed their children.⁶⁵

Maternal and community beliefs can influence the timing of the introduction of complementary foods.^{44,65} Researchers also identified a belief that infants less than 12 months of age cannot digest adult food and therefore food is used as a “distracter”

rather than an element of the diet, which leads to late introduction of complementary foods.³⁵ Much effort is needed to characterize and understand better the attitude of caregivers to weaning and complementary feeding. The dialogue involved in such an exercise might also have the additional benefit of better enabling health professionals to develop effective strategies to support breastfeeding and infant care and to promote broader awareness of food hygiene.⁶⁰

Many barriers to optimal complementary feeding and care practices exist, including 1) limited availability and excessive cost of nutrient-dense foods and / or fortified products⁵⁵, 2) time restrictions and use of alternate caregivers for the infant (such as older siblings)⁵⁶, which could limit the capability to exercise responsive feeding practices and safe preparation of foods⁵⁰, 3) lack of safe water and sanitation for ensuring hygienic preparation and storage of complementary foods⁵⁵, 4) beliefs regarding appropriate foods and feeding styles, and preferences for larger (i.e., fatter) infants, which may lead to overfeeding, and 5) maternal mental health problems and maternal depression that can interfere with appropriate feeding and care practices.^{54,59,65}

1.6 MOTIVATION FOR STUDY

The first two years of a infant's life is a critical period during which the foundations for healthy growth and development are built.⁴⁶ Poor breastfeeding and complementary feeding practices, coupled with high rates of infectious diseases, are the principal proximate causes of malnutrition and mortality during this period.^{28,34,44} Preventative measures to reduce the excess mortality for children under the age of five years include firstly exclusive breastfeeding as well as good quality complementary feeding, with a calculated 600 000 deaths per year preventable by good complementary feeding (6% of deaths).⁴⁵ For this reason, it is essential to ensure that caregivers are provided with appropriate guidance regarding optimal feeding of infants and young children.⁵⁹ Achieving a goal of exclusive breastfeeding until age 6 months and continued breastfeeding with appropriate complementary foods thereafter will require an infrastructure of support for breastfeeding that exists throughout the larger society, including mother-baby-friendly hospitals, crèches and extended time off from work for

lactating mothers.⁴⁴ Development of successful interventions to improve infant feeding practices are necessary to begin to overcome earlier insults and to mitigate the effects of poverty.^{12,44}

Decisions made by mothers / caregivers regarding infant feeding practices reflect both the immediate and broader setting that influenced their choices. It is however necessary for mothers / caregivers to implement optimal breastfeeding and complementary feeding practices in order to improve infant and young child growth and development.⁷³

In efforts to contribute to the body of knowledge needed to implement appropriate interventions in this regard, the Division of Human Nutrition, Stellenbosch University, embarked on a food / nutrition security project in two communities in Worcester (Avian Park and Zweletemba), namely the Community Nutrition Security Project (CNSP). This parent project offered an opportunity for a Masters project to endeavour to understand the factors influencing mothers / primary caregivers, fathers and grandmothers regarding feeding practices in infants aged 6 – 12 months through qualitative research methods, with the specific choice of focus group discussions.

1.7 FOCUS GROUP DISCUSSIONS (FGDs)

Focus groups is a data collection method in the form of a carefully planned group discussion in order to study ideas in a group context in an environment that fosters the expression of different points of view, with no pressure for consensus.^{74,75} Focus groups bring out information that paints a portrait of collective local perspectives.⁷⁶ With focus group techniques a topic is supplied by the researcher and thereafter the discussion relies on interaction between the participants to succumb insight into a specific topic or issue.^{74,77}

Selection of participants should be done with care. Groups of between 8 and 12 participants are large enough to generate rich discussion but not so large that some participants are left out and therefore it delivers the best results.^{74,75,78} The focus group should be a homogenous group and should have a connection to the topic discussed.⁷⁴

It is important that participants must be representative of the various subgroups within the targeted population, therefore it is common to conduct a set of focus groups with different segments or subgroups of the targeted population.^{74,78,79} A set of questions can be used to screen and categorize the population groups for inclusion in the focus groups.⁷⁷

Focus groups are conducted by a facilitator using a focus group guide.^{74,78,79} A focus group guide sets forth the major areas of enquiry and typically includes questions that are open-ended and will provoke discussion among the participants, leaving the respondents to discuss the issue without being biased by the wording or presentation of the topic.^{78,79} Participants are encouraged to recount their experiences or to present their points of view without criticism or comment from the group.^{74,79} This is best summed up by Axelrod: *“Once the respondent thinks, censors, intellectualizes, it no longer is a qualitative insight. Therefore, the only kind of respondent who can make a contribution to my qualitative work is a fresh, spontaneous, involved, honest respondent who has not pre-thought her answers.”*⁷⁸ In addition to the facilitator, a person should observe the group taking notes and should tape-record the discussion.^{74,77} The role of the recorder includes observing the dynamics of the group and the unspoken expressions displayed by participants.⁷⁴ After the session is concluded, the recorder prepares a summary of the group discussion and unspoken observations.^{77,78} A good analysis includes not only what was said, but more importantly, what was left unsaid.⁷⁶

The rule of thumb in focus group research is to conduct focus groups until they no longer provide any new information.⁷⁹

FGDs are useful because multiple people can be “interviewed” at one time. The FGD provides information directly from individuals who are vested in the issue or hold expert knowledge about a topic and a representation of diverse opinions and ideas is submitted.^{74,75} It allows members of the focus group to build on each other’s comments and reactions.⁷⁶ FGDs does not give insight only on what participants think, but also why they think it.^{77,79} Results from FGDs are therefore very usefull because qualitative research reports are actual statements from real people.⁷⁸

CHAPTER 2

METHODOLOGY



Photographer: Mariska Matthysen

2.1 STUDY AIM AND OBJECTIVES

2.1.1 Aim

To describe the various factors that influence complementary feeding practices of infants aged 6 – 12 months in 2 communities in the Breede Valley district of the Western Cape.

2.1.2 Objectives

To describe the current factors that influence the attitude, beliefs and barriers of caregivers regarding complementary feeding practices of infants aged 6 – 12 months with the use of qualitative research.

2.2 STUDY DESIGN AND METHODS

2.2.1 Study design

A descriptive study design was used. A qualitative approach was followed with the use of focus group discussions (FGDs).

2.2.2 Study site

The study was conducted in 2 communities, Avian Park and Zweletemba, in Worcester, a town located in the Breede Valley District of the Western Cape Province of South Africa.

2.3 STUDY POPULATION

2.3.1 Inclusion criteria

Participants were included if they adhered to the following inclusion criteria:

- If they were the parent / grandmother of an infant between the ages of 6 – 12 months.
- If they spoke Afrikaans, English or isiXhosa.

2.3.2 Exclusion criteria

Participants were excluded:

- If they were part of a household with another member that already took part in FGD's for this specific study.
- If they had speech problems.
- If they had hearing impediments.
- Legal guardians not caring for the infant on a daily basis.

2.4 SAMPLING STRATEGY

2.4.1 Sample size

Participants were stratified according to their relation to the infant and according to settlement type. The following sub-sections were included:

- a) Relation to the infant
 - Mothers / primary caregivers,
 - fathers and
 - grandmothers.
- b) Settlement type
 - Formal housing and
 - informal housing.

Resources and time available as well as logistical aspects were taken into account for an estimated sample size (Figure 2). An equal number of FGDs were held in Avian Park and Zweletemba. Avian Park and Zweletemba were subdivided into 2 areas according to the settlement type (formal and informal housing) and an equal number of FGDs were held per subsection in each area. Each FGD included 6 – 8 participants. Variation in the estimated sample size were according to the number of participants who complied with the inclusion criteria and who gave consent to take part in the FGDs.

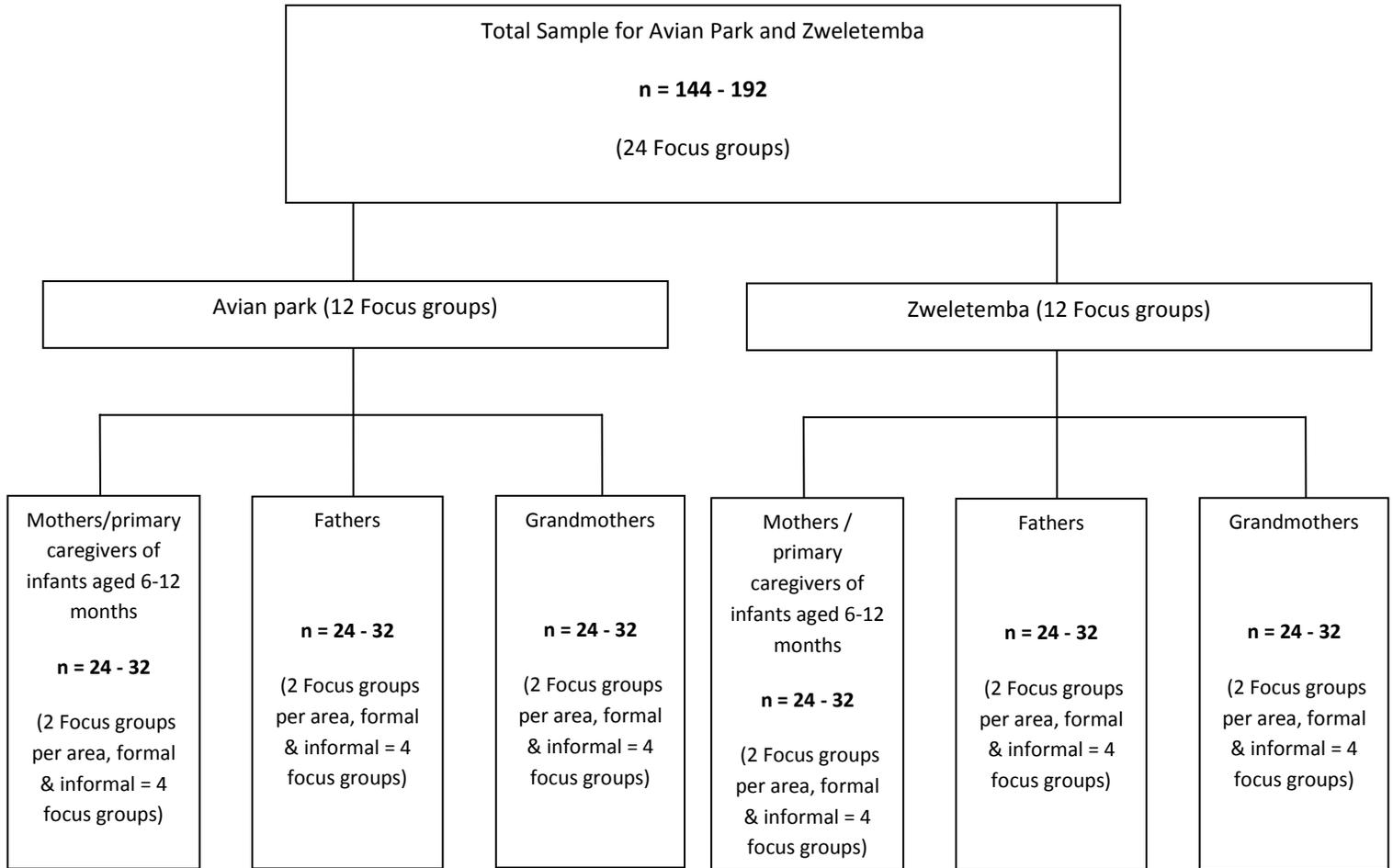


Figure 2. Diagrammatical representation of the estimated qualitative sample size.

2.4.2 Sampling methods

Both simple random and convenience sampling were used for the selection of participants. Street maps for both Avian Park and Zweletemba were obtained. An equal number of houses from every randomly selected street (eligible streets visited by the assessment team for the parent project) were included in the study. The house number in each street where recruitment commenced was chosen at random (by means of a computer generated table of random numbers). Both sides of the street were visited by the field workers group. The direction of recruitment was alternated between up (households approached with street numbers following the selected number) or down (households approached with street numbers lower than the selected number)

with-in each selected street. Households were included until the total numbers of participants had been selected. If not enough participants with-in a street qualified for inclusion, another street was selected at random and those households approached for participation.

Field workers used a screening tool (Appendix 6.1) to recruit mothers / primary caregivers, grandmothers and fathers. If the randomly selected household did not have any of these individuals for infants aged 6 – 12 months, or these potential participants did not fit the required criteria for inclusion, field workers moved on to the next house. Only one participant per household was included. If the field workers were unsuccessful in recruiting participants in a specific street, they moved on to the adjacent street.

2.5 METHODS OF DATA COLLECTION

2.5.1 Team composition

Separate field work teams were composed for each area, Avian Park and Zweletemba. Each team consisted of a focus group facilitator, a focus group observer, a fieldworker responsible for recruitment of participants, a translator as well as a data capturer / transcriber. Based on the linguistic needs of the different communities, one field work team was fluent in isiXhosa and the other fluent in Afrikaans.

2.5.2 Logistical consideration

The facilitator in each field work team (competent in Afrikaans, English and isiXhosa) was trained in the facilitation of the FGDs. Discussions were held in the preferred language of the participants. The researcher was involved in coordination and observation during the FGDs. The FGDs were held at a central location that was easy to reach within each community. The duration of the FGDs were approximately 30 to 60 minutes and cold drinks and snacks were provided after each discussion.

2.5.3 Data collection

2.5.3.1 Socio-demographic data

Socio-demographic information was obtained by means of a self-administered questionnaire (Appendix 6.2 – 6.4). The questionnaire was adapted from the parent project's socio-demographic questionnaire, tailored from the questionnaires used for the National Food Consumption Survey (NFCS), National Food Consumption – Fortification Baseline (NFCS-FB-I), and the urban food security project conducted in Cape Town.^{27,28} Each subdivision of the questionnaire has been used in South African studies.

Socio-demographic data was acquired from all participants in the study. The socio-demographic questionnaire (Appendix 6.2 – 6.4) was self-administered by all participants. The questionnaire was provided to participants at the FGDs for completion before the onset of the discussion. Participants were assisted by the facilitator if necessary. Each participant had a choice to complete the questionnaire in Afrikaans (Appendix 6.3), English (Appendix 6.2) or isiXhosa (Appendix 6.4). In the case where a participant was unable to read or write the information was collected via interview by one of the field workers, in the participants language of choice.

2.5.3.2 Qualitative data

The United States Department of Agriculture (USDA) Community Food Security Assessment Toolkit⁷⁴ was used as a guide for facilitating the FGDs. The facilitators applied the principles and guidelines set out in focus group guides for every different FGD that was held (Appendix 6.5 – 6.13). The guides were developed by the researcher in accordance to the above mentioned toolkit and reviewed by an expert panel. The panel included experts in the fields of Paediatrics, Community Nutrition and Research Methodology. The review of the focus group guides only involved the rephrasing of some of the questions and all relevant changes to the guides were completed before the commencement of the pilot study.

The facilitators conducted the discussions in English, Afrikaans or isiXhosa for all subgroups, mothers / primary caregivers (Appendix 6.5 – 6.7), fathers (Appendix 6.8 –

6.10) and grandmothers (Appendix 6.11 – 6.13), according to the preferred language of the participants. An observer, competent in the language of each FGD, was responsible for audiotaping the discussion as well as to make written notes. The facilitator and observer conducted the FGD according to the focus group guides (Appendix 6.5 – 6.13). There was no difference in the methodology for the FGDs between the various groups.

2.6 QUALITY CONTROL

2.6.1 Training of field workers

All field workers attended a 1 week training programme for the parent study. In addition to this, the field workers attended another 1 day training workshop presented by the researcher regarding the different aspects of qualitative data collection for this specific study. The training included a general overview of relevant conduct, keeping the group focused on the topic, how to stimulate balanced participation, how to guard against biasing the group when responding as well as how to keep within time limits without limiting the discussion. Individual training was done with each transcriber regarding the transcription and translation of FGDs.

2.6.2 Translation of data collection tools and consent forms

All relevant documentation to be used for data collection including the socio-demographic questionnaires (Appendix 6.2 – 6.4) and consent forms (Appendix 6.14 – 6.16) were translated to Afrikaans and Xhosa by the language centre of Stellenbosch University. Focus group guides (Appendix 6.5 – 6.13) were translated by independent experts to Afrikaans and Xhosa and adapted to the cultural environment by the field work teams during the training workshop.

2.6.3 Pilot study

A pilot study was conducted during April 2012 in both Avian Park and Zweletemba. The aim of the pilot study was to test the face validity of the socio-demographic questionnaire (Appendix 6.2 – 6.4) as well as the practical application of the focus group

guides (Appendix 6.5 – 6.13) and the logistical arrangements with regard to the FGDs. Two focus groups, each including six to eight participants, were held per area (Avian Park and Zweletemba) to evaluate the practical implementation of the guidelines in the focus group guides. In both areas the face validity of the socio-demographic questionnaire was also tested on the individuals selected for the FGDs. For the selection of these individuals, convenience sampling was used. The same methods of data collection as described above were used. Minor adaptations were made to the layout of the socio-demographic questionnaire until the researcher was convinced that no further changes were needed for improvement. No changes were made to the content of the questionnaire and no relevant changes were made to the focus group guides. The data obtained from the pilot study were therefore added to the data collected in the main study.

2.6.4 Field management

2.6.4.1 Preliminary fieldwork

The field workers identified relevant community leaders who were approached by the researcher during the pilot study to discuss the objectives of the study. The involvement of the community as participants for data collection and the positive link thereof were also made clear to the community leaders.

2.6.4.2 Supervision

To ensure that data was collected according to the protocol, regular assessments were done by the researcher. After completion, all socio-demographic questionnaires (Appendix 6.2 – 6.4) were checked for missing information before participants left the data collection site and where necessary were corrected accordingly. Daily meetings (at the start and end of each data collection day) were held with the field work teams of both communities to discuss any data collection problems that arose.

2.7 DATA ANALYSIS

2.7.1 Data capturing and statistical analysis

Regular spot checks were conducted by the researcher for quality control while data capturing was done. After capturing, all data was checked to exclude any capturing mistakes.

2.7.1.1 Quantitative data

Socio-demographic information obtained from the questionnaires was captured on Microsoft (MS) Excel.⁸⁰ The answers to each question were calculated as a percentage per subgroup in the formal and informal areas for both Avian Park and Zweletemba. Each question was analyzed separately and then summarized in one spreadsheet per subgroup.

2.7.1.2 Qualitative data

All recorded information from the FGDs was transcribed by trained independent individuals from each community. Afrikaans and isiXhosa information were translated into English. An independent consultant translated all notes made in isiXhosa to English. Notes made during the FGDs were captured by the researcher in MS Word.⁸¹

The Atlas.ti computer software program⁸² was used to code and analyze the final transcripts and notes. Primary and secondary themes were identified and discussed.

2.8 ETHICAL CONSIDERATIONS

The study was performed in accordance with internationally accepted ethical standards. It was conducted according to the Helsinki declaration and received ethical approval at the Committee for Human Research at Stellenbosch University (**S12/03/083**).

Participants were provided with written informed consent (Appendix 6.14 – 6.16). Consent was given by each participant in their first language. The consent form was explained to the group and sufficient time was allocated for reading of the consent form

before signing it. If an individual was illiterate the consent form was read to the participant and he / she gave consent with marking an X in addition to the right thumb print, which was also accompanied by the signature of a witness. Similarly to the main food security study, participants under the age of 18 years were considered emancipated adults and provided consent instead of assent.

Confidentiality of participants was guaranteed. No documentations were made of the names of the participants involved in the study. Voice recordings were used, but during the analysis no names used in the FGDs were mentioned. Participants were given assurance that their identities will be kept confidential before starting with data collection. Participants were also informed beforehand that the information obtained may be used in scientific publications or presentations. The reason for recording the FGDs was explained to each group and permission was sought from participants for the recording.

2.9 REPORTING OF RESULTS

Meetings were organized with both communities on separate occasions to provide relevant feedback of the findings and conclusions of the research project.

Data obtained in this study will be published in an international peer-reviewed journal, and reported at national congresses.

CHAPTER 3

RESULTS AND FINDINGS



Photographer: Mariska Matthysen

3.1 STUDY POPULATION

A total of 28 FGDs were successfully conducted in Avian Park and Zweletemba. The FGDs conducted during the pilot study, were also included in the results of the main study, as no changes to the focus group guides were necessary after completion of the pilot study. The total study population consisted of 86 participants from Avian Park and 83 from Zweletemba. Figure 2 provides a breakdown of the study population of Avian Park and Zweletemba.

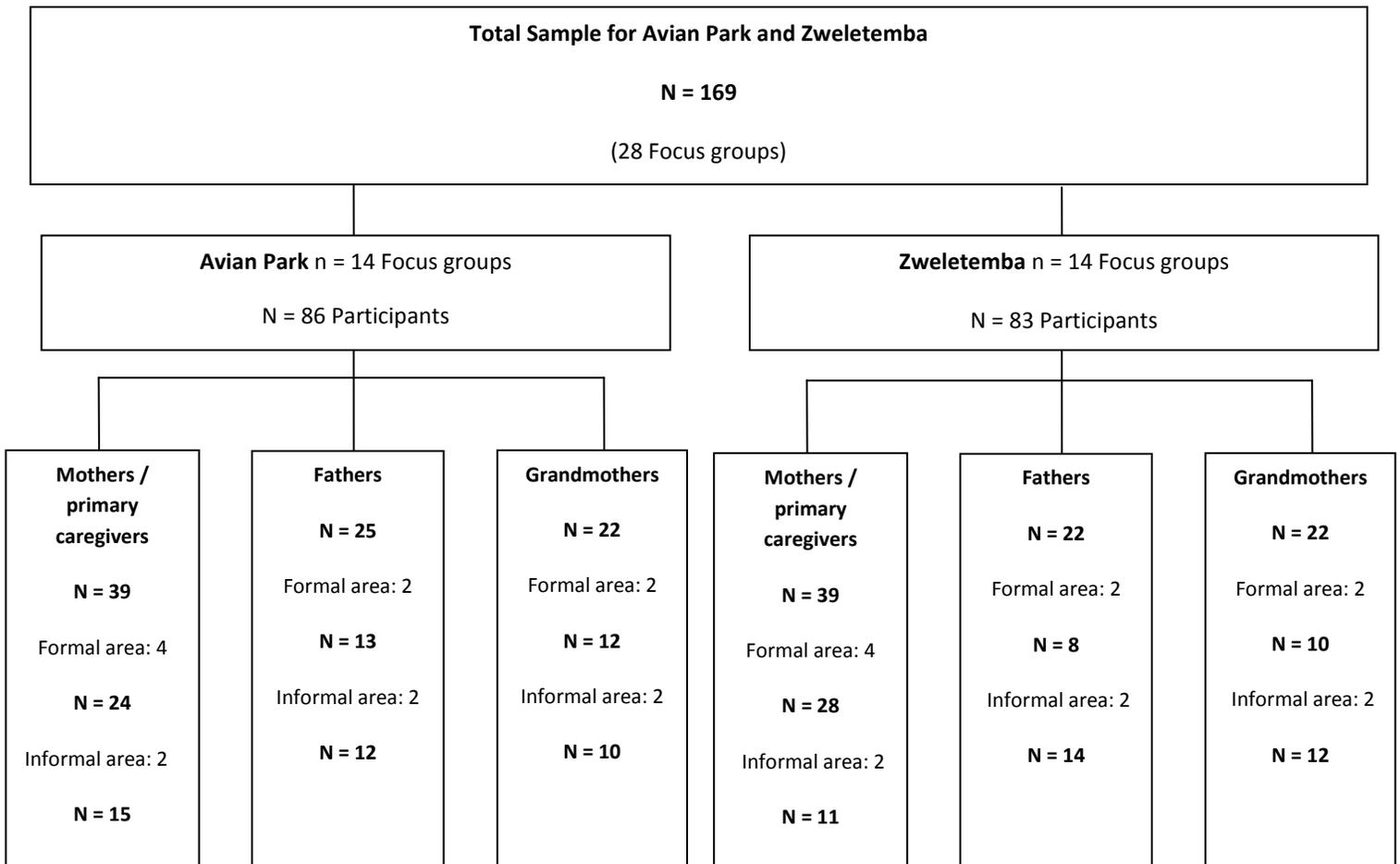


Figure 2. Diagrammatical representation of the participants included in the focus group discussions for Avian Park and Zweletemba.

3.2 SOCIO-DEMOGRAPHIC DATA

3.2.1 Mothers / primary caregivers

3.2.1.1 Avian Park

Mothers / primary caregivers from the formal area (Appendix 6.17) were predominantly Coloured and Afrikaans-speaking whereas the participants from the informal area were almost equally distributed African and Coloured, speaking either Afrikaans or isiXhosa. In both areas, the participants were mainly unmarried [(n = 17 (70.8%); n = 11 (73.3%)] with the highest level of formal education being grade 11 – 12 [n = 15 (62.5%); n = 7 (46.7%)]. Mothers were mainly unemployed and received a child support grant. In the formal area 45.8% (n = 11) had a monthly income of R1 – R500 and 41.7% (n = 10) did not know the monthly income of the household. In the informal area, 40.0% (n = 6) of participants had a monthly income of R1 – R500, 33.3% (n = 5) of R501 – R1000 and 26.7% (n = 4) did not know the monthly income of the household. Almost all participants from the formal area reported having a refrigerator and a stove [n = 23 (95.8%)], while only half reported having the same appliances available in the informal area [n = 7 (46.7%); n = 8 (53.3%)]. The participants (formal and informal) mainly indicated that the mother of the infant is the individual in the household responsible for deciding on the amount of money to be spent on food, buying and preparing food for the household as well as feeding / serving the infant or infants.

3.2.1.2 Zweletemba

Mothers / primary caregivers (Appendix 6.17) were all African, isiXhosa-speaking ladies. Most participants from the formal area were unmarried, whereas mothers from the informal area were unmarried, married or living with a partner. In the formal area, 75.9% (n = 22) of participants had a formal education level of grade 11-12 whereas the majority of mothers in the informal area [n = 6 (54.5%)] only attained grade 8 – 10. Participants were predominantly unemployed, however, in the formal area, 20.7% (n = 6) indicated that they were employed. Most of the mothers / caregivers received a social support grant. In the informal area the majority had a monthly income of R501 –

R1000. The monthly income of the participants in the formal area was spread over all four income brackets, but the majority [n = 13 (44.8%)] also indicated they receive R501 – R1000. All the participants owned a refrigerator, but only 45.5% (n = 5) in the informal area owned a stove compared to 75.9% (n = 22) in the formal area. The participants from Zweletemba also indicated that they were responsible for making decisions regarding the amount of money spent on food, what to buy, as well as feeding / serving the infant or infants.

3.2.2 Grandmothers

3.2.2.1 Avian Park

Participants (Appendix 6.18) were Coloured and Afrikaans-speaking. The majority were unmarried [n = 6 (50.0%); n = 4 (40.0%)], the others were either widowed or married. In the formal area the grandmothers had mostly received only primary school education (some having no education) whereas 50.0% (n = 5) of the grandmothers in the informal area had an education level of grade 8 – 10 and 20.0% (n = 2) achieved grade 11 – 12. All of the participants indicated that they were unemployed, 41.7% (n = 5) of the grandmothers in the formal area and 70.0% (n = 7) in the informal area specified a monthly income of R501 – R1000. The grandmothers in both areas received either a child support grant or old age pension. Most of the participants indicated that they had both a stove and a refrigerator available in the household. In the formal area 58.3% (n = 7) indicated that they were the individuals responsible for deciding on the amount of money to be spent on food, buying and preparing food for the household as well as feeding / serving the infant or infants, the other 41.7% (n = 5) indicated that the mother of the infant was responsible for the above mentioned aspects. This was also indicated by almost all of the grandmothers in the informal area.

3.2.2.2 Zweletemba

Participants (Appendix 6.18) in this subgroup were African, isiXhosa-speaking ladies. The marital status and level of education were variedly spread for these participants. In the formal area 60.0% (n = 6) of participants had only primary school education and

30.0% (n = 3) attained grade 8 – 10. In the informal area, 33.3% (n = 4) had an education level of grade 11 – 12, 25.0% (n = 3) had either primary school education or grade 8 – 10 respectively, and the rest had no formal education. The grandmothers in the formal area all indicated that they were unemployed, with a monthly income of R501 – R1000 for most. They received a social support grant, an old age pension, or a combination of both. In the informal area, 16.6% (n = 2) indicated that they earned an income, 58.3% (n = 7) indicated that they were unemployed and 25.0% (n = 3) that they were pensioners. They indicated that 58.3% (n = 7) had a monthly income of R1001 – R3000, the others ranging between R1 – R500 or R501 – R1000. All of the participants in this area received a social support grant. Almost all grandmothers owned a refrigerator, whereas only half of participants in the formal area and one in every six participants from the informal area had access to a stove. In the formal area approximately half of the grandmothers indicated that they were responsible for deciding the amount of money to be spent on food, buying and preparing food for the household as well as feeding / serving the infant or infants; the other half indicated that the mother of the infant were responsible for these duties. In the informal area the majority of grandmothers pointed out that the mother of the infant was in charge of the above mentioned aspects.

3.2.3 Fathers

3.2.3.1 Avian Park

Fathers (Appendix 6.19) were mostly Coloured, Afrikaans-speaking men. The majority were unmarried with a formal education level that varied mainly between grade 8 – 10 [formal 53.8% (n = 7); informal 41.7% (n = 5)] and grade 11 – 12 [formal 38.5% (n = 5); informal 41.7% (n = 5)]. Participants in both areas were predominantly unemployed receiving either a child support grant [formal 46.2% (n = 6); informal 50.0% (n = 6)] or no grant [formal 46.2% (n = 6); informal 41.7% (n = 5)]. The monthly income of the households varied mostly between R1 – R500 [formal 61.5% (n = 8); informal 41.7% (n = 5)] and R501 – R1000 [formal 23.1% (n = 3); informal 33.3% (n = 4)]. Almost all of the fathers in the formal area indicated that they had a refrigerator and stove in the home,

whereas less than half of the fathers from the informal area indicated that they had these appliances available. The participants from the formal area all indicated that the infant's grandmother was the person responsible for deciding on the amount of money to be spent on food, buying and preparing food for the household as well as feeding/serving the infant or infants, as opposed to the mother of the infant, indicated predominantly by the fathers from the informal area.

3.2.3.2 Zweletemba

Fathers (Appendix 6.19) were African, isiXhosa-speaking men. Those from the formal area were all unmarried with an education level of grade 11 -12 and the fathers from the informal area indicated mostly that they were living with someone and had an education level of grade 8 – 10. Almost all of these participants were unemployed with a monthly income of R501 – R1000. In the formal area half of the fathers reported receiving no grant, 25.0% (n = 2) received a child support grant and 25.0% (n = 2) old age pension. In the informal area the fathers predominantly indicated that the household received a child support grant. All of the fathers from the formal area mentioned that they had both a refrigerator and a stove in the home. In the informal area almost all of the fathers had a refrigerator in the home, but none had a stove available. Most of the participants indicated that the mother of the infant were the individual responsible for deciding on the amount of money to be spent on food, buying and preparing food for the household as well as feeding / serving the infant or infants, but in the informal area 21.4% (n = 3) pointed out that the father is the person who decided how much money was spent on food for the household.

3.3 QUALITATIVE DATA

The themes for qualitative data were deduced from the questions of the focus group guides in relation to the study objectives. The themes for qualitative data are summarized in Table 1. Transcribed information from focus groups in each subgroup were reviewed and summarised according to the predefined themes.

Summarised qualitative data are displayed in Appendices 6.20 – 6.45. Product names

(as provided by participants) are used within the different themes, in order to enclose the qualitative meaning of data. Product names will not be included in any report, presentations or publications.

Table 1. Summary of themes for qualitative data.

Themes for qualitative data:	
1.	Milk sources of infants 6 – 8 months and reasons.
2.	Milk sources of infants 9 – 12 months and reasons.
3.	Solid foods of infants 6 – 8 months and reasons.
4.	Solid food of infants 9 – 12 months and reasons.
5.	Age of introduction of complementary foods and reasons.
6.	Liquids other than breastmilk / breastmilk substitutes and solid foods introduced first.
7.	Preparation of solid foods.
8.	Portions of solid foods.
9.	Importance of liquids other than breastmilk or breastmilk substitutes and solid foods between 6 – 12 months.
10.	Importance of support with the feeding of the infant between 6 – 12 months.
11.	Sources of advice and information with regards to feeding of an infant between 6 – 12 months.
12.	Advice received with regards to feeding of an infant between 6 – 12 months.
13.	Caregiver role in feeding infants between 6 – 12 months.
14.	Barriers to feeding infants between 6 – 12 months.

3.3.1 Milk sources of infants 6 – 8 months and reasons

3.3.1.1 Mothers / Primary caregivers

All mothers (Appendix 6.20) indicated breastmilk as a source of milk for infants between 6 – 8 months, mainly for health reasons and due to its availability at no cost. The mothers / primary caregivers from Avian Park explained that a combination of breastmilk and formula milk is used for convenience, because the mother is able to leave the infant with another caregiver. Breastfeeding is not stopped completely; by continuing to breastfeed and sustaining breastmilk production, availability of breastmilk

is ensured for times of financial difficulty. Continuing to breastfeed has financial advantages in terms of the allocation of resources for the procurement of infant formula, as less formula is needed when used in combination with breastmilk. The belief was expressed that the infant is developmentally ready to receive formula milk in combination with breastmilk after 6 months.

All of the groups (Appendix 6.20) indicated that they used infant formula. They believe that the content is equal to the quality of breastmilk and that it is healthy for an infant. Almost all of the mothers / primary caregivers indicated that they valued the opinion and advice from the nurses at the local clinic. The participants explained how they had changed to different formula milks specifically recommended by the nurses when the infant experiences complications with his / her health. One mother indicated it was her infant's preference to drink formula milk instead of breastmilk.

Although some of the mothers from the informal area in Avian Park (Appendix 6.20) indicated that they used the most affordable formula milk on the market, others mentioned that cow's milk was used for economic reasons when funds were limited / unavailable.

3.3.1.2 Grandmothers

Grandmothers in Avian Park (Appendix 6.21), but not Zwelentemba felt that breastmilk was the best milk for the baby between 6-8 months, and important for bonding between mother and infant, but they acknowledged that their grandchildren weren't necessarily breastfed. Although there were many positive reasons to breastfeed, they mentioned that their daughters will invent reasons for using formula milk.

According to the grandmothers (Appendix 6.21) there were certain circumstances where formula should be favoured above breastmilk. For instance, when the mother participates in certain (sexual) practices, the breastmilk is no longer healthy and formula milk should be used as an alternative. One grandmother explained:

“Because of the life that we have here, the milk is not healthy for the baby anymore. The mothers do bad things, they go out and sleep around and then they give that bad milk to the child. Then it is better to use the tins of milk for the health of the child, because that breastmilk is not right for the child”.

The grandmothers from the informal area in Zweletemba (Appendix 6.21) believed that when the mother of the infant is stressed, the breastmilk is not healthy for the infant. When breastfeeding is continued in these circumstances, the breastmilk will induce vomiting and therefore, formula milk should rather be given. Some of the grandmothers from the informal area also mentioned that expressed breastmilk can be used when the mother is not at home instead of using the formula milk.

3.3.1.3 Fathers

Fathers from the informal area in Avian Park (Appendix 6.22) indicated that even though breastmilk is good for the baby, it is necessary to make use of another milk supply when the mother's milk supply is insufficient. They mentioned that the mother of the baby works during the day and due to the fact that her food intake is not sufficient, her milk production for breastfeeding decreases. Ultra high temperature (UHT) milk (longlife cow's milk) is often used when the mother is not able to breastfeed any longer, especially because formula milk is too expensive. Some fathers discussed the possibility of expressing breastmilk, even though the mothers were not implementing it. They felt that this would be a benefit to the infant and it would also be a practical solution. Milk could be kept in the fridge to be used when the mother was not at home.

Fathers from the formal area in Zweletemba (Appendix 6.22) mentioned that not only is formula milk very expensive, the wastage is very high. They explained that when the bottle is made and the infant is not hungry yet, it has to be discarded. Furthermore, they mentioned that the mother gets tired of only breastfeeding and therefore, they recommended that formula milk should be used in combination with breastfeeding. They also do not feel comfortable with the fact that the mother loses a lot of weight due to breastfeeding. Feeding the infant with a bottle played a big role in convenience as well as the support that the father was able to provide especially with night feeds, in

comparison with breastfeeding. They explained that this method of feeding was also beneficial because it creates more family time.

Fathers (Appendix 6.22) agreed that the final feeding decisions were done by the mother of the infant.

3.3.1.4 Factors influencing milk sources of infants 6 – 8 months

The factors (Table 2) that predominantly influenced the milk sources of infants in this age group were health factors (infant's health status), physiological factors, nutritional factors and social factors. With nutritional factors the participants focussed mostly on the content and quality of milk sources and with social factors the determinants for decisions regarding milk were mostly convenience and experience with a certain milk source. The participants also considered specific physiological factors; the weight status or weight gain as a result of a certain milk source, the growth and development of the infant as well as the taste preference of the infant. The mothers / primary caregivers indicated that they took infant feeding information from health care workers into account and the groups of fathers pointed out that they considered financial factors like the availability or affordability of milk sources (Appendix 6.20).

Table 2. Factors influencing milk sources of infants 6 – 8 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary Caregivers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Perceptions / Beliefs ▪ Convenience <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Employment status (mother) 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Household economic status / Family income <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother: Experience 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status ▪ Mother: Health status ▪ Mother: Nutritional status <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Mother: Physiology <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother: Experience
Grandmothers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Environmental factors</p> <ul style="list-style-type: none"> ▪ Hygiene <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity ▪ Infant: Feeding challenges <p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother and Infant: Bonding ▪ Mother: Behaviour / Activities 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity ▪ Suitability / consistency according to age / development stage <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Mother: Employment status 	<p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Mother: Medical conditions / symptoms ▪ Mother: Health status ▪ Mother: Nutritional status ▪ Infant: Medical conditions / symptoms <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Mother: Physiology <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother: Experience ▪ Convenience
Fathers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Mother: Health status ▪ Mother: Nutritional status ▪ Infant: Health status 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Mother: Health status ▪ Mother: Nutritional status ▪ Infant: Health status 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Medical conditions / symptoms <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status /

	<p>infant formula / infant products</p> <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Growth / Development <p>Social factors</p> <ul style="list-style-type: none"> ▪ Bonding ▪ Culture 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status / Family income ▪ Availability / Affordability <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Mother: Physiological factors ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Wastage (formula / food) <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Mother: Physiological ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Time management ▪ Convenience ▪ Family / Paternal support <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Employment status (mother) 	<p>Family income</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Father: Employment status <p>Physiological Factors</p> <ul style="list-style-type: none"> ▪ Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Suitability / consistency according to age / development stage
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3.3.2 Milk Sources of infants 9 – 12 months and reasons

3.3.2.1 Mothers / primary caregivers

For this age group, most mothers / primary caregivers mentioned cow's milk, formula milk, or a combination of formula milk and breastmilk as the milk source for infants (Appendix 6.23).

