Khulisa Management Services (Pty) Ltd

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TARGETED SUPPLEMENTARY FEEDING

Case Study Report

Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to Age 5

South Africa Department of Performance Monitoring and Evaluation (DPME)

Nutrition SLA 12 10 03

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
APP	Annual Performance Plan
ART	Anti-Retroviral Therapy
BANC	Basic Antenatal Care
BMI	Body Mass Index
CBO	Community Based Organization
CCG	Community Care Givers
CHC	Community Health Centre
CHW	Community Health Worker
DAFF	Department of Agriculture, Forestry, and Fisheries
DHIS	District Health Information System
DOH	Department of Health
DPME	Department of Performance Monitoring and Evaluation
DRDLR	Department of Rural Development and Land Reform
DSD	Department of Social Development
EC	Eastern Cape
ECD	Early Childhood Development
EMM	Enriched Maize Meal
FGD	Focus Group Discussion
FS	Free State
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
INP	Integrated Nutrition Programme
INS	Integrated Nutrition Strategy
KZN	KwaZulu-Natal
MCH	Maternal and Child Health
M&E	Monitoring and Evaluation
MUAC	Mid-Upper Arm Circumference
NGO	Non-governmental Organization
NSP	Nutrition Supplementation Programme
NTP	Nutritional Therapeutic Programme
ORS	Oral Rehydration Salts
OSS	Operation Sukuma Sakhe
PEM	Protein Energy Malnutrition
PHC	Primary Health Care
PMTCT	Prevention of Mother to Child Transmission
RtH	Road to Health
RUTF	Ready to Use Therapeutic Feeds

SANHANES	South African National Health and Nutrition Examination Survey
SASSA	South Africa Social Security Agency
SOP	Standard Operating Procedure
TB	Tuberculosis
TSF	Targeted Supplementary Feeding
UNICEF	United Nations Children's Fund
WC	Western Cape
WHO	World Health Organization

GLOSSARY

Ante-natal	Before birth; during or relating to pregnancy
Basic Antenatal Care (BANC)	The regular preventive care recommended for women during pregnancy that benefits both mother and child. Essential interventions include identifying and managing obstetric complications and infections, promoting healthy behaviours such as breastfeeding, giving medical information around biological changes, and giving nutritional counselling and vitamins to prevent maternal anaemia and malnutrition and to enhance a healthy pregnancy outcome. In South Africa, the recommended schedule for BANC is 4 visits during pregnancy starting in the first trimester. Routine BANC plays a part in reducing maternal death rates, miscarriages, birth defects, low birth weight, and other preventable health problems.
Beneficiaries	Beneficiaries in this evaluation included pregnant women and/or caretakers of children 0-5 years of age who were present at health facilities during fieldwork. Beneficiary focus groups were carried out as part of this evaluation.
Breast milk substitute	Any food being marketed or otherwise represented as a partial or total replacement for breast milk whether or not it is suitable for that purpose.
Breastfeeding Protection, Promotion and Support.	In South Africa, Breastfeeding Protection, Promotion and Support consists of 4 main activities: (i) enforcement of the International Code on Marketing of Breast milk substitutes (e.g. responsible advertising about breast-milk substitutes and effective legislation to define and monitor unacceptable marketing), (ii) behavioural change from mothers to exclusively breastfeed (no other liquids or solid foods) for the first six months of life and after introducing solids at 6 months of age, continued breastfeeding for up to 2 years, (iii) promotion of breastfeeding during delivery, and (iv) workplace opportunities to breastfeed. Combined, these actions have been shown to promote more optimal breastfeeding behaviours which in turn reduces diarrhoea, acute respiratory infections, and malnutrition in infancy.
Complementary Feeding	The feeding of solid foods that are readily consumed and digested by the young child and that provide additional nutrition to meet all the growing child's needs. The recommended age range for beginning complementary feeding is from 6 months of age.
ECD food support	Provision of food at Early Childhood Development (ECD) centres is one element contributing to South Africa's Food Security Strategies. DSD subsidises registered ECD centres based on the number of children enrolled. The DSD signs 1-year Service Level Agreements under which the ECD Centre receives ZAR15 per child per day and a portion of this is to be spent on food. The DoH provides guidance on meal plans for ECD centres, and these are meant to guide the centres and DSD in assuring nutritious meals for children.
Exclusive Breastfeeding	Defined as "an infant's consumption of human milk with no supplementation of any type (no water, no juice, no nonhuman milk, and no foods) except for vitamins, minerals, and medications."[1] National and international guidelines recommend that all infants be breastfed exclusively for the first six months of life. Breastfeeding may continue with the addition of appropriate foods for two years or more. Exclusive breastfeeding has dramatically reduced infant deaths by reducing diarrhoea and infectious diseases. It has also been shown to reduce HIV transmission from mother to child, compared to mixed infant feeding.

[1] WHO. Accessed in January 2014. http://www.who.int/elena/titles/exclusive_breastfeeding/en/.

Food Access	Food Access, or "Access to food" is fundamental to South Africa's social safety net, as it provides supplemental food through various means including soup kitchens or food parcels for at-risk groups. Food Access is a key element that contributes to South Africa's Food Security Strategies.
Food Fortification	The process of adding vitamins and minerals to food. The main reasons for adding nutrients to food is to restore losses due to processing, storage and handling of foods; to improve overall nutritional quality of the food supply; and as a public health measure to correct recognised dietary deficiency(ies). Fortifying everyday staples means people become healthier, live longer, and lead more productive lives. Infant mortality is less likely to occur and children show higher levels of physical and mental development, resulting in improved performance in school. In South Africa, the following vitamins and minerals are added to maize and wheat flour: Vitamin A, Vitamin B1, Vitamin B2, Vitamin B6, Niacin, Folic Acid, iron and zinc, and iodine is added to salt.
Food prices/zero-VAT rating	Since 1984, South Africa has removed VAT (i.e. zero-VAT rated) from certain basic foodstuffs as a means to make basic foods more accessible to the poor. Currently the following foods are zero-rated: brown bread, maize meal, samp, mealie rice, dried mealies, dried beans, lentils, tinned pilchards/sardines, milk powder, dairy powder blend, rice, vegetables, fruit, vegetable oil, milk, cultured milk, brown wheaten meal, eggs, edible legumes and pulses of leguminous plants. This is a mechanism to enhance access to food and contain food prices
Food Security (output 2 of Outcome 7)	The South African Government's Output 2 of Outcome 7 is "improved access to affordable and diverse food". Food Security in South Africa consists of four main strategies implemented through the combined efforts of the Department of Agriculture, Forestry and Fisheries (DAFF), DoH, and DSD: (i) ensuring access to food (through various DSD interventions), (ii) improved nutrition security (through various DoH health and nutrition interventions), (iii) improved food production capacity of households and poor resourced farmers (DAFF), and (iv) development of market channels for food (DAFF).
Growth Monitoring and Promotion (GMP)	Growth Monitoring (GM) is the process of periodic, frequent measurements of the growth of a child in comparison to a standard. GMP is a prevention activity comprising of GM linked with promotion (usually counselling) to increase awareness about child growth; improve caring practices; and serve as the core activity in an integrated child health and nutrition programme. As an intervention, GMP is designed to affect family-level decisions and individual child nutritional outcomes.
Household Food Production and Preservation	Household food production / food preservation is one component of South Africa's Food Security Strategy. DAFF has promoted and supported home gardening as well as school, community, and clinic gardens to complement and supplement the food parcels programme carried out by the Department of Social Development (DSD) as part of its Food Security strategy. DSD now promotes home gardening as part of its Sustainable Livelihoods programme.
IMCI (Integrated Management of Childhood Illnesses)	IMCI is an integrated approach to child health that focuses on the well-being of the whole child and that aims to reduce death, illness and disability and to promote improved growth and development among children under five years of age. IMCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities. WHO notes that if implemented well, IMCI can reduce under-five mortality and improve nutritional status. In South Africa, IMCI is delivered through health facilities by IMCI-trained nurses as part of the primary health care package of services.

Improved Hygiene Practice	Improved water quality, improved disposal of human excreta, and interventions that promote hand washing have been shown to reduce diarrhoea. Repeated diarrhoea incidence in the first two years of life significantly increases the risks of being stunted by age two years, and some water, sanitation and hygiene interventions may improve height growth in children under five years of age. In South Africa, most hygiene education, improved water quality, and sanitation is delivered through local government/municipalities, although the DoH is also responsible for hygiene education as part of the primary health care package of services.
Indicator	A monitoring and evaluation term for an objectively verifiable measurement which reflects the activity; assumption, or effect being measured.
International Code of Marketing of Breast Milk Substitutes	An international health policy framework for breastfeeding promotion adopted by the World Health Assembly (WHA) of the World Health Organisation (WHO) in 1981. The Code was developed as a global public health strategy and recommends restrictions on the marketing of breast milk substitutes, such as infant formula, to ensure that mothers are not discouraged from breastfeeding and that substitutes are used safely if needed. The Code also covers ethical considerations and regulations for the marketing of feeding bottles and teats.
Intra-partum	During childbirth or during delivery.
Lactation	The secretion or production of milk by mammary glands in female mammals after giving birth
Mainstreaming Interventions	Mainstreaming an intervention involves planned action, including legislation, policies or programmes, in any area and at all levels[2]. It is the process of bringing together common functions within and between organizations to solve common problems, developing a commitment to a shared vision and goals, and using common technologies and resources to achieve these goals[3]. It is a strategy for making concerns and experiences an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres[Error! Bookmark not defined.].
Malnutrition	A broad term describing the condition that develops when the body does not get the correct amount of kilojoules, vitamins, minerals, and other nutrients it needs to maintain healthy tissues and organ function. Commonly used as a broad term to refer to under nutrition and over nutrition.
Management of Moderate Malnutrition	See Targeted Supplementary Feeding.
Management of Severe Malnutrition	A medical and a social disorder, whereby malnutrition is the end result of chronic deprivation by carers who because of poor understanding, poverty, or family problems are unable to provide the child with the nutrition and care that is needed. Successful management of severely malnutrition requires both medical and social interventions. If the illness is viewed as only a medical disorder, the child is likely to relapse when returning home. In South Africa, management of severe malnutrition is mainly delivered through district and other tertiary hospitals, although health workers at all levels are responsible for identifying cases.

[2] Anon. International Labour Organization (ILO). 2013. http://www.ilo.org/public/english/bureau/gender/newsite2002/about/defin.htm

[3] http://www.afro.who.int/en/clusters-a-programmes/iss/immunization-systems-support/integrated-child-survival-interventions.html