Mothers / primary caregivers from both Avian Park and Zweletemba (Appendix 6.23) indicated that with formula milk there were different stages available for the development of the infant, and it was possible to choose a brand that was more affordable. The participants from the formal area in Avian Park also mentioned that formula milk should be used to wean the infant from the breast between 9 – 12 months. They further discussed the use of cow's milk or goat's milk and one mother explained:

“When the child gets stronger, he doesn't want to drink powder milk anymore, then you have to give the child fresh milk.”

3.3.2.2 Grandmothers

Grandmothers in all subgroups indicated the use of either cow's milk or formula milk, and only a few grandmothers from the formal area in Avian Park mentioned the use of breastmilk (Appendix 6.24). Most of the grandmothers indicated that cow's milk was used because it was more economical and practical in circumstances where no electricity is available to provide boiling water for the preparation of formula milk. In the words of one of the grandmothers:

“Cow's milk is easier, because sometimes I don't have boiling water or electricity, then I can go buy cow's milk and pour it in the child's bottle to drink. The cow's milk doesn't need boiling water to make.”

Another grandmother explained how to introduce cow's milk:

“You first test the cow's milk to see if the child is fine with it. You can mix the tin milk and a little bit of the cow's milk before you give cow's milk only”.

The grandmothers from both Avian Park and Zweletemba (Appendix 6.24) indicated that they used formula milk because of advice received from clinic nurses. Some mentioned a change from breastmilk to formula milk, some to a different stage of formula milk, and others a completely different formula due to medical conditions like asthma, eczema or diarrhoea.

3.3.2.3 Fathers

Fathers from both areas mentioned cow's milk or formula milk as the milk source at this stage of the infant's life (Appendix 6.25). Reasons for using cow's milk were mainly provided by the fathers from Avian Park and included the affordability thereof, as well as a belief that the content was of good quality. In Zweletemba the fathers explained that infant formula had different stages available, however some indicated that the same formula can be used from 6 – 12 months except when there is a medical reason to change to different formula milk.

In the informal area in Avian Park, the fathers indicated a tea-bottle as a milk source and in the informal area in Zweletemba; the fathers indicated the use of baby porridge mixed with cow's milk in a bottle for the same reason (Appendix 6.25).

3.3.2.4 Factors influencing the milk sources of infants 9 – 12 months

Physiological factors, specifically the growth and development of the infant, were indicated by most of the groups (Table 3) as factors influencing the choice of milk sources in this age group. The groups from Avian Park indicated that nutritional factors, like the content and quality of milk sources, were taken into account. The groups of fathers indicated prominently that they considered health factors, including medical conditions or symptoms relevant to specific infants when making choices regarding milk sources (Appendix 6.25). The influence of infant feeding information received from health care workers were mostly pointed out by the grandmothers (Appendix 6.24), whereas both the mothers / primary caregivers (Appendix 6.23) and the grandmothers mentioned that financial factors influenced their decisions regarding milk sources used between 9 – 12 months. Commercial factors; marketing / branding / labelling of infant

formula or infant products; were mentioned more in this subsection than in any other section.

Table 3. Factors influencing milk sources of infants 9 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary Caregivers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development ▪ Infant: Taste preference ▪ Infant: Weight status / Weight gain <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 		<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development
Grandmothers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <p>Demographic factors</p> <ul style="list-style-type: none"> ▪ Electricity 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status / Family income ▪ Availability / Affordability 	<p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development
Fathers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Medical conditions / symptoms <p>Physiological Factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity

			infant products Physiological factors <ul style="list-style-type: none">▪ Infant: Growth / Development	
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3.3.3 Solid foods of infants 6 – 8 months and reasons

3.3.3.1 Mothers/ primary caregivers

In Appendix 6.26 the mothers / primary caregivers mentioned that some infants preferred and enjoyed cooked food or cooked vegetables between 6 – 8 months. Although some participants from the formal area in Avian Park indicated the use of instant foods due to the labour intensiveness and time constraint of cooking vegetables, others from the informal area indicated the opposite. One mother / primary caregiver explained:

“When you buy the Purity[®] in the shop, you do not know when it was made, and it is not as healthy as cooked vegetables that you make yourself.”

Another participant added:

“Even if they put an expiry date on it, I like to cook my own vegetables, then I know it is healthy vegetables and I know it is fresh”.

The mothers / primary caregivers from Avian Park (Appendix 6.26) also mentioned that they used rice porridge mixed with formula milk in a feeding bottle mostly for satiety and weight gain. They indicated that they know rice porridge is suitable for this age due to the information found on the label of the product. When there was no money available for these items, they prepared “meelbol” instead. “Meelbol” is prepared by heating flour in a dry pot. The flour is heated until it burns and browning of the flour occurs. Boiling water is then added to the flour and cooked for a while. It can be made to a thin consistency (milk) or a thicker consistency (porridge) depending on the amount of water added. In Zweletemba they mentioned giving Weetbix[®] mixed with *amas*[®] (sour milk) when rice porridge did not satisfy the infant.

3.3.3.2 Grandmothers

The grandmothers (Appendix 6.27) explained that they lacked the money to buy infant foods available on the market. Participants from the formal area in Avian Park mentioned that the primary priority was for the infant to have something in his / her stomach; therefore they used whatever is available in the house. *Meelbol* is always

available when funds for food and milk were depleted.

In the informal area in Zweletemba they preferred feeding the infant with “food from the pot” rather than with ready-made foods due to the quality of the content (Appendix 6.27). In the words of a grandmother:

“In those ready-made foods, you do not know what is added there, but if you cook your own food, you know how much salt and margarine you need to put in.”

Another grandmother added:

“If you cook for the child you can make sure that there are proteins in that meal”.

3.3.3.3 Fathers

Fathers in the different subgroups mostly discussed feeding the infant with the food cooked for the rest of the family (Appendix 6.28). In the informal area of Zweletemba the fathers debated the use of Purity[®]. Most fathers felt that cooking vegetables at home was more economical and therefore Purity[®] jars could be bought to use when travelling with the infant, to the clinic for instance, but not for daily use. They also felt that Purity[®] doesn't have all the nutrients found in home-cooked food. Only one father thought that Purity[®] was better to use than freshly cooked vegetables, due to the fact that it has different flavours.

Some fathers from the formal area in Zweletemba (Appendix 6.28) mentioned giving the infant water drained from *samp* (broken maize kernels) as well as fish at this stage. They, however, did not provide reasons for the use thereof.

3.3.3.4 Factors influencing solid foods of infants 6 – 8 months

The factors that were most prominent in influencing decisions regarding solid foods between 6 – 8 months were health-, physiological- and nutritional factors (Table 4). All of the groups evaluated the content, quality or quantity of food items as well as the suitability of the food items for the infant at this specific age / development stage. They also tried to incorporate a variety of food items into the infant's diet. The satiety level of

the infant as well as taste preference was the physiological factors that mostly influenced the participants' decisions regarding the use of solid foods. Some also mentioned that they took the growth and development of the infant into account and would only choose food items that maintained successful growth and development. Financial factors were not indicated by all groups, but at least one group from each area were influenced by the availability or cost of food items as well as the household income and the resources available to spend on food items.

Table 4. Factors influencing solid foods of infants 6 – 8 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Growth / Development ▪ Infant: Weight status / Weight gain <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity ▪ Suitability / consistency according to age / development stage <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Household economic status / Family income <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity according to age / development stage ▪ Suitability / consistency according to age / development stage 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Household economic status / Family income <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Suitability / consistency according to age / development stage ▪ Feeding challenges ▪ Diversity / Variety
Grandmothers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Household economic status / Family income <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Teething <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety 	<p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety 	<p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Suitability according to age / stage <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Development stages <p>Cultural factors</p>	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Allocation of resources for food ▪ Affordability ▪ Availability <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality
Fathers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Suitability / consistency according to age / development stage ▪ Content / Quality / Quantity 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Suitability / consistency according to age / development stage ▪ Feeding challenges 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status / Family income ▪ Availability / Affordability <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety ▪ Food / formula preparation <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience ▪ Time management

		▪ Content / Quality / Quantity		
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3.3.4 Solid foods of infants 9 – 12 months and reasons

3.3.4.1 Mothers / primary caregivers

Mothers / primary caregivers from the formal area in Avian Park as well as the informal area in Zweletemba explained that baby foods were no longer sufficient for the infant; at this stage the infant should receive foods that were more satisfying, like the food prepared for the rest of the family (Appendix 6.29). They also mentioned that variety was important so that the infant could get used to different tastes. All the subgroups mentioned that it was no longer necessary to spend extra money on special foods because the infant could eat with the rest of the family out of the pot.

3.3.4.2 Grandmothers

The grandmothers (Appendix 6.30) felt that it was healthy for the infant to eat family food; the infant then takes in what the rest of the family is eating and therefore he / she will grow up to be strong. The participants from the formal area in Zweletemba indicated that they started to introduce family food as soon as the infant indicated that he / she was interested in what the adults are eating. They went on to explain that this was also the way that they were raised. One grandmother said:

“We Xhosa people, when we see our children are at a stage that they can eat the food we are making at home, we give them cooked food.”

Another participant also explained:

“You also look at the child’s stools to see if the stomach is okay. When you start to worry is when you see the child’s stomach starts to be runny; then you can go to the clinic and make changes to his food”.

3.3.4.3 Fathers

The fathers from the formal area in Avian Park felt that the infant was able to eat the food that the rest of the family was eating as soon as he / she developed teeth (Appendix 6.31). The fathers from the informal area mentioned that between 9 – 12

months they could see that the infant wanted to eat by himself / herself. Therefore the infant could get his / her food in a small plate and try to eat on his own. One father from the informal area in Zweletemba also mentioned that his infant grabbed at his plate while he was eating; he described this as an indication that the infant was ready to have the food he was having.

3.3.4.4 Factors influencing solid foods of infants 9 – 12 months

Similarly to the previously mentioned age group, the infant's health status, physiological factors and nutritional factors were the major factors that determined the foods given between 9 – 12 months (Table 5). The physiological aspects mostly taken into account were growth / development and weight gain as well as the satiety and taste preference of the infant. The participants focussed mostly on the content and quality of food items, as well as the suitability thereof between 9 – 12 months when evaluating nutritional factors. Most of the groups also mentioned that financial factors influenced their decisions regarding solid foods. Contrary to the previous age group, social factors like perceptions and beliefs as well as convenience played an important role.

Table 5. Factors influencing solid foods of infants 9 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development s ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Perceptions / Beliefs 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain ▪ Infant: Appetite vs Satiety ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Perceptions / beliefs
Grandmothers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity ▪ Suitability / consistency according to age / development stage ▪ Feeding challenges 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status / Family income <p>Cultural factors</p> <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference ▪ Infant: Growth / Development ▪ Infant: Weight status / Weight gain <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Suitability / consistency according to age / development stage ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Cultural factors</p> <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Weight status / Weight gain ▪ Infant: Growth / Development <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience
Fathers:	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development ▪ Infant: Teething 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status / Family income <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding methods 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain ▪ Infant: Growth / Development ▪ Infant: Taste / preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference ▪ Infant: Growth /Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Interest in food

3.3.5 Age of introduction of complementary foods and reasons

3.3.5.1 Mothers / primary caregivers

In Appendix 6.32 different ages for introduction of complementary foods can be seen for all subgroups, but only the mothers / primary caregivers from Zweletemba provided reasons for introduction at these particular ages. The mothers / primary caregivers from the formal area indicated that they started from birth with 250ml of Gripe Water on an empty stomach for the digestive system as well as for colic. Most mothers gave their babies rice porridge in a feeding bottle or Purity[®] by 3 – 4 months. They mentioned that it was recommended on the label of the products that it can be given from 3 months and they also found the baby wasn't satisfied with milk only, but would be satisfied after a bottle of porridge. The participants from the informal area indicated that they know solid foods and other liquids should only be introduced at 6 months of age, but they did not wait until the above mentioned age because the baby was not satisfied by the milk only, and he / she then cried at night. They started at the age of 3 months with baby porridge and at 6 months with family food.

3.3.5.2 Grandmothers

According to the grandmothers from the formal area in Avian Park (Appendix 6.33) milk could be replaced with juice at 12 months because it was more economical. The participants from the informal area mentioned that by the age of 3 months, milk must be replaced with other liquids like yogurt in a bottle, because the mothers' breast doesn't stay full continuously and they get tired of drinking tea to enhance milk production.

The grandmothers from the informal area in Zweletemba (Appendix 6.33) explained that they have heard that the correct age to start introducing solid foods was at 6 months, but they do things differently because it doesn't work for them.

“We start at a very young age, because the baby is crying and the mother is not breastfeeding, so you start giving food. I started at three days with a little bit of Purity[®] and at 9 months I started giving other solid foods.”

Another grandmother added:

“My daughter breastfed, but the baby also didn’t stop crying, so after one week I told her to start with one tablespoon of Cerelac[®], mix it with fresh milk and make it runny. We stopped with breastmilk and only gave porridge, and the baby would rest”.

3.3.5.3 Fathers

The fathers (Appendix 6.34) from the formal area in Zweletemba explained that as soon as the baby started to grab at the food on your plate, it was an indication that the baby was ready to eat and drink other foods and liquids. They then tested the baby’s readiness by giving him / her a chicken thigh in the hand to see if he wanted to eat it.

A few of the fathers from both areas (Appendix 6.34) also mentioned that at 6 months, the baby starts teething and then the infant can eat the food that the rest of the family is eating. At 9 months the infant can eat all kinds of food, nothing needs to be excluded.

In Avian Park the fathers explained that due to the nutritional intake of the infant’s mother, her milk supply is not sufficient to maintain breastfeeding. Therefore it is necessary to introduce other foods or milk to replace breastmilk. One father explained:

“If the mother did not eat and she worked the whole day, when she comes back and she wants to breastfeed, then there is no milk.”

3.3.5.4 Factors influencing age of introduction of complementary foods

The age of introduction of complementary foods were mostly determined by the perceptions or beliefs of participants as well as physiological factors like the growth / development of the infant, appetite or satiety level and teething (Table 6). Other factors mentioned by more than one group were behavioural factors, like the infant showing interest in food, crying or being restless, as well as health factors, specifically the presence of a medical condition or symptoms and the nutritional status of the infant’s mother.

Table 6. Factors influencing age of introduction of complementary foods – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:			Health factors <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms Commercial factors <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products Physiological factors <ul style="list-style-type: none"> ▪ Infant: Growth / Development ▪ Infant: Appetite vs Satiety Social factors <ul style="list-style-type: none"> ▪ Perceptions / Beliefs 	Physiological factors <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Growth / Development Social factors <ul style="list-style-type: none"> ▪ Perceptions / Beliefs
Grandmothers:	Financial factors <ul style="list-style-type: none"> ▪ Availability / Affordability 	Health factors <ul style="list-style-type: none"> ▪ Mother: Health ▪ Mother: Nutritional status Nutritional factors <ul style="list-style-type: none"> ▪ Diversity / Variety 	Health factors <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms Physiological factors <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Growth / Development Social factors <ul style="list-style-type: none"> ▪ Perceptions / Beliefs 	Educational factors <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers Behavioural factors <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of crying / Restlessness
Fathers:			Physiological factors <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Teething ▪ Infant: Growth / Development Social factors	Physiological factors <ul style="list-style-type: none"> ▪ Infant: Teething ▪ Infant: Growth / Development Social factors <ul style="list-style-type: none"> ▪ Perceptions / Beliefs

			<ul style="list-style-type: none">▪ Perceptions / Beliefs Behavioural factors <ul style="list-style-type: none">▪ Infant: Behaviour in terms of interest in food	
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3.3.6 Solid foods and other liquids that should be introduced first

3.3.6.1 Mothers / primary caregivers

Mothers / primary caregivers from Avian Park and Zweltemba indicated juice (different brands / types), water and tea should be introduced first and some also indicated carbonated drinks (with the gas shaken out), like Fanta[®] Orange (Appendix 6.35). The participants from Zweletemba mentioned Gripe Water[®] and Telament[®] Gripe Water, sugar-water and water mixed with Saccherol Syrup (stomach acid neutraliser) and those from the informal area also added coffee as well as jelly mixed with water.

Participants also mentioned different types of porridges (rice porridge, maize meal porridge, ACE[®] porridge and Cream of Maize[®]) as well as *Magou*, *Ngoxhotie* and *meelbol* made to a porridge consistency or as a liquid in a feeding bottle (Appendix 6.35).

3.3.6.2 Grandmothers

The grandmothers from Avian Park and Zweletemba (Appendix 6.36) all indicated juice (different brands / types), water and tea should be introduced first. The participants from the formal area in Avian Park mentioned *meelbol*, Nesquik[®], Milo[®], and long life

¹ * *Meelbol is made by heating flour in a dry pot (some add butter or hard margarine to the pot); the flour is scorched and burnt until it changes colour from white to golden brown. Boiling water is added to achieve the preferred consistency. It can either be made like a thin porridge that the child can drink with the bottle or it can be a thicker consistency that the child can eat with a spoon.*

* *Magou is similar to a thin porridge. The Magou (maize meal and water) is boiled and then cooled down and poured through a sieve. It can be fed with a feeding bottle or with a spoon.*

* *Ngoxhotie is a brown porridge made to a thin consistency in a feeding bottle.*

milk mixed with custard powder. Those from the informal area in Zweletemba indicated that they introduced sugar-water, *meelbol* and custard powder mixed with water and sugar first.

All of the subgroups indicated (Appendix 6.36) that different types and consistencies of porridges as well as a variety of cooked vegetables, and food prepared for the rest of the family should be introduced first. Participants from the informal area in Avian Park mentioned *lym* (custard with cinnamon) and participants from the formal area in Zweletemba mentioned finely crushed boiled egg as well as Smash[®] (instant mash).

3.3.6.3 Fathers

In Appendix 6.37 the fathers from Avian Park named *Amasi*[®], Ultramel[®] (custard), coffee, carbonated drinks like Coke[®] and Schweppes[®] (with the gas shaken out) and Milo[®] as liquids that should be introduced first. They also indicated rice porridge, Weetbix[®], Ultramel[®], biscuits, Purity[®], fruit and cooked vegetables and potatoes as solid foods for initial introduction.

3.3.7 Preparation of solid foods

When asked about the preparation of solid foods, the participants described mostly the preparation of porridge as well as cooked vegetables and potato (Appendix 6.38). Maize meal porridge was prepared by adding sugar, milk and margarine or peanut butter. When preparing rice porridge, cow's milk or formula milk was added to the rice powder. Participants also described boiling vegetables and potatoes, mashing them together and adding mostly salt, sugar and margarine. Some also added one or more of the following: Aromat[®], milk, rice porridge and gravy.

3.3.8 Portion of solid foods given

In Appendix 6.39 it can be seen that not all subgroups contributed information on the portions of solid foods given to infants 6 – 12 months. Most participants used spoons as the instrument to measure porridge and cooked food or vegetables. Participants from all the subgroups mentioned methods of portioning that doesn't include

measurement of food items. Participants indicated that they “measure with the eye” and fed the infant until he / she refused to eat more or is satisfied.

3.3.9 Importance of foods and other liquids between 6-12 months

3.3.9.1 Mothers / primary caregivers

Mothers / primary caregivers from Avian Park indicated that it was important to include other liquids between 6 – 12 months for medicinal reasons (Appendix 6.40). For instance, water will decrease acid reflux, a “*medicine bottle*” is given for flatulence and juice is necessary to relieve constipation that is caused by drinking milk only. Others mentioned that the intake of water after a meal maintains satiety for a longer period.

Participants from Zweletemba further indicated that it was convenient when solid foods and other liquids were included in the infant’s diet. They were able to leave the infant with someone else and the infant could be fed with anything that is available in the household, it was then not necessary to leave specialised baby foods / milk for the infant.

Only the mothers / primary caregivers from the formal area in Zweletemba mentioned that they received information from the clinic staff regarding the importance of including foods and other liquids between 6 – 12 months. They were also the only subgroup that discussed financial factors. One mother explained:

“The baby food is done before the end of the month and there is no money to buy more. That is why I cook potatoes and other vegetables. That’s why it is important to start with those foods, then the baby is used to it.”

Mothers from the informal area in Avian Park as well as from Zweletemba noted a difference in the infant’s behaviour when including solid foods and other liquids (Appendix 6.40). Solid foods kept the infant satisfied for longer; therefore the infant was not as restless and cried less during the night. One of the mothers from Avian Park conveyed:

“When you start to give the child solid foods, the child doesn’t moan the whole

time, and you can get things done in the house”.

3.3.9.2 Grandmothers

Almost all of the grandmothers indicated that solid foods and other liquids played a very important role when the mother of the infant was not at home for any reason (Appendix 6.40). They explained that it was better to include these from an early age, to familiarise the infant; so that when the infant was left with them, they were able to give the infant something to eat or drink in the absence of the mother.

The grandmothers from the formal area in Zweletemba felt that it was important to introduce other foods and liquids, because it decreased the amount of formula milk needed, therefore saving money. They also mentioned that solid foods were necessary in order to evaluate if the infant's swallowing was normal.

Grandmothers from the formal area in Avian Park indicated that other liquids were important at this stage, because the infant gets thirsty for something other than milk. The participants from the informal area in Zweletemba also felt that breastmilk should be supplemented with formula milk at this stage. One mother stated:

“It is important, because at this age they do not get enough from the breast anymore, so they must also get formula milk.”

Grandmothers from the formal area in Avian Park felt strongly that when the mother of the infant was not healthy, it was better for the infant not to be breastfed. They also indicated that in certain circumstances, for instance when the mother was having one or more sexual relationships, the breastmilk were not healthy for the infant. In these situations it was important to substitute breastmilk with other liquids, such as juice and tea.

3.3.9.3 Fathers

Fathers from both areas in Avian Park discussed factors influencing physiological development (Appendix 6.40). They felt that it was important for the infant to start eating solid foods from 6 months onwards, because it teaches the infant skills needed for self-

feeding, like using a spoon, holding a plate etc. They explained that at this stage the infant must learn the eating behaviours of the parents and with exposure to different tastes; they were able to discover what foods they liked or disliked.

On the other hand, fathers from both areas in Zweletemba felt that introduction of solid foods and other liquids were necessary, because the infant was not getting enough nutrients from the breastmilk anymore (Appendix 6.40). They also mentioned that this impacted the behaviour of the infant, because when the infant was not satisfied it increased crying time, especially when he / she desired the food dished up for the rest of the family. These fathers also discussed convenience when taking care of the infant. When the mother of the infant was not at home, they must be able to feed the infant with formula milk or other solid foods and it was therefore important to accustom the infant to these as early as possible, to enable them to do this easily.

3.3.9.4 Factors influencing the importance of foods and other liquids between 6-12 months

All of the groups indicated that foods and other liquids played an important role due to physiological factors like growth and development of the infant, the appetite or satiety level of the infant as well as taste preference (Table 7). All of the groups from Zweletemba mentioned the influence of social factors like perceptions or beliefs as well as convenience in terms of feeding. Nutritional factors were identified by the mothers / primary caregivers and fathers of both Avian Park and Zweletemba. The content / quality / quantity of food items, as well as different feeding methods like spoon-feeding or self-feeding and including a variety of food items in the infant's diet, were the aspects influencing the importance of foods and other liquids. The grandmothers from both areas referred to the influence of social factors in terms of the role of the mother as the caregiver of the infant as well as the behaviour and activities of the mother. Other factors mentioned mostly by the mothers/primary caregivers were behavioural factors like the sleeping pattern of the infant, as well as financial factors, more specifically the employment status of the infant's mother in relation to her availability to care for the infant.

Table 7. Factors influencing importance of liquids other than breastmilk or breastmilk substitutes and solid foods between 6 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight gain ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of crying / Restlessness 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Mother: Employment status 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Mother: Employment status <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: behaviour in terms of crying / Restlessness ▪ Infant: Sleeping patterns
Grandmothers:	<p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother: Behaviour / Activities <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development ▪ Infant: Taste preference 	<p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience ▪ Mother: Role as caregiver ▪ Mother: Age 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development <p>Social factors</p> <ul style="list-style-type: none"> ▪ Perceptions / Beliefs ▪ Mother: Role as caregiver 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience ▪ Mother: Role as caregiver
Fathers:	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preferences 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Growth / Development 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Health status 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant's health status

	<p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding methods ▪ Content / Quality / Quantity 	<p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety ▪ Feeding methods 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding schedule ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience 	<p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Diversity / Variety ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience ▪ Mother: Role as caregiver <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of interest in food
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3.3.10 Importance of support with the feeding of an infant between 6 – 12 months

3.3.10.1 Mothers / primary caregivers

All participating mothers / primary caregivers (Avian Park and Zweletemba) felt that support was very important with the feeding of an infant between 6 – 12 months (Appendix 6.41). Everyone emphasised that support from the infant's father was very important to them, especially with regards to his involvement and responsibilities in taking care and providing for of the infant. All of the groups indicated that the support of their family, especially their parents was extremely valuable to them. Fathers were not always involved in raising the infants, thus mothers were dependant on the support of their parents. Some of the mothers indicated that they lacked knowledge regarding raising and feeding an infant, especially with the first infant, but trusted the opinion and advice from their mothers. In the words of one of the participants:

“I do not know everything about feeding my child because I was very young when I had my child. If I have a problem or question, I ask my mother.”

Some also indicated that when their mothers were taking care of their infants, it allowed them to rest for a while. It was very comforting for the participants to know that they did not have to go through this new experience of raising a baby on their own.

Mothers / primary caregivers from the formal area in Avian Park (Appendix 6.41) and the informal area in Zweletemba also felt that the community could play a big role to support mothers, especially those without financial income. Mothers could support one another by identifying those in need and then providing help or support to that specific mother. Participants also mentioned that within a community, they could share from each other's vegetables gardens, therefore providing important nutrients to the infants in the community. Others discussed the possibility of planting a communal vegetable garden that could supply vegetables at a lower cost to members of the community.

3.3.10.2 Grandmothers

Grandmothers from Avian Park debated the support and role of the father in raising their

grandchild (Appendix 6.41). A few grandmothers indicated that raising the infant was also the father's responsibility and they should be involved both with the day-to-day duties as well as providing financially for the needs of the infant. However, some felt that if the mother of the infant earned a good income, it was not necessary for the father of the infant to be involved. A few of the grandmothers even admitted that they did not allow the fathers' involvement. They explained:

"Mostly we don't allow the father to come and interfere with the child, because he will come to play with the child and then he wants to fight with the grandmother and grandfather".

Another grandmother added:

"Some fathers come to hit the mother as well, and then we don't allow the father to come to the house".

Grandmothers from Zweletemba indicated that their support was very important to the mother of the infant and they played a big role in raising the infant, especially because the father was not involved (Appendix 6.41). They mentioned that the mother of the infant was often not at home, either because she was still at school or because she worked out of town. One grandmother stated:

"You have to look after your grandchild and at the same time your own child as well, because you still need to encourage her to finish school".

Another grandmother added:

"Our children are still children when they have babies, they still want to go and play outside, so we must raise the baby".

3.3.10.3 Fathers

Although both the mothers and grandmothers discussed the lack of support from the father of the infant, the fathers from both Avian Park and Zweletemba indicated that their support to the mother of the infant, as well as their involvement in taking care of

the infant was very important (Appendix 6.41). Fathers from the formal area in Avian Park stressed the importance of a good relationship between the infant's parents, as this had an impact on the well-being of the infant. Fathers from the formal area in Zweletemba also mentioned that the infant must be able to stay with them if necessary; therefore they must be able to take care of the infant on their own. Some of the fathers from the informal area indicated that due to unemployment, they were unable to provide financial support, but they provided support by staying with the infant while the mother was working.

Some fathers from Avian Park discussed the importance of support from the infant's grandmother. They explained that in their community it was necessary for the mother of the infant to seek the approval of her own mother before giving the infant foods or liquids. One father explained:

“Everything that she doesn't know she must ask her mother, otherwise it can be negative for the child”.

Fathers from the informal area in Zweletemba also added that unemployment forced them to rely on support from family and members of the community for financial assistance. When taking care of the infant on their own, they relied on advice from neighbours when they were unable to handle a specific situation or problem.

3.3.10.4 Factors influencing the importance of support with the feeding of an infant between 6 – 12 months

All of the groups indicated the importance of social factors for support with the feeding of an infant (Table 8). Family support as well as the support and role of the father were prominent for all groups. Community awareness and support as well as the level of experience of individual caregivers played a major role in the support needed with feeding. The mothers / primary caregivers and grandmothers from Zweletemba specified that support was affected by other aspects like the mothers' age as well as her ability or availability as the caregiver of the infant. The importance of financial support was mentioned mostly by the mothers / primary caregivers of both Avian Park and

Zweletemba, but some of the fathers and grandmothers also highlighted this aspect.

3.3.11 Sources of advice and information with regards to feeding of an infant between 6 – 12 months

3.3.11.1 Mothers / primary caregivers

Most of the mothers / primary caregivers from Avian Park explained that even though the times had changed, their mothers and grandmothers had never been wrong regarding what solid foods the infant should be given and they had always given them good advice. However, one mother from Avian Park disagreed:

“We don’t want to take advice from our mothers or grandmothers, it is my child and I want to test what will work for my child. It doesn’t mean that what worked in the time of my mother and grandmother will still work today. The children of today are different, and I don’t like it if my mother tries to tell me what to feed my child”.

The mothers from Zweletemba also explained that they received information from as many places as possible, because they wanted to do everything by the book, but they ended up taking the advice that their mothers gave, because they wanted to prevent an argument (Appendix 6.42). They relied on their mothers’ help to raise their children and therefore, did not want to go against their wishes / advice. Others explained that they felt their mother / grandmother had experience with children and therefore, she had the correct knowledge to share.

Table 8. Factors influencing support with the feeding of an infant between 6 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	<p>Financial factors</p> <ul style="list-style-type: none"> Household economic status / Family income <p>Social factors</p> <ul style="list-style-type: none"> Family / Paternal support Community awareness & support Peer-relationships 	<p>Social factors</p> <ul style="list-style-type: none"> Family / Paternal support 	<p>Financial factors</p> <ul style="list-style-type: none"> Household economic status / Family income <p>Social factors</p> <ul style="list-style-type: none"> Family / Paternal support Experience Time management Perceptions / Beliefs Mother: Age 	<p>Financial factors</p> <ul style="list-style-type: none"> Household economic status / Family income <p>Social factors</p> <ul style="list-style-type: none"> Community awareness & support Knowledge Experience Family / Paternal support
Grandmothers:	<p>Financial factors</p> <ul style="list-style-type: none"> Household economic status / Family income <p>Social factors</p> <ul style="list-style-type: none"> Family / Paternal support 	<p>Social factors</p> <ul style="list-style-type: none"> Community awareness & support Family / Paternal support 	<p>Social factors</p> <ul style="list-style-type: none"> Experience Family / Paternal support Mother: Role as caregiver Mother: Age 	<p>Social factors</p> <ul style="list-style-type: none"> Experience Family / Paternal support Mother: Role as caregiver Mother: Age
Fathers:	<p>Social factors</p> <ul style="list-style-type: none"> Family / Paternal support 	<p>Social factors</p> <ul style="list-style-type: none"> Experience Knowledge Family / Paternal support 	<p>Social factors</p> <ul style="list-style-type: none"> Family / Paternal support 	<p>Financial factors</p> <ul style="list-style-type: none"> Household economic status / Family income Mother: Employment status <p>Social factors</p> <ul style="list-style-type: none"> Community awareness & support Family / Paternal support

3.3.11.2 Grandmothers

Most of the grandmothers indicated (Appendix 6.42) that they gained knowledge regarding milk and solid foods through their experience in raising their own children and they still applied the same knowledge with their grandchildren. Information was carried over from their parents and they still relied on this information. Some grandmothers also indicated that it was important to get advice from other people in the community regarding the feeding of children.

Even though the grandmothers placed great importance on the advice carried over from one generation to the next, they also indicated that they trusted the information they receive from the nurses at the clinic. One grandmother explained:

“The advice received from the clinic is very important. Previously people were not educated, but today the people giving you information is educated and they tell you how to feed and raise children to prevent them from getting sick”.

However, the grandmothers from the informal area in Zweletemba mentioned that they had to request infant feeding information when they went to the clinic for their own medication, because the mother took the infant for clinic visits, therefore they never got to hear the advice specifically applicable to their grandchild.

3.3.11.3 Fathers

The fathers from the informal area in Zweletemba indicated that it was important to not only follow your own ideas when feeding your infant, you should find out what the best guidelines were in order to give the infant foods that are nutritious and to prevent the infant from getting a disease (Appendix 6.42). Older people had experience with feeding children and therefore, the fathers recommended them as a good source of information in this regard. All of the other groups also affirmed this (Appendix 6.42).

3.3.12 Advice received with regards to feeding of an infant between 6 – 12 months

3.3.12.1 Mothers / primary caregivers

Mothers / primary caregivers recommended *Rooibos*[®] tea to increase milk production, to increase the infant's appetite as well as a remedy for diarrhoea or loose stools (Appendix 6.43). They also recommended jelly mixed with water to make the infant strong again when he / she had diarrhoea and flour or custard mixed with water to bind the stomach. The mothers / primary caregivers from Zweletemba discussed the Oral Rehydration Therapy (ORT) recipe that was on the back of the clinic card, but one mother indicated that instead of using 1 litre of water, she mixed all the ingredients in 50ml of water, in order to make it more effective. The participants from the formal area in Zweletemba indicated that they received advice to give the infant juice or Weetbix[®] for constipation and from the informal area they recommended Gripe Water or warm water with ½ teaspoon of sugar for colic.

All of the groups indicated that they received advice regarding formula milk (Appendix 6.43). In Avian Park the nurses at the clinic gave them information on which formula milk to use when they had problems with breastfeeding. The participants from Zweletemba also indicated that when the infant was sick, had diarrhoea or weight-related problems, the nurses would advise them on what formula milk to use or how to change the milk they were currently using. One mother from Avian Park also shared advice on the introduction of cow's milk. She explained that the cow's milk should be mixed with the formula milk at first, so that the infant could get used to the cow's milk, before changing over to only cow's milk.

The participants from the formal area in Zweletemba discussed hygienic principles applicable to bottle feeding. They described the advice that they had received for sterilising feeding bottles to prevent exposure to bacteria. The bottles should be boiled in water and thereafter washed with bleach in order to kill all harmful bacteria before using it for feeding the infant.

Some of the mothers in this group shared guidance that they had received for infants

who were picky-eaters. They recommended increasing the variety of foods or adding gravy to the disliked food item to increase the infant's intake thereof.

3.3.12.2 Grandmothers

The grandmothers from both areas discussed mostly advice for when the infant was sick, had diarrhoea, constipation or had a decreased appetite (Appendix 6.43). They indicated that *Rooibos*[®] tea increased the infant's appetite and gave strength when the infant was sick. In the case of diarrhoea, the mothers from the informal area in Zweletemba felt that sufficient water intake was important, and in the formal area they recommended giving the ORT mix provided by the clinic.

For constipation, the participants from the informal area in Zweletemba mentioned giving the infant water with sugar to clean the stomach and prevent constipation. They also indicated that *meelbol* made to a porridge-consistency helped to maintain regular stools.

3.3.12.3 Fathers

The fathers from Avian Park expressed the need for more information in the community regarding feeding and raising a child (Appendix 6.43). They felt that there should be a support-system at the local clinic for people who have babies at a very young age, and subsequently they also discussed the necessity for a clinic within the community. One father explained:

"There are not enough clinics, and there is not a clinic that is near to Avian Park. The mothers must walk very far to take the child to a clinic, and it would be helpful if there was a clinic nearby".

Participants from the formal area in Zweletemba shared advice that they received at the clinic, but also indicated that they did not necessarily comply with the recommendations.

"The nurses don't recommend that we feed the child porridge in the bottle. At 3 months, if the child is not picking up weight, they will ask you if you feed the child porridge in the bottle and tell you to stop. Then you give a little less porridge in

the bottle, just so the child can pick up a little bit of weight”.

The fathers from the informal area in Zweletemba mentioned that it was important to ask advice, because the methods of feeding used by their parents were not necessarily the best; there were special foods on the market for infants now. They also felt that it was good to share experiences and information about feeding within the community; it enabled them to know how to handle difficult situations.

3.3.12.4 Factors influencing advice received with regards to feeding of infants 6 – 12 months

Physiological factors were indicated by all groups, especially advice received regarding appetite and satiety (Table 9). Health factors, including the impact of medical conditions or symptoms, were mentioned mostly by the mothers / primary caregivers and grandmothers whereas the role of infant feeding information received from health care workers were mainly pointed out by the mothers / primary caregivers and the fathers of both Avian Park and Zweletemba. The influence of social factors on the advice received were widely discussed among groups, but the mothers / primary caregivers and grandmothers focussed mainly on beliefs and cultural / household practices, and the fathers on knowledge or experience.