Micronutrient deficiency	Occurs when the body does not have sufficient amounts of essential vitamins or minerals required by the body. Deficiency occurs when there is insufficient dietary intake and/or insufficient absorption and/or suboptimal utilisation of the vitamin or mineral.
Micronutrient supplementation	Enhancing or boosting the nutritional content of one's diet with vitamins or minerals. Young children are highly vulnerable to micronutrient deficiencies as they have low body stores of these nutrients, and can have low intake due to improper feeding practices, and losses due to infections. Micronutrient supplementation in pregnancy and during early childhood is associated with proper growth and decreased complications of infections. In South Africa, the most common micronutrients given to pregnant women are Iron and Folic Acid, along with general multi-vitamins. Children in South Africa are supposed to be given routine Vitamin A supplementation.
Mixed Feeding	Feeding breast milk along with infant formula, baby food and even water.
Moderate malnutrition	A growth measure between minus two (-2) and minus three (-3) standard deviations from the median of the standard reference population.
Morbidity	Refers to the state of being diseased or unhealthy within a population.
Mortality	Refers to the number of deaths in a population.
Nutrition	The process of providing or obtaining the food necessary for health and growth. The intake of food, considered in relation to the body's dietary needs. Good nutrition – an adequate, well balanced diet combined with regular physical activity – is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity.
Nutrition Education and Counselling	Enhancing the quality of the diet, by educating about foods and what quantities are needed in order to achieve optimal dietary intake. This can also include counselling on micronutrient supplements. There is some evidence that nutrition training of health workers improves energy intake, feeding frequency, and dietary diversity of children between six months and two years of age. In South Africa, health facilities have the prime responsibility for delivery nutrition education and counselling, but with PHC re-engineering it is expected that community based nutrition education and counselling will be strengthened.
Obesogenic	Causing and leading to obesity.
ORS (Oral Rehydration Salts)	A dry mixture of salt and sugar/glucose (sodium chloride) which is mixed with water to prepare a solution of used for treating dehydration due to diarrhoea or other causes. UNICEF In South Africa, both ORS and Zinc are given to children during diarrhoeal episodes.
Over nutrition	A form of malnutrition which occurs if a person consumes too many kilojoules.
Overweight	A form of over nutrition. Scientifically defined as weight for height above two standard deviations from the median weight for height of the standard reference population.
PHC Re-engineering	A restructuring of the South African health system to better implement Primary Health Care to take comprehensive services to communities with an emphasis on disease prevention, health promotion and community participation. PHC Re-engineering is focused on strengthening the district health system (DHS) through three cohesive and co-coordinated streams: (a) the deployment of ward based PHC outreach teams; (b) strengthening of school health services; and (c) deployment of district clinical specialist teams aimed at improving maternal and child health in particular.
Post-partum	After childbirth.
Prioritised Nutrition Interventions	Prioritised nutrition interventions are services which have policies, guidelines, protocols, budgetary allocation and are actually delivered on the ground to all or most eligible patients/clients as evidenced by coverage rates or other measures.

Regulations	Refers to rules issued by Parliament governing the implementation of relevant South African legislation. Examples of regulations issued under the Foodstuffs, Cosmetics, and Disinfectants Act (Act 54 of 1972) in South Africa, include R. 991 relating to foodstuffs for infants and young children, and R146 relating to the labelling, marketing, educational information, and responsibilities of health authorities related to general foodstuffs.
Sanitation	Refers to facilities that ensure hygienic separation of human excreta from human contact, including flush or pour flush toilet/latrine to piped sewer system, septic tank or pit latrine; ventilated improved pit (VIP) latrine; pit latrine with slab; and composting toilet.
Severe acute malnutrition	Defined as below minus three (-3) standard deviations from the median of the standard reference population, mid-upper arm circumference (MUAC) less than 115 mm, visible severe thinness, or the presence of nutritional oedema[4].
Stunting	Too short for one's age. Scientifically defined as height for age below minus two standard deviations from the median height for age of the standard reference population.
Supplementary feeding	Additional foods provided to vulnerable groups, including moderately malnourished children.
Targeted Supplementary Feeding (TSF)	An intervention to treat moderate malnutrition in South Africa. TSF is mainly delivered through health facilities and is intended as a short-term intervention with specific entry and exit criteria. The intervention includes the provision of food supplements according to age-specific needs and disease-specific conditions.
Under nutrition	A form of malnutrition that occurs if the diet does not provide adequate kilojoules and protein for growth and maintenance, or if the person is unable to fully utilize the food eaten due to illness; the outcome of insufficient food intake, inadequate care and infectious diseases. It includes being too thin for one's age (underweight), too short for one's age (stunting), dangerously thin for one's height (wasting) and deficient in vitamins and minerals (micronutrient deficiencies).
Underweight	Under nutrition that is scientifically defined as weight for age below minus two standard deviations from the median weight for age of the standard reference population.
Wasting	Underweight for one's height. Scientifically defined as weight for height below minus two standard deviations from the median weight for height of the standard reference population. A child can be moderately wasted (between minus two and minus three standard deviations from the median weight for height) or severely wasted (below minus three standard deviations from the median weight for height).
Zinc	An essential mineral with a wide variety of functions within the human body. Zinc is needed to repair wounds, maintain fertility in adults and growth in children, synthesize protein, help cells reproduce, preserve vision, boost immunity, and protect against free radicals, among other functions.

[4] World Health Organization. Supplement – SCN Nutrition Policy Paper 21. Food and Nutrition Bulletin, 27 (3). 2006. http://www.who.int/nutrition/topics/malnutrition/en/

1 INTRODUCTION

1.1 Background to the Nutrition Evaluation

Although nutrition programmes have been in place in South Africa since the 1960's, they were not very effective in reducing malnutrition because they focused primarily on providing food to the needy and did not address the underlying causes of malnutrition (i.e. illness, poor household access to food, inadequate maternal and child care, poor access to health services, and an unhealthy environment with limited access to clean water and sanitation).

In August 1994, the then Minister of Health appointed a committee to develop a more comprehensive nutrition strategy to rectify this largely food-based and fragmented approach to improved nutritional status in South Africa. The introduction of the Integrated Nutrition Programme (INP) aimed to ensure optimum nutrition through an integrated approach with complementary strategies targeting three areas: health facility services, community based programmes, and nutrition promotion[1].

The INP also stresses the need for all sectors to work together in an integrated manner, and envisioned collaboration between government departments (inter-sectoral collaboration of line departments and other sectors) as well as within government departments (e.g. between health-facilities and community-based programmes) to ensure joint action for addressing nutrition problems1. Inter-sectoral collaboration was envisioned mainly between the Departments of Health (DOH), Social Development (DSD), and Agriculture, Forestry, and Fisheries (DAFF), as these national departments each deliver food and nutrition interventions specific to their sector. And while delivery of South Africa's nutrition interventions involve these and other government departments, responsibility for implementing the 7 "highest impact" interventions resides within the DOH.

In 1997, the Department of Health (DOH) adopted the Integrated Nutrition Strategy (INS) in its White Paper for Transforming Health Systems and formed the basis for the Integrated Nutrition Programme (INP). Priority interventions in the INP for children from conception to age 5 are:

- Safe infant feeding
- Micronutrient supplements, fortification, and food diversification
- Facility-based Interventions for severe malnutrition
- Growth monitoring and promotion
- Nutrition for disease interventions, including HIV/AIDS and TB, and
- Maternal Nutrition

The combined expected outcome of these interventions is improved nutritional status of South Africa's vulnerable populations, namely pregnant women and children under the age of five. To date, however, malnutrition persists as an underlying cause and contributor to

child mortality and morbidity in South Africa. Indeed, South Africa is one of only 15 countries where no progress has yet been made in reducing under-five mortality by two-thirds[2] (Millennium Development Goal 4), and although this situation is partly due to South Africa's heavy burden of HIV, it is also due to a variety underlying factors, including poor infant and child feeding practices. In addition, South Africa is one of 36 countries that contain 90% of the world's stunted children[3].

1.2 Objectives/Terms of Reference

In late 2012, the Department of Performance Monitoring and Evaluation (DPME) in the Presidency commissioned the "Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to age 5"to examine critical systemic and implementation issues that inhibit or enable access to nutrition interventions for pregnant women and children under the age of 5. This qualitative evaluation aims to identify the factors contributing to effective or non-effective implementation of 18 nutrition interventions being delivered by government, with an emphasis on the first 4 interventions.

Nutrition Intervention (NB: the first four interventions are the main focus of the evaluation)	**Responsible Department**
1. Breastfeeding support*	Health
2. Management of moderate malnutrition including targeted supplementary feeding*	Health
3. Household food production and preservation (home gardening)	DAFF
4. Food access (e.g. food parcels, soup kitchens)	DSD
5. ECD (food in ECD centres) (DSD)	DSD
6. Complementary feeding*	Health
7. Food fortification (Vitamin A, Iron and Iodine)*	Health
8. Micronutrient including Vitamin A supplementation*	Health
9. ORS and Zinc*	Health
10. Management of severe malnutrition*	Health
11. Deworming	Health
12. Growth monitoring and promotion including the use of MUAC	Health
13. Nutrition education and counselling (part of all of these)	Health
14. Improving hygiene practice (including in relation to water and sanitation)	Health
15. BANC (Basic antenatal care) – education and supplements, timing	Health
16. IMCI (integrated management of childhood illnesses)	Health
17. Access to (nutritious) food, food prices	DAFF
18. Food security (output 2 of outcome 7)	DRDLR/DAFF
* High impact interventions	

The findings from this evaluation are meant to assist the Government in improving implementation of existing nutrition interventions by identifying inhibiting or enabling factors that affect access to nutrition services (particularly among children) and to support the scale-up of interventions as required.