Table 9. Factors influencing advice received with regards to the feeding of infants 6 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	<p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Mother: Breastfeeding / formula feeding knowledge <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Mother: Health status ▪ Mother: Nutritional status ▪ Infant: Appetite vs Satiety ▪ Infant: Teething <p>Social factors</p> <ul style="list-style-type: none"> ▪ Perceptions / Beliefs ▪ Household / cultural practices 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Social factors</p> <ul style="list-style-type: none"> ▪ Household / cultural practices 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Environmental factors</p> <ul style="list-style-type: none"> ▪ Hygiene <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding methods ▪ Food / formula preparation ▪ Content / Quality / Quantity ▪ Feeding challenges <p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother: Response to infant feeding behaviour ▪ Perceptions / Beliefs ▪ Household practices <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Crying / restlessness 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding Schedule <p>Educational factors</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Social factors</p> <ul style="list-style-type: none"> ▪ Knowledge ▪ Perceptions / beliefs ▪ Household / cultural practices
Grandmothers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Social factors</p> <ul style="list-style-type: none"> ▪ Perceptions / Beliefs ▪ Household / Cultural practices 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Appetite vs Satiety 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers
Fathers:	<p>Environmental factors</p> <ul style="list-style-type: none"> ▪ Availability of health services / clinics <p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers 		<p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Weight status / Weight 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Medical conditions / symptoms <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products

	<p>Social factors</p> <ul style="list-style-type: none"> ▪ Knowledge ▪ Experience 		gain	<p>Educational factors:</p> <ul style="list-style-type: none"> ▪ Infant feeding information from health care workers <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Social factors</p> <ul style="list-style-type: none"> ▪ Knowledge ▪ Experience ▪ Community awareness & support <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Crying / Restlessness
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3.3.13 Caregiver role in feeding infants between 6 – 12 months

3.3.13.1 Mothers/ primary caregivers

Some of the mothers from Avian Park indicated that they do spoon-feeding; as the infant is too young to eat by himself and will only play with the food and make a mess (Appendix 6.44). This way they were sure of the amount of food that the infant ingested. Others explained that they practiced interactive feeding while teaching the infant to eat solid foods and making sure that the food intake was sufficient. However one mother indicated that she only supervised while she gave the infant something that he could eat with his hand.

3.3.13.2 Grandmothers

Most grandmothers from Avian Park and Zweletemba indicated (Appendix 6.44) that they provided the money needed to buy food for the household. In the informal area of Zweletemba, they specifically mentioned that their pension grant was used for this purpose. The grandmothers explained that because they were financially responsible for the provision of food, they were also the ones advising the mother on what should be bought and fed to the infants. Most grandmothers also prepared meals and fed the baby as well. They explained that the mothers were still very young and did not have sufficient knowledge regarding feeding infants, therefore, they as grandmothers were responsible for feeding the infants and teaching them to eat solid foods (especially during the day when the mothers were at school or work).

A few of the grandmothers in the informal area of Zweletemba explained that their role was not to feed the infant, but to make sure that the mother of the infant feeds the infant on time. They had an important advisory role to play regarding to feeding problems that may occur and they provided advice and guidance to the mother of the infant.

3.3.13.3 Fathers

Most of the fathers indicated that they played a financial role in the feeding of the infant between 6 – 12 months by providing financial resources for food and necessities. Some

of the fathers in the informal areas of both Avian Park and Zweletemba mentioned that the infant stayed with them during the day when the mother was working; therefore the feeding of the infant was their responsibility during the day (Appendix 6.44).

3.3.13.4 Factors influencing the role of participants in feeding the infant between 6 – 12 months

The main aspects that influenced the role in feeding were financial factors and social factors (see Table 10). The grandmothers and fathers indicated financial factors and the effect of the household economic status or family income on the role in feeding. The role of the mother as caregiver, as well as her ability and availability to fulfil this role, were discussed primarily by the grandmothers. The grandmothers and fathers discussed other social factors as well, specifically the role and importance of family and paternal support, whereas only the grandmothers indicated knowledge and experience to be factors that influenced the role in feeding. Fathers from both informal areas highlighted the impact of demographic factors such as employment status.

Table 10. Factors influencing the caregiver role in feeding infants between 6 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	Social factors <ul style="list-style-type: none"> ▪ Mother: Role as caregiver Nutritional factors <ul style="list-style-type: none"> ▪ Feeding challenges ▪ Content / Quality / Quantity 	Nutritional factors <ul style="list-style-type: none"> ▪ Feeding methods 		
Grandmothers:	Financial factors <ul style="list-style-type: none"> ▪ Household economic status / Family income Nutritional factors <ul style="list-style-type: none"> ▪ Food / formula preparation Social factors <ul style="list-style-type: none"> ▪ Experience ▪ Knowledge ▪ Family / Paternal support ▪ Mother's role as care giver 	Financial factors <ul style="list-style-type: none"> ▪ Household economic status / family income Social factors <ul style="list-style-type: none"> ▪ Mother: Role as caregiver 	Financial factors <ul style="list-style-type: none"> ▪ Household economic status / Family income Social factors <ul style="list-style-type: none"> ▪ Mother: Role as caregiver 	Financial factors <ul style="list-style-type: none"> ▪ Household economic status / Family income Nutritional factors <ul style="list-style-type: none"> ▪ Feeding challenges Social factors <ul style="list-style-type: none"> ▪ Knowledge ▪ Experience ▪ Family / Paternal support ▪ Mother's role as caregiver
Fathers:		Financial factors <ul style="list-style-type: none"> ▪ Household economic status / Family income ▪ Mother: Employment status Social factors <ul style="list-style-type: none"> ▪ Family / Paternal support 	Financial factors <ul style="list-style-type: none"> ▪ Household economic status / Family income Social factors <ul style="list-style-type: none"> ▪ Family / Paternal support 	Financial factors <ul style="list-style-type: none"> ▪ Household economic status / Family income ▪ Mother: Employment status Social factors <ul style="list-style-type: none"> ▪ Family / Paternal support

3.3.14 Barriers to feeding infants between 6 – 12 months

3.3.14.1 Mothers / primary caregivers

Decreased appetite and insufficient intake

All of the groups discussed that when the infant had a decreased appetite and was unwilling to take in any food, it made the feeding very difficult (Appendix 6.45). The mothers / primary caregivers mentioned a decreased appetite often occurred when the infant was sick, teething or had oral thrush and this could result in loss of weight.

The mothers / primary caregivers in the informal area of Zweletemba explained that when an infant was sick, it was not necessarily a medical problem; and it should be treated in a spiritual / cultural manner.

“If a child is sick at a very young age, it’s because they need a family ritual, it is not medical. A goat must be slaughtered, but it cannot be discussed now because the child is here now.”

Lack of variety with solid foods and other liquids

A few mothers / primary caregivers from the formal area in Avian Park found feeding between 6 – 12 months challenging because they were unable to include a variety of food items in the infant’s diet. The infant grew tired of certain food items due to constant repetition of the food items that were available in the house.

Introduction of solid foods

Some participants from the formal area in Avian Park also indicated that when the infant drank too much milk in-between, the infant was still satisfied at meal times and therefore refused the solid foods fed to him / her. Mothers further reported feeding difficulties when the infant refused to eat, but would rather suck on a bottle. Participants from Zweletemba also experienced this as a barrier and mentioned that at first it was difficult for the baby to chew and swallow the food and on the first day of initiating solid foods he / she would usually spit it out. The baby was restless afterwards because his / her

tummy was not used to the solid foods.

Difficulties with formula milk

The mothers / primary caregivers from Avian Park experienced difficulties when changing from one formula milk to another. The infant did not want to drink the new milk and would make himself / herself vomit. Participants from Zweletemba indicated formula milk as a barrier because it caused constipation; therefore, they had to change to cow's milk.

Satiety

According to the participants from Zweletemba the infant was not satisfied by breastmilk alone. They described this as a barrier because it led to the introduction of formula milk. One mother explained:

“Formula milk confuses the child. We are told that we should only breastfeed up until 6 months, but then the baby cries, we give water, but the baby is still not satisfied and then we go and buy formula milk. But then the baby gets confused and ends up quitting breastmilk”.

Spoon-feeding

The mothers from Zweletemba mentioned that during this period the infant would cry during spoon-feeding, because he / she was not familiar with it. They explained that after patiently familiarising the infant with the feeding method, he / she would see the spoon with the food from far and get excited to eat. Spoon-feeding was initially a barrier that needed to be overcome to improve feeding.

Self-feeding

Some of the mothers / primary caregivers from Avian Park recommended self-feeding in order to increase intake, but others viewed self-feeding as a barrier when the infant refused to eat if not allowed to play with the food.

Taste / food preferences

The participants from Zweletemba explained that the infant preferred certain food items above others. The mothers from the informal area perceived the infant's inability to express likes or dislikes as a complication during feeding. Like one mother explained:

“A child cannot talk and tell you what he likes; you have to look at his body reaction. Sometimes you give certain porridge, then his stomach is runny, then you try a different porridge, then it works”.

Financial Difficulties

The participants from the informal area in Avian Park experienced a shortage of financial resources as a barrier to optimal infant feeding. When they ran out of formula milk and there were no funds available, they had to borrow money / formula milk from the neighbours.

Teething

The mothers from both areas in Zweletemba extensively discussed teething as an obstacle in feeding during this period (Appendix 6.45). They explained the impact on the infant's health and consequently his / her appetite, which could lead to weight loss.

Hygiene Difficulties

The mothers from Zweletemba also mentioned that when you do not watch the infant all the time, he / she could pick up contaminated items from the ground and then they could develop gastroenteritis. They found their inability to control / manage all aspects regarding hygiene to be a barrier. The influence thereof on the infant's health made the feeding even more challenging (Appendix 6.45).

3.3.14.2 Grandmothers

Spoon-feeding

Introducing solid food was time consuming because the infant was still very small, he /

she must be spoon-fed; this took more effort and therefore, they were unable to do other duties in the house (Avian Park).

The grandmothers from Zweletemba also explained that spoon-feeding was very difficult at first and therefore, they had to teach the infant how to eat food from the spoon. Sometimes they found it necessary to force the infant to take food from the spoon. One grandmother gave more detail:

“The child is crying when you want to feed him, so you make the porridge runny, then you bend the child over backwards and put the spoon in the mouth; when the child comes up again, he has swallowed the food”.

Self-feeding

Grandmothers from Avian Park mentioned self-feeding as a barrier when the infant was still small. The infant messed with the food and they were then unsure of the amount that the infant actually ingested. When the infant grew older, he / she could be left with a bowl of food to eat until they had enough. However, the grandmothers from the informal area thought some infants were just too lazy to eat.

Hygiene difficulties

When the infant was unsupervised or left to eat on their own the infant could put dirty items in his / her mouth or even food items that came into contact with dirt. Contaminated food or items could negatively impact the infant's health. The grandmothers from Avian Park mentioned this as an obstacle. The grandmothers from Zweletemba also explained that this was problematic due to the lack of toilet facilities in their area, which increased the risk of contamination from the soil.

Decreased appetite

The grandmothers in Avian Park experienced difficulties with feeding when the infant had a decreased appetite and poor intake due to teething or constipation.

Food restrictions

The participants from the formal area in Avian Park mentioned that not all food items were allowed for infants at this age like foods that were too heavy or too solid. They found these food restrictions to be a barrier because it limited what they could offer the infant to eat.

Teething

Teething affected the infant's health and therefore, the infant cried more and refused to take in any food or liquid (Zweletemba).

Taste / food preferences

Picky eating made the introduction of solid foods difficult (Zweletemba). They explained that one day the infant would eat something sweet and when he / she was given something salty the next day, they would spit it out.

Wastage

During the introduction of solid foods, the wastage of food items was high; which indirectly has a cost implication (Zweletemba). This was due to various factors like a decreased appetite, likes or dislikes of food items, teething difficulties (Appendix 6.45).

Inexperience of the mother

The grandmothers from Zweletemba mentioned inexperience of the mother as a barrier because the mother of the infant was unable to teach the infant how to feed and therefore, they had to take over this task.

Financial difficulties

The infant grant received by the mother of the infant was not used to provide for food (Zweletemba). One grandmother explained:

“It is not easy to raise a grandchild, because the mother of the child is the one getting the grant for the child, but they don't buy anything for the child, I must use my own money to buy nappies, food and milk.”

This was a barrier because it decreased the availability of resources in the household that is necessary for the introduction of solid foods and other liquids.

3.3.14.3 Fathers

Maternal age

The fathers from the formal area in Avian Park mentioned that teenage pregnancies were prominent in the community.

“Girls in the community spend a lot of time away from their home from a very young age because of the circumstances at home. They go out to look for love in the community. They meet boys and before long they end up falling pregnant.”

Decreased appetite

All of the fathers mentioned a decreased appetite as a barrier in feeding during this period.

Teething / sick

The fathers experienced that the infant was reluctant to eat when they were teething or sick, making feeding very difficult (Appendix 6.45).

They also discussed the different reasons why the infants in the community fell ill (formal area in Zweletemba). They mentioned that the mother did not look after herself while she was pregnant, for instance she did not dress warm when she went outside and she indulged in alcohol at the local tavern. They explained that due to this the infants were not as strong when they were born and they also struggled with poor performance at school later in life. One father added:

“The ladies must also watch what they eat when they are pregnant. If a woman

eats snoek and peaches, the baby is yellow when he / she comes out because of those foods.”

Intake of luxuries

The fathers in the formal area of Avian Park mentioned that they found luxuries like sweets, smarties, chocolates, chips, fries problematic from 6 – 12 months. They explained that the Coloured population liked to spoil their children by buying luxuries to stop them from crying. The fathers indicated that when these were given too frequently and not only on designated times, the infant did not want to eat his /her food at meal times.

Food / taste preferences

The fathers from the informal area in Avian Park further explained that when they started introducing solid foods, the infant preferred certain foods and refused to eat other food items, which was an obstacle for them during this period.

Financial difficulties / unemployment

The fathers in the formal area of Zweletemba discussed the financial implication of starting to introduce solid foods and other liquids. They explained that because it was not possible to predict the likes and dislikes of the infant, it was not economical to buy big boxes of infant cereal or any other baby foods to decrease wastage. They also indicated that not having money made it difficult to start feeding with other foods and liquids because of the inability to buy all the baby foods that the infant needed.

Some fathers (formal area in Avian Park) explained that unemployment of fathers in the community played a big role, as the men were frequently looking for work and was frustrated when they were unable to find work and therefore, could not provide for their families. These men then took their frustration out on the family, creating an undesirable situation at home.

Mothers' priorities

The fathers in Zweletemba explained that the mother of the infant would rather spend money on branded bottles and other items that were less important than food or milk. This decreases the amount of money available to spend on food or milk.

Confusion between breastmilk and formula milk

The fathers in the formal area of Zweletemba indicated that when the mother breastfed over a weekend, it made it difficult for them to feed the infant with food again when the mother was back at work. Therefore, they felt that the mother should rather stop breastfeeding completely.

Introduction of solid foods

The fathers in Zweletemba mentioned that it was not easy to start feeding with solid foods and it was a time consuming process. They explained that you first have to teach the infant how to eat and this required a lot of patience, because the infant would cry at first when he was not used to the food fed to him, but after a while the infant would start enjoying the food.

Lack of knowledge

The fathers from the Zweletemba also indicated that they lacked knowledge regarding infant feeding. They were unsure of suitable foods for infants at this stage.

Too frequent milk / bottle feeds

When the infant was receiving frequent milk / bottle feeds during the day, a decreased appetite led to poor intake due to the fact that the infant was still satisfied at meal times.

3.3.14.4 Factors influencing barriers to feeding infants between 6 – 12 months

The factors mainly indicated to influence barriers in feeding were health factors, physiological factors, nutritional factors and behavioural factors (Table 11).

Physiological factors mostly discussed were the infant's symptomatic reaction to the introduction of a new food / milk, the infant's appetite as well as relevant satiety reached after a certain milk / food and the influence and difficulties experienced during teething. The nutritional factors mentioned were mostly related to feeding challenges as well as feeding methods like spoon-feeding or self-feeding. Participant indicated that behavioural factors played a role in the barriers experienced with feeding, specifically the acceptance or refusal of milk, food or the feeding method, when introduced by the caregiver. Financial factors were discussed by some of the groups. Participants focussed on the financial impact of milk and food wasted during this period as well as the financial difficulties created by unemployment. Some of the groups indicated the impact of environmental factors like hygiene, water and sanitation on the health of the infant as well as how it affected barriers in feeding.

3.3.15 Summary of factors influencing the attitude, beliefs and barriers in feeding between 6 – 12 months

Main factors evident to influence decisions regarding infant feeding practises are indicated in Figure 3. These decisions include milk sources, solid food choices, age of introduction of complementary foods, importance of complementary foods, support in infant feeding, caregivers' role in infant feeding, advice received as well as barriers to infant feeding. Factors mostly indicated by all subgroups (mothers / fathers and grandmothers) were: health factors; physiological factors; social factors, nutritional factors, behavioural factors, financial factors and educational factors. Other factors that also played a role in the attitude, beliefs and barriers of participants in Avian Park and Zweletemba regarding infant feeding practises were: environmental factors; commercial factors and demographic factors. These factors should be taken into account when considering problem areas in optimal infant feeding practises. These factors are multi-dimensional, health-, physiological-, nutritional-, social-, and behavioural factors co-inherent, financial- and educational factors influence various other factors. Environmental-, demographic- and commercial factors may also affect other factors in optimal infant feeding. Various aspects are condensed in these factors and each factor with relevant aspects is a focus area for future interventions, education and promotion

of healthy infant feeding practises.

Table 11. Factors influencing barriers to feeding infants between 6 – 12 months – Mothers / primary caregivers, grandmothers and fathers from Avian Park and Zweletemba

	Avian Park:		Zweletemba:	
	Formal:	Informal:	Formal:	Informal:
Mothers / Primary caregivers:	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Variety / Diversity ▪ Feeding schedule ▪ Feeding challenges <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Symptomatic reaction to new food / milk ▪ Infant: Appetite vs Satiety ▪ Infant: Taste preference ▪ Infant: Teething <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of acceptance / refusal of food / milk / feeding method 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Household economic status / Family income <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Symptomatic reaction to new food / milk ▪ Infant: Appetite vs Satiety <p>Social factors</p> <ul style="list-style-type: none"> ▪ Family / Paternal support 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference ▪ Infant: Symptomatic reaction to new food / milk ▪ Infant: Appetite vs Satiety ▪ Infant: Teething <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding challenges ▪ Feeding method <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Crying / Restlessness ▪ Acceptance / refusal of food / milk / feeding method 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Social factors</p> <ul style="list-style-type: none"> ▪ Household / cultural practises <p>Environmental factors</p> <ul style="list-style-type: none"> ▪ Hygiene <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Symptomatic reaction to new food / milk ▪ Infant: Appetite vs Satiety ▪ Infant: Teething <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method
Grandmothers:	<p>Environmental factors</p> <ul style="list-style-type: none"> ▪ Hygiene <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding methods ▪ Feeding challenges ▪ Content / Quality / Quantity <p>Social factors</p> <ul style="list-style-type: none"> ▪ Convenience ▪ Time management 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Teething <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Teething ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding method <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method ▪ Infant: Behaviour in terms of Crying / Restlessness 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Wastage (food / formula) ▪ Availability / Affordability <p>Environmental factors</p> <ul style="list-style-type: none"> ▪ Water & sanitation ▪ Hygiene <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Teething ▪ Infant: Appetite vs Satiety ▪ Infant: Taste preference <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding challenges ▪ Feeding methods <p>Social factors</p> <ul style="list-style-type: none"> ▪ Experience <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method <p>Demographic factors</p> <ul style="list-style-type: none"> ▪ Area of residence / housing

<p>Fathers:</p>	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Social factors</p> <ul style="list-style-type: none"> ▪ Mother: Age ▪ Mother: Behaviour / activities <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Content / Quality / Quantity <p>Financial factors</p> <ul style="list-style-type: none"> ▪ Father: Unemployment status 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Taste preference ▪ Infant: Teething <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method 	<p>Financial factors</p> <ul style="list-style-type: none"> ▪ Availability / Affordability ▪ Household economic status / Family income ▪ Wastage (food / formula) <p>Commercial factors</p> <ul style="list-style-type: none"> ▪ Marketing / branding / labelling of infant formula / infant products <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Teething ▪ Infant: Appetite vs Satiety <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding challenges <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method 	<p>Health factors</p> <ul style="list-style-type: none"> ▪ Infant: Medical conditions / symptoms <p>Physiological factors</p> <ul style="list-style-type: none"> ▪ Infant: Appetite vs Satiety ▪ Infant: Teething <p>Nutritional factors</p> <ul style="list-style-type: none"> ▪ Feeding schedule <p>Social factors</p> <ul style="list-style-type: none"> ▪ Knowledge ▪ Time management <p>Behavioural factors</p> <ul style="list-style-type: none"> ▪ Infant: Behaviour in terms of Acceptance / refusal of food / milk / feeding method ▪ Infant: Behaviour in terms of Crying / Restlessness
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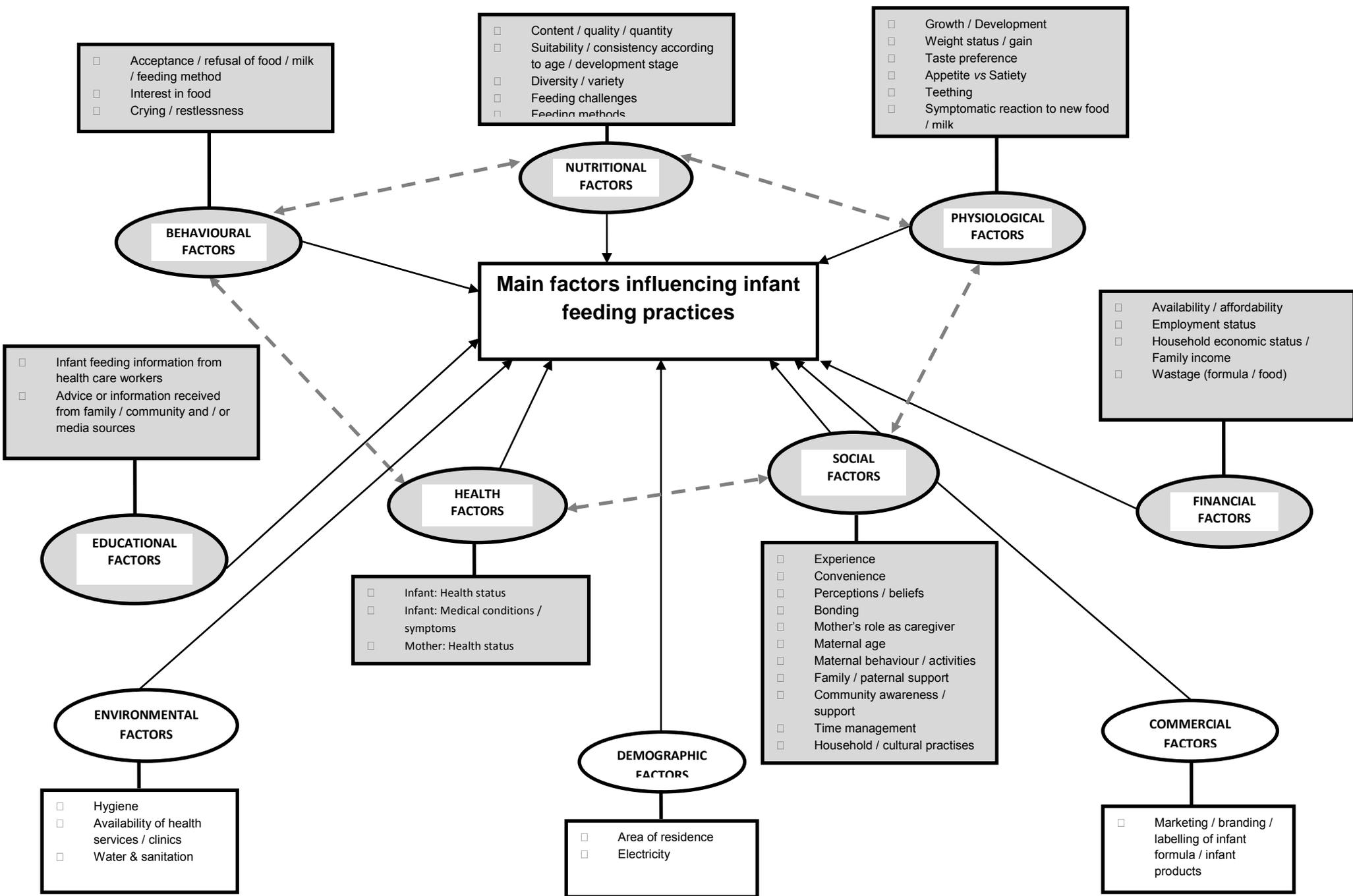


Figure 3. Conceptual framework of factors influencing decisions regarding infant feeding practises between 6 – 12 months.

CHAPTER 4

DISCUSSION



Photographer: Mariska Matthysen

4.1 INTRODUCTION

Inappropriate feeding practices are a major cause of malnutrition in young children.^{37,41-42} Within this context, it has been well documented that the incidence of malnutrition rises sharply during the period from six to 18 months of age in most countries.⁴³⁻⁴⁴ Complementary feeding typically covers the period from six to 24 months of age, and is a very vulnerable period in an infant's life.^{41,45}

The South African National Health and Nutrition Examination Survey (SANHANES-1) results showed a prevalence of 26,5%, 2,2% and 6.1% for stunting, wasting and undernutrition among the 1-3-year-old age group. The previous National Food Consumption Survey in 2005 (NFCS-FB-I) reported 23.4%, 5.1% and 11.0% respectively. SANHANES will in future provide nutritional profiles for the country on a continuous basis. This will enable more accurate estimates regarding the true picture of the nutritional status of infants and young children.^{27,83}

The CNSP (Community Nutrition Security Research Project), a baseline study, was conducted by the Stellenbosch University Food Security Initiative to gather information regarding the nutritional status of young children (0 – 36 months) and their mothers / primary caregivers living in two communities (Avian Park and Zweletemba). The study also investigated the current household and community food security situation to describe the relationships between child nutritional status and food security conditions. Avian Park is a community with both Coloured and African residents while Zweletemba has a majority of black African residents. Both communities have informal and formal housing.

To improve infant malnutrition, it is not only important to know the local infant and young child feeding practises present in these communities, but also to identify and understand the underlying factors that influences these practises. This study was a sub-study of the CNSP and aimed to improve the understanding of factors influencing infant feeding practises (especially in terms of complementary feeding) in infants 6 – 12 months. The study included 86 participants from Avian Park and 83 participants from Zweletemba. To make findings comprehensive, all key role players in the household was included (mothers / primary caregivers, fathers and grandmothers).

4.2. CURRENT FEEDING PRACTICES

According to the WHO and UNICEF guidelines mothers / primary caregivers should practice exclusive breastfeeding from birth to 6 months of age, and introduce pureed, mashed and semi-solid complementary foods at 6 months, “finger foods” (snacks that the infant can eat on his own) by 8 months and by 12 months the infant can consume foods eaten by the rest of the family, while continuing to breastfeed to 2 years and beyond.^{12,45}

Results indicated that the current practices and factors influencing the feeding practices are similar in both areas and it was concluded that there is very little to no cultural difference between the two communities in terms of current practices and influencing factors. This observation is of significant importance, it implies that certain blanket intervention strategies could be implemented in both communities.

It is recognized in South Africa that the early introduction of water, nutritive liquids and / or food is prominent.^{48,84} In both Avian Park and Zweletemba the age of introduction of liquids and solids ranged from birth to 12 months. Various liquids such as water, over the counter medicine, like Telament Gripe Water Syrup and Saccherol Syrup (stomach acid neutraliser), high concentrated sugar beverages like sugar-water and juice, and low nutrient beverages like tea are given to infants from an early age, as young as 2 days *post-partum*, by means of a feeding bottle. According to the WHO guidelines, the intake of these concentrated sugar beverages are not recommended, because it adds little nutrients to the infants overall intake, decreases the infants appetite for other foods, and may also cause loose stools.¹² The intake of tea may also interfere with iron absorption.¹² The use of bottles is not suggested since it may contribute to malnutrition by interfering with continued breastfeeding after 6 months, may alter the dynamics of oral feeding and is a source of infection.³⁷

Cow's milk is also introduced before six months of age for reasons such as affordability, availability and because cow's milk does not need boiling water for reconstitution like formula milk, especially when access to electricity is inadequate. However, according to WHO guidelines the introduction of cow's milk should be delayed until six months and should be limited to small amounts, without replacing

breastmilk, because cow's milk is a poor iron source.⁴⁷ During this period infants are also at risk of iron deficiency anaemia due to their increased iron requirements in periods of rapid growth.^{12,83} Although the SANHANES-1⁸³ results showed that the prevalence of iron depletion has decreased since the NFCS-FB-I²⁷, 8.1% compared with 11.0%, iron depletion is still a reality in South Africa. Furthermore, the prevalence and incidence of allergies amongst children from this specific age group is presently not known, and can be further researched.

The WHO also indicates that liquids and solids introduced during this period are important for the future eating habits of infants, therefore foods with a low sugar and salt content should be offered when introducing complementary foods.^{13,16} Overconsumption of energy-dense complementary foods may induce excessive weight gain in infancy, which has been associated with a 2- to 3-fold higher risk of obesity in school age and childhood.⁴⁷ The CNSP results (unpublished data) also demonstrate that overweight and obesity is present amongst children 0 – 3 years (17.8%) and their mothers/caregivers (26.4% overweight and 37.1% obese), highlighting the double burden of malnutrition faced in these communities, similar to the rest of the country.

Furthermore, infants from both communities received *meelbol*. *Meelbol* is made mainly with flour and is insufficient in energy and nutrients and inappropriate for infant feeding.⁴ Substituting breastmilk or formula milk with such a flour-based mixture could contribute to the current malnutrition present in these communities.

Porridge, especially rice cereal and maize meal porridge, is also given as the first solid foods to be introduced to infants. Participants from Avian Park would introduce porridge as a complimentary food item from 3 – 4 months while in Zweletemba mentioned as early as 1 week *post-partum*. Goosen *et al.*, (2013) also found that 75% (n = 46) of participants (from Avian Park and Zweletemba) who gave nutritive liquids and / or food in addition to breastmilk or formula milk had started doing so before their infants were three months old. Commercial infant cereal and formula milk outweighed any other supplementary liquids or food. This was similar to the practices reported for both urban and rural areas by Mamabolo *et al.*, (2004) and Fjeld *et al.*, (2008) in that commercial infant cereal was the food most commonly offered in urban areas^{48,85} while maize meal porridge was most commonly given in

rural areas.^{48,84} Most commercial infant rice cereals are fortified and can help to ensure adequate intake of certain nutrients.⁴¹ Faber et al., (2005) indicated that maize meal porridge is a low-cost fortified porridge that can be used to improve nutrient intake of infants in poor settings.⁸⁶ This highlights the fact that fortified products should be chosen above unfortified brands and used as part of a varied diet, with the emphasis on the addition of small amounts of animal source foods.

In this study it was also found that infants from both areas also receive family “food from the pot” before the age of 6 months. According to FITS (2008) infants beginning solids at age 6 months can easily and safely transition directly to baby cereals or modified (mashed or pureed) versions of the family meal. However participants in this study also indicated using non–infant cereals such as Weetbix[®] and instant ACE[®] maize meal porridge, that are often low in iron, especially after 6 - 8 months of age, which is the very time when iron needs rise.⁶²

It is most often a female, either the mother or the grandmother, in the household who was responsible for buying and preparing food and for feeding the infant. This was also reported in the CNSP parent study (unpublished data) as well as the NFCS-FB-I.²⁷ During the preparation of food, various refined carbohydrate (CHO) products (such as sugar) as well as high fat products (oil and margarine) and high protein products (cow’s milk or peanut butter) are added. The addition of refined CHO products play an important role in the current high levels of overweight and obesity, as reported by the CNSP (unpublished data) and the SANHANES-I⁸³. A high total fat intake, high saturated fat intake, high refined carbohydrate and added sugar intake, low fibre intake and low intake of fruits and vegetables, has been classified as a typical ‘western diet’ which contributes to the development of chronic diseases, including cardiovascular diseases and diabetes.⁸³

All role players (mothers, grandmothers and fathers) indicated that information regarding breastmilk, breastmilk substitutes and solid foods were primarily received from clinic staff or other medical personnel, whereas mothers obtain information about solid foods from their own mother and / or grandmother.

One grandmother explained:

“The advice received from the clinic is very important. Previously people were not educated, but today the people giving you information are educated and they tell you how to feed and raise children to prevent them from getting sick”.

Health care workers at the clinic were the first line of contact and therefore they could convey the correct messages regarding complementary feeding to the individuals that can impact current practices. Studies in South Africa have reported similar findings about the sources of nutritional information for mothers.^{87,88}

The fathers, however, mentioned the need for increased support at the clinics for teenage mothers, especially since it is an imminent problem in the community. The UNICEF Conceptual Framework on the causes of undernutrition³⁷ depicts inadequate education as a basic cause of malnutrition and mortality. These findings also highlight the importance of sufficient counselling and education at the local clinics with regards to infant feeding practices and complementary feeding.

Consistent with findings by Buskens *et al.*, (2007)⁸⁹ and Fjeld *et al.*, (2008)⁸⁵ mothers participating in this study also explained that they trusted the guidance from their own mothers since they themselves were successfully raised and grandmothers were therefore seen as competent to do so. Rose *et al.*, (2004) found that the mother's primary sources of information in descending order were: family (33.9%), friends (9.9%), the physician and nurse (10.8%), and nurses in the hospital (6.6%).⁹⁰ These findings demonstrate the importance of family as a source of information, therefore they should be well-informed regarding the appropriate complementary feeding practices and should also be cognizant of the barriers and ways to overcome them.^{85,89,90}

Mothers and grandmothers further indicated that information was gained by means of media such as television / radio as well as written material, for both milk and solid foods. Lastly, guidance was also sought from neighbours and other knowledgeable members of the community. Goosen *et al.*, (2013) found that just over a third (33%, n = 47) of mothers included in their study received infant feeding information from a health care worker after birth, while 26% (n = 37) received information from their mothers.

Health care workers, members of the mothers' household as well as the lay public should thus be a priority for education regarding breastfeeding and complementary feeding from birth to 1 year. Future interventions must include, amongst other, nutrition education that provides the correct scientific information in an understandable way, to reinforce specific nutrition-related practises or behaviours and to change habits that could contribute to poor health of the infant. This can be done by providing nutrition education and promotion necessary for developing the attitudes, skills and confidence needed to improve infant feeding practises.

4.3. FACTORS INFLUENCING ATTITUDES, BELIEFS AND BARRIERS

Qualitative data extracted from the focus group discussions conducted in this study were converted to factors that summarize the key messages found to play a role in complementary feeding between 6 – 12 months.

The main factors identified in this study influencing infant feeding practices during complementary feeding were i) health, ii) physiological, iii) nutritional, iv) educational, v) behavioural, vi) financial and vii) social factors. Other aspects mentioned were viii) demographic and ix) commercial factors (factors are not necessarily arranged according to level of importance).

i) Health

Health factors that had been identified by the participants in this study included: a) infant's health status; b) mother's health status and c) infant's medical conditions / symptoms.

Infant's health status and medical conditions / symptoms

Similar to previous findings^{84,89} infant feeding practises were based mainly on a positive influence with regards to the infant's health status or subsequently the absence of illness as well as individual medical conditions / symptoms like eczema, colic, diarrhoea and constipation.

In some cases sugar-water and over the counter medicine were given from birth. Buskens *et al.*,(2007) indicated that most mothers in South Africa use non-prescription or herbal medicines. The findings from this study also point

out that these medicines are supported by mothers and grandmothers.⁸⁹ Consistent with preceding research^{84,91} the data indicates that these were given due to the beliefs and perceptions of the impact it has on the infant's health as well as the relief of certain symptoms. The belief is that water with added sugar or other non-prescription medicine assist in cleaning the bladder, reduces symptoms of colic, cleans the stomach and helps with constipation. The use thereof for cleaning purposes as well as colic has also been documented in other studies.^{84,89} The nutritional value of water and other non-prescription medicines are less than that of breastmilk and because the introduction thereof is so early and the frequency not optimal, it could displace breastmilk.^{46,48} Giving water to infants is also a concern since a fifth of the participants obtained water from a communal tap outside their house, which increase the infants' risk for diarrhoeal disease. WHO concluded that infants who continued to be exclusively breastfed to age 6 months or more appeared to have a significantly reduced risk of one or more episodes of gastrointestinal infections.⁶²

ii) **Physiological**

The physiological factors mainly identified in this study were: a) infant's growth and development; b) infant's weight status / gain; c) infant's taste preferences; d) infant's appetite vs. satiety; e) teething; and f) symptomatic reaction to a new milk / food.

Infant's growth and / or development and weight status / gain

Growth and / or development of the infant, together with the weight status or weight gain achieved, affected the feeding practises of infants 6-8 months and 9-12 months. Weight gain as well as the absence of illness had previously been linked with breastfeeding⁹¹, like mentioned above. This indicates that participants understood the importance of infant weight gain and that it is related to infant feeding and growth patterns. However, this assumption could have led to the mistaken belief that an acceptable weight or growth / development justified their current feeding practices, which made participants certain that they were providing the infant with the best milk source, irrespective of whether it was breastmilk or formula milk. This is a concern as

the CNSP (unpublished data) reported that the prevalence of stunting is high in these communities (19.6%) and is significantly higher than the national (8%) and provincial (8%) rates for children (0-3 years) reported by Labadarios *et al.*, (2008).⁹² The same is also true for the perceived positive impact of solid foods on the growth and / or development of the infant, therefore indicating that the early introduction of solid foods was to the benefit of the infant. A study done by Wright *et al.*, (2004) also indicated that rapid weight gain up to the age at weaning was a strong predictor of early weaning.⁵³ In these communities solid foods were also seen as a necessity for evaluating normal development in terms of swallowing; this would not be possible if the child was only drinking milk.

Infant's appetite and / or satiety level

The infant's appetite and / or satiety level during feeding play a significant role in food / milk intake as well as the age of introduction of complementary foods. Participants mentioned that foods and other liquids were introduced when there was an indication that breastmilk and formula milk was no longer enough to keep the infant satisfied. One of the mothers from Avian Park conveyed:

“When you start to give the child solid foods, the child doesn't moan the whole time, and you can get things done in the house”.

On the other hand a decreased appetite increased the difficulty of feeding and participants in this study indicated that the infant was unwilling to take in any food. Reasons discussed for a decreased appetite was: a) when infants were sick or had diarrhoea and b) when infants were teething or had oral thrush. Participants also conveyed their anxiety for weight loss due to the change in appetite. These fears were valid, as the WHO has also indicated that a decrease in appetite could lead to a significant reduction in energy intake and, consequently, growth deficiencies. It is indicated that the incidence of anorexia during the first year of life increases with age – from 2.2% in the first month to 31.7% in the 12th month.³⁷ Infants who are drowsy or have waited for an extended period of time before being fed may lose their appetite and not feed as effectively.¹⁶

Infant's taste preference

A study done by Maier *et al.*, (2007) found that at approximately 7 months of age, some infants demonstrate convincing dislike for certain vegetables. After 7 – 8 exposures, most of them accepted the initially disliked vegetable.⁶⁹ This must be taken into account as it is possible that the dislikes perceived by caretakers could be a true reflection of the infant's taste preference, but this should also be evaluated in the light of the amount of exposure relevant to the disliked food item, which were not indicated by participants.