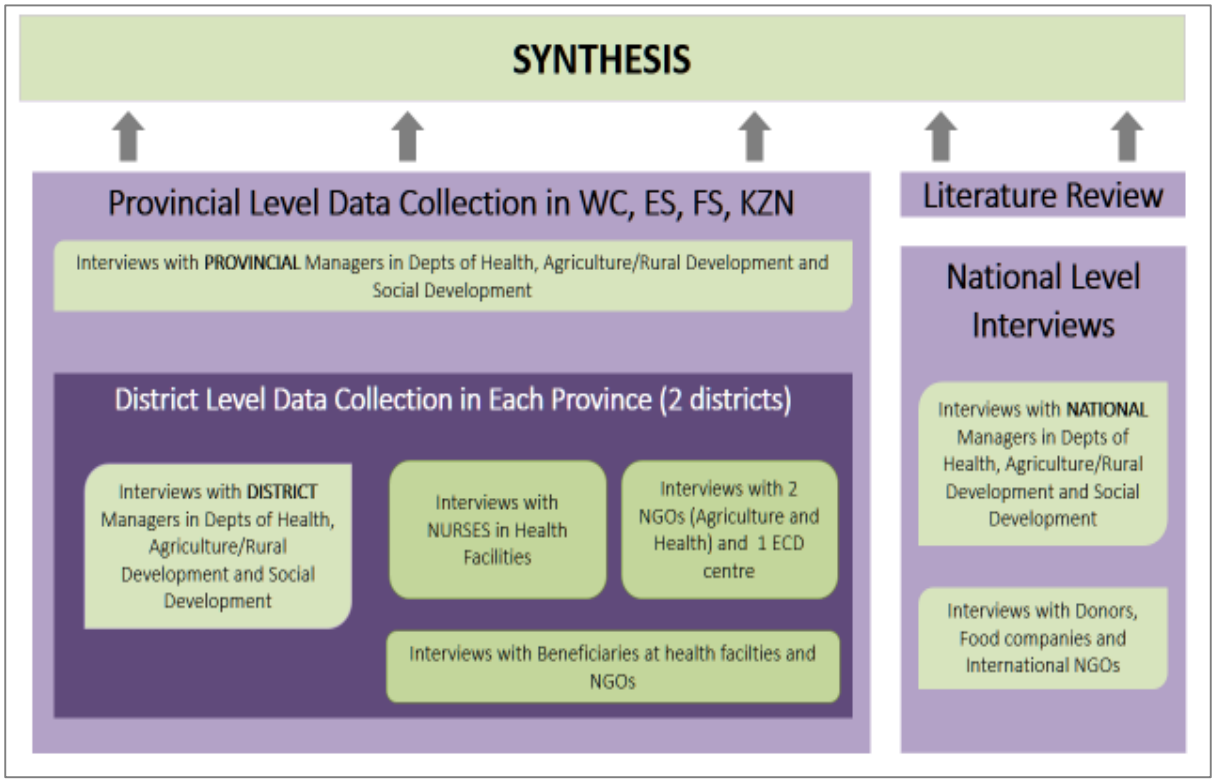
1.3 Approach / Methodology

The starting point for the evaluation was a literature review that provided the context for this implementation evaluation. The literature review examined the following relevant topics:

- Current health and nutrition status of children under 5 and pregnant women in South Africa
- South Africa's policy framework on maternal and child nutrition
- A review of nutrition policies and interventions from other countries that have been successful in improving nutritional status (Brazil, Columbia, Malawi, Mozambique, and Malaysia)
- An analysis of implementation issues present in the literature.

Data collection then took place with key informants at national level and four provinces (Western Cape, Eastern Cape, Free State, and Kwazulu-Natal), as well as focus group discussions with beneficiaries at local level. In each of the four provinces, 2 districts were selected for data collection. Key Informant Interviews were held with relevant national, provincial, and district managers in the Departments of Health, Agriculture, and Social Development, as well as with service providers in health facilities, NGOs, and 1 ECD centre as indicated in Figure 1 below.

Figure 1: Main Components of the Evaluation



2 BACKGROUND OF TARGETED SUPPLEMENTARY FEEDING IN SOUTH AFRICA

The Targeted Supplementary Feeding (TSF) programme is a nutrition intervention designed to manage moderate malnutrition[4] and prevent severe malnutrition among children and adults alike through dietary management based on the optimal use of locally available foods to improve nutritional status[5].

In South Africa, the TSF programme is not a standalone intervention, but is rather integrated within other health services such as Basic Antenatal Care (BANC), Anti-Retroviral Therapy (ART), Tuberculosis (TB), and Integrated Management of Childhood Illnesses (IMCI) delivered in Primary Health Clinics (PHCs), Community Health Centres (CHCs), and hospitals, and through mobile clinics in more remote areas (e.g. EC). TSF is a type of intervention that usually provides nutritional supplements to selected groups of children, pregnant and lactating women and other nutritionally vulnerable groups. Its aim is to prevent and rehabilitate the undernourished individuals from becoming severely malnourished. The TSF approach also allows for individuals to receive medication such as de-worming, micronutrient supplements and follow-up[6]. TSF provides food supplements to groups that exhibit moderate malnutrition, such as malnourished children, pregnant and lactating mothers, people with HIV, people on ART, and those infected with TB and other chronic illnesses.

As currently practiced in South Africa, TSF is a health facility-based service with dieticians primarily responsible for entry and exit into the programme and nurses handling the ongoing management of beneficiaries. However, some provinces have started using Community Health Workers (CHWs) or Community Care Givers (CCGs) for identifying, referring, and following-up underweight children and pregnant and lactating mothers (EC, KZN). CHWs/ CCGs also give talks to communities on nutrition and advise mothers on food preparation.

Although there are currently no "evidence-informed" international recommendations on the composition of supplementary foods[7], there are principles that guide this intervention which South Africa has used in developing its guidelines[8]. Based on these guidelines, provinces and/or districts select the products to be used in their respective TSF programmes.

3 THEORY OF CHANGE FOR THE TARGETED SUPPLEMENTARY FEEDING INTERVENTION

3.1 What is to be delivered

TSF –evolved from the Protein Energy Malnutrition (PEM) Scheme established in 1971. The scheme was aimed at all young children between six months and six years of age visiting local authority clinics and suffering from or at risk of what was then known as protein-energy malnutrition (now known as severe acute malnutrition). Skimmed milk powder or a mixture of protein, vitamins and minerals were subsidised by the state to supplement the

diets of children. These schemes have evolved and have taken different shapes in all the nine provinces of South Africa. The revival of these supplementary feeding programmes came in 2004 with scaling up of nutritional interventions for People Living with HIV and AIDS through the Comprehensive Care Management and Treatment plan, with the main component of these interventions being supplementation. [9] The PEM Scheme was aimed at children 6 months to 6 years attending public sector health facilities and diagnosed as malnourished or at risk of malnutrition. In 1991, the PEM Scheme added other vulnerable groups to its target population, namely pregnant and lactating women, the elderly and those chronically ill. [10] Following the development of the Integrated Nutrition Programme (INP) in the mid-1990's, the PEM Scheme was integrated into the DOH's PHC package as one of the nutrition-related interventions and was renamed the Nutrition Supplementation Programme (NSP). In 2012, it was renamed again as TSF.

TSF is a rehabilitation programme for undernourished individuals and is intended as a short-term intervention with specific entry and exit criteria. It entails the provision of food supplements according to age-specific needs and disease-specific conditions.

3.2 How the intervention is expected to be delivered

Growth monitoring of children under 5 and weight monitoring of pregnant women serve as entry points for the TSF programme at health care facilities (clinics, community health centres and maternity and obstetrics units). For pregnant women, infants, and children 0 to 5 years of age, weight, height and mid-upper arm circumference (MUAC) measurements assessed in BANC and IMCI programmes are meant to identify those with mild to moderate malnutrition.

South Africa's current guidelines for TSF outline the screening and assessment processes to be followed by health workers prior to enrolling an individual into the supplementary feeding program. The screening process guides the identification of children and adults at risk of under nutrition or with growth faltering. The anthropometric measurements of the identified individuals are then taken and their medical conditions determined. Individuals are subsequently assigned to one of three nutrition care plans appropriate to their age, disease and measurements as prescribed by the Nutrition Assessment and Classification Algorithm.[11]

Those who meet the programme's eligibility criteria are registered in the Malnutrition Register at health facilities and assigned to an appropriate nutrition plan. Registered individuals receive nutrition counselling and supplements appropriate to their respective plans. Recommendations for age- and disease-specific supplements are contained in the TSF guidelines. Some of the supplements available under this programme include Ready to Use Therapeutic Feeds (RUTF) for children 6-11 months and Enriched Maize Meal (EMM) and Enriched Milk for children 12 to 59 months (with different doses based on age).

In addition to supplements and nutrition counselling, individuals are provided with micronutrient supplements as well as de-worming tablets in accordance with the nutrition care plan they've been assigned to and the protocol governing routine nutritional

supplements and medication. Their progress is monitored by dieticians, nurses or nutrition counsellors during subsequent scheduled visits. The frequency of the visits depends on the nutrition care plan the individual has been assigned to as well as by his/her progress and range from weekly visits to visits every 2-3 months. Nutrition counselling is expected to be provided to individuals on TSF during each visit.

Individuals are discharged from the programme according to exit criteria and are supposed to be followed up at home by Ward-based Primary Health Care Teams. These teams are also expected to follow up individuals who do not gain weight (with no underlying medical conditions) as well as those who miss appointments.

3.3 The Intended Recipients

According to South Africa's TSF guidelines[12], the beneficiaries for supplementary feeding are as follows:

- Malnourished children
- At risk pregnant and lactating women
- Infants whom breastfeeding is contra-indicated due to medical conditions
- HIV and AIDS and TB clients, and
- Individuals with chronic and debilitating conditions

3.4 Intended Changes in Beneficiaries

The intended outcomes of the TSF programme (with specific reference to pregnant/lactating women and children) are as follows:

- Increased Body Mass Index (BMI) amongst pregnant and lactating women
- Decrease in the number of children suffering from wasting and stunting
- Reduced risk of mortality and morbidity associated with malnutrition

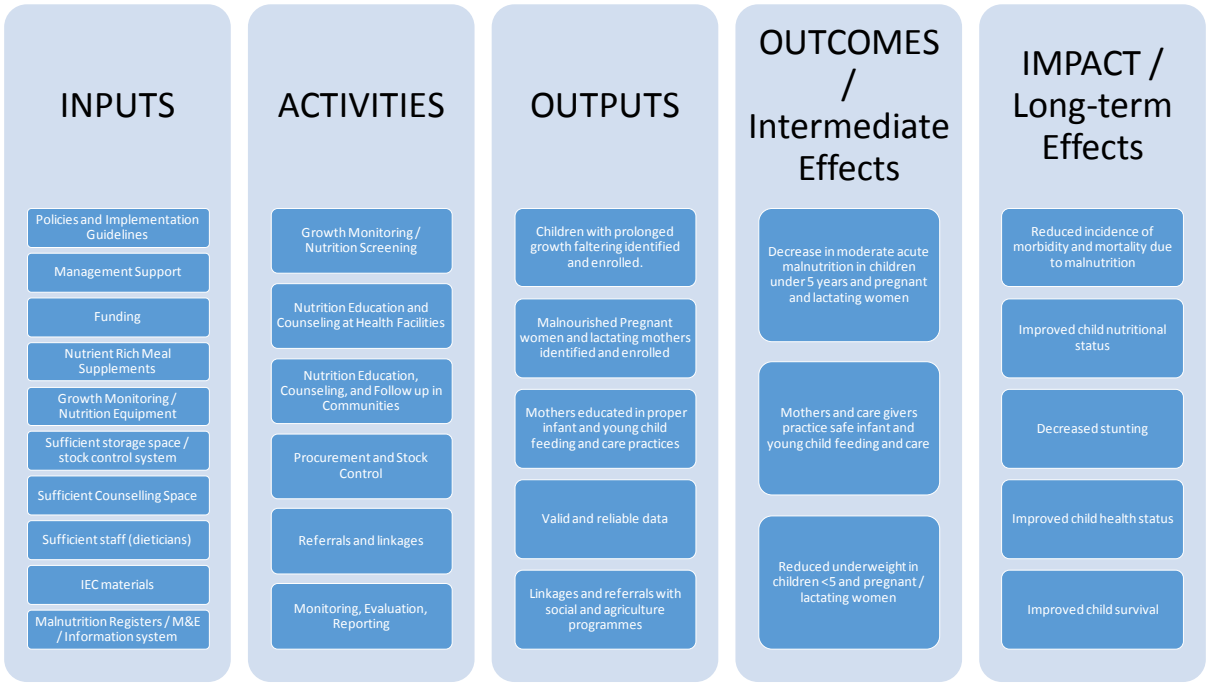
3.5 The Impact Sought

The goal of the TSF intervention is to improve the nutritional and health status of vulnerable groups with a particular emphasis on children under 5 years of age and pregnant and lactating women. The programme also provides nutritional supplements and counselling to other nutritionally at-risk groups such as HIV and AIDS and TB clients as well as those suffering from chronic and debilitating conditions.

3.6 Assumptions in the Theory of Change

The success of the programme hinges on sufficient and efficient staff, such as nutritionists/ dieticians, as well as fully competent health care professionals to correctly diagnose at risk clients. It also hinges on the enrolment of all at-risk target groups and follow-on referrals to community-based interventions that address food insecurity in order to prevent the oscillation of women and children in and out of the programme.