Teething and symptomatic reaction to a new food / milk

Other factors influencing feeding practices were the teething period and the infant's symptomatic reaction to a new food / milk. As mentioned above, teething affects the total food / milk intake due to decreased appetite as well as the behaviour of infants in terms of crying and restlessness. Adverse reactions like vomiting were reported by some mothers when changing to a new formula milk. In some instances formula milk was borrowed from neighbours due to financial constraints, but similar findings were not found in literature.

iii) Nutritional factors

The nutritional factors considered were a) the content / quality / quantity of milk and / or food item; b) the suitability and / or consistency thereof according to the infant's age and / or development stages; c) variety and / or diversity of the infant's diet; as well as d) feeding methods and challenges. The mothers / primary caregivers and grandmothers pointed out that nutritional factors influenced their roles in feeding. In this study it was found that the females in the household were predominantly responsible for making decisions regarding food, buying food and feeding infants.

Content / quality / quantity of milk and / or food

In this study most groups indicated that the content / quality / quantity of the food items were evaluated. This consideration was very important as Naylor *et al.*, (2001) indicated that, even with optimum breastfeeding, children will

become stunted if they do not receive sufficient quantities of good quality complementary foods after six months of age.^{46,50}

Suitability and / or consistency of food items

Nutritional considerations included the knowledge and / or perceptions of participants regarding the suitability and / or consistency of certain food items according to the age and / development stage of the infant. The WHO indicated that after 6 months most infants are developmentally ready for foods other than breastmilk or formula milk.⁴¹ Infants also gradually develop the ability to chew, and they start to show an interest in foods other than milk.⁴⁷ According to Dewey *et al.*,(2003) food consistency and variety should gradually increase as the infant gets older. Infants can eat pureed, mashed and semi-solid foods at six months.^{12,41}

Variety and / or diversity of the infant's diet

Participants also attempted to include a variety of food items in order to provide a diversified diet and expose the infant to different tastes and flavours. These efforts were very valuable to incorporate healthy practices as Giugliani *et al.* (2000) also indicated that a large intake of calorie-dense foods might restrict the ingestion of a diversified diet because it impacts the satiety levels of infants which may lead to rejection of other foods.¹⁶

Feeding methods and challenges

Both spoon-feeding and self-feeding were described as a barrier by caregivers. Spoon-feeding was mentioned as an obstacle by the grandmothers from Zweletemba because infants must be taught first to eat from a spoon. On the other hand self-feeding was viewed by both mothers and grandmothers as a barrier when the infant refuses to eat if not allowed to play with the food. This feeding method was described as time-consuming, requiring a great deal of patience and messy, with no certainty as to the amount of food actually ingested. Guigliani *et al.*,(2000) recommended that parents should motivate infants to eat by themselves, while ensuring that their intake is sufficient; with cognisance that this requires patience since infants

eat slowly, spread food about the place, and get easily distracted.¹⁶ The fathers thought that self-feeding teaches the infant to eat on his own, to use a spoon and hold a plate and therefore improves the infant's development. Several intervention studies that included feeding behaviours as part of the recommended practices have reported positive effects of responsive feeding on child growth,^{58,59} but unfortunately it is not possible to separate the influence of responsive feeding from that of the other changes that occurred in breastfeeding practices and the types of complementary foods offered.⁵⁷ However, in this study it was found that it was most often a female (either the mother or the grandmother) in the household who is responsible for feeding the infant, therefore they should be targeted in interventions to explain the positive effects that responsive feeding could have on the infant's growth and development.

Participants indicated that a lack of knowledge made the feeding of infants challenging. The fathers from the Zweletemba mentioned a lack of knowledge with regards to the suitability of food items for infants at this stage. The mothers' inexperience and lack of knowledge were highlighted by the grandmothers as barriers due to their inability to teach the infant how to eat, therefore making it necessary for the grandmother to take over this role. Fein *et al.*, (2008) found a significant inverse association between maternal education and the prevalence of unhealthy infant feeding practices. It could be that information about complementary feeding practices is communicated in ways that are less available to lower-educated mothers, such as in written materials.⁶¹

iv) Educational

The educational factors that influenced optimal infant feeding practises in these areas were a) advice / information received from health care workers and b) advice / information received from family / community members and / or media sources.

Mothers and fathers indicated that their level of knowledge and experience and perceptions of what the best nutrition is for their infants as well as the household / cultural practices with regards to complementary feeding impacts education and / or

advice needed. Studies show that when parents are still young (adolescents), other adult family members may apply a large influence over them due to their social and economic dependence.⁹³ The participants from this study also felt unsure due to inexperience and would turn to their mothers or grandmothers for advice. This was illustrated by a mother explaining:

“I do not know everything about feeding my child because I was very young when I had my child. If I have a problem or question, I ask my mother”.

The role of older females in the household was also mentioned by mothers in Zweletemba. They indicated getting information from as many places as possible, because they want to do everything by the book, but they end up taking the advice that their mothers provide, because they want to prevent an argument. They explained that they rely on their mother's help to raise their infants and therefore do not want to go against her wishes / advice. Others also explained that they felt their mother / grandmother raised a lot of children and therefore she had the correct knowledge to share.

Fein *et al.*,(2008) found a correlation between lower-educated mothers and non-adherence to complementary feeding guidelines. Unhealthy feeding practices like introducing solid foods before 4 months, introducing new foods too rapidly, feeding juice before 6 months, and introducing cow's milk before 12 months were more common among lower-educated mothers than higher-educated mothers.⁶¹ The level of education of the mothers / primary caregivers in Zweletemba was relatively high. In the formal area the mothers mostly had an education level of grade 11 – 12 [n = 22 (75.9%)] and in the informal area 36.4% (n = 4) had the same level of education, the others (n = 54.5%) had achieved grade 8 – 10. It is therefore possible that the advice needed regarding various infant feeding practises was anchored in the perceived inexperience of the mothers as well as the belief and trust in the knowledge of an elderly female in the household.

The findings of this study also revealed that health care workers were frequently reported as the source of infant feeding information. This is similar to findings by Sibeko *et al.*,(2005)⁸⁴ and this holds potential since health care workers have more knowledge on infant feeding than members of the public.

These findings demonstrate the importance of family, community members and health care workers as sources of information, therefore they should all be well-informed about the appropriate complementary feeding practices and they should be cognizant of the barriers and ways to overcome them. Comprehensive and descriptive counselling has the potential to influence mothers' understanding of appropriate complementary feeding practices to a great extent. Mothers mostly indicated that they felt inexperienced in feeding an infant, with inadequate knowledge in this regard. Therefore infant feeding counselling at health care facilities should be improved to support and equip young and / or inexperienced mothers in order to gain knowledge and understanding with regards to complementary feeding.

v) Behavioural factors

The behavioural factors influencing infant feeding practises were: a) crying / restless behaviour; b) infant showing an interest in food / milk; c) acceptance / refusal of food / milk / feeding method.

Crying / restless behaviour or infant showing an interest in food / milk

In this study the age of introduction of complementary foods were influenced a great deal by the infant's behaviour (crying) as well as showing an interest in food. Participants perceived crying or restlessness behaviour as an indication that the infant was hungry. The explanation given was that the infant was not satisfied by breastmilk / formula milk alone. Wright *et al.*,(2004) found that the majority of mothers that introduced solids between 3 and 4 months were confident that this was the right time and their strongest perceived influence was also that their baby was hungry.⁵³ The mothers in this study indicated that they were aware that complementary foods should be introduced at 6 months, but similar to Wright's findings they did not wait until then because the infants were perceived not to be satisfied by the milk only, and then cried at night. Similar to findings by Fjeld *et al.*,(2008)⁸⁵ mothers were unable to tell hunger apart from other causes for crying and believed that crying infants needed additional formula milk or food because they were not satisfied from drinking milk alone. Parents need to learn the skill to distinguish between different cues for infant crying. Nor *et al.*,(2011)⁹¹ also indicated that mothers

observed that infants stopped crying and slept once rice cereal was given. It is well illustrated in the words of one of the grandmothers:

“My daughter breastfed, but the baby also didn’t stop crying, so after one week I told her to start with one tablespoon of cerelac[®], mix it with fresh milk and make it runny. We stopped with breastmilk and only gave porridge, and the baby would rest”.

A seemingly constructive outcome was reached when giving rice cereal and therefore it was seen as a justification for introduction of solids before 4 months.

Some participants described the infant not being satisfied by milk alone as a barrier because it led to the introduction of formula milk. One mother explained:

“Formula milk confuses the child. We are told that we should only breastfeed up until 6 months, but then the baby cries, we give water, but the baby is still not satisfied and then we go and buy formula milk. But then the baby gets confused and ends up quitting breastmilk”.

Acceptance and / or refusal of food / milk / feeding method

The infant’s acceptance and / or refusal of food / milk / feeding method were found challenging by mothers and grandmothers. They indicated their restriction with regards to the variety of food items available to offer infants and they explained that the refusal of food items was because infants grow tired of repeated food items. Some mothers linked acceptance or refusal of food to the infant’s inability to express likes or dislikes. Findings suggest⁷⁰ that an infant does not only have the ability to distinguish between flavours of fruits and vegetables, but when exposed to a variety of these, it can encourage the intake thereof.

The grandmothers described the refusal of food / milk as the infant being a “picky eater” and explained that it resulted in the introduction of solid foods being challenging. They explained that infants would accept a food item one day and spit it out the next day. Carruth *et al.*, (2004) illustrated that nearly

30% of 7 – 11month old infants were portrayed by their caretakers as being “picky eaters” because they accepted a restricted number of foods, were reluctant to try new foods, and demonstrated strong food preferences. The study also indicated that less than 7% of caretakers gave a food item that were initially disliked more than 3 – 5 times before making a decision that it was of little value to offer it again.⁷⁰

vi) Social factors

Social factors influencing feeding practices included a) the experience of the infant’s mother with regards to feeding; b) perceptions / beliefs and c) convenience as well as d) the mothers’ availability as the infant’s caregiver and e) support systems. Family and / or paternal participation as well as the involvement of the community played an important role with the support needed by the mother / primary caregiver.

Convenience

Fathers and grandmothers generally thought that breastmilk was the best for the baby, but they also accepted and supported formula feeding, due to the convenience thereof when they had to look after infants once the mothers returned to work or school. The mothers’ return to work and her separation with the infant was also indicated as a major factor by Arora *et al.*,(2000) in a survey to determine factors influencing feeding decisions as well as breastfeeding duration. Their results showed that mothers ranked “could not breastfeed because had to return to work” as one of the top three reasons that they did not breastfeed.⁹⁴ In this study the fathers also linked the mothers’ return to work to an insufficient milk supply. They mentioned that the mothers’ food intake was insufficient due to working all day and as a result her milk production decreased. However, there is no evidence for discouraging breastfeeding when the maternal diet is suboptimal.⁹⁵

Mothers’ availability as the infant’s caregiver

The availability of the mother to fulfil the role as caregiver also highlighted the importance of foods / liquids other than formula milk, because when formula milk was not available the immediate caregiver should be able to give the

infant something to eat or drink while the mother is not there to breastfeed. Therefore participants indicated that the age of introduction should be as early as possible, in order for the infant to be used to these products once the mother was not available. The fathers also did not feel comfortable that the mother loses a lot of weight while breastfeeding and therefore they encouraged the use of formula milk. Fathers and grandmothers discussed the possibility of expressing breastmilk, even though the mothers were not implementing it. They felt that it would be a benefit to the infant and it would also be a practical solution to save it in the fridge to be used when the mother was not at home.

Perceptions / beliefs

Perceptions / beliefs influenced the infant feeding choices of grandmothers. When the mother participates in certain (sexual) practices, formula milk was favoured over breastmilk. Others believe that when the mother of the infant was stressed, the breastmilk was also not healthy and will induce vomiting; therefore formula milk should rather be given.

In this study it was also indicated that the introduction of solid foods and liquids other than breastmilk or formula milk had social importance because the infant had to learn and adapt to the eating behaviours of the parents and with exposure to different tastes, developed their own likes and dislikes. It was socially acceptable for the infant to be included in the family meal.

Family and / or paternal participation and support

Family and / or paternal participation and support were pointed out by all groups. The mothers indicated that the support of their family, especially their parents was extremely valuable to them. They often depended on the support of family due to absence of the fathers' involvement. Despite thereof, they expressed the need for the father to take responsibility and be involved. Rose *et al.*,(2004) reported that breastfeeding mothers more often reported that their partners were supportive of their choice of feeding method. The study also demonstrated a significant influence of the father in the choice of feeding method.⁹⁰ Fathers could therefore play a significant role in appropriate

complementary feeding practices. The fathers highlighted their own role in supporting the mother as well as being involved with raising the infant. One father added:

“My support to the mother is to always love her; she can always know that I am there for her if she needs anything”.

Experience

Lack of experience with regards to raising or feeding an infant increased the need for support during this period; this was also mentioned as a barrier to optimal infant feeding practises by all groups. The mothers indicated that they were inexperienced when it was their first infant; therefore they relied on the support of their mothers. The fathers added that the support of the infant’s grandmother was very important, because the mother had to first seek her approval with regards to complementary feeding practices. In addition the grandmothers mentioned that the availability of the mother to fulfil her role as caregiver increased the level of support needed, because their support involved the necessity to take over this role. This was illustrated by one grandmother explaining: *“You have to look after your grandchild and at the same time your own child as well, because you still need to encourage her to finish school”.*

Community involvement and support

The value of community involvement and support were also discussed. Mothers indicated that they could support one another by identifying those in need and then providing help or support to that specific mother. Participants also mentioned that within a community, they could share from each other’s vegetables gardens, therefore providing important nutrients to the infants and children in the community.

vii) Financial Factors

The financial factors that influenced the choice of milk and solid foods between 6 – 12 months and the roles of household members in feeding were: a) the availability

and / or affordability of different sources of milk as well as liquids other than breastmilk or breastmilk substitutes and solid foods; and b) the economic status of the household and / or family income.

Milk choices were affected by the availability and / affordability of breastmilk / formula / cow's milk / UHT milk. In some cases the unaffordable cost of formula milk contributed to the choice of breastfeeding, similar to previous findings⁹¹, but in other cases it contributed to choosing the most affordable formula milk available. UHT milk was often used when the mother was not able to breastfeed any longer, especially because formula milk was too expensive.

Mothers and grandmothers also indicated that when there was no money available for formula milk or infant cereal, they prepare "*meelbol*" instead. It can replace milk or porridge, depending on the consistency prepared. Family-food or "food from the pot" is described as more affordable than specialized infant foods. Family-food was often introduced early because funds available for formula milk are depleted. Fathers also mentioned that instant infant foods could be bought to use when travelling with the infant, to the clinic for instance, but not for daily use, because it was too expensive.

The reported monthly income of Avian Park and Zweletemba is R1 - R1000 and unemployment levels are high. Most households relied on other sources of income such as child support grants and old age pensions. None of the participants reported that they made use of food assistance schemes. Employment status often also influenced decisions regarding milk choices. When fathers were unemployed the mother has to return to work, therefore influencing choices regarding infant feeding practices.

The grandmothers and fathers indicated that financial factors defined their roles in complementary feeding as providers. The socio-demographic data revealed that grandmothers from the informal areas of Avian Park [n = 9 (90%)] and Zweletemba [n = 8 (66.7%)] indicated that the mother of the infant was the individual who bought the food for the household; while the grandmothers from the formal areas indicated themselves in this regard. During the focus group discussions, some of the grandmothers explained that they provided the money for food items, but the mother of the infant was sent to town to buy groceries. The fathers indicated that the

females in the household decided how much money was spent on food and also bought the food for the household. The fathers provided financially to some extent, but they were not responsible for deciding how much was spent on food and they did not buy the food themselves. Financial factors also influenced the need for support in this capacity. Mothers and grandmothers indicated that raising the infant was also the father's responsibility and therefore they should be involved both with the day-to-day duties as well as to provide financially for the needs of the infant. Buskens *et al.*,(2007) also described that unemployed mothers relied on other household members for financial support and might therefore lack autonomy in decision-making when it came to infant feeding practises.⁸⁹

viii) Demographic factors

The demographic factors that were indicated in this study included: a) hygiene, b) electricity, c) the availability of health clinics / facilities, d) water and sanitation.

The mothers from Zweletemba mentioned the risk of infants developing infections and / or diarrhoea due to transfer of bacteria when picking up contaminated items from the ground or environment outside the home. The grandmothers added that the lack of toilet facilities in the area increased the risk of the soil being contaminated.

Grandmothers in Avian Park (informal) mentioned that a lack of electricity was a demographic factor that played a role in their decision making regarding milk, as boiled water was needed to reconstitute formula milk. The socio-demographic information of these grandmothers revealed that most of them had the necessary facilities at home including a refrigerator and a stove [66.7% (n = 8) and 83.3% (n = 10) respectively].

ix) Commercial factors

The mothers / primary caregivers from the formal area in Avian Park pointed out that they considered the marketing / branding / labelling of infant products when they were making decisions regarding infant feeding products and or practises.

The Tshwane Declaration of Support for Breastfeeding in South Africa (Tshwane Declaration) was signed in August 2011. This declaration indicates the commitment of political will, as well as the devotion to ensure the promotion, protection and support of breastfeeding in South Africa. The regulations of the Tshwane Declaration aim to accomplish this by ensuring the appropriate use of breastmilk substitutes and making sure that appropriate marketing and distribution practices are used.^{96,97}

The third resolution of the Tshwane Declaration has committed South Africa to adopting legislation (within 12 months), which includes national regulations on the International Code of Marketing for Breastmilk Substitutes.⁹⁶ These regulations should be implemented and monitored. Subsequently the Regulations Relating to Foodstuffs for Infants and Young Children was gazetted in December 2012.⁹⁷ The regulations provide a comprehensive legal framework that protects parents and health professionals from aggressive or inappropriate marketing of breastmilk substitutes. The regulations also aim to protect and support optimal infant and young child feeding practices by decreasing the influence that commercial marketing has on mothers' choices.⁹⁷ Thus the information provided by the mothers / primary caregivers in Avian Park and Zweletemba indicated that this aim is not yet reached within these communities.

4.4 STRENGTHS AND LIMITATIONS OF THE STUDY

i) Strengths of the study

This research study will add to a better understanding of the cultural specific infant feeding practices applied in the two communities. In broadening the understanding of the present infant feeding practices, it creates the opportunity to plan and implement appropriate cultural specific interventions to improve existing practices. Successful interventions will improve nutrition status of infants and decrease early childhood morbidity and mortality, which are still severe problems in South Africa.⁶⁵

ii) **Limitations of the study**

Sample size

Due to logistical limitations the sample size was small. A larger sample size might have revealed more primary and secondary themes influencing infant feeding practices.

Relevance

The findings of this study may not be generalized beyond this setting, but it could increase the confidence with which existing findings is regarded in the broader population or in a similar setting.

Field workers

All recorded information from the FGDs was transcribed by trained field workers from each community. Afrikaans and isiXhosa information were translated into English. The field workers worked in pairs and did a thorough quality checking of all transcribed and translated information in order to ensure that the content and core meaning of discussions was preserved. Random quality checks of the Afrikaans transcriptions were done by the researcher and an independent consultant did the same with isiXhosa transcriptions / translations. However, it is acknowledged that the meaning of words or text could have been changed or lost in the transcription and translation thereof.

CHAPTER 5

CONCLUSION & RECOMMENDATIONS



Photographer: Mariska Matthysen

5.1 CONCLUSION

Infant feeding practices in Avian Park and Zweletemba were found to be suboptimal.

The findings of this study provide insight into different aspects regarding early cessation of breastfeeding that could lead to early introduction of complementary foods. Various liquids other than breastmilk were given shortly after birth in the belief that it aided in improving the infant's health and relieved certain symptoms. The mothers' return to work and subsequent separation from the infant played a big role in infant feeding choices and highlights the necessity for education regarding continued breastfeeding up to 24 months as well as expressing breastmilk. *Meelbol* is also used from an early age to substitute breast- or formula milk, which could influence infant malnutrition levels in both communities. Nutritive liquids and solid foods (mainly rice cereal and maize porridge) were introduced as early as 1 week after birth.

In accordance with findings of the CNSP, the females in the household were mainly responsible for buying and preparing food for the infants, but all members of the household were involved in caring for the infant once the mother of the infant had to return to work / school.

Health care workers were identified as the central source of information regarding breast- and complementary feeding; however maternal grandmothers were also an important information source.

Physiological factors influenced feeding practises in terms of the perceived impact of milk- and / or solid food choices on the growth and development of the infant as well as the infant's appetite for or sufficient satiety level reached with certain foods or milk. Behavioural factors also played an important role. Crying and / or restless behaviour was interpreted as hunger, which lead to early introduction of other foods or liquids in an attempt to to reach optimal satiety and behaviour.

A lack of knowledge and experience were indicated by mothers and fathers, specifically with regards to the nutritional adequacy of foods, the suitability of foods and liquids according to the infant's age as well as different feeding methods and managing feeding challenges. This made mothers dependent on advice and

guidance from their own mothers regarding infant feeding practises and choices. Comprehensive counselling with both parents has the potential to increase their understanding of appropriate complementary feeding practices and empowering them with knowledge and information to be able to make informed decisions regarding infant feeding.

The necessity for family and / or paternal participation and support were increased by the mother's inability to be available as caregiver when attending school or returning to work. This also led to the early introduction of foods and liquids other than breastmilk or breastmilk substitutes due to convenience when the infant was left with another caregiver. The need for community involvement and support was also mentioned to assist with food security.

Financial factors were taken into account with milk and food choices. Family-food or *meelbol* was mostly given when there were no funds available for infant foods or milk. Mothers emphasized that they relied on other household members for financial support, which decreased their independence in making decisions regarding complementary foods and feeding practises.

Current practises and factors influencing complementary feeding were similar for both areas and therefor certain blanket intervention strategies could be implemented in both communities. The different roleplayers in the household did not report major differences in these factors and therefore similar intervention strategies can be applied to all roleplayers. The same is true for the different role players in the household. The information collected in this study can be applied to ensure that nutrition interventions are appropriate to the communities of Avian Park and Zweletemba.

5.2 RECOMMENDATIONS

Nutrition interventions in infants between 6 – 12 months can lead to great health benefits. A renewed focus has been placed on the promotion of breastfeeding. Similar attention should now be paid to complementary feeding practices. Complementary feeding should be reinforced and intensified in Integrated Nutrition Programmes (INP), capacity must be built for the implementation thereof, and progress must be monitored with the necessary advocacy to promote action in

communities. The findings of this study have highlighted the importance of involving all household members in interventions, as well as the larger community, with a community and public nutrition focus. Optimal infant feeding practises are influenced by various role players and therefore interventions will only be more effective when including all. Based on the findings of the study the recommended focus areas for future interventions include the following:

Health Systems

- a) The effective implementation and monitoring of the national policy on Infant and Young Child Feeding in the context of the local communities should receive high priority.
- b) Measures should be put in place to ensure that the local health system is able to protect and support appropriate infant and young child feeding practises.
- c) Health systems should ensure a sufficient staff compliment within clinics to ensure effective counselling.
- d) Western Cape Government should enforce policies regarding breastfeeding in the workplace.
- e) Follow-up support must be provided to mother (after leaving the maternity unit) at “well-baby” clinics.

Community

- a) Food and nutrition security in the communities should be enhanced in order to support and maintain optimal complementary feeding by means of resource-management, home / community food gardens.
- b) Assessment of current programmes in the communities should be affected:
 - I. Interventions should be integrated and coordinated with existing programmes in the community (mother-to-mother support groups and early childhood development groups).

- II. Complementary feeding messages are already part of the health promotion messages in the Road to Health Booklet, but with limitations in terms of time and quality of counselling offered. Complementary feeding information should be in line with messages of breastfeeding promotion campaigns, maternal and child health initiatives and with current scientific knowledge.
- III. Infant and young child feeding practices can be enhanced by using the Paediatric Food-Based Dietary Guidelines (PFBDG) as a comprehensive education tool by all levels of health care workers.
- IV. Existing channels (community news paper and radio station e.g. Vallei FM and Worcester Standard), resources (local non-governmental organizations e.g. Hospice) and community networks (role players in community) should be utilized to support behaviour change.

Commercial

- a) Companies that produce infant formulas, also produce complementary foods, therefore these products have the potential to compete with breastmilk and local foods. It is important to inform the community regarding the role of these foods in the context of breastfeeding and complementary feeding.
- b) Interventions should support and adhere to South Africa's Regulations Relating to Foodstuff for Infants and Young Children (R991).
- c) Interventions should protect, promote and support exclusive breastfeeding from birth to 6 months and continued breastfeeding up to 24 months and beyond.
- d) All health care personnel and community workers should adhere to the International Code of Marketing of Breastmilk Substitutes and the Regulations Relating to Foodstuffs for Infants and Young Children (R991).

- e) The use of high quality locally available foods should be advocated at all levels of health care.
- f) Access to fortified products should be increased in the local shops in the community.

Education and information

- a) Education and information programmes should be feasible and acceptable in the local context because food behaviours are affected by cultural beliefs, knowledge and perceptions to varying degrees. There should be a focus on the nutritional inadequacies in the local diet and current good practises must be re-enforced.
- b) Health care workers have been identified as an important source of infant feeding advice to mothers as well as other family members and therefore it is important to ensure that the information relayed are scientifically correct to promote optimal infant feeding practises. Interventions should include testing their level of knowledge and appropriate training of health care workers to equip them with effective counselling skills as well as the correct knowledge in terms of infant feeding practises. Information should be presented by registered dietitians (Department of Health and Private) to primary health care workers as well as home-based carers (affiliated with non-governmental organizations).
- c) Different channels of communication should be utilized. When information is conveyed by means of media (Vallei FM (local radio station) or Worcester Standard (local news paper) the suitable professionals (registered dietitians) should be consulted for the correct infant feeding information.
- d) Information should not only be available at the local clinic. Community based health care services should be expanded, to reach grandmothers (at church groups, support groups), fathers and other members of the community who do not visit the local clinic. Community based workers should assist with education and support of mothers regarding exclusive breastfeeding until 6 months and optimal complementary feeding thereafter.

- e) Future education by all levels of health care workers must address the following aspects regarding infant feeding practices:
- I. Continued breastfeeding up to 24 months;
 - II. Empowerment of mothers who have to return to work / school with the necessary tools and information to successfully maintain breastfeeding by expression of breastmilk;
 - III. Interpreting infant cues – crying and restless behaviour is not necessarily a sign of hunger or insufficiency food intake;
 - IV. Feeding practises appropriate for the infant's age;
 - V. Nutritionally adequate complementary foods;
 - VI. Discouragement and emphasis on the dangers of inappropriate feeding practices (e.g. *meelbol*);
 - VII. Improvement of food intake during illness / decreased appetite;
 - VIII. The importance of responsive feeding and how this should be implemented;
 - IX. Safe preparation and storage of complementary foods to decrease the incidence of pathogenic related diarrhoea.

5.3 RECOMMENDATIONS FOR FURTHER RESEARCH

Further research would increase the information needed to broaden and refine strategies and interventions. Priorities for future research include:

- a) Identifying factors affecting infant's appetite;
- b) Incidence of food allergies in infants 6 – 12 months;
- c) Assessing the effect of variations in energy density, feeding frequency; food quantity and food variety on total energy intake;
- d) Assessing the value of fortified complementary foods;

e) Determining the impact of responsive feeding on infant malnutrition.

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APPENDICES



Appendix 6.1: Screening tool for focus group discussion

S12/03/083

Participant Number					H	H	Date of interview	D	D	M	M	Y	Y	Y	Y
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Interviewer:	Interviewer Code
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SCREENING TOOL

Ask if the household have any of the following:

(Circle the answer)

1. Children between 6 and 12 months of age? Yes / No
2. Does the child sleep at this house for 4 nights or more? Yes / No
3. Mother or primary caregiver of the child? Yes / No
4. Does the mother / primary caregiver sleep at this house for 4 nights or more? Yes / No
5. Father of the child? Yes / No
6. Does the father sleep at this house for 4 nights or more? Yes / No
7. Grandmother of the child? Yes / No
8. Does the grandmother sleep at this house for 4 nights or more? Yes / No

- If you circled ‘no’ to **nr 1 and 2**, thank the person, explain that the household cannot be included in the study and move on to the next house in the street.
- If you circled ‘yes’ to **both** questions **3 and 4**, write the name of the mother / primary caregiver in the household composition table. (If ‘yes’ to nr 3 and ‘no’ to nr 4 move on to question 5 without writing in the household composition table)
- If you circled ‘yes’ to **both** questions **5 and 6**, write the name of the father in the household composition table.

- If you circled 'yes' to **both** questions **7 and 8**, write the name of the grandmother in the household composition table.

Household composition data

Number:	Name of person:	Age (yrs)	Mother / primary caregiver	Father	Grandmother
1					
2					
3					
4					
5					
6					

- Complete the table according to the above mentioned questions, and tick if the name written in the table is the mother / primary caregiver, the father or the grandmother of the child.
- Select one of the individuals written in the table by using the random numbers table provided in your bag. Circle the number of the selected person.
- Do not ask the following questions aloud, but use your own judgement – for the person you selected:

Is the person mentally incapacitated?

Yes / No

Do you suspect the person is under the influence of alcohol or other substances?

Yes / No

(If you circled yes to one of the above questions, thank the person, explain that the household cannot be included in the study and move on the next house in the street.)

(If you circled no to these questions, proceed to the next step.)

- Ask if the person you selected if he / she is available to complete the consent & questionnaire.
- Proceed with the consent form and socio-demographic questionnaire.
- If the person is not available or cannot do the interview at that specific time (for any reason), make an appointment for the interview.

Day available for interview: _____ Time: _____

Appendix 6.2: Socio-demographic questionnaire (English).

S12/03/083

Participant Number					H	H	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 <i>(Population group as perceived by the person him-/herself)</i>							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? <i>(Circle/mark one block only)</i>			None	Primary School	Std 6-8 Grade 8-10	Std 9-10 Grade 11-12	Tertiary education (1 year certificate)				

<p>5. What is your employment status?</p> <p>(Circle/mark one block only)</p>	Un-employed (looking for work)		Home-maker by choice (not looking for work)		Self-employed		Wage-earner		Self-employed professional		Other (Specify)										
<p>6. Who decides how much money is spent on food for this household?</p>	Child's Father		Mother		Grandma		Grandpa		Aunt		Uncle		Brother		Sister		Friend		Other		
<p>7. Who is mainly responsible to buy food for the household?</p>	Child's Father		Mother		Grandma		Grandpa		Aunt		Uncle		Brother		Sister		Friend		Other		
<p>8. Who is mainly responsible for food preparation in the house?</p>	Child's Father		Mother		Grandma		Grandpa		Aunt		Uncle		Brother		Sister		Friend		Other		
<p>9. Who is mainly responsible for feeding / serving the children?</p>	Child's Father		Mother		Grandma		Grandpa		Aunt		Uncle		Brother		Sister		Friend		Other		
<p>Household data</p>																					
<p>10. Where do the household get drinking water most of the time</p> <p>(Circle/mark one block only)</p>					Own tap				Communal tap			River / dam			Borehole / well		Other (Specify)				
<p>11. What fuel is used for cooking most of the time?</p> <p>(Circle/mark as many blocks as necessary)</p>					Electricity				Gas			Paraffin			Wood		Coal		Other (Specify)		

12. Does this home have a working:								
12.1 Refrigerator						Yes	No	
12.2 Freezer						Yes	No	
12.3 Stove (oven & hob)		Yes	No	If yes, circle all relevant options Gas Coal Electricity				
12.4 Primus or Paraffin stove						Yes	No	
12.5 Microwave						Yes	No	
12.6 Hot Plate						Yes	No	
13. Do members of this household receive any grants? <i>(You may circle/mark more than one block)</i>		None	Child support	Social relief	Disability	Old age pension	Other (Specify)	
14. What is the total household income per month (including wages, rent, grants, sales of vegetables etc) <i>(Circle/mark one block only)</i>		None	R1 - R500	R501 - R1000	R1001 - R3000	R3001 - R5000	Over R5000	Don't know

<p>15. How much money is spent on food weekly or monthly? (including food eaten away from home)</p> <p>(Circle weekly or monthly)</p> <p>(Circle/mark only one block)</p>	R0-R50	51-R100	R101-R150	R151-R200	R201-R250	R251-R300	R301-R350	R351-R400	Over R400	Don't know
<p>16. Do members of this household regularly receive food from a feeding scheme?</p>									Yes	No

Appendix 6.3: Socio-demographic questionnaire (Afrikaans)

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Deelnemer- nommer:					H	H	Geboor- tedatum	D	D	M	M	J	J	J	J

Onderhoudvoerder:	Datum van on- derhoud	D	D	M	M	J	J	J	J

SOSIODEMOGRAFIESE VRAELYS

1. Hoe sou jy sê, tot watter bevolkingsgroep behoort jy? <i>(Bevolkingsgroep vanuit die persoon se eie beskouing)</i>							Swart	Bruin	Indiër	Wit	Ander (beskryf)
2. Wat is jou moedertaal?				Afrikaans	Engels	Xhosa	Zoeloe	Ander			
3. Wat is jou huwelikstatus?		Ongetroud	Getroud	Geskei	Vervreemd	Wewenaar of weduwee	Saamwoon- verhouding	Tradisionele huwelik	Ander (beskryf)		
4. Wat is die hoogste vlak van formele onderrig wat jy bereik het? <i>(Merk slegs een antwoord af.)</i>			Geen	Laer- skool	St 6–8 (Graad 8–10)	St 9–10 (Graad 11–12)	Naskoolse onderrig (sertifikaatkursus van 1 jr)				

<p>5. Wat is jou werkstatus?</p> <p><i>(Merk slegs een antwoord af.)</i></p>	Werkloos (op soek na werk)		Tuiesteskep-per uit eie keuse (nie op soek na werk nie)	Staam in eie diens	Loontrekker	Staam in eie diens as professionele persoon	Ander (beskryf)			
<p>6. Wie besluit hoeveel geld word aan kos vir hierdie huishouding bestee?</p> <p style="text-align: right;">Kind se</p>	Pa	Ma	Ouma	Oupa	Tante	Oom	Broer	Suster	Vriend	Iemand anders
<p>7. Wie is hoofsaaklik daarvoor verantwoordelik om kos vir die huishouding te koop?</p> <p style="text-align: right;">Kind se</p>	Pa	Ma	Ouma	Oupa	Tante	Oom	Broer	Suster	Vriend	Iemand anders
<p>8. Wie is hoofsaaklik daarvoor verantwoordelik om die kos in die huis voor te berei?</p> <p style="text-align: right;">Kind se</p>	Pa	Ma	Ouma	Oupa	Tante	Oom	Broer	Suster	Vriend	Iemand anders
<p>9. Wie is hoofsaaklik daarvoor verantwoordelik om die kinders te voer of kos te gee?</p> <p style="text-align: right;">Kind se</p>	Pa	Ma	Ouma	Oupa	Tante	Oom	Broer	Suster	Vriend	Iemand anders
<p>Inligting oor die huishouding</p>										
<p>10. Waar kry die huishouding meestal drinkwater vandaan?</p> <p><i>(Merk slegs een antwoord af.)</i></p>	Eie kraan		Gemeenskaplike kraan	Rivier of dam	Boorgat of put		'n Ander bron (beskryf)			
<p>11. Watter soort brandstof gebruik julle gewoonlik om kos gaar te maak?</p> <p><i>(Merk soveel antwoorde af as wat nodig)</i></p>	Elektrisiteit		Gas	Paraffien	Hout	Steenkool		Ander (beskryf)		

<i>is.)</i>							
12. Is daar in hierdie huishouding 'n werkende:							
12.1 Yskas						Ja	Nee
12.2 Vrieskas						Ja	Nee
12.3 Stoof (oond en kookvlak)				Ja	Nee	Indien wel, omkring alle opsies wat van toepassing is: Gas Steenkool Elektrisiteit	
12.4 Primus of paraffienstoof						Ja	Nee
12.5 Mikrogolfoond						Ja	Nee
12.6 Warmplaat						Ja	Nee
13. Ontvang lede van hierdie huishouding enige toelaes?		Geen- een	Kinder- toelae	Maat- skaplike bystand	Onge- skikt- heids- toelae	Ouder- doms- pensioen	Ander (beskryf)
<i>(Meer as een blokkie kan afgemerkt word.)</i>							

<p>14. Wat is die huishouding se totale inkomste per maand (lone, huurinkomste, toelaes, groenteverkope, ens. – alles ingesluit)?</p> <p>(Merk slegs een antwoord af.)</p>	Nijs	R1 – R500	R501 – R1 000	R1 001 – R3 000	R3 001 – R5 000	Meer as R5 000	Weet nie			
<p>15. Hoeveel geld bestee julle per week of per maand aan kos? (Tel kos by wat julle op ander plekke as tuis eet.)</p> <p>(Omkring “per week” of “per maand”.)</p> <p>(Merk slegs een antwoord af.)</p>	R0 – R50	R51 – R100	R101 – R150	R151 – R200	R201 – R250	R251 – R300	R301 – R350	R351 – R400	Meer as R400	Weet nie
<p>16. Ontvang lede van hierdie huishouding gereeld kos van 'n voedingskema?</p>									Ja	Nee

Appendix 6.4: Socio-demographic questionnaire (isiXhosa)

Inombolo yoMthethi-nxaxheba					H	H	Umhla wokuzalwa	D	D	M	M	Y	Y	Y	Y
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Umbuzi-mibuzo:	Umhla wodliwano-ndlebe	D	D	M	M	Y	Y	Y	Y
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UXWEBHU LWEMIBUZO ENGABANTU EKUHLALENI