Figure 2 – Logic Model for Targeted Supplementary Feeding



4 POLICY FIT FOR THE LOCAL CONTEXT

DOH guidelines governing infant and child health recognize the link between malnutrition, child health and survival, and infant and young child feeding for reducing morbidity and mortality in this age group. Furthermore, the link between malnutrition in pregnant mothers and poor birth outcomes is also recognised.

However, most DOH nutrition-related policies make more reference to severe acute malnutrition issues than to moderate acute malnutrition issues for which targeted supplementary feeding is indicated.

The DOH policies and guidelines which are relevant to the TSF programme either directly or indirectly (through reference to growth monitoring and treatment of growth faltering) are listed in Table 1 below:

Table 1: Targeted Supplementary Feeding Relevant Policies

Year	Responsible Department	Legislation, Policies, Strategy, Interventions
2013	DOH	**Infant and Young Child Feeding Policy** (replaces 2007/8 policy)[13]
2013	DOH	**Negotiated Service Delivery Agreement**[14]
2012	DOH	**Strategic Plan For Maternal, New Born, Child And Women's Health and Nutrition In South Africa 2012-2016**[15]
2012	DOH	**The South African Supplementary Feeding Guidelines for at Risk and Malnourished Children and Adults**
2013	DOH	**Management of Children with Severe Acute Malnutrition in South Africa, Operational Guidelines**

Year	Responsible Department	Legislation, Policies, Strategy, Interventions
2013	DOH	**Roadmap for Nutrition in South Africa** 2013-2017
2011	DOH	**Integrated Management of Childhood Illnesses (IMCI)** Handbook (revised)
2010	DOH	**Clinical Guidelines: Prevention of Mother-to-Child Transmission** (includes Guidelines on HIV and Infant Feeding) Revised March 2013.[16]
2007	DOH	**Framework for Implementing Nutrition Interventions for people living with TB, HIV and AIDS**
2005	DOH	The **National Integrated Nutrition Programme** – Policy Summary and Guide
2003	DOH	**Guidelines for Nutrition Interventions at Health Facilities to Manage and Prevent Child Malnutrition**

4.1 Institutional Context and Culture

In view of the fact that TSF is an intervention primarily implemented by the DOH through its network of health facilities, only respondents from the health sector were able to provide feedback on the intervention and its implementation.

4.1.1 Leadership/Management

Most respondents (except for EC province and one district in the FS) indicated that the intervention had the necessary leadership (and champions) required at provincial, district and facility level to enable effective implementation. In the EC, FS (one district) and KZN, there were positive views of dieticians and nutrition managers as the champions for this intervention. However, EC-DOH respondents cited insufficient strategic leadership for nutrition generally.

Perhaps because of its clinical nature, the delivery of TSF is integrated into the normal functioning of the health facilities visited, although there are issues with the quality of the implementation, specifically: proper plotting and interpretation of growth monitoring data on the Road to Health (RtH) booklets/ charts and proper recording of cases in malnutrition registers.

Oversight of TSF is also meant to be integrated into the regular supervisory visits of facilities by district personnel, although lack of transport is a limiting factor affecting supervision more broadly. Across the four provinces where fieldwork was conducted, review meetings are held (usually quarterly) during which relevant personnel discuss TSF issues and decide upon corrective actions. In KZN, in addition to the nutrition review meetings and supervisory visits, facilities reportedly conduct self-appraisals twice a year.

However, at national level, the DOH receives little information about the extent and quality of implementation because of the absence of data to effectively track the intervention's activities and effects.

4.1.2 Appropriate Plans

Plans for the carrying out the intervention are integrated into the DOH plans and budgets at provincial and district levels, and it is not possible to determine intervention costs and

targets separate from the larger departmental plans.

The main documents that guide the implementation of the TSF are the following:

- The TSF guidelines and protocols (adapted to include the revised breastfeeding guidelines).
- IMCI Guidelines
- Framework for Implementing Nutrition Interventions for people living with TB, HIV and AIDS, and
- Infant and Young Child Feeding Policy

However, one district in FS and another in KZN reported that the TSF guidelines had not been adapted to the local context and there is concern around the suggested/provided Targeted Supplementary Feeding for the 6-12 month age group.

4.2 Resource Allocation – Financial and HR

Nutrition appears as a separate budget line item in the Annual Performance Plans (APP) budgets of three of the four provinces (EC, KZN, WC), but it is not possible to disaggregate this by specific nutrition interventions, such as TSF. Furthermore, the costs of the nutrition supplements, a major cost driver of nutrition related interventions in all provinces, are included in the districts' and facility's "Goods and Services" budget and are not readily disaggregated for tracking.

At service delivery level, there are no dedicated financial and human resources allocated to TSF, mainly because it is delivered by the same personnel (nurses and dieticians) who deliver other health services, and the financial and human resources for this intervention are lumped into the facilities' overall operational budgets and staffing.

There are differing perceptions among national, provincial and district respondents regarding the adequacy of funding for TSF, with half indicating that funds were sufficient, and the other half claiming that funds are insufficient. The latter view was more often expressed for district level. At facility level 60% of the respondents refrained from commenting on the adequacy of financial resources at the facility level indicating that they do not deal with budgetary matters directly and therefore had no insight on the budget levels. One facility based respondent captured the general lack of engagement with the budgets by stating *"(I) don't know the budget, I just order*." A few respondents, mostly from WC, indicated that the budget for this intervention was sufficient.

Views on the adequacy of human and financial resources differs by province. KZN respondents report having enough human, financial and material resources to implement the program, while FS and EC both report province-wide financial constraints and shortages of health personnel that adversely affect delivery. WC also indicated the need for more dieticians and nutrition personnel given nurses' high workloads. In some provinces, nurses' lack of time is manifested in errors in plotting and interpreting children's growth, rushed/no nutrition counselling, and lack of proper recording of cases in the malnutrition registers.