1. Ungazichaza njani wena buqu ngokubhekiselele kuhlangu lwakho <i>(Uhlangu lwakho njengoko ulucingela wena buqu)</i>							NdingumAfrika	NdingoweBala	NdingumIndiya	NdingoMhlophe	Olunye (Cacisa)
2. Loluphi ulwimi lwakho lweenkobe?				yiAfrikansi	sisiNgesi	sisiXhosa	sisiZulu	Lolunye			
3. Sithini isimo sakho somtshato?		Anditshatanga	Nditshatile	Ndiwuqhawule umtshato	Ndoahlukene	Ndingumhlolo(kazi)	Siyahlalisana	Nditshate isintu	Sesinye (Cacisa)		
4. Ngowuphi owona mgangatho uphezulu wemfundo yakho? <i>(Rhangqela/phawula ibhloko ibenye kuphela)</i>		Akukho namnye		Ngamabanga aphantsi		Ngu-Std 6-8 uGreyidi 8-10		Ngu-Std 9-10 uGreyidi 11-12		Imfundo ePhakamileyo (Isatifiketi sonyaka om-1)	

<p>5. Sithini isimo sakho somsebenzi? <i>(Rhangqela/phawula ibhloko ibenye kuphela)</i></p>	<p>Andisebenzi (ndikhangela umsebenzi)</p>	<p>Ndazikhethela ukwenza ikhaya (andikhangeli msebenzi)</p>	<p>Ndiziqashile</p>	<p>Ndamkela umvuzo</p>	<p>Ndiyincutshe eziqashileyo</p>	<p>Esinye (Cacisa)</p>				
<p>6. Ngubani othatha isigqibo ngokuba kuchithwa malini kweli khaya? Lomntwa</p>	<p>Utata</p>	<p>Umama</p>	<p>Umakhulu</p>	<p>Utat'omkhulu</p>	<p>Umakazi</p>	<p>Umalume</p>	<p>Umnakwe</p>	<p>Udade</p>	<p>Umhlobo</p>	<p>Omnye</p>
<p>7. Ngubani oyena unoxanduva lokuthenga ukutya kweli khaya? Lomntwa</p>	<p>Utata</p>	<p>Umama</p>	<p>Umakhulu</p>	<p>Utat'omkhulu</p>	<p>Umakazi</p>	<p>Umalume</p>	<p>Umnakwe</p>	<p>Udade</p>	<p>Umhlobo</p>	<p>Omnye</p>
<p>8. Ngubani oyena unoxanduva lokupheka ukutya kweli khaya? Lomntwan</p>	<p>Utata</p>	<p>Umama</p>	<p>Umakhulu</p>	<p>Utat'omkhulu</p>	<p>Umakazi</p>	<p>Umalume</p>	<p>Umnakwe</p>	<p>Udade</p>	<p>Umhlobo</p>	<p>Omnye</p>
<p>9. Ngubani oyena unoxanduva lokondla / lokuphakela abantwana? Lomntwan</p>	<p>Utata</p>	<p>Umama</p>	<p>Umakhulu</p>	<p>Utat'omkhulu</p>	<p>Umakazi</p>	<p>Umalume</p>	<p>Umnakwe</p>	<p>Udade</p>	<p>Umhlobo</p>	<p>Omnye</p>
<p>lingcombolo zekhaya</p>										
<p>10. Ixesha elininzi liwafumana phi amanzi okusela eli khaya <i>(Rhangqela/phawula ibhloko ibenye kuphela)</i></p>	<p>Kwitepu yalo</p>			<p>Kwitepu kawonke-wonke</p>		<p>Emlanjeni/ edameni</p>		<p>Equleni/ephikweni</p>		<p>Kwenye indawo (Cacisa)</p>
<p>11. Sesiphi isibasi esisetyenziswayo amaxesha amaninzi? <i>(Rhangqela iibhloko ezininzi kangangoko kufanelekile)</i></p>	<p>Ngumbane</p>		<p>Yirhasi</p>		<p>Yiparafini</p>		<p>Ziinkuni</p>		<p>Ngamalahle</p>	<p>Sesinye (Cacisa)</p>

12. Ingaba eli khaya linayo esebenzayo?										
12.1 Ifriji						Ewe	Hayi			
12.2 Ifriza						Ewe	Hayi			
12.3. Isitovu (ioveni & ihobhu)				Ewe	Hayi	Ukuba ewe, rhangqela zonke ezinokukhethwa Irhasi Amalahle Umbane				
12.4. Ipriyam okanye isitovu seParafini						Ewe	Hayi			
12.5. I-Microwave						Ewe	Hayi			
12.6. I-Hot Plate						Ewe	Hayi			
13. Ingaba amalungu eli khaya anayo nayiphi na indodla ayifumanayo? (Ungarhangqela/uphawule iibhloko ezingaphezulu kwenye)				Akukho nalinye	Yinkxaso yoMntwana	Yindodla yasekuhlaleni	Yeyokhubazeko	Ngumhlala-phantsi wobudala	Enye (Cacisa)	
14. Yimalini iyonke ingeniso yeli khaya ngenyanga (kuquka imali yomvuzo, yerenti, yeendodla, neyemifuno ethengisiweyo njalo njalo) (Rhangqela/phawula ibhloko ibenye kuphela)				Akukho nanye	R1 - R500	R501 - R1000	R1001 - R3000	R3001 - R5000	Ngaphaya kwama-R5000	Andiyazi

<p>15. Yimalini echithwayo ekutyeni ngeveki okanye ngenyanga? (kuquka neyokutya okuthengwe kwatyelwa kude nekhaya)</p> <p>(Rhangqela ngevenki okanye ngenyanga)</p> <p>(Rhangqela/phawula ibhloko ibenye kuphela)</p>	R0-50	51-R100	R101-R150	R151-R200	R201-R250	R251-R300	R301-R350	R351-R400	Ngaphaya kwama-R400	Andiyazi
<p>16. Ingaba amalungu eli khaya afumana ukutya rhoqo kwisiskimu sokondla?</p>									Ewe	Hayi

Appendix 6.5: Focus group guide 1: Mothers / Primary caregivers of infants aged 6 – 12 months (English)

FOCUS GROUP GUIDE 1:

Mothers / Primary caregivers of infants aged 6 – 12 months

Moderator's Guide to the Focus groups

Opening

- 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.
- Thank you for agreeing to be part of a focus group discussion on feeding children between the ages of 6 – 12 months.
- The purpose of this discussion is to help us understand why you make certain choices when it comes to feeding your child.
- We are conducting this group discussion as 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 all invited to respond to a series of questions which I will ask.
- 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 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 recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one and a half hours and there-after we will have some refreshments.

- Please remember that your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all the information you provide today is valuable.
- Before we begin, let's go around the room and introduce ourselves. But 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 food is?

Questions

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

1. What do you think is the best milk for your child between 6 – 8 months?
2. What do you think is the best solid foods for your child between 6 – 8 months?
3. What do you think is the best milk for your child between 9 – 12 months?
4. What do you think is the best solid foods for your child between 9 – 12 months?
5. Why do you think these are best? (referring to the solid foods and milk discussed above)
6. How old do you think a child should be when he / she starts to receive foods and liquids other than breastmilk or formula milk?
7. Do you think it is important that a child receives foods and other liquids together with breastmilk or formula milk at this stage?
8. Why do you think that?
9. Tell us a bit more about your experience in starting to include solid foods and other liquids?
10. Tell us what type of solid foods you started with and why?
11. Tell us how much solid foods started with and why?
12. Tell us what type of other liquids you started with and why?
13. Tell us how much other liquids you started with and why?

14. Is there anything that makes / made the feeding of your child between 6 – 12 months difficult to you?
15. Why do you think that?
16. How important do you think is support from family, friends or other people in the community with the feeding of your child?
17. Why is that?
18. Who helps or supports you with feeding your child if you have any questions or problems?
19. Why?
20. Where do you receive information and advice on what milk you should feed your child with?
21. Where do you receive information and advice on what solid foods you should feed your child with?
22. Why is that?
23. Is there anything else that you would like to share with the group?

Closing

- Thank you for joining the focus group discussion. Your responses are very valuable and will definitely help us with future health promotion activities and community support.
- Enjoy the rest of your day.

Observer's Guide to the Focus Groups

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. facial expressions, nodding in agreement, shaking head.

Appendix 6.6: Focus group guide 1: Mothers / Primary caregivers of infants aged 6 – 12 months (Afrikaans)

FOKUSGROEPGIDS 1:

Moeders / Primêre versorgers van babas van 6 – 12 maande oud

Moderator se Gids vir die Fokusgroepe

Opening

- Goeiemiddag dames en welkom by hierdie fokusgroepbespreking. Ek is *__fasiliteerder se naam en van__* en ek sal vandag die fokusgroep fasiliteer.
- Dankie vir julle instemming om deel van 'n fokusgroepbespreking oor die voeding van kinders tussen 6 – 12 maande oud te wees.
- Die doel van hierdie bespreking is om ons te help om te verstaan hoekom u sekere keuses maak wanneer dit oor die voeding van u kind gaan.
- Ons onderneem hierdie groepsbespreking as deel van 'n groter poging om u gemeenskap te verstaan en te ondersteun ten opsigte van voedselsekuriteit en gesondheid.
- Vir diegene van u wat nog nooit vantevore deelgeneem het aan 'n fokusgroep nie, wees asseblief verseker dat hierdie 'n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- U word almal uitgenooi om te antwoord op 'n reeks vrae wat ek sal vra.
- Daar is geen korrekte of verkeerde antwoorde nie.
- Voel asseblief vry om deel te neem.
- Ek versoek vriendelik dat die res van die groep luister wanneer 'n persoon praat.
- Respekteer asseblief mekaar se opmerkings deur dit nie te kritiseer nie.

- Indien die bespreking te ver van die onderwerp afdwaal, sal ek onderbreek en aangaan met die volgende vraag.
- Wees asseblief verseker dat al u antwoorde vertroulik is en slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem die bespreking op om 'n opsommingsverslag saam te stel en geen verwysing na name sal gemaak word nie.
- Ons sal binne 'n uur en 'n half klaarmaak en daarna sal ons verversings geniet.
- Onthou asseblief dat u antwoorde en besprekings ons baie sal help om 'n gemeenskapsgebaseerde aksieplan te ontwikkel - al die inligting wat u vandag verskaf, is waardevol.
- Kom ons begin van my linkerkant af en stel onself voor. Maar in plaas daarvan om net vir ons te sê wat u naam is, waarom sê u nie vir almal wat u naam is, hoe lank u in hierdie area woon en wat u gunsteling kos is nie?

Vrae

Herformuleer enige vraag wat nie verstaan word nie of wat nie bespreking uitlok nie.

1. Wat dink u is die beste melk vir u kind tussen 6 – 8 maande?
2. Wat dink u is die beste vaste kos vir u kind tussen 6 – 8 maande?
3. Wat dink u is die beste melk vir u kind tussen 9 – 12 maande?
4. Wat dink u is die beste vaste kos vir u kind tussen 9 – 12 maande?
5. Waarom dink u is hierdie keuses die beste? (met verwysing na die vaste kos en melk wat hierbo bespreek is)
6. Hoe oud dink u behoort 'n kind te wees wanneer hy / sy nie net bors- en formulemelk ontvang nie, maar ook ander kos en vloeistof?
7. Dink u dit is belangrik dat 'n kind kos en ander vloeistowwe saam met bors- of formulemelk in hierdie stadium ontvang?

8. Hoekom dink u so?
9. Vertel ons 'n bietjie meer van u ervaring toe u begin het met die insluiting van vaste kos en ander vloeistowwe?
10. Vertel ons met watter soort vaste kos u begin het en hoekom?
11. Vertel ons met hoeveel vaste kos u begin het en hoekom?
12. Vertel ons met watter ander soorte vloeistowwe u begin het en hoekom?
13. Vertel ons met hoeveel ander vloeistowwe u begin het en hoekom?
14. Is daar enigiets wat die voeding van u kind tussen 6 – 12 maande moeilik maak / gemaak het?
15. Hoekom dink u so?
16. Hoe belangrik dink u is ondersteuning van familie, vriende of ander mense in die gemeenskap vir die voeding van u kind?
17. Hoekom is dit so?
18. Wie help of ondersteun u met die voeding van u kind indien u enige vrae of probleme het?
19. Hoekom?
20. Waar kry u inligting en raad oor met watter melk u u kind behoort te voed?
21. Waar kry u inligting en raad oor watter vaste kos u u kind behoort te voed?
22. Hoekom is dit so?
23. Is daar enigiets anders wat u sou wou deel met die groep?

Afsluiting

- Dankie dat u by die fokusgroepbespreking was. U antwoorde is baie waardevol en sal ons beslis help met toekomstige gesondheidsbevorderingaktiwiteite en ondersteuning aan die gemeenskap.

- Geniet die res van u dag.

Waarnemer se gids vir die Fokusgroepe

Die volgende behoort per vraag aangeteken te word:

- Dinamiek van die groep bv. opgewondenheid teenoor 'n gebrek aan belangstelling.
- Is sommige mense meer uitgesproke en sommige meer onwillig?
- Domineer sommige mense die gesprek terwyl ander stiller is?
- Stem die groep saam of is daar verskillende menings?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, kopknik om eenstemmigheid aan te dui, kopskud.

Appendix 6.7: Focus group guide 1: Mothers / primary caregivers of infants ages 6 – 12 months (isiXhosa)

ISIKHOKHELO SOKUQALA SEQELA ELIZIMISELEYO

Oomama / limpelesi zentsana ezinenyanga ezintandathu ukuya kweyeshumi elinambini

Isikhokhelo Sommeli kumaqela azimiseleyo

Ukuvula

- Mandibulise manenekazi ngalemvakwemini, namkelekile kulendibano yamaqela. Ndingu *_umseki, igama nefani_* ndizakuba ndi sekela veliqela lizimiseleyo namhlanje.
- Enkosi ngobukho benu bokuba yinxalenye yalendibano yamaqela azimiseleyo ekondleni abantwana abaphakathi kwinyanga ezintandathu ukuya kwezilishumi elinambini.
- Injongo yalendibano yeyokusinceda ukuze siqonde ukuba kutheni lento sithatha izigqibo ezithile xa kufuneka utyise umntwana wakho.
- Siququzela lengxoxoyamaqela njengenxalenye enkulu yokuzimisela ukuze siqonde, kunye nenxaso yoluntu malunga nokutya okukhuselekileyo nempilo.
- Kwabo bangazange bathathe nxaxheba kwiqela elizimiseleyo ngaphambili, uyaqinisekiswa ukuba olu luphando oluthi lusetyenziswe ekuqokeleleni incazelo.
- Niyamenywa ngokuthi nithathe inxaxheba kuthotho lwemibuzo endizakuthi ndiyibuze.
- Akukho mpendulo zilungileyo nezinga lunganga.
- Thatha inxaxheba ngokukhululekiyo eso sisicelo.

- Xa umntu ethetha , ndiyacela ukuba amanye maqela amamele.
- Masihloniphe izimvo zethu,zingagxekwa, eso sisicelo.
- Ukuba ingxoxo ithe yaphuma ecaleni kulomba, ndizokungenelela, ndigqithele kumbuzo olandelayo.
- Niyaqinisekiswa ukuba izimvo zenu ziyimfihlo zizokusetyenziselwa uphando kuphela.
- Siyayishicilela lengxoxo ukuze sidibanise ingxelo, akukho magama abantu azakusetyenziswa.
- Sizakugqiba kwiyure enecala, emva koko sothi sifumane okusiwa phantsi kwempumlo.
- Khumbula ukuba izimvo nengxoxo zenu zizokuba luncedo olukhulu kuthi kwimizamo yethu yokuphuhlisa uluntu – yonke lencazelo niyinyikayo namhlanje ilulutho.
- Phambi kokuba siqale, masijikeleze igumbi esi sikulo sizazise. Ngaphandle nje kokusixelela igama lakho, kutheni lento ungaxeleli wonke umntu igama lakho, unethuba elingakanani uhlala kulendawo, kokuphi ukutya okuthandayo?

Imibuzo

Phinda noba ngowuphi umbuzo ongaqondakaliyo okanye ongadibaniselanga nengxoxo.

1. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga ezintandathu ukuya kwezisibhozo?
2. Ngaba ucinga ukuba kokuphi ukutya kwecephe kwenene komntwana wakho ophakathi kwenyanaga ezintandathu ukuya kwezisibhozo?
3. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga yethoba ukuya kweyeshumi elinesibini?

4. Ngaba ucinga ukuba kokuphi ukutya kwecephe kwenene komntwana wakho ophakathi kweminyanga ezilithoba ukuya kwezilishumi elinesibini?
5. Kungokuba kutheni ucinga ukuba kukokwenene? (Kubhekiselwa kukutya kwecephe nobisi ekusekuxoxiwe ngako).
6. Ngaba ucinga ukuba umntwana oyinkwenkwe / intombazana kufuneka abeneminyaka emingaphi ukuze aqale ufumane ukutya kwecephe nebhotile ngaphandle kwebisi lwebele okanye ubisi lwetoti kwesisigaba?
7. Ucinga ukuba kubalulekile ukuba umntwana wakho afumane ukutya kwecephe ,ibhotile kunye nobisi lwebele nobisi lwetoti kwesisigaba?
8. Kungokuba kutheni ucinga njalo?
9. Sixelele banzi ngamava akho ngokuqala kwakho ukudibanisa ukutya kwecephe nebhotile?
10. Sixelele ingaba loluphi uhlobo lokutya kwecephe owaqala ngakho nokuba kutheni?
11. Sixelele ukuba kwakungakanani ukutya kwecephe owaqala ngako nokuba kutheni?
12. Sixelele ukuba yeyiphi intlobo yebhotile owaqala ngayo nokuba kutheni?
13. Sixelele ukuba yayingakanani ibhotile owaqala ngayo nokuba kutheni?
14. Ingaba kukhona okwenziwa / okwnza ukuba utyise umntwana wakho ophakathi kweminyanga ezintandathu ukuya kwezilishumi elinambini?
15. Kutheni ucinga njalo nje?
16. Ingaba kubaluleke kangakanani ukufumana inxaso kusapho, kubahlobo okanye kwabanye abantu basekuhlaleni ngokondla umntwana lwakho?
17. Kungokuba kutheni?

18. Ngubani okuncedayo okanye okuxhasayo ngokuthi utyise umntwana wakho, ukuba uthe wanemibuzo kanye ingxaki?

19. Ngoba?

20. Ingaba uyifumana phi incazelo negcebiso zobisi ekufuneka ulityise umntana wakho?

21. Ingaba uyifumana phi incazelo negcebiso zokutya kwecephe ekufuneka utyise umntwana wakho?

22. Kungokuba kutheni?

23. Ingaba ikhona into ofuna ukwabelana ngayo kweliqela?

Ukuvala

- Enkosi ngobukho benu kulengxoxo yeqela.
- Inxaxheba yenu ibalulekile, izakusinceda ngokuqinisekileyo kwikamva lokuphuhlisa imo imeko yezempilo nexhaso yasekuhlaleni.

Umbukeli sikhokhelo kumaqela azimiseleyo

Oku kulandelayo kugcinwe ngokombuzo:

- Intlobo zamaqela, umzekelo, phakathi kokuvuya nokungabonisi umdla
- Ingaba abanye abantu bangabaciko kubekho abangezozithethi?
- Ingaba abanye baba yinxalenye yentetho, kubekho abo bathe cwaka?
- Ingaba amaqela ayavumelana okanye kukhona impikiswano ngezimvo?
- Unxibelelwano olungathethisiyo, umzekelo, ubuso obuthethayo, ukunqwala, nikina intloko.

Appendix 6.8: Focus group guide 2: Fathers of infants ages 6 – 12 months
(English)

FOCUS GROUP GUIDE 2:

Fathers of infants aged 6 – 12 months

Moderator's Guide to the Focus groups

Opening

- 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. Thank you for agreeing to be part of a focus group discussion on feeding children between the ages of 6 – 12 months.
- The purpose of this discussion is to help us understand what you think about feeding a child between the age of 6 – 12 months and your role in the feeding process.
- We are conducting this group discussion as 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 all invited to respond to a series of questions which I will ask.
- 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 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 tape recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one and a half hours and there-after we will have some refreshments.
- Please remember that your responses and discussions will be most helpful to us as we try to develop a community-based action plan - all the information you provide today is valuable.
- Before we begin, let's go around the room and introduce ourselves. But 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 food is?

Questions

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

1. What do you think is the best milk for a child between 6 – 8 months?
2. What do you think is the best solid foods for a child between 6 – 8 months?
3. What do you think is the best milk for a child between 9 – 12 months?
4. What do you think is the best solid foods for a child between 9 – 12 months?
5. Why do you think these are best? (referring to the solid foods and milk discussed above)
6. At what age, do you think, should a child starts to receive foods or liquids other than breastmilk or formula milk?
7. Do you think it is important that a child receives foods and other liquids together with breastmilk or formula milk at this stage?
8. Why do you think this?

9. Do you think it is easy to start feeding with solid foods and other liquids?
10. Why do you think that?
11. Tell us what type of solid foods you would recommend a mother should start with and why?
12. Tell us what type of other liquids you would recommend a mother should start with and why?
13. Tell us how much solid foods you would recommend a mother should start with and why?
14. Tell us how much other liquids you would recommend a mother should start with and why?
15. Do you think there are things that make the feeding of a child between 6 – 12 months difficult?
16. Why do you think that?
17. What is your role in feeding the child between 6 – 12 months?
18. How important do you think is a father's support to the mother of the child?
19. Why do you think so?
20. Where do you receive information on what milk children should be fed with?
21. Where do you receive information on what solid foods children should be fed with?
22. Why is that?
23. Is there anything else that you would like to share with the group?

Closing

- Thank you for joining the focus group discussion. Your responses are very valuable and will definitely help us with future health promotion activities and community support.
- Enjoy the rest of your day.

Observer's Guide to the Focus Groups

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. facial expressions, nodding in agreement, shaking head.

Appendix 6.9: Focus group guide 2: Fathers of infants aged 6 – 12 months
(Afrikaans)

FOKUSGROEPGIDS 2:

Vaders van babas van 6 – 12 maande oud

Moderator se Gids vir die Fokusgroepe

Opening

- Goeiemiddag menere en welkom by hierdie fokusgroepbespreking. Ek is *__fasiliteerder se naam en van__* en sal vandag die fokusgroep fasiliteer.
- Dankie vir julle instemming om deel van 'n fokusgroepbespreking oor die voeding van kinders tussen 6 – 12 maande oud te wees.
- Die doel van hierdie bespreking is om ons te help om te verstaan wat u dink van die voeding van 'n kind tussen 6 – 12 maande oud en u rol in die voedingsproses.
- Ons onderneem hierdie groepsbespreking as deel van 'n groter poging om u gemeenskap te verstaan en te ondersteun ten opsigte van voedselsekuriteit en gesondheid.
- Vir diegene van u wat nog nooit vantevore deelgeneem het aan 'n fokusgroep nie, wees asseblief verseker dat hierdie 'n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- U word almal uitgenooi om te antwoord op 'n reeks vrae wat ek sal vra.
- Daar is geen korrekte of verkeerde antwoorde nie.
- Voel asseblief vry om deel te neem.
- Ek versoek vriendelik dat die res van die groep luister wanneer 'n persoon praat.
- Respekteer asseblief mekaar se opmerkings deur dit nie te kritiseer nie.

- Indien die bespreking te ver van die onderwerp afdwaal, sal ek onderbreek en aangaan met die volgende vraag.
- Wees asseblief verseker dat al u antwoorde vertroulik is en slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem die bespreking op om 'n opsommingsverslag saam te stel en geen verwysing na name sal gemaak word nie.
- Ons sal binne 'n uur en 'n half klaarmaak en daarna sal ons verversings geniet.
- Onthou asseblief dat u antwoorde en besprekings ons baie sal help om 'n gemeenskapsgebaseerde aksieplan te ontwikkel - al die inligting wat u vandag verskaf, is waardevol.
- Kom ons begin van my linkerkant af en stel onself voor. Maar in plaas daarvan om net vir ons te sê wat u naam is, waarom sê u nie vir almal wat u naam is, hoe lank u in hierdie area woon en wat u gunsteling kos is nie?

Vrae

Herformuleer enige vraag wat nie verstaan word nie of wat nie bespreking uitlok nie.

5. Wat dink u is die beste melk vir 'n kind tussen 6 – 8 maande?
6. Wat dink u is die beste vaste kos vir 'n kind tussen 6 – 8 maande?
7. Wat dink u is die beste melk vir 'n kind tussen 9 – 12 maande?
8. Wat dink u is die beste vaste kos vir 'n kind tussen 9 – 12 maande?
9. Waarom dink u is hierdie keuses die beste? (met verwysing na die vaste kos en melk wat hierbo bespreek is)
10. Hoe oud dink u behoort 'n kind te wees wanneer hy / sy nie net bors- en formulemelk ontvang nie, maar ook ander kos en vloeistof?
11. Dink u dit is belangrik dat 'n kind kos en ander vloeistowwe saam met bors- of formulemelk in hierdie stadium ontvang?

12. Hoekom dink u so?
9. Dink u dit is maklik om vaste kos en ander vloeistowwe te begin voed?
10. Hoekom dink u so?
11. Vertel ons wat u aanbeveling is met watter soort vaste kos 'n moeder behoort te begin en hoekom?
12. Vertel ons wat u aanbeveling is met watter ander soorte vloeistowwe 'n moeder behoort te begin en hoekom?
13. Vertel ons wat u aanbeveling is met hoeveel vaste kos 'n moeder behoort te begin en hoekom?
14. Vertel ons wat u aanbeveling is met hoeveel ander vloeistowwe 'n moeder behoort te begin en hoekom?
15. Dink u daar is dinge wat die voeding van 'n kind tussen 6 – 12 maande bemoeilik?
16. Hoekom dink u so?
17. Wat is u rol in die voeding van die kind tussen 6 – 12 maande?
18. Hoe belangrik dink u is 'n vader se ondersteuning aan die moeder van die kind?
19. Hoekom dink u so?
20. Waar kry u inligting oor met watter melk kinders gevoed behoort te word?
21. Waar kry u inligting oor met watter vaste kos kinders gevoed behoort te word?
22. Hoekom dink u so?
23. Is daar enigiets anders wat u sou wou deel met die groep?

Afsluiting

- Dankie dat u by die fokusgroepbespreking was. U antwoorde is baie waardevol en sal ons beslis help met toekomstige gesondheidsbevorderingaktiwiteite en ondersteuning aan die gemeenskap.
- Geniet die res van u dag.

Waarnemer se gids vir die Fokusgroepe

Die volgende behoort per vraag aangeteken te word:

- Dinamiek van die groep bv. opgewondenheid teenoor 'n gebrek aan belangstelling.
- Is sommige mense meer uitgesproke en sommige meer onwillig?
- Domineer sommige mense die gesprek terwyl ander stiller is?
- Stem die groep saam of is daar verskillende menings?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, kopknik om eenstemmigheid aan te dui, kopskud.

Appendix 6.10: Focus group guide 2: Fathers of infants aged 6 – 12 months
(isiXhosa)

ISIKHOKHELO SWQELA ELIZIMISELEYO LESIBINI

Ootata

Isikhokhelo Sommeli kumaqela azimiseleyo

Ukuvula

- Mandibulise kuni manene ngalemvakwemini, namkelekile kulendibano yamaqela. Ndingu *_umseki, igama nefani_* ndizakuba ndi sekela veliqela lizimiseleyo namhlanje.
- Enkosi ngobukho benu bokuba yinxalenye yalendibano yamaqela azimiseleyo ekondleni abantwana abaphakathi kwinyanga ezintandathu ukuya kwezilishumi elinambini.
- Injongo yalendibano yeyokusinceda ukuze siqonde ukuba kutheni lento sithatha izigqibo ezithile xa kufuneka utyise umntwana wakho
- Siququzela lengxoxoyamaqela njengenxalenye enkulu yokuzimisela ukuze siqonde, kunye nenxaso yoluntu malunga nokutya okukhuselekileyo nempilo.
- Kwabo bangazange bathathe nxaxheba kwiqela elizimiseleyo ngaphambili, uyaqinisekiswa ukuba olu luphando oluthi lusetyenziswe ekuqokeleleni incazelo.
- Niyamenywa ngokuthi nithathe inxaxheba kuthotho lwemibuzo endizakuthi ndiyibuze.
- Akukho mpendulo zilungileyo nezinga lunganga.
- Thatha inxaxheba ngokukhululekiyo eso sisicelo
- Xa umntu ethetha, ndiyacela ukuba amanye maqela amamele
- Masihloniphe izimvo zethu, zingagxekwa, eso sisicelo

- Ukuba ingxoxo ithe yaphuma ecaleni kulomba, ndizokungenelela, ndigqithele kumbuzo olandelayo.
- Niyaqinisekiswa ukuba izimvo zenu ziyimfihlo zizokusetyenziselwa uphando kuphela
- Siyayishicilela lengxoxo ukuze sidibanise ingxelo, akukho magama abantu azakusetyenziswa.
- Sizakugqiba kwiyure enecala, emva koko sothi sifumane okusiwa phantsi kwempumlo.
- Khumbula ukuba izimvo nengxoxo zenu zizokuba luncedo olukhulu kuthi kwimizamo yethu yokuphuhlisa uluntu – yonke lencazelo niyinyikayo namhlanje ilulutho.
- Phambi kokuba siqale, masijikeleze igumbi esi sikulo sizazise. Ngaphandle nje kokusixelela igama lakho, kutheni lento ungasixeleli wonke umntu igama lakho, unethuba elingakanani uhlala kulendawo, kokuphi ukutya okuthandayo?

Imibuzo

Phinda noba ngowuphi umbuzo ongaqondakaliyo okanye ongadibaniselanga nengxoxo.

1. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga ezintandathu ukuya kwezisibhozo?
2. Ngaba ucinga ukuba kokuphi ukutya kwecephe kwenene komntwana wakho ophakathi kwenyanaga ezintandathu ukuya kwezisibhozo?
3. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga yethoba ukuya kweyeshumi elinesibini?
4. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga ezintandathu ukuya kwezisibhozo?

5. Ngaba ucinga ukuba kokuphi ukutya kwecephe kwenene komntwana wakho ophakathi kwenyanaga ezintandathu ukuya kwezisibhozo?
6. Ucinga ukuba xa eneminyaka emingaphi umntwana ukuze aqale ukutya kwecephe nebhotile ngaphandle kwebisi lebele okanye ubisi olusetotini.
7. Ingaba kubalulekile ukuba untwana afumane ukutya kwecephe nokwebotile kunye nobisi lwebele okanye ubisi olusetotini kwesisigaba ?
8. Kutheni ucinga njalo nje?
9. Ucinga ukuba kulula ukuqalisa umntwana ukutya kwecephe nokusebhotileni ?
10. Kungokuba kutheni ucinga njalo?
11. Ingaba kokuphi ukutya kwecephe onokucebisa umama aqale ngako ngoba ?
12. Sixelele ingaba kokuphi ukutya kwebhotile onokucebisa umama aqale ngako ngoba?
13. Sixelele kungangakanani ukutya kwecephe umama anokuqala ngako ngoba?
14. Sixelele kungangakanani okwebhotile umama anokuqala ngako ngoba?
15. Ingaba zikhona izinto ezinokuthi zibangele ubunzima xa utyisa umntwana ophakathi kwenyanaga ezintandathu ukuya kwishumi elinambini?
16. Kutheni ucinga njalo?
17. Yintoni indima yakho enkondleni umntwana ophakathi kwinyang ezintandathu ukuya kwezilishumi elinambini?
18. Ibaluleke kangakanani inxaso katata kumama womntwana?
19. Kutheni ucinga njalo?
20. Uyifumana phi incazelo yobisi lwabantwana abathi batyiswe lona?
21. Uyifumana phi incazelo yokutya kwecephe kwabantwana abatyiswa kona ?
22. Kungokuba?

23. Ingaba ikhona into ofuna ukwabelana ngayo neqela?

Ukuvala

- Enkosi ngobukho benu kulengxoxo yeqela.
- Inxaxheba yenu ibalulekile, izakusinceda ngokuqinisekileyo kwikamva lokuphuhlisa imo imeko yezempilo nexhaso yasekuhlaleni.

Umbukeli sikhokhelo kumaqela azimiseleyo

Oku kulandelayo kugcinwe ngokombuzo:

- Intlobo zamaqela, umzekelo, phakathi kokuvuya nokungabonisi umdla
- Ingaba abanye abantu bangabaciko kubekho abangezozithethi?
- Ingaba abanye baba yinxalenye yentetho, kubekho abo bathe cwaka?
- Ingaba amaqela ayavumelana okanye kukhona impikiswano ngezimvo?
- Unxibelelwano olungathethisiyo, umzekelo, ubuso obuthethayo, ukunqwala, nikina intloko.

Appendix 6.11: Focus group guide 3: Grandmothers of infants aged 6 – 12 months
(English)

FOCUS GROUP GUIDE 3:

Grandmothers of infants aged 6 – 12 months

Moderator's Guide to the Focus groups

Opening

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. Thank you for agreeing to be part of a focus group discussion on feeding children between the ages of 6 – 12 months.

- The purpose of this discussion is to help us understand what you think about feeding a child between the age of 6 – 12 months and your role in the feeding process.
- We are conducting this group discussion as 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 all invited to respond to a series of questions which I will ask.
- 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 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 tape recording the discussion to compile a summary report and no references to names will be made.
- We will finish within one and a half hours and there-after we will have some refreshments.
- Please remember that 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.
- Before we begin, let's go around the room and introduce ourselves. But 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 food is?

Questions

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

- 1 . What do you think is the best milk for a child between 6 – 8 months?
2. What do you think is the best solid foods for a child between 6 – 8 months?
3. What do you think is the best milk for a child between 9 – 12 months?
4. What do you think is the best solid foods for a child between 9 – 12 months?
5. Why do you think these foods are best?
6. At what age, do you think, should a child starts to receive foods and liquids other than breastmilk or breastmilk substitutes?
7. Do you think it is important that a child receives foods and other liquids together with breastmilk or breastmilk substitutes at this stage?
8. Why do you think this?
9. Do you think it is easy to start feeding with solid foods and other liquids?

10. Why do you think that?
11. Tell us what type of solid foods you would recommend a mother should start with and why?
13. Tell us how much solid foods you would recommend a mother should start with and why?
14. Tell us what type of other liquids you would recommend a mother should start with and why?
15. Tell us how much other liquids you would recommend a mother should start with and why?
16. Do you think there are things that make the feeding of a child between 6 – 12 months difficult?
17. Why do you think that?
18. What is your role in feeding the child between 6 – 12 months?
19. How important do you think is your support to mothers?
20. Why do you think so?
21. Where do you receive information on how children should be fed?
22. Why is that?
23. Is there anything else that you would like to share with the group?

Closing

- Thank you for joining the focus group discussion. Your responses are very valuable and will definitely help us with future health promotion activities and community support.
- Enjoy the rest of your day.

Observer's Guide to the Focus Groups

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. facial expressions, nodding in agreement, shaking head.

Appendix 6.12: Focus group guide 3: Grandmothers of infants aged 6 – 12 months
(Afrikaans)

FOKUSGROEPGIDS 3:

Oumas van babas van 6 – 12 maande oud

Moderator se Gids vir die Fokusgroepe

Opening

- Goeiemiddag dames en welkom by hierdie fokusgroepbespreking. Ek is ___*fasiliteerder se naam en van*___ en sal vandag die fokusgroep fasiliteer.
- Dankie vir julle instemming om deel van 'n fokusgroepbespreking oor die voeding van babas tussen 6 – 12 maande te wees.
- Die doel van hierdie bespreking is om ons te help om te verstaan wat u dink van die voeding van 'n kind tussen 6 – 12 maande oud en u rol in die voedingsproses.
- Ons onderneem hierdie groepsbespreking as deel van 'n groter poging om u gemeenskap te verstaan en te ondersteun ten opsigte van voedselsekuriteit en gesondheid.
- Vir diegene van u wat nog nooit vantevore deelgeneem het aan 'n fokusgroep nie, wees asseblief verseker dat hierdie 'n navorsingstegniek is wat algemeen gebruik word om inligting te versamel.
- U word almal uitgenooi om te antwoord op 'n reeks vrae wat ek sal vra.
- Daar is geen korrekte of verkeerde antwoorde nie.
- Voel asseblief vry om deel te neem.
- Ek versoek vriendelik dat die res van die groep luister wanneer 'n persoon praat.
- Respekteer asseblief mekaar se opmerkings deur dit nie te kritiseer nie.

- Indien die bespreking te ver van die onderwerp afdwaal, sal ek onderbreek en aangaan met die volgende vraag.
- Wees asseblief verseker dat al u antwoorde vertroulik is en slegs vir navorsingsdoeleindes gebruik sal word.
- Ons neem die bespreking op om 'n opsommingsverslag saam te stel en geen verwysing na name sal gemaak word nie.
- Ons neem die bespreking op om 'n opsommingsverslag saam te stel en geen verwysing na name sal gemaak word nie.
- Ons sal binne 'n uur en 'n half klaarmaak en daarna sal ons verversings geniet.
- Onthou asseblief dat u antwoorde en besprekings ons baie sal help om 'n gemeenskapsgebaseerde aksieplan te ontwikkel - alle inligting wat u vandag voorsien, is waardevol.
- Kom ons begin van my linkerkant af stel onself voor. Maar in plaas daarvan om net vir ons te sê wat u naam is, waarom sê u nie vir almal wat u naam is, hoe lank u in hierdie area woon en wat u gunsteling kos is nie?

Vrae

Herformuleer enige vraag wat nie verstaan word nie of wat nie bespreking uitlok nie.

1. Wat dink u is die beste melk vir 'n kind tussen 6 – 8 maande?
2. Wat dink u is die beste vaste kos vir 'n kind tussen 6 – 8 maande?
3. Wat dink u is die beste melk vir 'n kind tussen 9 – 12 maande?
4. Wat dink u is die beste vaste kos vir 'n kind tussen 9 – 12 maande?
5. Hoekom dink u hierdie voedings is die beste?
6. Hoe oud dink u behoort 'n kind te wees wanneer hy / sy nie net bors- en borsmelkvervangings ontvang nie, maar ook ander kos en vloeistof?

7. Dink u dit is belangrik dat 'n kind kos en ander vloeistowwe saam met borsmelk of borsmelkvervangings in hierdie stadium ontvang?

8. Hoekom dink u so?

9. Dink u dit is maklik om vaste kos en ander vloeistowwe te begin voed?

10. Hoekom dink u so?

11. Vertel ons wat u aanbeveling is met watter soort vaste kos 'n moeder behoort te begin en hoekom?

Vertel ons wat u aanbeveling is met hoeveel vaste kos 'n moeder behoort te begin en hoekom?

12. Vertel ons wat u aanbeveling is met watter ander soorte vloeistowwe 'n moeder behoort te begin en hoekom?

12. Vertel ons wat u aanbeveling is met hoeveel ander vloeistowwe 'n moeder behoort te begin en hoekom?

15. Dink u daar is dinge wat die voeding van 'n kind tussen 6 – 12 maande bemoeilik?

16. Hoekom dink u so?

17. Wat is u rol in die voeding van die kind tussen 6 – 12 maande?

18. Hoe belangrik dink u is u ondersteuning van die moeder?

19. Hoekom dink u so?

20. Waar kry u inligting oor hoe kinders gevoed behoort te word?

21. Waar kry u inligting oor met watter vaste kos kinders gevoed behoort te word?

22. Hoekom dink u so?

23. Is daar enigiets anders wat u sou wou deel met die groep?

Afsluiting

- Dankie dat u by die fokusgroepbespreking was. U antwoorde is baie waardevol en sal ons beslis help met toekomstige gesondheidsbevorderingaktiwiteite en ondersteuning aan die gemeenskap.
- Geniet die res van u dag.

Waarnemer se gids vir die Fokusgroepe

Die volgende behoort per vraag aangeteken te word:

- Dinamiek van die groep bv. opgewondenheid teenoor 'n gebrek aan belangstelling.
- Is sommige mense meer uitgesproke en sommige meer onwillig?
- Domineer sommige mense die gesprek terwyl ander stiller is?
- Stem die groep saam of is daar verskillende menings?
- Nie-verbale kommunikasie bv. gesigsuitdrukkings, kopknik om eenstemmigheid aan te dui, kopskud.

Appendix 6.13: Focus group guide 3: Grandmothers of infants aged 6 – 12 months
(isiXhosa)

ISIKHOKHELO SEQELA ELIZIMISELEYO LESITHATHU

Oomakhulu

Isikhokhelo Sommeli kumaqela azimiseleyo

Ukuvula

- Mandibulise kuni manene ngalemvakwemini, namkelekile kulendibano yamaqela. Ndingu *_umseki, igama nefani_* ndizakuba ndi sekela veliqela lizimiseleyo namhlanje.
- Enkosi ngobukho benu bokuba yinxalenye yalendibano yamaqela azimiseleyo ekondleni abantwana abaphakathi kwinyanga ezintandathu ukuya kwezilishumi elinambini.
- Injongo yalendibano yeyokusinceda ukuze siqonde ukuba kutheni lento sithatha izigqibo ezithile xa kufuneka utyise umntwana wakho.
- Siququzela lengxoxoyamaqela njengenxalenye enkulu yokuzimisela ukuze siqonde, kunye nenxaso yoluntu malunga nokutya okukhuselekileyo nempilo.
- Kwabo bangazange bathathe nxaxheba kwiqela elizimiseleyo ngaphambili, uyaqinisekiswa ukuba olu luphando oluthi lusetyenziswe ekuqokeleleni incazelo.
- Niyamenywa ngokuthi nithathe inxaxheba kuthotho lwemibuzo endizakuthi ndiyibuze.
- Akukho mpendulo zilungileyo nezinga lunganga.
- Thatha inxaxheba ngokukhululekiyo eso sisicelo.
- Xa umntu ethetha, ndiyacela ukuba amanye maqela amamele.
- Masihloniphe izimvo zethu, zingagxekwa, eso sisicelo.

- Ukuba ingxoxo ithe yaphuma ecaleni kulomba, ndizokungenelela, ndigqithele kumbuzo olandelayo.
- Niyaqinisekiswa ukuba izimvo zenu ziyimfihlo zizokusetyenziselwa uphando kuphela.
- Siyayishicilela lengxoxo ukuze sidibanise ingxelo, akukho magama abantu azakusetyenziswa.
- Sizakugqiba kwiyure enecala, emva koko sothi sifumane okusiwa phantsi kwempumlo.
- Khumbula ukuba izimvo nengxoxo zenu zizokuba luncedo olukhulu kuthi kwimizamo yethu yokuphuhlisa uluntu – yonke lencazelo niyinyikayo namhlanje ilulutho.
- Phambi kokuba siqale, masijikeleze igumbi esi sikulo sizazise. Ngaphandle nje kokusixelela igama lakho, kutheni lento ungapheleli wonke umntu igama lakho, unethuba elingakanani uhlala kulendawo, kokuphi ukutya okuthandayo?

Imibuzo

Phinda noba ngowuphi umbuzo ongaqondakaliyo okanye ongadibaniselanga nengxoxo.

1. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga ezintandathu ukuya kwezisibhozo?
2. Ngaba ucinga ukuba kokuphi ukutya kwecephe kwenene komntwana wakho ophakathi kwenyanaga ezintandathu ukuya kwezisibhozo?
3. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga yethoba ukuya kweyeshumi elinesibini?
4. Ngaba ucinga ukuba ubisi lolwenene kumntwana wakho ophakathi kwenyanga ezintandathu ukuya kwezisibhozo?

5. Ngaba ucinga ukuba kokuphi ukutya kwecephe kwenene komntwana wakho ophakathi kwenyanaga ezintandathu ukuya kwezisibhozo?
6. Ucinga ukuba xa eneminyaka emingaphi umntwana ukuze aqale ukutya kwecephe nebhotile ngaphandle kwebisi lebele okanye ubisi olusetotini?
7. Ingaba kubalulekile ukuba untwana afumane ukutya kwecephe nokwebotile kunye nobisi lwebele okanye ubisi olusetotini kwesisigaba?
8. Kutheni ucinga njalo nje?
9. Ucinga ukuba kulula ukuqalisa umntwana ukutya kwecephe nokusebhotileni?
10. Kungokuba kutheni ucinga njalo?
11. Ingaba kokuphi ukutya kwecephe onokucebisa umama aqale ngako ngoba?
12. Sixelele ingaba kokuphi ukutya kwebhotile onokucebisa umama aqale ngako ngoba?
13. Sixelele kungangakanani ukutya kwecephe umama anokuqala ngako ngoba?
14. Sixelele kungangakanani okwebhotile umama anokuqala ngako ngoba?
15. Ingaba zikhona izinto ezinokuthi zibangele ubunzima xa utyisa umntwana ophakathi kwenyanaga ezintandathu ukuya kwishumi elinambini?
16. Kutheni ucinga njalo?
17. Yintoni indima yakho enkondleni umntwana ophakathi kwinyang ezintandathu ukuya kwezilishumi elinambini?
18. Ibaluleke kangakanani inxaso katata kumama womntwana?
19. Kutheni ucinga njalo?
20. Uyifumana phi incazelo yobisi lwabantwana abathi batyiswe lona?
21. Uyifumana phi incazelo yokutya kwecephe kwabantwana abatyiswa kona?
22. Kungokuba?

23. Ingaba ikhona into ofuna ukwabelana ngayo neqela?

Ukuvala

- Enkosi ngobukho benu kulengxoxo yeqela.
- Inxaxheba yenu ibalulekile, izakusinceda ngokuqinisekileyo kwikamva lokuphuhlisa imo imeko yezempilo nexhaso yasekuhlaleni.

Umbukeli sikhokhelo kumaqela azimiseleyo

Oku kulandelayo kugcinwe ngokombuzo:

- Intlobo zamaqela, umzekelo, phakathi kokuvuya nokungabonisi umdla
- Ingaba abanye abantu bangabaciko kubekho abangezozithethi?
- Ingaba abanye baba yinxalenye yentetho, kubekho abo bathe cwaka?
- Ingaba amaqela ayavumelana okanye kukhona impikiswano ngezimvo?
- Unxibelelwano olungathethisiyo, umzekelo, ubuso obuthethayo, ukunqwala, nikina intloko.

Appendix 6.14: Consent form for qualitative data collection (English)

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT:

Factors that influence attitude, beliefs and barriers of caregivers regarding complementary infant feeding practices of infants aged 6 – 12 months in the Breede Valley district of the Western Cape.

REFERENCE NUMBER: S12/03/083

PRINCIPAL INVESTIGATOR: Mrs Mariska Matthysen

ADDRESS: Tygerberg Academic Hospital
Faculty of Health Sciences
Stellenbosch University
Francie van Zijl Drive
Tygerberg, 7505

CONTACT NUMBER: 021 938 5612

You are invited to take part in a research project of Stellenbosch University. Please take some time to read about the project. If you have any questions feel free to ask any of the study staff. Remember, being part of this study is **entirely voluntary** and you are free not to take part. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Committee for Human Research at Stellenbosch University** (S12/03/083) and will be conducted 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?

- The study will be conducted in Avian Park and Zweletemba will include 150 people.
- We want to understand the thoughts and feelings mothers, fathers and grandmothers have about what they are feeding children 6 – 12 months old as well as why you are doing what you are doing. This will allow us to see if any support or information is needed to improve what you are currently doing.
- All conversations will be recorded with a recorder.
- The discussion will take 60 to 90 minutes where after you will have some fruit and juice.

Why have you been invited to participate?

- You have been invited to be part of this study because you are a mother / caregiver, father or grandmother of a child between 6 and 12 months.

What will your responsibilities be?

- You will have to answer questions asked by the fieldworker you will have to take part in the discussion amongst other members of the group.

Will you benefit from taking part in this research?

- The answers you give during the discussion will help us to understand why children are fed in a certain way in your community.
- We will then be able to determine what extra information is needed in the community regarding the feeding of children from 6 to 12 months and how we can enable mothers or caregivers to feed their babies in the best possible way.

Are there any risks involved in your taking part in this research?

- There are no risks involved in taking part in this discussion.

If you do not agree to take part, what alternatives do you have?

- It is completely your decision to take part in the study or not. If you decide not to be part of the study, it will not affect you negatively in any way.

Who will have access to your answers?

- All the answers and discussions will be recorded with a voice recorder, but only the research team will have access to these recordings.
- During the discussions, no names will be mentioned, so no-one will be able to tell which answers you gave.
- You will sign your name on this form, but it has nothing to do with the answers you give during the discussion.
- All the information and answers given will be added together to write a report on the overall findings, but no names will be mentioned in the report.

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?

- It is not expected that participating in this study will 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 receive any payment to take part in this study and you do not have to pay us anything to take part in the study. The discussion will be held in your community and therefore no transport costs are expected. Refreshments will be provided at the discussion at no cost to you.

Is there anything else that you should know or do?

- You are welcome to contact the researcher, Mariska Matthysen, at 021 938 5612 if you have any further questions or problems you would like to discuss.
- 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 involved in the study.

- 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 that influence attitude, beliefs and barriers of caregivers regarding complementary infant feeding practices of infants aged 6 – 12 months in the Breede Valley district of the Western Cape.*

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 interest, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*)
2012.

.....

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*)
2012.

.....
Signature of investigator

.....
Signature of witness

Appendix 6.15: Consent form for qualitative data collection (Afrikaans)

INLIGTINGSBLAD EN TOESTEMMINGSVORM VIR DEELNEMERS

TITEL VAN DIE NAVORSINGSPROJEK:

Faktore wat versorgers se ingesteldheid, oortuigings en struikelblokke beïnvloed rakende aanvullende voedingspraktyke van babas tussen 6 en 12 maande in die Breedevallei-distrik van die Wes-Kaap

VERWYSINGSNOMMER: S12/03/083

HOOFNAVORSER: Mev Mariska Matthysen

ADRES: Tygerberg Akademiese Hospitaal
Fakulteit Gesondheidswetenskappe
Universiteit Stellenbosch
Francie van Zyl-rylaan
Tygerberg 7505

KONTAKNOMMER: 021 938 5612

Ons wil jou uitnoui om aan 'n navorsingsprojek van die Universiteit Stellenbosch deel te neem. Neem asseblief 'n tydjie om hierdie inligtingstuk oor die projek te lees. As jy enige vrae het, vra gerus die studiepersoneel. Onthou, jy neem **heeltemal vrywillig** aan hierdie studie deel, en jy mág weier om deel te neem. As jy besluit om nié deel te neem nie, sal dit geen slegte gevolge van enige aard vir jou hê nie. Jy kan ook op enige tydstip ophou deelneem, selfs al het jy aan die begin gesê jy sal deelneem.

Hierdie studie is goedgekeur deur die **Navorsingsetiëkkomitee: Mensnavorsing van die Universiteit Stellenbosch**(S12/03/083), en sal uitgevoer word volgens die etiese riglyne en beginsels van die internasionale Helsinki-verklaring, die Suid-Afrikaanse riglyne vir goeie kliniese praktyk, en die Mediese Navorsingsraad (MNR) se etiese riglyne vir navorsing.

Waaroor gaan hierdie navorsingstudie?

- Die studie sal gedoen word in Avianpark en Zweletemba, en sal 150 mense betrek.
- Ons wil verstaan hoe ma's, pa's en oumas dink en voel oor dit wat hulle vir babas tussen 6 en 12 maande gee om te eet, asook hoekom julle dit so doen. Dan sal ons kan sien of enige ondersteuning of inligting nodig is om dit wat julle op die oomblik doen, te verbeter.
- Alle gesprekke sal met 'n stemopnemer afgeneem word.
- Die gesprek sal 'n uur tot 'n uur en 'n half duur, waarna jy 'n vrug en sap sal kry.

Hoekom nooi ons jou om deel te neem?

- Ons nooi jou uit om aan hierdie studie deel te neem omdat jy die ma, primêre versorger, pa of ouma is van 'n baba wat tussen 6 en 12 maande oud is.

Wat gaan ons van jou verwag?

- Jy moet asseblief die vrae beantwoord wat die veldwerker jou vra, en saamgesels wanneer die ander deelnemers in die groep oor dinge praat.

Wat sal die voordeel wees as jy aan hierdie navorsing deelneem?

- Die antwoorde wat jy gedurende die gesprekke verskaf, sal ons help verstaan hoekom babas in jou gemeenskap op 'n sekere manier gevoed word.
- Dit sal ons help om vas te stel watter inligting die gemeenskap nog kortkom oor die voeding van babas tussen 6 en 12 maande, en hoe ons ma's of versorgers kan help om hulle babas die heel beste voeding te gee.

Watter gevare is daar vir jou as jy aan hierdie navorsing deelneem?

- Daar is geen gevare vir jou as jy aan hierdie navorsing deelneem nie.

Wat kan gebeur as jy besluit om nie aan die studie deel te neem nie?

- Jy kan self besluit of jy wil deelneem of nie; die keuse is net joune. As jy besluit om nie deel te neem nie, sal dit geen slegte gevolge van enige aard vir jou hê nie.

Wie sal kan sien wat jy geantwoord het?

- Alle antwoorde en gesprekke gaan met 'n stemopnemer afgeneem word, maar net die navorsingspan sal by hierdie inligting kan uitkom.
- Geen name sal gedurende die gesprekke genoem word nie, daarom sal niemand weet wat jy gesê het nie.
- Jy moet jou naam op hierdie vorm teken, maar dit sal glad nie gekoppel word aan die antwoorde wat jy gedurende die gesprekke gaan gee nie.
- Alle inligting en antwoorde gaan bymekaargevoeg word om 'n verslag oor die algemene bevindings te skryf, maar niemand se naam sal in die verslag genoem word nie.

Wat as jy beseer word as gevolg daarvan dat jy aan hierdie navorsingstudie deelneem, al is dit baie onwaarskynlik dat so iets sal gebeur?

- Ons kan ons nie indink dat hierdie studie enige skade of beserings vir jou kan veroorsaak nie.

Sal jy betaal word om aan die studie deel te neem, en gaan dit jou enigiets kos?

- Jy sal niks betaal word om aan hierdie studie deel te neem nie, en jy hoef ons ook niks te betaal om deel te neem nie.
- Die gesprek sal in jou gemeenskap gehou word, dus reken ons jy sal geen vervoerkoste hê nie.
- Ons sal jou ná die gesprek gratis iets te ete en te drinke gee.

Is daar enigiets anders wat jy moet weet of doen?

- As jy nog enige vrae of probleme het wat jy wil bespreek, bel gerus die navorser, Mariska Matthysen, by 021 938 5612.
- As jy enige bekommernisse of klagtes oor hierdie studie het, of oor die personeel wat daarby betrokke is, kan jy ook die Komitee vir Menslike Navorsing by 021 938 9207 bel.
- Ons sal vir jou jou eie afskrif van hierdie inligtingsblad en toestemmingsvorm gee.

Verklaring deur deelnemer

Deur hieronder te teken, stem ek,, in om deel te neem aan 'n navorsingstudie getiteld: *Faktore wat versorgers se ingesteldheid, oortuigings en struikelblokke beïnvloed rakende aanvullende voedingspraktyke van babas tussen 6 en 12 maande in die Breedevallei-distrik van die Wes-Kaap.*

Ek verklaar soos volg:

- Ek het hierdie inligtingstuk en toestemmingsvorm gelees, of iemand het dit aan my voorgelees, en dit is geskryf in 'n taal waarmee ek gemaklik is.
- Ek het kans gekry om vrae te stel, en al my vrae is deeglik beantwoord.
- Ek verstaan dat ek **vrywillig** aan hierdie studie deelneem, en niemand het my gedwing om deel te neem nie.
- Ek weet ek kan besluit om op enige tydstip op te hou om aan die studie deel te neem, en ek sal op geen manier daarvoor gestraf of daardeur benadeel word nie.
- Die navorsingspan kan my vra om die studie te verlaat voordat dit afgehandel is as dit is in my beste belang sal wees, of as ek nie my belofte nakom om by die studieplan te hou nie.

Geteken te (*plek*) op (*datum*)
2012.

.....

.....

Deelnemer se handtekening

Getuie se handtekening

Verklaring deur veldwerker / navorser

Ek, (*naam*), verklaar soos volg:

- Ek het die inligting in hierdie dokument aan
verduidelik.
- Ek het hom/haar aangemoedig om vrae te stel, en het genoeg tyd
afgestaan om dit te beantwoord;
- Ek is tevrede dat hy/sy alle aspekte van die navorsing soos hierbo
bespreek, voldoende begryp.
- Ek het (nie) 'n tolk gebruik (nie).

Geteken te (*plek*) op (*datum*)
2012.

.....

.....

Navorser se handtekening

Getuie se handtekening

Appendix 6.16: Consent form for qualitative data collection (isiXhosa)

**IFOMU YEMVUME EYAZISIWEYO NENCWADANA YOLWAZI YOMTHATHI-
NXAXHEBA**

ISIHLOKO SEPROJEKTHI YOPHANDO:

Imibandela ephembelela ulwazi, ukuziphatha, iinkolelo kunye nemiqobo yabanakekeli-bantwana ngokubhekiselele kwiindlela ezinconywayo zokondla iintsanaezibudala buziinyanga ezi-6 – 12 kwisithili saseBreede Valley eNtshona Koloni.

INOMBOLO EYIREFERENSI: S12/03/083

UMPHANDI OYINTLOKO: NkskzMariska Matthysen

IDILES: Tygerberg Academic Hospital
Faculty of Health Sciences
Stellenbosch University
Francie van Zijl Drive
Tygerberg, 7505

INOMBOLO YOQHAGAMSHELWANO: 021 938 5612

Uyamenywa ukuba uthathe inxaxheba kwiprojekthi yophando yaseStellenbosch University. Nceda uthathe ixesha ukufunda malunga neprojekthi. Ukuba unayo nayiphi na imibuzo nceda khululeka ukubuza nawuphi na umsebenzi wolu phononongo. Khumbula, ukuba yinxalenye yolu phononongo **kungokuzithandela** kwakho ngokuphelelyo kwaye uvumelekile ukuba ungathathi nxaxheba. Ukuba uthi hayi, oko akusayi kukuchaphazela ngendlela engalunganga nangayiphi na indlela. Kwakhona uvumelekile ukurhoxa kuphononongo nangeliphi na ithuba, nkqu nokuba uyavuma ukuthatha inxaxheba.

Olu phononongo luvunywe yi**Komiti yoPhando ngaBantu kwiYunivesithi yaseStellenbosch** (S12/03/083) kwaye luza kuqhutywa ngokwezikhokelo zemithetho-nkqubo yokuziphatha nemithetho-siseko yesiFungo sikaHelsinki, iziKhokelo zoMzantsi Afrika zoKwenza uNyango oluLungileyo kunye neziKhokelo zoMthetho-nkqubo weBhunga loPhando lamaYeza oPhando.

Lungantoni olu phononongo?

- Olu phononongo luza kuqhutyelwa eAvian Park naseZweletemba kwaye luza kubandakanya abantu abali-150.
- Sifuna ukuqonda iingcinga neemvakalelo abanazo oomama, ootata nootat'omkhulu noomakhulu abanazo malunga nezidlo abondla ngazo iintsana ezibudala buziinyanga ezi-6 – 12 kananjalo nokuba kutheni usenza oku ukwenzayo. Oku kuza kusinceda ekubeni sibone ukuba ingaba kukhona inkxaso okanye ulwazi olufunekayo ukuphucula oku ukwenzayo ngoku.
- Zonke iincoko ziza kurekhodishwa ngerekhoda.
- Incoko iza kuthatha imizuzu engama-60ukuya kuma-90emva koko uza kufumana iziqhamo nejusti.

Kutheni umenyiwe ukuba uthathe inxaxheba?

- Umenyelwe ukuba ube yinkxalenye yolu phononongo ngenxa yokuba ungumama / ungumnakekeli-mntwana, ungutata okanye ungutat'omkhulu okanye ungumakhulu womntwana ophakathi kweenyanga ezi-6 nezili-12 ubudala.

Luzakuba yintoni uxanduva lwakho?

- Kuza kufuneka uphendule imibuzo ebuzwa ngumcholacholi-lwazi kwaye uza kufuneka uthathe inxaxheba kwingxoxo ephakathi kwamanye amalungu eqela.

Ingaba ikhona into ozakuyizuzisa ngokuthatha inxaxheba kolu phononongo?

- limpendulo ozinikezelayo ngexesha lengxoxo ziza kusinceda ekubeni siqonde ukuba kutheni abantwana besondliwa ngendlela ethile kwindawo ohlala kuyo.

- Sizakuthi ke sikwazi ukufumanisa ukuba loluphi ulwazi oludingekayo kwindawo ohlala kuyo ngokuphathelene nokondla abantwana ababudala buziinyanga ezi-6 to 12 nokuba singabenza njani abazali nabanakekeli-bantwana ukuba bazondle iintsana ngeyona ndlela ingcono.

Ingaba ikhona imingcipheko ebandakanyekayo ekuthatheni kwakho inxaxheba kolu phononongo?

- Akukho mingcipheko ibandakanyekayo ekuthatheni inxaxheba kolu phononongo.

Ukuba awuvumi ukuthatha inxaxheba, kokuphi okunye onakho onokukwenza?

- Sisigqibo sakho ngokupheleleyo ukuthatha inxaxheba okanye sokungathath' inxaxheba kuphononongo. Ukuba uthatha isigqibo sokungathath' inxaxheba kuphononongo, oko akusayo kukuchaphazela ngendlela engalunganga nangayiphi na indlela.

Ngubani oza kufikelela kwiimpendulo zakho?

- Zonke iimpendulo neengxoxo ziza kurekhodishwa ngerekhoda yelizwi, kodwa liqela lophando kuphela eliza kufikelela kushicilelo lwazo.
- Ngexesha leengxoxo, akukho magama aza kukhankanywa, ngako ke namnye ozakukwazi ukuchaza ukuba zeziphi iimpendulo ezinikezelwe nguwe.
- Uza kutyikitya igama lakho kule fomu, kodwa akunanto yakwenza neempendulo ozinikezelayo ngexesha lengxoxo.
- Lonke ulwazi neempendulo ezinikezelweyo ziza kudityaniswa kunye ukwenzela ukubhala ingxelo malunga nokufunyanisiweyo, kodwa akukho magama aza kukhankanywa kwingxelo.

Kuza kwenzeka ntoni kwimeko apho kwenzeka khona isiganeko sokonzakala okuthile ngenxa yokuthatha kwakho inxaxheba kolu phononongo lophando?

- Akulindelekanga ukuba ukuthatha kwakho inxaxheba kolu phononongo kungakubangela nakuphi na ukonakala okanye ukonzakala kuwe.

- **Ingaba uza kuhlawulwa ngokuthatha kwakho inxaxheba kolu phononongo kwaye ingaba zikhona kusini na iindleko ezibandakanyekayo?**
Awuzukufumana nayiphi na intlawulo ngokuthatha inxaxheba kolu phononongo kwaye awufanelanga kusihlawula nantoni na ngokuthatha inxaxheba kuphononongo. Ingxoxo iza kubanjelwa kwindawo ohlala kuyo ngako ke akukho zindleko zilindelekileyo zokukhwela isithuthi. Kuzobakhona ukutya esinikunikezeleyo ngexesha lengxoxo okungazuba ziindleko kuwe.

Ingaba ikhona nayiphi na enye into omele uyazi okanye uyenze?

- Wamkelekile ukuqhagamshelana nomphandi, uMariska Matthysen, kwa-021 938 5612 ukuba unayo nayiphi na eminye imibuzo okanye iingxaki ongathanda ukuzixoxa.
- Usengaqhagamshelana neKomiti yoPhando ngaBantu kwa-021 938 9207 ukuba kukhona nantoni na uyixhalabeleyo okanye izikhalazo ezimalunga nophononongo okanye umsebenzi obandakanyekayo kuphononongo.
- Uza kufumana ikopi yakho engale fomu yemvume nolwazi.

Isifundo esenziwa ngumthathi-nxaxheba

Ngokutyikitya apha ngezantsi, Mna
ndiyavuma ukuthatha inxaxheba kuphononongo lophando olunesihloko
esithi: *Imibandela ephembelela ulwazi, ukuziphatha, iinkolelo kunye nemiqobo yabanakekeli-bantwana ngokubhekiselele kwiindlela ezinconywayo zokondla iintsana ezibudala buziinyanga ezi-6 – 12 kwisithili saseBreede Valley eNtshona Koloni.*

Ndiyafunga ukuba:

- Ndiyifundile okanye ndiyifundelwe ifomu yemvume nolwazi kwaye ibhalwe ngolwimi endikhululekileyo ngalo.
- Ndibenalo ithuba lokubuza imibuzo kwaye yonke imibuzo yam impendulwe ngokwanelisayo.

- Ndiyakuqonda ukuba ukuthatha inxaxheba kolu phononongo **kungokuzithandela** kwaye andikhange ndinyanzelwe/ndifakwe uxinzelelo ukuze ndithathe inxaxheba.
- Ndingakhetha ukulushiya uphononongo nanini na kwaye andisayi kohlwaywa okanye ndigwetywe nangeyiphi na indlela.
- Ndisengacelwa ukuba ndiphume kuphononongo phambi kokuba lugqitywe, ukuba umsebenzi walo ubona kundilungele oko, okanye ukuba andisilandeli isicwangciso sophononongo, njengoko kuvunyelwene ngaso.

Ityikitywe e- (indawo) nngo- (umhla)
..... 2012.

.....
Utyikityo lomthathi-nxaxheba

.....
Utyikityo lwengqina

Isifungo esenziwa ngumphandi

Mna (*igama*) ndiyafunga ukuba:

- Ndilucacisile ulwazi olulapha kolu xwebhu ku-.....
- Ndimkhuthazile ukuba abuse imibuzo kwaye ndithathe ixesha elaneleyo lokuyiphendula.
- Ndanelisekile yinto yokuba uyiqonde yonke imibandela yophando, njengoko ixoxiwe ngasentla
- Ndisebenzise/Andikhange ndisebenzise itoliki.

Ityikitywe e- (indawo) nngo- (umhla)
..... 2012.

.....
Utyikityo lomphandi

.....
Utyikityo lwengqina

Appendix 6.17: Socio-demographic data of mothers / primary caregivers in Avian Park and Zweletemba

Mothers / Primary Caregivers					
Socio-demographic characteristics:		Avian Park		Zweletemba	
		Formal: (n = 24)	Informal: (n = 15)	Formal: (n = 29)	Informal: (n = 11)
Race:	African	4 (16.7%)	7 (46.7%)	29 (100%)	11 (100%)
	Colored	20 (83.3%)	8 (53.3%)	0 (0%)	0 (0%)
First Language:	Afrikaans	21 (87.5%)	9 (60.0%)	0 (0%)	0 (0%)
	English	0 (0%)	1 (6.7%)	0 (0%)	0 (0%)
	isiXhosa	3 (12.5%)	5 (33.3%)	29 (100%)	11 (100%)
Marital Status:	Divorced	1 (4.2%)	0 (0%)	0 (0%)	0 (0%)
	Living Together	0 (0%)	0 (0%)	0 (0%)	4 (36.4%)
	Married	6 (25.0%)	4 (26.7%)	1 (3.4%)	4 (36.4%)
	Unmarried	17 (70.8%)	11 (73.3%)	28 (96.6%)	3 (27.3%)
Level of Education:	Primary School	0 (0%)	2 (13.3%)	1 (3.4%)	1 (9.1%)
	Grade 8 – 10	9 (37.5%)	6 (40.0%)	4 (13.8%)	6 (54.5%)
	Grade 11 – 12	15 (62.5%)	7 (46.7%)	22 (75.9%)	4 (36.4%)
	None	0 (0%)	0 (0%)	2 (6.9%)	0 (0%)
Employment Status:	Home-maker by choice	0 (0%)	1 (6.7%)	0 (0%)	0 (0%)
	Self-employed	1 (4.2%)	1 (6.7%)	0 (0%)	1 (9.1%)
	Unemployed	23 (95.8%)	13 (86.7%)	23 (79.3%)	10 (90.9%)
	Wage-earner	0 (0%)	0 (0%)	6 (20.7%)	0 (0%)
Monthly income:	R1 – 500	11 (45.8%)	6 (40.0%)	7 (24.1%)	0 (0%)
	R501 – 1000	2 (8.3%)	5 (33.3%)	13 (44.8%)	10 (90.9%)
	R1001 – 3000	1 (4.2%)	0 (0%)	8 (27.6%)	1 (9.1%)
	R3001 - 5000	0 (0%)	0 (0%)	1 (3.4%)	0 (0%)
	I don't know	10 (41.7%)	4 (26.7%)	0 (0%)	0 (0%)
Grants received by the household:	Child Support	20 (83.3%)	15 (100%)	25 (86.2%)	10 (90.9%)
	None	3 (12.5%)	0 (0%)	2 (6.9%)	1 (9.1%)
	Old Age Pension	0 (0%)	0 (0%)	1 (3.4%)	0 (0%)
	Other (Both Child Support & Old Age Pension)	0 (0%)	0 (0%)	1 (3.4%)	0 (0%)
	Social Relief	1 (4.2%)	0 (0%)	0 (0%)	0 (0%)
Appliances available for food preparation & storage:	Hot Plate	19 (79.2%)	6 (40.0%)	8 (27.6%)	8 (72.7%)
	Freezer	22 (91.7%)	5 (33.3%)	9 (31.0%)	11 (100%)
	Microwave	16 (66.7%)	5 (33.3%)	27 (93.1%)	11 (100%)
	Primus or Paraffin Stove	0 (0%)	2 (13.3%)	2 (6.9%)	0 (0%)

	Refrigerator	23 (95.8%)	7 (46.7%)	29 (100%)	11 (100%)
	Stove (Oven & hob)	23 (95.8%)	8 (53.3%)	22 (75.9%)	5 (45.5%)
Who decides how much money is spent on food for this household:	Father	2 (8.3%)	5 (33.3%)	1 (3.4%)	1 (9.1%)
	Grandmother	3 (12.5%)	1 (6.7%)	3 (10.3%)	0 (0%)
	Mother	19 (79.2%)	8 (53.3%)	23 (79.3%)	10 (90.9%)
	Other (Boyfriend; Both mother and father)	0 (0%)	1 (6.7%)	1 (3.4%)	0 (0%)
	Uncle	0 (0%)	0 (0%)	1 (3.4%)	0 (0%)
Who is mainly responsible to buy food for this household:	Father	1 (4.2%)	5 (33.3%)	0 (0%)	2 (18.2%)
	Grandmother	3 (12.5%)	1 (6.7%)	3 (10.3%)	0 (0%)
	Mother	19 (79.2%)	8 (53.3%)	22 (75.9%)	9 (81.8%)
	Other (Boyfriend; Both mother and father)	0 (0%)	1 (6.7%)	3 (10.3%)	0 (0%)
	Sister	1 (4.2%)	0 (0%)	0 (0%)	0 (0%)
	Uncle	0 (0%)	0 (0%)	1 (3.4%)	0 (0%)
Who is mainly responsible for food preparation in the house:	Father	1 (4.2%)	3 (20.0%)	0 (0%)	0 (0%)
	Grandmother	3 (12.5%)	0 (0%)	0 (0%)	0 (0%)
	Mother	19 (79.2%)	11 (73.3%)	28 (96.6%)	11 (100%)
	Other (Boyfriend; Both mother and father)	0 (0%)	1 (6.7%)	1 (3.4%)	0 (0%)
	Sister	1 (4.2%)	0 (0%)	0 (0%)	0 (0%)
Who is mainly responsible for feeding / serving the child / children:	Father	0 (0%)	3 (20.0%)	0 (0%)	1 (9.1%)
	Grandmother	4 (16.7%)	1 (6.7%)	0 (0%)	0 (0%)
	Mother	19 (79.2%)	10 (66.7%)	29 (100%)	10 (90.9%)
	Other (Boyfriend)	0 (0%)	1 (6.7%)	0 (0%)	0 (0%)
	Sister	1 (4.2%)	0 (0%)	0 (0%)	0 (0%)

Appendix 6.18: Socio-demographic data of grandmothers in Avian Park and Zweletemba

Grandmothers					
Socio-demographic characteristics:		Avian Park		Zweletemba	
		Formal: (n = 12)	Informal: (n = 10)	Formal: (n = 10)	Informal: (n = 12)
Race:	African	1 (8.3%)	0 (0%)	10 (100%)	12 (100%)
	Colored	11 (91.7%)	10 (100%)	0 (0%)	0 (0%)
First Language:	Afrikaans	11 (91.7%)	10 (100%)	1 (10.0%)	0 (0%)
	isiXhosa	1 (8.3%)	0 (0%)	9 (90.0%)	12 (100%)
Marital Status:	Divorced	0 (0%)	1 (10.0%)	0 (0%)	1 (8.3%)
	Living Together	0 (0%)	0 (0%)	0 (0%)	3 (25.0%)
	Married	4 (33.3%)	3 (30.0%)	5 (50.0%)	5 (41.7%)
	Separated	0 (0%)	0 (0%)	2 (20.0%)	0 (0%)
	Unmarried	6 (50.0%)	4 (40.0%)	0 (0%)	1 (8.3%)
	Widowed	2 (16.7%)	2 (20.0%)	3 (30.0%)	2 (16.7%)
Level of Education:	Primary School	8 (66.7%)	2 (20.0%)	6 (60.0%)	3 (25.0%)
	Grade 8 – 10	1 (8.3%)	5 (50.0%)	3 (30.0%)	3 (25.0%)
	Grade 11 – 12	0 (0%)	2 (20.0%)	1 (10.0%)	4 (33.3%)
	None	3 (25.0%)	1 (10.0%)	0 (0%)	2 (16.7%)
Employment Status:	Other (Pensioner)	0 (0%)	0 (0%)	0 (0%)	3 (25.0%)
	Self-employed	0 (0%)	0 (0%)	0 (0%)	1 (8.3%)
	Unemployed	12 (100%)	10 (100%)	10 (100%)	7 (58.3%)
	Wage-earner	0 (0%)	0 (0%)	0 (0%)	1 (8.3%)
Monthly income:	R1 – 500	4 (33.3%)	1 (10.0%)	1 (10.0%)	1 (8.3%)
	R501 – 1000	5 (41.7%)	7 (70.0%)	6 (60.0%)	4 (33.3%)
	R1001 – 3000	0 (0%)	0 (0%)	3 (30.0%)	7 (58.3%)
	Over R5000	0 (0%)	2 (20.0%)	0 (0%)	0 (0%)
	I don't know	3 (25.0%)	0 (0%)	0 (0%)	0 (0%)
Grants received by the household:	Child Support	5 (41.7%)	3 (30.0%)	4 (40.0%)	11 (91.7%)
	Disability	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
	None	0 (0%)	1 (10.0%)	0 (0%)	1 (8.3%)
	Old Age Pension	7 (58.3%)	4 (40.0%)	2 (20.0%)	0 (0%)
	Other (Both Child Support & Old Age Pension)	0 (0%)	0 (0%)	4 (40.0%)	0 (0%)
	Social Relief	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
Appliances available for food preparation & storage:	Hot Plate	8 (66.7%)	6 (60.0%)	5 (50.0%)	12 (100%)
	Freezer	8 (66.7%)	3 (30.0%)	0 (0%)	11 (91.7%)

	Microwave	5 (41.7%)	4 (40.0%)	10 (100%)	11 (91.7%)
	Primus or Paraffin Stove	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
	Refrigerator	8 (66.7%)	7 (70.0%)	10 (100%)	11 (91.7%)
	Stove (Oven & hob)	10 (83.3%)	9 (90.0%)	5 (50.0%)	2 (16.7%)
Who decides how much money is spent on food for this household:	Aunt	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
	Father	0 (0%)	0 (0%)	0 (0%)	2 (16.7%)
	Grandmother	7 (58.3%)	0 (0%)	5 (50.0%)	6 (50.0%)
	Mother	5 (41.7%)	9 (90.0%)	4 (40.0%)	4 (33.3%)
	Other (Both mother and grandmother)	0 (0%)	0 (0%)	1 (10.0%)	0 (0%)
Who is mainly responsible to buy food for this household:	Aunt	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
	Grandfather	0 (0%)	0 (0%)	0 (0%)	1 (8.3%)
	Grandmother	7 (58.3%)	0 (0%)	6 (60.0%)	3 (25.0%)
	Mother	5 (41.7%)	9 (90.0%)	4 (40.0%)	8 (66.7%)
Who is mainly responsible for food preparation in the house:	Aunt	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
	Grandmother	7 (58.3%)	0 (0%)	5 (50.0%)	3 (25.0%)
	Mother	5 (41.7%)	9 (90.0%)	4 (40.0%)	9 (75.0%)
	Other (Both mother and grandmother)	0 (0%)	0 (0%)	1 (10.0%)	0 (0%)
Who is mainly responsible for feeding / serving the child / children:	Aunt	0 (0%)	1 (10.0%)	0 (0%)	0 (0%)
	Grandmother	7 (58.3%)	0 (0%)	4 (40.0%)	3 (25.0%)
	Mother	5 (41.7%)	9 (90.0%)	4 (40.0%)	9 (75.0%)
	Other (Both mother and grandmother)	0 (0%)	0 (0%)	2 (20.0%)	0 (0%)

Appendix 6.19: Socio-demographic data of fathers in Avian Park and Zweletemba

Fathers					
Socio-demographic characteristics:		Avian Park		Zweletemba	
		Formal: (n = 13)	Informal: (n = 12)	Formal: (n = 8)	Informal: (n = 14)
Race:	African	4 (30.8%)	2 (16.7%)	8 (100%)	14 (100%)
	Colored	9 (69.2%)	10 (83.3%)	0 (0%)	0 (0%)
First Language:	Afrikaans	10 (77.0%)	11 (91.7%)	0 (0%)	0 (0%)
	isiXhosa	3 (23.0%)	1 (8.3%)	8 (100%)	14 (100%)
Marital Status:	Living Together	0 (0%)	0 (0%)	0 (0%)	9 (64.3%)
	Married	1 (7.7%)	4 (33.3%)	0 (0%)	1 (7.1%)
	Traditional Marriage	0 (0%)	0 (0%)	0 (0%)	2 (14.3%)
	Unmarried	12 (92.3%)	8 (66.7%)	8 (100%)	2 (14.3%)
Level of Education:	Primary School	0 (0%)	2 (16.7%)	0 (0%)	1 (7.1%)
	Grade 8 – 10	7 (53.8%)	5 (41.7%)	0 (0%)	10 (71.4%)
	Grade 11 – 12	5 (38.5%)	5 (41.7%)	8 (100%)	3 (21.4%)
	Tertiary Education	1 (7.7%)	0 (0%)	0 (0%)	0 (0%)
Employment Status:	Self-employed	0 (0%)	1 (8.3%)	0 (0%)	2 (14.3%)
	Unemployed	13 (100%)	11 (91.7%)	8 (100%)	11 (78.6%)
	Wage-earner	0 (0%)	0 (0%)	0 (0%)	1 (7.1%)
Monthly income:	None	0 (0%)	0 (0%)	2 (25.0%)	0 (0%)
	R1 – 500	8 (61.5%)	5 (41.7%)	0 (0%)	0 (0%)
	R501 – 1000	3 (23.1%)	4 (33.3%)	6 (75.0%)	10 (71.4%)
	R1001 – 3000	0 (0%)	1 (8.3%)	0 (0%)	4 (28.6%)
	Over R5000	0 (0%)	2 (16.7%)	0 (0%)	0 (0%)
	I don't know	2 (15.4%)	0 (0%)	0 (0%)	0 (0%)
Grants received by the household:	Child Support	6 (46.2%)	6 (50.0%)	2 (25.0%)	10 (71.4%)
	Disability	1 (7.7%)	1 (8.3%)	0 (0%)	0 (0%)
	None	6 (46.2%)	5 (41.7%)	4 (50.0%)	1 (7.1%)
	Old Age Pension	0 (0%)	0 (0%)	2 (25.0%)	1 (7.1%)
	Other (Child Support; Disability; UIF)	0 (0%)	0 (0%)	0 (0%)	2 (14.3%)
Appliances available for food preparation & storage:	Hot Plate	12 (92.3%)	5 (41.7%)	1 (12.5%)	13 (92.9%)
	Freezer	9 (69.2%)	3 (25.0%)	2 (25.0%)	14 (100%)
	Microwave	9 (69.2%)	2 (16.7%)	7 (87.5%)	11 (78.6%)
	Primus or Paraffin Stove	0 (0%)	1 (8.3%)	0 (0%)	0 (0%)
	Refrigerator	12 (92.3%)	5 (41.7%)	8 (100%)	13 (92.9%)
	Stove (Oven & hob)	11 (84.6%)	5 (41.7%)	8 (100%)	0 (0%)

Who decides how much money is spent on food for this household:	Father	0 (0%)	1 (8.3%)	0 (0%)	3 (21.4%)
	Grandmother	13 (100%)	0 (0%)	0 (0%)	1 (7.1%)
	Mother	0 (0%)	11 (91.7%)	8 (100%)	10 (71.4%)
Who is mainly responsible to buy food for this household:	Father	0 (0%)	1 (8.3%)	0 (0%)	1 (7.1%)
	Grandmother	13 (100%)	0 (0%)	0 (0%)	0 (0%)
	Mother	0 (0%)	11 (91.7%)	8 (100%)	13 (92.9%)
Who is mainly responsible for food preparation in the house:	Father	0 (0%)	1 (8.3%)	0 (0%)	1 (7.1%)
	Grandmother	13 (100%)	0 (0%)	0 (0%)	0 (0%)
	Mother	0 (0%)	11 (91.7%)	8 (100%)	13 (92.9%)
Who is mainly responsible for feeding / serving the child / children:	Father	0 (0%)	1 (8.3%)	0 (0%)	1 (7.1%)
	Grandmother	13 (100%)	0 (0%)	0 (0%)	0 (0%)
	Mother	0 (0%)	11 (91.7%)	8 (100%)	12 (85.7%)
	Other (Both mother and father)	0 (0%)	0 (0%)	0 (0%)	1 (7.1%)

Appendix 6.20: Milk sources of infants 6 – 8 months and reasons – Mothers / Primary caregivers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Milk Sources:	<ul style="list-style-type: none"> • Breastmilk • Recognized Brands: <ul style="list-style-type: none"> * Nan[®] * Lactogen[®] * Nan Perlargon[®] 	<ul style="list-style-type: none"> • Breastmilk • Cow's milk • Recognized Brands: <ul style="list-style-type: none"> * Nan[®] * Infacare[®] * Nan Perlargon[®] 	<ul style="list-style-type: none"> • Breastmilk • Recognized Brands: <ul style="list-style-type: none"> * Infacare[®] * Nan[®] * Nan Perlargon[®] * S26[®] 	<ul style="list-style-type: none"> • Breastmilk only • Breastmilk + Formula milk • Recognized Brands: <ul style="list-style-type: none"> * Infacare[®] * Infasoy[®] * Nan[®] * Nan Perlargon[®] * S26[®]
Breastmilk alone:	<ol style="list-style-type: none"> 1. Healthy 2. Availability 3. Finance <ul style="list-style-type: none"> * Breastmilk is cheaper. 	<ol style="list-style-type: none"> 1. Healthy * 2. Composition Contains vitamins. 3. Finance <ul style="list-style-type: none"> * Breastmilk is free. 	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Child doesn't get sick. 	
Formula milk:	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Same as breastmilk. <ol style="list-style-type: none"> 2. Healthy <ul style="list-style-type: none"> * Recommended by parents. <ol style="list-style-type: none"> 3. Prescribed by clinic staff. 	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Achieve weight gain. <ol style="list-style-type: none"> 2. Affordability <ul style="list-style-type: none"> * Prices of some formula milk are lower than others. 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Like breastmilk. * Not a strong liquid. * Has its own water – no need to give water extra. <ol style="list-style-type: none"> 2. Advised by clinic staff. 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Like breastmilk. * Same vitamins as breastmilk. * Not too rich (can choose correct formula). <ol style="list-style-type: none"> 2. Alternative option when unable to breastfeed.

			<p>3. Positive experience.</p> <ul style="list-style-type: none"> * No runny stomach. <p>4. Increased weight gain.</p> <p>5. Preference</p> <ul style="list-style-type: none"> * Child did not like breastmilk. 	<p>3. Positive experience.</p> <ul style="list-style-type: none"> * No problems. <p>4. Advised by clinic staff.</p> <ul style="list-style-type: none"> * Some formulas are better for eczema. * Some formulas help with asthma.
Combination:	<p>1. Convenience</p> <ul style="list-style-type: none"> * When returning to work (Mother of child). * When leaving child with someone for any reason. <p>2. Stages of development.</p> <ul style="list-style-type: none"> * After 6 months – Child ready to receive formula with breastmilk. 			
Cow's Milk:		<p>1. Finance</p> <ul style="list-style-type: none"> * Lack of money / funds – formula milk is too expensive. 		

Appendix 6.21: Milk sources of infants 6 – 8 months and reasons – Grandmothers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Milk Source:	<ul style="list-style-type: none"> • Breastmilk • Don't know • Recognized Brands: <ul style="list-style-type: none"> * Lactogen® * Nan® 	<ul style="list-style-type: none"> • Breastmilk • Recognized Brands: <ul style="list-style-type: none"> * Infacare® * Lactogen® * Nan® * Nespray® 	<ul style="list-style-type: none"> • Recognized Brands: <ul style="list-style-type: none"> * Lactogen® * Nan® No 1 & 2 * Nan Perlargon® 	<ul style="list-style-type: none"> • Recognized Brands: <ul style="list-style-type: none"> * Infacare® * Nan Perlargon® * S26®
Breastmilk alone:	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Child doesn't get sick. * Healthier than formula milk. 2. Hygienic <ul style="list-style-type: none"> * Breastmilk is free of germs. * Formula milk can be infected by flies etc. 3. Preferred when child is sick. <ul style="list-style-type: none"> * Child doesn't want food or formula milk. 4. Bonding <ul style="list-style-type: none"> * Mother-to-child. 	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Child can get everything that the mother eats. * Achieve weight gain quickly. 2. Suitability <ul style="list-style-type: none"> * Breastmilk suitable for every baby - formula milk must first be tested to see if it will work with your child. 		<ol style="list-style-type: none"> 1. Expressed breastmilk: <ul style="list-style-type: none"> * Can be warmed up when mother is not at home.
Formula milk:	<ol style="list-style-type: none"> 1. Appearance <ul style="list-style-type: none"> * "Looks" like breastmilk. 2. Healthy 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Like breastmilk. 2. Healthy 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Sweet already – do not have to add sugar. 	<ol style="list-style-type: none"> 1. Individualized <ul style="list-style-type: none"> * Can change to formula that doesn't cause constipation / digestive problems.

	<ul style="list-style-type: none"> * When breastmilk is not healthy due to the behaviour of the mother. <p>3. Individualized</p> <ul style="list-style-type: none"> * Can change formula milk to the one that suits the child best. 	<ul style="list-style-type: none"> * No loose stools. 	<p>2. Advised by clinic staff.</p> <ul style="list-style-type: none"> * Contains vitamins. * Makes bones stronger. 	<p>2. Positive experience.</p> <ul style="list-style-type: none"> * With own children. * Advise the use with grandchildren as well. * No problems experienced currently. <p>3. Composition</p> <ul style="list-style-type: none"> * Not too sweet – does not give constipation. <p>4. Advised by clinic staff.</p> <ul style="list-style-type: none"> * When child is sick. * For eczema. * For breathing problems. <p>5. Healthy</p> <p>6. Finance</p> <ul style="list-style-type: none"> * Choose milk with a reasonable price. * Some formulas are too expensive to use. <p>7. Alternative</p> <ul style="list-style-type: none"> * When mother is stressed and unable to breastfeed.
Combination:		<p>1. Convenience</p> <ul style="list-style-type: none"> * When the mother returns to work. * Formula milk during working hours; breastmilk when she is home. 		

Appendix 6.22: Milk sources of infants 6 – 8 months and reasons – Fathers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Milk Source:	<ul style="list-style-type: none"> • Breastmilk • Recognized Brands: <ul style="list-style-type: none"> * Nan[®] * Nespray[®] 	<ul style="list-style-type: none"> • Breastmilk • Cow's milk (longlife) • Recognized Brands: <ul style="list-style-type: none"> * Perlargon[®] 	<ul style="list-style-type: none"> • Breastmilk • Recognized Brands: <ul style="list-style-type: none"> * Lactogen[®] * Nan[®] * Nan Perlargon[®] * Nespray[®] * Nido[®] 	<ul style="list-style-type: none"> • Breastmilk • Recognized Brands: <ul style="list-style-type: none"> * Infacare[®] * Nan Perlargon[®] * S26[®]
Breastmilk alone:	<ol style="list-style-type: none"> 1. Bonding <ul style="list-style-type: none"> * For mother & child to get closer. 2. Healthy <ul style="list-style-type: none"> * Good for growth. 3. Grew up with breastmilk. 4. Development stages. <ul style="list-style-type: none"> * Breastmilk is best for all stages – do not need other milk. 	<ol style="list-style-type: none"> 1. Healthy 2. Requirements/Composition <ul style="list-style-type: none"> * Have all the fluids a child needs. 3. Finance <ul style="list-style-type: none"> * When there is no funds for other milk. 	<ol style="list-style-type: none"> 1. Natural 2. Finance <ul style="list-style-type: none"> * Breastmilk is free; Formula milk is expensive. 3. Wastage <ul style="list-style-type: none"> * Formula milk is discarded when child is not hungry. 	<ol style="list-style-type: none"> 1. Preference <ul style="list-style-type: none"> * Child enjoys it. 2. Finance <ul style="list-style-type: none"> * Breastmilk is the better option for unemployed parents. 3. Suitable for all stages <ul style="list-style-type: none"> * Do not have to buy different stages like with formula milk.
Formula milk:	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Good for growth. 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Same as breastmilk. 2. Convenience <ul style="list-style-type: none"> * Mother not always available to breastfeed. 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Same as breastmilk. 	<ol style="list-style-type: none"> 1. Composition <ul style="list-style-type: none"> * Tastes the same as breastmilk. 2. Certain formula milks fights eczema.

		<p>3. Alternative</p> <ul style="list-style-type: none"> * When mothers' milk is too little to breastfeed. <p>4. Advised by clinic staff.</p>		
Combination:	<p>1. Healthy</p> <ul style="list-style-type: none"> * Breastmilk from 0 – 6 months; from 6 months add Neslé from the shelf. 	<p>1. Availability</p> <ul style="list-style-type: none"> * Breastfeeding ensures that there is always something for the child to drink. * Breastfeeding maintains production of breastmilk. 	<p>1. Development</p> <ul style="list-style-type: none"> * Formula has different stages for after 6 months. <p>2. Convenience</p> <ul style="list-style-type: none"> * When mother returns to work. * Mother gets tired of only breastfeeding. <p>3. Health of mother.</p> <ul style="list-style-type: none"> * Mother loses a lot of weight from breastfeeding. <p>4. Role of father.</p> <ul style="list-style-type: none"> * Able to help with feeds. <p>5. More time available.</p> <ul style="list-style-type: none"> * Allows for more time as a couple. 	
Cow's Milk:		<p>1. Healthy</p> <ul style="list-style-type: none"> * Makes the child strong. <p>2. Availability</p> <ul style="list-style-type: none"> * When the mother's milk is not enough. 		

Appendix 6.23: Milk sources of infants 9 – 12 months and reasons – Mothers / Primary caregivers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Milk Sources:	<ul style="list-style-type: none"> • Breastmilk • Goat milk • Cow's milk • Recognized Brands: <ul style="list-style-type: none"> * Nan[®] * Nespray[®] * Nesquick * Infacare[®] * Lactogen[®] 	<ul style="list-style-type: none"> • Breastmilk • Cow's milk • Recognized Brands: <ul style="list-style-type: none"> * Nan[®] * Nespray[®] * Nido[®] 	<ul style="list-style-type: none"> • Combination: Breastmilk & Formula milk • Recognized Brands: <ul style="list-style-type: none"> * Infacare[®] * Nido[®] * Nespray[®] 	<ul style="list-style-type: none"> • Recognized Brands: <ul style="list-style-type: none"> * Infacare[®] No 1 & 2 * Lactogen[®] No 1 * Nan[®] No 2 * Nespray[®] * Nido[®] * S26[®]
Breastmilk alone:	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Child doesn't lose weight. 2. Cheaper 			
Formula milk:	<ol style="list-style-type: none"> 1. Growth <ul style="list-style-type: none"> * Increased weight gain. * Makes child strong. 2. Finance <ul style="list-style-type: none"> * Choose a formula that is cheaper. 3. Weaning 		<ol style="list-style-type: none"> 1. Weight gain 2. Finance <ul style="list-style-type: none"> * Choose a formula milk that is cheaper after 9 months. 	<ol style="list-style-type: none"> 1. Growth <ul style="list-style-type: none"> * Good for brain development. * Different stages available. 2. Finance <ul style="list-style-type: none"> * Choose affordable formula milk.

	<ul style="list-style-type: none"> * Use formula to wean child from breast. <p>4. Development</p> <ul style="list-style-type: none"> * Different stages of formula milk available. <p>5. Composition</p> <ul style="list-style-type: none"> * Like breastmilk. 			
Cow's Milk:	<p>1. Preference</p> <ul style="list-style-type: none"> * Child prefers fresh milk over powder milk. <p>2. Healthy</p> <ul style="list-style-type: none"> * Child is older & stronger at this stage. 			

Appendix 6.24: Milk sources of infants 9 – 12 months and reasons – Grandmothers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Milk Sources:	<ul style="list-style-type: none"> • Breastmilk • Cow's milk • Longlife milk (boiled) • Recognized Brands: <ul style="list-style-type: none"> * Nespray® * Nido® * Infacare® 	<ul style="list-style-type: none"> • Cow's milk • Recognized Brands: <ul style="list-style-type: none"> * First Growth® milk (box) * Nido® 	<ul style="list-style-type: none"> • Cow's milk • Recognized Brands: <ul style="list-style-type: none"> * Infacare® * Nespray® * *Same milk as from 6 – 8 months, but the next step. 	<ul style="list-style-type: none"> • Cow's milk • Recognized Brands: <ul style="list-style-type: none"> * First Growth® (box) * Nespray® * Nido® * S26® * *Same milk as from 6-8 months.
Breastmilk alone:	<ol style="list-style-type: none"> 1. Positive experience <ul style="list-style-type: none"> * Breastfed own children until they went to school. 			
Formula milk:	<ol style="list-style-type: none"> 1. Healthy 2. Composition <ul style="list-style-type: none"> * Contains iron. * Makes bones strong. 3. Advice from clinic staff to change to formula milk at this stage. 		<ol style="list-style-type: none"> 1. Individualized <ul style="list-style-type: none"> * Different types available. 2. Advice from clinic staff. <ul style="list-style-type: none"> * To change to a different formula milk. 3. Growth 	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * At this stage – 9 to 12 months. 2. Advised by clinic staff. <ul style="list-style-type: none"> * Soya will fight eczema. * Change formula because child had diarrhoea.
Cow's Milk:	<ol style="list-style-type: none"> 1. Readily available. <ul style="list-style-type: none"> * Do not need boiling water. (no electricity) 	<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * When no funds available for formula milk. 		<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * Formula milk is too expensive.

	2. Finance Cheaper than formula milk.			
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Appendix 6.25: Milk sources of infants 9 – 12 months and reasons – Fathers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Milk Sources:	<ul style="list-style-type: none"> Cow's milk (boiled) 	<ul style="list-style-type: none"> Cow's milk Longlife milk (box) Tea-bottle Recognized Brands: <ul style="list-style-type: none"> Nan[®] Nespray[®] 	<ul style="list-style-type: none"> Recognized Brands: <ul style="list-style-type: none"> Infacare[®] No 1,2 & 3 Nespray[®] Same milk as from 6-8 months. 	<ul style="list-style-type: none"> Cow's milk Baby Porridge mixed with milk (in bottle). Recognized Brands: <ul style="list-style-type: none"> Nespray[®] Nido[®]
Formula milk:			<ol style="list-style-type: none"> Advice from clinic staff. <ul style="list-style-type: none"> According to different stages. Experience <ul style="list-style-type: none"> Change formula milk if child has constipation. Formula milk has different stages available. 	<ol style="list-style-type: none"> Healthy <ul style="list-style-type: none"> Makes bones & teeth strong. Child grows healthy. Good brain function. Content <ul style="list-style-type: none"> Contains iron. Choose formula milk that is not too rich or too sweet. Contains the same vitamins as breastmilk. Can use the same formula milk as from 6-8 months. <ul style="list-style-type: none"> Only change to different milk if child has chest problems.
Cow's Milk:	1. Healthy	1. Finance		

	<p>2. Composition</p> <ul style="list-style-type: none">* Contains calcium.	<ul style="list-style-type: none">* Formula milk is too expensive. <p>2. Composition</p> <ul style="list-style-type: none">* Rich & strong. <p>3. Healthy</p> <ul style="list-style-type: none">* Child grows well.		
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Appendix 6.26: Solid foods of infants 6 – 8 months and reasons – Mothers / Primary caregivers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Food Sources:	<ul style="list-style-type: none"> • Rice porridge • Mielie meal porridge • Weetbix® • *”Meelbol” • Yogurt • Fruit (banana) • Vegetables (butternut, carrots, gem squash, potatoes) • Vegetable pot (cooked food) • Rice with gravy 	<ul style="list-style-type: none"> • Rice porridge (Nestum®, Cerelac®) • Purity® • Vegetables (carrots, potatoes, sweet potato, gem squash, pumpkin) • Any food eaten by the rest of the family (like “pap &smoor” – stiff porridge with tomato and onion stew). 	<ul style="list-style-type: none"> • Rice porridge (Purity®) • Instant porridge (ACE®) • Ready-made Smash® • Vegetables (butternut, pumpkin, carrots, potatoes) 	<ul style="list-style-type: none"> • Rice porridge (Purity®, Nestum®, Cerelac®) • Weetbix® & sour milk (Amasi) • Weetbix® & milk • Maize meal porridge • Mashed potatoes • Vegetables • Mix potato & rice with vegetables (like gem squash or pumpkin). • Variety is important – give something different for each meal.
Porridge	<p><u>Rice porridge:</u></p> <ol style="list-style-type: none"> 1. Suitable at this stage. 2. Indicated on label of product for this age. 3. Convenience <ul style="list-style-type: none"> * Easy to make – just add boiling water. 4. Healthy <ul style="list-style-type: none"> * As good as breastmilk. 	<p><u>Rice porridge:</u></p> <ol style="list-style-type: none"> 1. Satiety <ul style="list-style-type: none"> * Makes the child feel full. 2. Content <ul style="list-style-type: none"> * Contains lots of vitamins. 		<p><u>Rice porridge:</u></p> <ol style="list-style-type: none"> 1. Consistency <ul style="list-style-type: none"> * Smooth - Child doesn't know how to chew yet. <p><u>Weetbix& milk/amasi:</u></p> <ol style="list-style-type: none"> 1. Satiety <ul style="list-style-type: none"> * Rice porridge doesn't keep baby full. * Weetbix® keeps baby satisfied.

	<p>5. Satiety</p> <ul style="list-style-type: none"> * Makes the child full. <p>6. Consistency</p> <ul style="list-style-type: none"> * Soft – not as rough as other porridges. 			<p>2. Preference</p> <ul style="list-style-type: none"> * At 6 months baby didn't want rice porridge anymore – enjoys weetbix.
Instant foods:	<p>1. Convenience</p> <ul style="list-style-type: none"> * Easier (not as time consuming as cooking; less effort). 	<p><u>Purity</u></p> <p>1. Consistency</p> <ul style="list-style-type: none"> * Soft enough for child to eat. <p>2. Healthy</p> <ul style="list-style-type: none"> * Same as fruits & vegetables. <p>3. Price</p> <ul style="list-style-type: none"> * Affordable to buy. 		
Porridge in a bottle:	<p><u>Porridge & Formula milk</u></p> <p>1. Satiety</p> <ul style="list-style-type: none"> * Makes baby fuller. <p>2. Growth</p> <ul style="list-style-type: none"> * Child gains weight. 	<p><u>"Meelbol"</u></p> <p>1. Accessibility</p> <ul style="list-style-type: none"> * Use when nothing else is available in the house. 		
Vegetable pot:	<p>1. Content</p> <ul style="list-style-type: none"> * Contains protein, vitamins and iron. <p>2. Growth</p> <ul style="list-style-type: none"> * Needed for weight gain. * Makes the child fat and strong. <p>3. Healthy</p>	<p>1. Preference</p> <ul style="list-style-type: none"> * Child craves solid food. <p>2. Satiety</p> <ul style="list-style-type: none"> * Milk is no longer enough. * Needs food to make child full. <p>3. Content</p> <ul style="list-style-type: none"> * Better than purity – know what is in home-cooked vegetables. 	<p>1. Preference</p> <ul style="list-style-type: none"> * Child loves & enjoys the food. * Child refused to eat purity. <p>2. Healthy</p> <ul style="list-style-type: none"> * Child doesn't get sick. <p>3. Variety</p> <ul style="list-style-type: none"> * Important to give different kinds of solid foods. 	<p><u>Mashed potatoes:</u></p> <ul style="list-style-type: none"> * Good to give the child variety.

		<p>4. Fresh</p> <p>* Do not know when purity was made (do not trust expiry date).</p>	<p>4. Availability</p> <p>* Give what is available in the house when porridge is finished.</p>	
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Appendix 6.27: Solid foods of infants 6 – 8 months and reasons – Grandmothers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Food Sources:	<ul style="list-style-type: none"> • Mealie meal porridge • Instant porridge (ACE®) • *”Meelbol” • Cooked vegetables (butternut, pumpkin, gem squash,carrots,potato). • Vegetables with gravy. • Any “food from the pot”. 	<ul style="list-style-type: none"> • Purity® (vegetables) • Baby porridge • Cooked vegetables with potato. • Vegetables (gem squash, carrots, pumpkin). • Meat (minced) • Mix potato, vegetables and meat together. 	<ul style="list-style-type: none"> • Rice porridge (Purity®, Cerelac®, Nestum®) • Purity® (jar) • Mixed vegetables (gem squash, carrots) with potatoes. • Mix rice and potato with gravy. 	<ul style="list-style-type: none"> • Weetbix® & sour milk (<i>Amasi</i>®). • Mix potato or rice with vegetables (gem squash, carrots).
“Meelbol”:	<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * When no money is available for formula milk. 2. Accessibility <ul style="list-style-type: none"> * Always available in the house. 3. Teething / Sick <ul style="list-style-type: none"> * Gives the child strength. 			
“Food from the pot”:	<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * Cannot afford specialized baby foods. 2. Availability <ul style="list-style-type: none"> * Feed the child with what is 	<ol style="list-style-type: none"> 1. Exposure to different tastes. 	<u>General:</u> <ol style="list-style-type: none"> 1. Appropriate <ul style="list-style-type: none"> * Food that is appropriate at this age. 2. Well-known 	<ol style="list-style-type: none"> 1. Healthy <ul style="list-style-type: none"> * Good for child’s digestive system. 2. Finance <ul style="list-style-type: none"> * Do not have money to buy

	<p>available in the house.</p> <p>3. Variety & exposure to different tastes</p> <ul style="list-style-type: none"> * Child needs salty & sweet foods (alternate sweet porridge with salty vegetables). 		<ul style="list-style-type: none"> * Foods that you are familiar with. 	<p>purity.</p> <p>3. Availability</p> <ul style="list-style-type: none"> * Use food that is available in the house. <p>4. Content</p> <ul style="list-style-type: none"> * Contains protein. * Content of home-cooked food is known. * Add what is needed to home-cooked food.
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Appendix 6.28: Solid foods of infants 6 – 8 months and reasons - Fathers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Food Sources:	<ul style="list-style-type: none"> • Potatoes • Boiled vegetables (gem squash, butternut, pumpkin, carrots). 	<ul style="list-style-type: none"> • Baby porridge (Nestum[®]) • **Meelbol** • Mashed potatoes • Vegetables (gem squash, carrots). • Mix potatoes, vegetables and meat together. 	<ul style="list-style-type: none"> • Rice porridge (Nestum[®], Purity[®], Cerelac[®]) • Purity[®] (Jar) • Fruit • Vegetables (butternut, gem squash, carrots). • Mix potato or rice with vegetables. • Mashed potatoes. • Drained water from cooked samp. • Fish 	<ul style="list-style-type: none"> • Rice porridge (Purity[®], Nestum[®]) • Instant porridge (ACE[®]) • Morvite[®] porridge • Purity[®] (Fruit & Vegetable) • Yogurt (Purity[®]) • Vegetables (carrots, butternut, pumpkin, gem squash).
Rice Porridge:		<p>1. Consistency</p> <ul style="list-style-type: none"> * Very soft and fine. * Easy to swallow. * Mealie meal is not as soft. 		
Instant foods:				<p><u>Purity[®]</u>:</p> <ol style="list-style-type: none"> 1. Convenience <ul style="list-style-type: none"> * Can be used when travelling. 2. Variety <ul style="list-style-type: none"> * Different flavours to choose from. 3. Saves time

				* When you do not have time to cook.
“Food from the pot”:	<ol style="list-style-type: none"> 1. Consistency <ul style="list-style-type: none"> * Foods are soft. 2. Healthy 3. Content <ul style="list-style-type: none"> * Contains vitamins. * Do not need to add anything to it. 	<ol style="list-style-type: none"> 1. Content <ul style="list-style-type: none"> * Potatoes contain starch. * Build the body and makes child strong. 2. Suitability <ul style="list-style-type: none"> * Can give anything that's available as long as it is suitable for the child. 	<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * Save money (rather than buying special foods). 2. Fresh <ul style="list-style-type: none"> * Not pasteurized like purity. 3. Content <ul style="list-style-type: none"> * Have all the nutrients the child needs. 	<u>General:</u> <ol style="list-style-type: none"> 1. Preference <ul style="list-style-type: none"> * Can see child enjoys food given.

Appendix 6.29: Solid foods of infants 9 – 12 months and reasons – Mothers / Primary caregivers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Food Sources:	<ul style="list-style-type: none"> • Fruit (bananas, oranges, naartjies, apples, pears). • Vegetables 	<ul style="list-style-type: none"> • Fruit • Cooked vegetables. • Food out of the pot. 	<ul style="list-style-type: none"> • Soft porridge. • Instant porridge (ACE®). • Vegetables (gem squash) with potato. • Food cooked for the rest of the family (mixed with potato and gravy). 	<ul style="list-style-type: none"> • Rice porridge • Nutrific® • Instant porridge (ACE®). • Maize meal porridge. • Bread with sour milk (<i>Amasi</i>®). • Food out of the pot (potatoes, rice, carrots, butternut) with gravy.
Instant foods:			<p><u>Instant porridge (ACE®)</u></p> <p>1. Affordable</p> <ul style="list-style-type: none"> * Other baby porridges are too expensive. <p>2. Preference</p> <ul style="list-style-type: none"> * Child doesn't like baby porridge anymore. 	
Vegetable pot:	<p>1. Development</p> <ul style="list-style-type: none"> * Child is now past the stage of baby foods. * Portion size must increase. 	<p><u>Vegetables:</u></p> <p>1. Growth / Development</p> <ul style="list-style-type: none"> * Makes bones strong. <p>2. Finance</p>	<p>1. Development</p> <ul style="list-style-type: none"> * Baby is ready to eat food prepared for the family. <p>2. Content</p>	<p>1. Growth & Development</p> <ul style="list-style-type: none"> * Child gains weight. * Gives child strength (baby foods no longer sufficient).

	<p>2. Satiety</p> <ul style="list-style-type: none"> * Needs food that is more filling (Energy dense). * Baby foods are not filling enough. <p>3. Variety / Exposure to tastes.</p> <ul style="list-style-type: none"> * Must familiarize the child with different foods after formula milk. <p><u>Vegetables:</u></p> <p>1. Development</p> <ul style="list-style-type: none"> * Good for child's brain. <p>2. Content</p> <ul style="list-style-type: none"> * Ensures the child gets enough vitamins. 	<p>More affordable when child eats "food from the pot".</p>	<ul style="list-style-type: none"> * Provides nutrition that the child needs. * Good for bones and teeth. <p>3. Healthy</p> <ul style="list-style-type: none"> * Child is growing. 	<p>2. Preference</p> <ul style="list-style-type: none"> * Child enjoys food. <p>3. Healthy</p> <ul style="list-style-type: none"> * Child doesn't get sick. * Good for bones and teeth. <p><u>Vegetables:</u></p> <p>1. Content</p> <ul style="list-style-type: none"> * Contains vitamins. * Nutritious <p>2. Advice from parents.</p>
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Appendix 6.30: Solid foods of infants 9 – 12 months and reasons – Grandmothers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Food Sources:	<ul style="list-style-type: none"> • Fruit (bananas, oranges). • Potatoes mixed with vegetables (gem squash). • Food out of the pot (cooked for the rest of the family). 	<ul style="list-style-type: none"> • Vegetables (cauliflower, carrots, gem squash, pumpkin). • Food out of the pot (mix rice, potato, meat and vegetables together). 	<ul style="list-style-type: none"> • Maize meal porridge. • Brown bread and sour milk (<i>Amasi</i>[®]). • Rice & potatoes with meat gravy. • Stiff porridge with gravy. • Mash potatoes. • Vegetables (gem squash, carrots) mixed with potato. • Food out of the pot – cooked for the family. 	<ul style="list-style-type: none"> • Soft porridge • Crumbly porridge and sour milk (<i>Amasi</i>[®]) • Porridge and spinach • Bread and sour milk (<i>Amasi</i>[®]) • Food out of the pot - cooked for the rest of the family
Bread & Amasi:			<ol style="list-style-type: none"> 1. Consistency <ul style="list-style-type: none"> * Soft for the child. 2. Preference <ul style="list-style-type: none"> * Child enjoys it. 3. Healthy <ul style="list-style-type: none"> * Makes bones strong. 4. Well-known <ul style="list-style-type: none"> * Used by parents as well for feeding infants. 	
“Food from the pot”:	<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * No money for special baby foods. 	<ol style="list-style-type: none"> 1. Healthy 	<ol style="list-style-type: none"> 1. Development <ul style="list-style-type: none"> * At this stage the child can eat home-cooked food. 	<ol style="list-style-type: none"> 1. Familiar <ul style="list-style-type: none"> * Grew up with the same types of food.

	<p>2. Healthy</p> <ul style="list-style-type: none"> * Gets all the nutrients that the rest of the household is getting. <p>3. Growth / Development</p> <ul style="list-style-type: none"> * Ensures child grows up strong. <p>4. Consistency</p> <ul style="list-style-type: none"> * Can add gravy and mash food together. * Ensures it's soft enough for child to eat. 		<p>2. Save money</p> <ul style="list-style-type: none"> * Do not need to buy special foods. <p>3. Convenience</p> <ul style="list-style-type: none"> * Do not need to cook special food apart from food for household. <p>4. Healthy</p> <p>5. Growth</p> <ul style="list-style-type: none"> * Child gains weight quickly. <p>6. Preference</p> <ul style="list-style-type: none"> * Child shows interest in what others are eating. <p><u>Vegetables:</u></p> <p>1. Healthy</p> <ul style="list-style-type: none"> * Come from soil. * Not as sweet as rice porridge. <p>2. Growth & development</p> <ul style="list-style-type: none"> * Child becomes strong enough to crawl – evidence that food is healthy. 	<p>2. Finance</p> <ul style="list-style-type: none"> * No money available for ready-made foods. <p>3. Preference</p> <ul style="list-style-type: none"> * Child likes cooked food more than baby porridge. <p>4. Satiety</p> <ul style="list-style-type: none"> * Child gets full with this food. <p>5. Growth & Development</p> <ul style="list-style-type: none"> * Child is gaining weight.
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Appendix 6.31: Solid foods of infants 9 – 12 months and reasons – Fathers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Food Sources:	<ul style="list-style-type: none"> Food eaten by the rest of the household. 	<ul style="list-style-type: none"> Food eaten by rest of the household. Porridge Porridge with meat. Vegetables (carrots, gem squash) with potato. 	<ul style="list-style-type: none"> Ready-made Smash[®]. Mashed potatoes. Fruits and vegetables. Food out of the pot – cooked for the rest of the family. 	<ul style="list-style-type: none"> Maize meal porridge. Sour milk (<i>Amasi</i>[®]). Fruit (banana) with yogurt. Mashed potatoes. Vegetables with meat gravy (butternut, carrots, potatoes). Food out of the pot – cooked for the rest of the family.
“Food from the pot”:	<ol style="list-style-type: none"> Development <ul style="list-style-type: none"> Teething 	<ol style="list-style-type: none"> Finance <ul style="list-style-type: none"> Save money when child eats household food. Self-feeding <ul style="list-style-type: none"> Child wants to eat by himself. Give food in a small plate. Healthy 	<ol style="list-style-type: none"> Content <ul style="list-style-type: none"> Contains vitamins and energy. Growth & Development <ul style="list-style-type: none"> Child is gaining weight. Preference <ul style="list-style-type: none"> Can see child likes the food you are giving. 	<ol style="list-style-type: none"> Interest <ul style="list-style-type: none"> Child grabs at plate with food. Preference <ul style="list-style-type: none"> Child likes cooked food more than sweet porridge. Growth & Development <ul style="list-style-type: none"> Child is growing healthy. <p><u>Vegetables</u></p> <ol style="list-style-type: none"> Healthy <ul style="list-style-type: none"> Build a strong body. Content <ul style="list-style-type: none"> Contains protein, calcium and Vitamin A & B.

Appendix 6.32: Age of introduction of complementary foods and reasons – Mothers / Primary Caregivers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Ages mentioned:	<ul style="list-style-type: none"> • 5 months • 6 months • 1 year • Older than 2 years 	<ul style="list-style-type: none"> • 3 months • 2 years 	<ul style="list-style-type: none"> • Birth to 2 days – tap water / gripe water. • 3 months – purity pap / purity food. • 4 months – rice porridge in bottle. • 6 months – vegetables. • 8 months • 12 months 	<ul style="list-style-type: none"> • 3 months • 4 months – baby porridge. • 6 months – house food.
Reasons:			<ol style="list-style-type: none"> 1. Developmental Readiness <ul style="list-style-type: none"> * Child is grown up, active and moving around. 2. Information <ul style="list-style-type: none"> * Ages indicated on baby foods. 3. Medical reasons <ul style="list-style-type: none"> * Tap water / gripe water helps with cholic. 4. Satiety <ul style="list-style-type: none"> * Child not getting full on milk only. 	<ol style="list-style-type: none"> 1. Development <ul style="list-style-type: none"> * Child growing well because of introduction of porridge at 4 months. 2. Satiety <ul style="list-style-type: none"> * Baby doesn't get full on milk only.

Appendix 6.33: Age of introduction of complementary foods and reasons – Grandmothers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Ages mentioned:	<ul style="list-style-type: none"> • 1 year 	<ul style="list-style-type: none"> • 3 – 4 months 	<ul style="list-style-type: none"> • From Birth – glucose water. • 1 week – water. • 2 months – juices. • 3 months – solid foods. 	<ul style="list-style-type: none"> • 3 days – purity. • 1 week – cerelac mixed with milk. • 4 months – rooibos tea, baby porridge & solid foods.
Reasons:	<ol style="list-style-type: none"> 1. Finance <ul style="list-style-type: none"> * Milk is expensive. * Replace milk with juice. 	<ol style="list-style-type: none"> 1. Milk production <ul style="list-style-type: none"> * Decrease at 3 months. * Not enough breastmilk anymore. 2. Exposure <ul style="list-style-type: none"> * Child must get used to different foods and liquids. 	<ol style="list-style-type: none"> 1. Satiety <ul style="list-style-type: none"> * Breastmilk not enough, baby cries at night. 2. Developmental Readiness <ul style="list-style-type: none"> * Stomach ready for solid foods. 3. Medical reasons <ul style="list-style-type: none"> * Glucose water helps the child to swallow and cleans the stomach. 	<ol style="list-style-type: none"> 1. Baby crying. 2. Baby restless. 3. Mother not breastfeeding. 4. Advice from clinic staff.

6.34: Age of introduction of complementary foods and reasons – Fathers from Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Ages mentioned:	<ul style="list-style-type: none"> • 1 year • 1 year and 6 months 	<ul style="list-style-type: none"> • 4 months • 5 months • 6 months • 10 months 	<ul style="list-style-type: none"> • 2 months – solid foods. • 6 months – solid foods. • 9 months – different foods. 	<ul style="list-style-type: none"> • 1 month – water. • 4 months • 6 months – vegetables / solid foods. • 12 months – juices.
Reasons:			<ol style="list-style-type: none"> 1. Satiety <ul style="list-style-type: none"> * Breastmilk is not enough. 2. Child showing interest <ul style="list-style-type: none"> * Grabbing food. 3. Developmental Readiness <ul style="list-style-type: none"> * Test to see if child is ready for food. * Child is teething – can chew food now. 	<ol style="list-style-type: none"> 1. Developmental Readiness <ul style="list-style-type: none"> * Child is teething – can chew food.

Appendix 6.35: Solid foods and other liquids that should be introduced first – Mothers / Primary Caregivers from Avian Park & Zweletemba

	Avian Park		Zweletemba			Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal		Formal	Informal	Formal	Informal
Other liquids:	1. Water	1. Water(Boiled)	1. Water	1. Water	Solid Foods:	1. Yogurt	1. Porridge	1. Porridge	1. Porridge
	2. Rooibos® tea	2. Juice	<ul style="list-style-type: none"> Mixed with Gripe Water®. 	<ul style="list-style-type: none"> 250ml water + 1 ts sugar. Water mixed with Gripe Water®. Water mixed with Saccharoi syrup®. 		<ul style="list-style-type: none"> Baby porridge Thin mielie meal porridge in a feeding bottle. Magou Ngxhotie (brown porridge made to a thin consistency in a feeding bottle). 	<ul style="list-style-type: none"> Rice porridge Mielie meal porridge 	<ul style="list-style-type: none"> Purity® rice cereal Neslé® cereal Thin porridge in a feeding bottle. 	<ul style="list-style-type: none"> Rice porridge (Cerelac®, Purity® and Neslé®) ACE® porridge Purity® Cream of Maize
	3. Juice	<ul style="list-style-type: none"> Purity® juice Infacare® juice 	<ul style="list-style-type: none"> Boiled water. ¾ water and ¼ Telament® syrup. 	<ul style="list-style-type: none"> 2. Tea One teabag in a bottle of boiling water + 2 teaspoons of sugar. Purity® rooibos tea 	<ul style="list-style-type: none"> 3. Meelbol Meelbol mixed with custard. 	<ul style="list-style-type: none"> 2. Purity® 3. Vegetables 4. Home-cooked food Mash potato and pumpkin. “Food from the pot” (prepared for the rest of the family). 	<ul style="list-style-type: none"> Thin porridge in a feeding bottle. 	<ul style="list-style-type: none"> 2. Meelbol 3. Purity® Vegetables 4. Home-cooked food Mash potato with butternut and gravy. Potato mixed with carrots 	
	4. Cold drinks	3. Baby porridge in a bottle.	2. Juice						
	<ul style="list-style-type: none"> Cabana® juice Carbonated drinks – shake the gas out. 	4. Meelbol	<ul style="list-style-type: none"> Other juice Purity® syrup 						

				<ul style="list-style-type: none"> • Fanta® Orange <p>5. Juice</p> <ul style="list-style-type: none"> • Orange juice • Purity® juice <p>6. Other</p> <ul style="list-style-type: none"> • Jelly mixed with water. 					<p>4. Other</p> <ul style="list-style-type: none"> • Cheese curls® • Marie® biscuits <p>5. Vegetables</p> <ul style="list-style-type: none"> • Butternut • Gem squash <p>6. Home-cooked food</p> <ul style="list-style-type: none"> • Potatoes and spaghetti. • Potatoes with chicken. • Chicken thigh (the child can hold it in his / her hand and suck on it). 	and fine meat.
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Appendix 6.36: Solid foods and other liquids that should be introduced first – Grandmothers from Avian Park & Zweletemba

	Avian Park		Zweletemba			Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal		Formal	Informal	Formal	Informal
Other liquids:	1. Water	1. Boiled water	1. Water	1. Water	Solid Foods:	1. Porridge	1. Porridge	1. Porridge	1. Porridge
	2. Juice	2. Juice	2. Juice	<ul style="list-style-type: none"> Water with added sugar. 		2. Yogurt	<ul style="list-style-type: none"> Purity[®] rice porridge. 	<ul style="list-style-type: none"> Thin porridge in a feeding bottle. 	<ul style="list-style-type: none"> Soft porridge with margarine.
	<ul style="list-style-type: none"> Fiesta[®] Juice 	3. Rooibos [®] tea	<ul style="list-style-type: none"> Purity[®] juice 	2. Rooibos [®] tea	3. Potatoes	<ul style="list-style-type: none"> Mielie meal porridge. 	<ul style="list-style-type: none"> Rice porridge (Nestum[®], Cerelac[®] & Purity[®]) 	<ul style="list-style-type: none"> Rice porridge (Cerelac[®], Nestum[®]) 	
	<ul style="list-style-type: none"> Cabana[®] Juice 	4. Drinking yogurt in the feeding bottle.	3. Rooibos [®] tea	3. Juice	4. Vegetables	2. <i>Meelbol</i>	2. Purity [®] (fruit & vegetables)	2. <i>Meelbol</i>	
	3. <i>Meelbol</i>			4. <i>Meelbol</i>	<ul style="list-style-type: none"> Carrots 	3. Home-cooked food	3. Smash [®]	3. Fruit purity [®]	
	4. Tea			<ul style="list-style-type: none"> In a feeding bottle. 	<ul style="list-style-type: none"> Pumpkin 	<ul style="list-style-type: none"> Cooked potatoes with margarine. 	4. Boiled eggs – crushed.		
	<ul style="list-style-type: none"> Rooibos[®] Tea 			5. Other	<ul style="list-style-type: none"> Butternut 	<ul style="list-style-type: none"> Potato mixed with gem squash. 	5. Home-cooked food		
	5. Cold drinks			<ul style="list-style-type: none"> Custard powder mixed with water and sugar (in a feeding bottle – uncooked). 	<ul style="list-style-type: none"> Gem squash 	<ul style="list-style-type: none"> Potato mixed with gem squash. 	<ul style="list-style-type: none"> Vegetables like gem squash, carrots, butternut, pumpkin and 		
	<ul style="list-style-type: none"> Oros[®] 				<ul style="list-style-type: none"> Cabbage 	4. Other			
	6. Other				<ul style="list-style-type: none"> Spinach 	<ul style="list-style-type: none"> <i>Lym</i> (Custard with cinnamon). 			
	<ul style="list-style-type: none"> Long life milk mixed with custard powder. 								
	<ul style="list-style-type: none"> Nesquick[®] 								
	<ul style="list-style-type: none"> Milo[®] and 								

	boiled water. <ul style="list-style-type: none">• “Whatever is available in the house for the rest of the family to drink”.						potatoes. <ul style="list-style-type: none">• “Food from the pot” (prepared for the rest of the family).	
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Appendix 6.37: Solid foods and other liquids that should be introduced first – Fathers from Avian Park & Zweletemba

	Avian Park		Zweletemba			Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal		Formal	Informal	Formal	Informal
Other liquids:	1. Juice <ul style="list-style-type: none"> • Fiesta[®] juice 2. Cold drinks <ul style="list-style-type: none"> • Carbonated cold drink – shake the gas out. 3. Other <ul style="list-style-type: none"> • Milo[®] 	1. Water 2. Tea 3. Coffee 4. Juice <ul style="list-style-type: none"> • Normal juice • Baby juice 5. Cold drinks <ul style="list-style-type: none"> • Carbonated drinks like Coke[®] and Schweppes[®] – shake the gas out. 6. Other <ul style="list-style-type: none"> • Ultramel[®] in the feeding bottle. • Amasi[®] 	1. Water 2. Juice <ul style="list-style-type: none"> • Purity[®] Juice • Normal Juice 3. Tea <ul style="list-style-type: none"> • Rooibos[®] tea 	1. Water 2. Juice 3. Rooibos [®] tea 4. Nutrogene [®]	Solid Foods:		1. Porridge <ul style="list-style-type: none"> • Purity[®] porridge • Weetbix[®] • Thin porridge. 2. Purity [®] in the jars. 3. Fruit <ul style="list-style-type: none"> • Banana 4. Potatoes 5. Vegetables <ul style="list-style-type: none"> • Butternut • Gem squash 6. Home-cooked food. <ul style="list-style-type: none"> • Potatoes mixed with rice and 	1. Porridge <ul style="list-style-type: none"> • Nestum[®] rice cereal. 2. Cooked vegetables. 3. Mashed potatoes.	1. Purity [®] Vegetables 2. Vegetables <ul style="list-style-type: none"> • Gem squash • Potatoes • Carrots • Butternut

							gravy. 7. Other <ul style="list-style-type: none">• Marie® biscuits• Ultramel®• Biscuits		
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Appendix 6.38: Preparation of solid foods – Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<p><u>Maize meal porridge:</u></p> <ul style="list-style-type: none"> * Add sugar, milk & margarine. <p><u>Rice porridge:</u></p> <ul style="list-style-type: none"> * Add boiling water, cow's milk or formula milk. <p><u>Magou:</u></p> <ul style="list-style-type: none"> * Boil & throw through a sieve. <p><u>Meelbot:</u></p> <ul style="list-style-type: none"> * Add butter & bread flour in a hot pan until brown. Let it cool down and mix with water in child's bottle. 		<p><u>Maize meal porridge:</u></p> <ul style="list-style-type: none"> * Add peanut butter <p><u>Vegetables and potato – mash together and add:</u></p> <ul style="list-style-type: none"> * Sugar * Margarine / butter * Aromat * Milk * Rice porridge (Nestum) * Gravy 	<p><u>Maize meal porridge:</u></p> <ul style="list-style-type: none"> * Add margarine or peanut butter. <p><u>Vegetables & potatoes:</u></p> <ul style="list-style-type: none"> * Cook together and add margarine & salt.
Grandmothers			<p><u>Vegetables & potatoes:</u></p> <ul style="list-style-type: none"> * Cook together, mash and add margarine and salt. 	<p><u>Vegetables & potatoes:</u></p> <ul style="list-style-type: none"> * Cook, mash together and add margarine and salt. <p><u>Butternut:</u></p> <ul style="list-style-type: none"> * Add fish oil, butter and sugar.
Fathers			<p><u>Vegetables:</u></p> <ul style="list-style-type: none"> * Cook only with water. * Add: butter, sugar, salt and gravy. * Should not fry food or add spices. 	<p><u>Vegetables:</u></p> <ul style="list-style-type: none"> * Cook in water, mash and add butter, sugar and salt. <p><u>Butternut:</u></p> <ul style="list-style-type: none"> * Add margarine & sugar.

Appendix 6.39: Portion of solid foods given – Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<p><u>Porridge:</u></p> <ul style="list-style-type: none"> * 1 big spoon * Med baby bowl <p><u>Vegetables:</u></p> <ul style="list-style-type: none"> * ½ gem squash / 2 table spoons of other vegetables. * Feed child until full & he / she refuses to eat. 		<p><u>Rice porridge:</u></p> <ul style="list-style-type: none"> * 2 – 4 teaspoons * 1 table spoon * In a feeding bottle (175ml). <p><u>Vegetables:</u></p> <ul style="list-style-type: none"> * 1 – 2 big spoons * 1 med potato * 250g 	<p><u>Purity[®] Cream of Maize:</u></p> <ul style="list-style-type: none"> * 2 table spoons <p><u>Rice Porridge:</u></p> <ul style="list-style-type: none"> * 2 – 3 table spoons <p><u>Nutrific[®] & Milk:</u></p> <ul style="list-style-type: none"> * x 3 portions with milk <p><u>Bread and <i>Amasi</i>[®]:</u></p> <ul style="list-style-type: none"> * 1 slice + small cup <p><u>Cooked vegetables & potato:</u></p> <ul style="list-style-type: none"> * 1 big serving spoon * 1 - 2 table spoons <p><u>Purity[®] jar:</u> 1 x (250g)</p> <p><u><i>Meelbol</i></u></p> <ul style="list-style-type: none"> * 2 table spoons of flour
Grandmothers			<p><u>General:</u></p> <ul style="list-style-type: none"> * Start with 2 table spoons. 	
Fathers			<p><u>Cooked food:</u></p> <ul style="list-style-type: none"> * 2 – 3 table spoons. <p><u>Yogurt</u></p> <ul style="list-style-type: none"> * Small jar – 125ml (increase to 2 jars). 	<p><u>General:</u></p> <ul style="list-style-type: none"> * Measure food with the eye. * Feed child until full. * Start with 1 serving spoon. <p><u>Weetbix[®]:</u></p>

			# Adjust the amount of spoons until you see the baby is full.	* 1 – 2 portions <u>Porridge:</u> * Babies small bowl. <u>Purity</u> [®] : 1 jar
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Appendix 6.40: Importance of food and other liquids between 6 – 12 months. – Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<p>1. Weight gain</p> <p>2. Variety</p> <ul style="list-style-type: none"> * Other fluids than milk. * Exposure to different liquids. * Variety of foods needed. <p>3. Satiety</p> <ul style="list-style-type: none"> * At 6 months breastmilk and formula milk is not enough, other solid foods are needed. * Water intake after meals, keep child full for longer. 	<p>1. Medicinal Purposes</p> <ul style="list-style-type: none"> * Water for acid reflux. * Medicine bottle is - helps gasses to come out. * Juice helps with constipation. <p>2. Satiety</p> <ul style="list-style-type: none"> * Foods & liquids are necessary to fill child's stomach. * Milk alone is no longer enough. * Solid foods keep child full for longer. <p>3. Variety</p> <ul style="list-style-type: none"> * Child doesn't like the same thing over & over again. <p>4. Exposure</p> <ul style="list-style-type: none"> * Child must get used to different tastes and flavours. <p>5. Positive effect on child's behaviour.</p> <ul style="list-style-type: none"> * Calmer versus being restless – because child is satisfied for longer. 	<p>1. Development</p> <ul style="list-style-type: none"> * Body needs the nutrients. * Baby is old enough for foods and liquids other than breastmilk or formula milk. <p>2. Convenience</p> <ul style="list-style-type: none"> * No special foods / milk needed when leaving baby with others. * Formula milk can also be used when at work. <p>3. Content</p> <ul style="list-style-type: none"> * Foods contain protein – important for growth. 	<p>1. Advice from clinic staff</p> <ul style="list-style-type: none"> * To start with foods and other liquid at 6 months. <p>2. Behaviour of child</p> <ul style="list-style-type: none"> * Solid foods – child cries less and wakes up less during the night. <p>3. Satiety</p> <ul style="list-style-type: none"> * Baby doesn't get enough from milk only. <p>4. Convenience</p> <ul style="list-style-type: none"> * When away for work, people can feed baby with what they have at home. <p>5. Financial reasons</p> <ul style="list-style-type: none"> * When there is no money available for special baby products – can cook home food or give tea instead of formula milk.
Grandmothers	<p>1. Healthy growth</p> <p>2. Alternative when unable to give</p>	<p>1. Convenience</p> <ul style="list-style-type: none"> * Mother not home, must be able 	<p>1. Healthy</p>	<p>1. Convenience</p> <ul style="list-style-type: none"> * When mother is not home –

	<p>breastmilk.</p> <ul style="list-style-type: none"> * When mothers' milk is not healthy – rather give tea, juices and solid foods. <p>3. Thirst</p> <ul style="list-style-type: none"> * Child thirsty for something other than milk. 	<p>to feed the child with something else.</p>	<ul style="list-style-type: none"> * Gives strength. * Cleans mouth and throat. <p>2. Convenience</p> <ul style="list-style-type: none"> * Baby can be fed with foods and other liquids when mother is not home. (Mother can breastfeed when she is home) <p>3. Development</p> <ul style="list-style-type: none"> * With foods / liquids you are able to evaluate child's ability to swallow (not able to with only milk). <p>4. Financial reasons</p> <ul style="list-style-type: none"> * When giving solid foods, save money on milk. 	<p>child is already used to other foods and liquids – do not struggle when suddenly feeding with different foods and liquids.</p> <p>2. Satiety</p> <ul style="list-style-type: none"> * At this age – do not get enough from breastmilk anymore, need formula milk.
<p>Fathers</p>	<p>1. Development</p> <ul style="list-style-type: none"> * Teaches child to eat by himself (spoon-feeding) * Child learns eating behaviour of parents. * Develop likes and dislikes. 	<p>1. Exposure</p> <ul style="list-style-type: none"> * To different foods and liquids with different tastes. <p>2. Self-feeding</p> <ul style="list-style-type: none"> * Teaches a child to eat by himself / herself. 	<p>1. Satiety</p> <ul style="list-style-type: none"> * Child doesn't get enough from breastmilk. <p>2. Healthy</p> <ul style="list-style-type: none"> * As long as you don't overfeed. <p>3. Convenience</p> <ul style="list-style-type: none"> * When mother works, feed child with foods and other liquids. <p>4. Feeding Schedule</p> <ul style="list-style-type: none"> * Feeding times and amounts are important. * Prevents obesity. 	<p>1. Satiety</p> <ul style="list-style-type: none"> * Child doesn't get enough from breastmilk. <p>2. Variety</p> <ul style="list-style-type: none"> * Familiarize child with different foods. <p>3. Childs' behaviour</p> <ul style="list-style-type: none"> * Child cries – indicates he / she is not satisfied. <p>4. Interest</p> <ul style="list-style-type: none"> * Child shows that he / she wants your food. <p>5. Convenience</p> <ul style="list-style-type: none"> * Mother is able to leave child, because child can eat

				anything. 6. Healthy * Child gets what his / her body needs.
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Appendix 6.41: Importance of support with the feeding of a child between 6 – 12 months. – Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<p>1. Shared responsibility</p> <ul style="list-style-type: none"> * Taking care of the child (by both mother and father). * Or shared with parents (own mother and father). <p>2. Fathers' involvement</p> <ul style="list-style-type: none"> * Part of child's life. <p>3. Financial support</p> <ul style="list-style-type: none"> * From community. * From father of child. <p>4. Emotional support</p> <ul style="list-style-type: none"> * From other mothers in the community. 	<p>1. Shared responsibility</p> <ul style="list-style-type: none"> * To help out especially at night. <p>2. Family support</p> <ul style="list-style-type: none"> * When problems arise (e.g. from mother or sister) <p>3. Fathers' involvement</p> <ul style="list-style-type: none"> * Fatherly love and attention. * Role to play in child's life. (mother cannot play both roles) 	<p>1. Family support</p> <ul style="list-style-type: none"> * Mother provides information that is needed for raising a child. * Trust advice from family members. * Important especially when it is your first child. <p>2. Financial support</p> <ul style="list-style-type: none"> * Father must help to provide for the baby. <p>3. Shared responsibility</p> <ul style="list-style-type: none"> * Family helps to raise the child. * It allows the mother to rest for a while. <p>4. Emotional support</p> <ul style="list-style-type: none"> * Helps to get through the process of becoming a mother. 	<p>1. Financial support</p> <ul style="list-style-type: none"> * From family. * Especially grandmother of child. <p>2. Community support</p> <ul style="list-style-type: none"> * Very important – can use vegetables from each others' gardens. <p>3. Knowledge / experience</p> <ul style="list-style-type: none"> * When advice is needed with regards to raising a child or dealing with problems etc. <p>4. Shared responsibility</p> <ul style="list-style-type: none"> * Family (mother) helps with duties like feeding etc.
Grandmothers	<p>1. Financial support</p> <ul style="list-style-type: none"> * Father must help financially to provide for the child's needs. <p>2. Fathers' involvement</p> <ul style="list-style-type: none"> * Not sufficient and not allowed in certain households. 	<p>1. Community support</p> <ul style="list-style-type: none"> * People in community provide advice if you have a problem. <p>2. Shared responsibility</p> <ul style="list-style-type: none"> * Between father and mother. 	<p>1. Family support</p> <ul style="list-style-type: none"> * To care for the child (mother is still at school or works out of town). 	<p>1. Family support</p> <ul style="list-style-type: none"> * Grandmother takes over the role of the mother with regards to raising the child. * Mother is able to go to school. <p>2. Shared responsibility</p>

	<p>3. Shared responsibility</p> <ul style="list-style-type: none"> * By mother and father in raising the child. 			<ul style="list-style-type: none"> * Grandmother takes over most of the responsibilities in raising the child.
Fathers	<p>1. Fathers' involvement</p> <ul style="list-style-type: none"> * Role to play in household. * Bond with child. <p>2. Shared responsibility</p> <ul style="list-style-type: none"> * Raising the child. <p>3. Positive relationship</p> <ul style="list-style-type: none"> * Between the mother and father of the child is important. 	<p>1. Family support</p> <ul style="list-style-type: none"> * Seek advice from grandmother (source of information). * Grandmother must first approve everything (food and milk). <p>2. Fathers' involvement / support</p> <ul style="list-style-type: none"> * To care for child. * To help raise child. * To provide love. 	<p>1. Shared responsibility</p> <ul style="list-style-type: none"> * Father must help with raising the child. 	<p>1. Shared responsibility</p> <ul style="list-style-type: none"> * Raising the child. <p>2. Emotional support</p> <ul style="list-style-type: none"> * Important to be there for the mother and to love her. <p>3. Financial support</p> <ul style="list-style-type: none"> * From family – when unemployed. <p>4. Community support</p> <ul style="list-style-type: none"> * Neighbours give advice and help with taking care of child.

Appendix 6.42: Sources of advice and information with regards to feeding of a child between 6 – 12 months – Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<u>Milk:</u> * Clinic staff * Own information * Dietitian <u>Solid foods:</u> * Mother * Grandmother * Sister * Clinic Staff <u>Both milk and solid foods:</u> * Mother-in-law * Mother * Grandmother * Aunt * Family * Books / Internet * TV / Radio	<u>Milk:</u> * Clinic staff * Hospital staff <u>Solid foods:</u> * Grandmother <u>Both milk and sold foods:</u> * Hospital staff * Mother * Radio / TV	<u>Both milk and solid foods:</u> * Clinic staff * TV * Grandmother * Mother * Doctors * Other mothers in the community.	<u>Milk:</u> * Clinic staff <u>Solid foods:</u> * At home * Clinic staff * Grandmother <u>Both milk and solid foods:</u> * Mother * Grandmother * Radio / TV
Grandmothers	<u>Both milk and solid foods:</u> * Clinic booklet	<u>Both milk and solid foods:</u> * Mother	<u>Both milk and solid foods:</u> * Clinic staff	<u>Both milk and solid foods:</u> * Clinic staff

	<ul style="list-style-type: none"> * Neighbours * Members of the community. * Own experience * Clinic staff 	<ul style="list-style-type: none"> * Grandmother * Clinic staff * Members of the community * TV 	<ul style="list-style-type: none"> * Advice carried over by parents. 	<ul style="list-style-type: none"> * Pamphlets * TV / Radio
Fathers	<p><u>Milk:</u></p> <ul style="list-style-type: none"> * Mother * Grandmother * Clinic staff * Doctor <p><u>Both milk and solid foods:</u></p> <ul style="list-style-type: none"> * News paper * Grandmother 	<p><u>Both milk and solid foods:</u></p> <ul style="list-style-type: none"> * Grandmother * Clinic staff * Clinic card 	<p><u>Both milk and solid foods:</u></p> <ul style="list-style-type: none"> * Mother * Grandmother * Neighbours * Books 	<ul style="list-style-type: none"> * No place to receive information. <p><u>Milk:</u></p> <ul style="list-style-type: none"> * Clinic staff <p><u>Solid foods:</u></p> <ul style="list-style-type: none"> * Grandmother * Neighbours * Clinic staff <p><u>Both milk and solid foods:</u></p> <ul style="list-style-type: none"> * Clinic staff * TV / Radio * Grandmother * Other family

Appendix 6.43: Advice received with regards to feeding of an infant between 6 – 12 months– Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<ol style="list-style-type: none"> 1. Use of formula milk. 2. Breastfeeding 3. Maintaining breastmilk production by means of good nutrition. 4. Increasing milk production. <ul style="list-style-type: none"> * Rooibos® tea 5. Teething – advice to harden gums during this period. 6. Increasing the child’s appetite: <ul style="list-style-type: none"> * Rooibos® tea. 	<ol style="list-style-type: none"> 1. Introduction of cow’s milk. 2. Remedies for diarrhoea. <ul style="list-style-type: none"> * Flour-water / Custard-water. * Jelly mixed with water. 	<ol style="list-style-type: none"> 1. Spoon-feeding <ul style="list-style-type: none"> * Method to ensure the child finishes all the food. 2. Hygiene <ul style="list-style-type: none"> * Sterilizing bottles 3. Supplementing food to increase energy-density. <ul style="list-style-type: none"> * Use peanut butter instead of margarine. 4. Increasing satiety. <ul style="list-style-type: none"> * Use maize meal porridge instead of purity porridge. 5. Increasing appetite <ul style="list-style-type: none"> * Rooibos® tea 6. Use of formula milk. 7. Relief of constipation. <ul style="list-style-type: none"> * Juice * Weetbix® 8. Remedies for diarrhoea (loose tummy) <ul style="list-style-type: none"> * Rooibos® Tea 9. Avoid overfeeding <ul style="list-style-type: none"> * Proteins cause restlessness & 	<ol style="list-style-type: none"> 1. Advice for colic. <ul style="list-style-type: none"> * Warm water first thing in the morning. * Gripe Water®. * Warm water with ½ teaspoon of sugar. 2. Meal distribution. <ul style="list-style-type: none"> * Lighter meals for breakfast and lunch, heavier meal for supper to keep baby full during the night. 3. Use of formula milk. 4. Advice for gastro / diarrhoea. <ul style="list-style-type: none"> * 1 litre of water with 8 teaspoons of sugar and ½ teaspoon of salt - on the clinic card. * Jelly mixed with warm water - at the hospital. 5. Advice for decreased appetite: <ul style="list-style-type: none"> * Rooibos® tea.

			<p>can result in death.</p> <p>10. Important to attend clinic visits according to clinic card.</p> <p>11. Picky-eaters</p> <ul style="list-style-type: none"> * Add gravy to vegetables if the child doesn't want to eat the vegetables. * Add variety so the child doesn't get bored. 	
Grandmothers	<ol style="list-style-type: none"> 1. Increasing the child's appetite. <ul style="list-style-type: none"> * Rooibos® tea in-between meals. 2. Remedies for weakness or when child is sick. <ul style="list-style-type: none"> * Rooibos® tea gives strength. 3. Use of formula milk. 	<ol style="list-style-type: none"> 1. Handling diarrhoea. <ul style="list-style-type: none"> * Glucose water. 	<ol style="list-style-type: none"> 1. When child is sick: <ul style="list-style-type: none"> * Mix silver sachet (ORT) with warm water and give with feeding bottle. 2. Decreased appetite: <ul style="list-style-type: none"> * Rooibos® tea. 	<ol style="list-style-type: none"> 1. Use of formula milk. 2. Advice for gastro / diarrhoea. <ul style="list-style-type: none"> * Sufficient water intake. 3. Advice for constipation: <ul style="list-style-type: none"> * Water with sugar – cleans the stomach. * <i>Meelbol</i> – make it thick like a porridge. 4. To increase appetite: <ul style="list-style-type: none"> * Rooibos® tea.
Fathers	<ol style="list-style-type: none"> 1. Need for information. 2. Need for nearby clinic. 		<ol style="list-style-type: none"> 1. Feeding porridge in a bottle – not recommended by nurses at the clinic. 	<ol style="list-style-type: none"> 1. Decreased appetite. <ul style="list-style-type: none"> * Rooibos® tea. 2. When child is sick. <ul style="list-style-type: none"> * Rooibos® Tea.

Appendix 6.44: Caregiver role in feeding infants between 6 – 12 months– Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<ol style="list-style-type: none"> 1. Sole responsibility of feeding. 2. Facilitate and teach self-feeding. 3. Ensure sufficient food intake and healthy eating. 	<ol style="list-style-type: none"> 1. Supervision while child eats on his / her own. 2. Feeding the child. <ul style="list-style-type: none"> * Can make sure intake of food is sufficient. * Child will play with food and waste it. 		
Grandmothers	<ol style="list-style-type: none"> 1. Provide necessary food for the household. 2. Instruct what food should be bought. 3. Provide financial aid to buy food. 3. Responsibility of feeding child. 4. Gives assistance to mother of child with feeding. 5. Cooking for the household. 6. Take care of the child. 	<ol style="list-style-type: none"> 1. Buy necessary food for household. 2. Take care of child's needs. 	<ol style="list-style-type: none"> 1. Feeding the child. 2. Provide milk / food for the child. 3. Ensure that the child is satisfied. 	<ol style="list-style-type: none"> 1. Give advice to mother of child. 2. Provide financially for the household – give instructions on what food items to buy. 3. Raise and take care of child. 4. Ensure that the mother sticks to the child's feeding schedule. 5. Handle difficult situations, like when the child doesn't have an appetite or is sick. 6. Take the child for clinic visits.
Fathers		<ol style="list-style-type: none"> 1. Provide financially. 2. Take care of child's needs. 3. Role of caregiver when mother is not at home. 	<ol style="list-style-type: none"> 1. Take the child for clinic visits. 2. Provide financially for child's needs. 	<ol style="list-style-type: none"> 1. Support mother. 2. Help with feeding the child. 3. Provide financially for child's needs. 4. Take care of child when mother is out / working.

Appendix 6.45: Barriers in feeding between 6 – 12 months– Avian Park & Zweletemba

	Avian Park		Zweletemba	
	Formal	Informal	Formal	Informal
Mothers / Primary Caregivers	<p>1. Lack of variety:</p> <ul style="list-style-type: none"> * Repetition of food items. * Makes child nauseous. * Child then refuses to eat. <p>2. Changing formula milk:</p> <ul style="list-style-type: none"> * Not accepted well. * Child vomits from new formula milk. <p>3. Decreased appetite with the following:</p> <ul style="list-style-type: none"> * Sick / stomach cramps * Oral thrush * Teething / Sore gums * Ear infection * Fever * Diarrhoea <p>4. Too frequent milk feeds:</p> <ul style="list-style-type: none"> * Child still satisfied at meal times. * Refuses to eat food. <p>5. Child prefers self-feeding:</p> <ul style="list-style-type: none"> * Refuses to eat when being fed. * Will only eat when allowed to 	<p>1. Financial problems:</p> <ul style="list-style-type: none"> * When money depleted – unable to buy formula milk. * Must borrow money / formula from neighbours or family. <p>2. Changing formula milk:</p> <ul style="list-style-type: none"> * Leads to diarrhoea. <p>3. Decreased appetite:</p> <ul style="list-style-type: none"> * When the child is sick. 	<p>1. Introduction of solid foods:</p> <ul style="list-style-type: none"> * Child is restless when starting with solid foods. * Difficult for child to chew and swallow solid foods; spit it out. <p>2. Spoon-feeding:</p> <ul style="list-style-type: none"> * Child is not used to spoon-feeding – cry at first. <p>3. Taste / food preferences:</p> <ul style="list-style-type: none"> * Child prefers cooked food over purity food. <p>4. Constipation:</p> <ul style="list-style-type: none"> * Formula milk made child constipated – had to change to cow’s milk. <p>5. Decreased appetite:</p> <ul style="list-style-type: none"> * Child refuses to eat. <p>6. Teething difficulties:</p> <ul style="list-style-type: none"> * Diarrhoea * Ear infection. 	<p>1. Child unable to express likes / dislikes verbally:</p> <ul style="list-style-type: none"> * Have to evaluate reactions to food e.g. runny stomach etc. <p>2. Teething difficulties:</p> <ul style="list-style-type: none"> * Increases crying. * Child gets sick. * Child can get diarrhoea. * Ear infections. * Chest problems. * Decreased appetite. * Weight loss. <p>3. Hygiene difficulties:</p> <ul style="list-style-type: none"> * Child puts dirty things in his / her mouth – leads to diarrhoea. <p>4. Decreased appetite:</p> <ul style="list-style-type: none"> * When child is sick. <p>5. Satiety:</p> <ul style="list-style-type: none"> * Baby not satisfied with breastmilk & water. Buy formula milk – end up quitting breastfeeding.

	<p>eat by himself / herself or when playing with food.</p> <p>6. Other:</p> <ul style="list-style-type: none"> * Prefers to suck on bottle rather than eating food. 			
Grandmothers	<p>1. Spoon-feeding:</p> <ul style="list-style-type: none"> * Labour intensive and time consuming to feed child. <p>2. Self-feeding:</p> <ul style="list-style-type: none"> * Messy: food is thrown out on the floor etc. * Unsure of the amount of food consumed versus messed. <p>3. Hygiene Difficulties:</p> <ul style="list-style-type: none"> * Ingesting contaminated items / food during self-feeding. * Can lead to digestive problems or stomach cramps. <p>4. Decreased appetite:</p> <ul style="list-style-type: none"> * When teething. * When constipated (food too solid) <p>5. Food restrictions:</p> <ul style="list-style-type: none"> * Cannot give certain foods to the child. * If foods are too solid – can lead to constipation. * Certain foods are too heavy – like corn and beans. 	<p>1. Decreased appetite:</p> <ul style="list-style-type: none"> * When sick. * When teething. <p>2. Child is lazy to eat.</p>	<p>1. Spoon-feeding:</p> <ul style="list-style-type: none"> * Child not used to food or eating from a spoon. * Child cries at first. <p>2. Teething difficulties:</p> <ul style="list-style-type: none"> * Child gets sick. * Decreased appetite. * Child can get diarrhoea, asthma, ear problems & fever. * Vomiting. * Increased crying. * Refused to accept foods and liquids. 	<p>1. Taste / Food Preferences:</p> <ul style="list-style-type: none"> * Picky-eaters. * Spits out what he / she doesn't like. <p>2. Teething / sick:</p> <ul style="list-style-type: none"> * Decreased appetite. * Vomiting / diarrhoea * Weight loss <p>3. Wastage:</p> <ul style="list-style-type: none"> * Have to discard food that the child doesn't want to eat. (has a cost implication). <p>4. Spoon-feeding:</p> <ul style="list-style-type: none"> * Must first teach the child to open his / her mouth for food. * At first food is spit out. * Requires a lot of patience. <p>5. Inexperience of the mother:</p> <ul style="list-style-type: none"> * Mother of the child doesn't know anything about teaching the child to eat – grandmother must take over the role. <p>6. Hygiene:</p> <ul style="list-style-type: none"> * Lack of toilet facilities in

				<p>informal housing areas leads to kids getting gastro from surrounding germs on the ground etc.</p> <ul style="list-style-type: none"> * If hands are not washed, it can also be spread when changing the nappy. <p>7. Financial difficulties:</p> <ul style="list-style-type: none"> * The mother of the child receives a grant but does not use it to buy anything that is necessary for the child. * Must use my own money to buy food and milk.
Fathers	<p>1. Intake of luxuries:</p> <ul style="list-style-type: none"> * Decreased appetite for food at meal times. * Used to spoil a child or to stop them from crying. <p>2. Decreased appetite:</p> <ul style="list-style-type: none"> * When sick. 	<p>1. Preference of certain tastes / foods:</p> <ul style="list-style-type: none"> * When introducing new food items, the child prefers certain foods and refused to eat other foods. * Prefers “food from the pot” rather than porridge. <p>2. Decreased appetite:</p> <ul style="list-style-type: none"> * When teething. * Oral thrush. * Sick / gastro. 	<p>1. Financial problems:</p> <ul style="list-style-type: none"> * Formula milk is expensive. * Difficult if you do not have the funds available to buy milk & food that the baby needs. <p>2. Mother’s priorities:</p> <ul style="list-style-type: none"> * Brand of bottle is more important to them than what is inside the bottle. * End up wasting money that could be available for food. <p>3. Confusion between breastmilk and formula milk:</p> <ul style="list-style-type: none"> * When mother breastfeeds over weekend, creates confusion for the child. Feeding is more difficult when she is back at 	<p>1. Feeding difficulties:</p> <ul style="list-style-type: none"> * Child cries – not used to the foods given. * Each time you introduce a new taste – the child must first get used to it. <p>2. Lack of knowledge:</p> <ul style="list-style-type: none"> * Do not know what food is suitable for the child to have. <p>3. Time-consuming:</p> <ul style="list-style-type: none"> * Takes a lot of time initially. <p>4. Teething / Sick:</p> <ul style="list-style-type: none"> * Child is restless. * Decreased appetite. * Requires more patience.

			<p>work again.</p> <p>4. Wastage:</p> <ul style="list-style-type: none"> * When introducing solids – foods are wasted when the child doesn't like a certain food item. * Financial implication. <p>5. Refusal to eat:</p> <ul style="list-style-type: none"> * Child must first be taught how to eat. * Requires a lot of patience. * Have to play while feeding. <p>6. Teething difficulties:</p> <ul style="list-style-type: none"> * Decreased appetite. 	<ul style="list-style-type: none"> * When child vomits / has diarrhoea – cannot give milk, only water with sugar and salt. <p>5. Too frequent bottle feeds:</p> <ul style="list-style-type: none"> * Child still full at mealtimes – poor intake.
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