Related to FS and EC's financial constraints, respondents frequently cited the lack of transport as hampering implementation, including untimely delivery of stock, poor frequency of supervisory visits, and poor outreach and follow-up of patients enrolled on the programme.

Availability of food and nutritional supplements at facilities appears to be better than for other nutrition-related supplies with 92% of the facilities having stock of nutrition supplements on the day of the visit. However, EC and FS respondents indicated that frequent stock outs were an issue.

Lack of space at facilities both for nutrition counselling (an integral part of TSF) as well as to store supplies was also as an implementation issue by some facilities in FS and WC.

5 FINDINGS: IMPLEMENTATION MODEL /STRATEGY

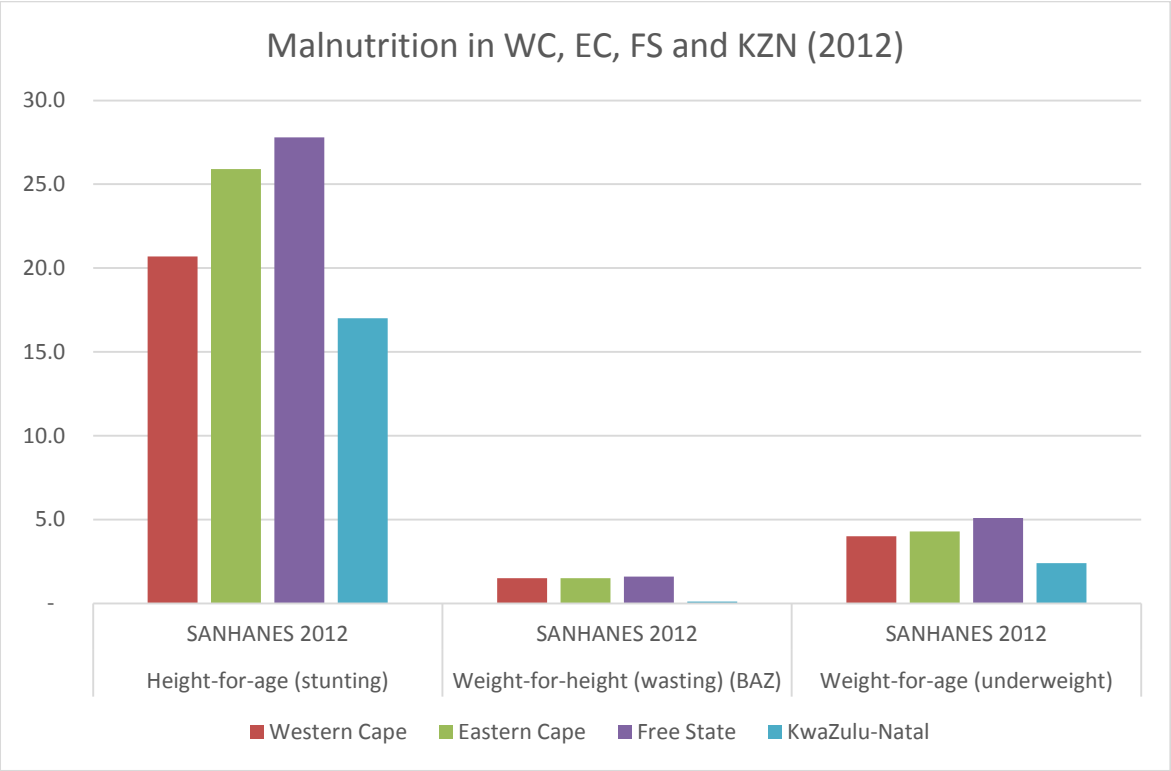
5.1 Coverage of the Intervention

The TSF provides nutritional supplements to prioritized groups as detailed below[17]:

1. Children 0-24 months;
2. Children 25 -71 months;
3. At-risk pregnant women;
4. At-risk lactating women;
5. Patients with chronic and communicable diseases (HIV/AIDS,.TB, etc.); and
6. At risk elderly.

Most respondents in the four provinces believe TSF is adequately addressing the problem of malnutrition among children under 5 years and pregnant and lactating women. However, respondents in the FS noted that they generally saw few cases, while in the EC, respondents indicated that the main beneficiaries were patients on ART and TB medication. Given that malnutrition among children under 5 and pregnant women is a problem in these provinces, these findings suggest that many malnourished individuals are being missed and the interventions reach is not extensive enough.

Figure 3: Malnutrition across the Four Provinces



Moreover, while most respondents believe the intervention is being delivered adequately, they acknowledge the need to better link facility based services with community based programmes in order to extend the reach of the intervention, particularly in identifying and following up cases, as well as reinforcing messages around nutrition and malnutrition.

5.2 Standards / Norms / Guidelines / Protocols

Table 2 shows that some provinces use guidance documents more than others when implementing the programme with KZN referring to many more guidance documents than the other 3 provinces. Although several guidelines were referred to by respondents, only the TSF guidelines was mentioned by all 4 provinces.

Table 2: Commonly mentioned guidelines in relation to TSF

Year	Guideline/Protocol Mentioned by respondents	Provinces
2003	**Guidelines for Nutrition Interventions at Health Facilities to Manage and Prevent Child Malnutrition, 2003** *[Also commonly referred to as the Nutrition/Targeted/Food Supplementation Guidelines.]*	EC, FS, KZN, WC
2013	**Infant and Young Child Feeding Policy** (replaces 2007/8 policy)[18]	KZN
2012	WHO Ten Steps for the Management of Severe Acute Malnutrition [19]	KZN
2010	**Clinical Guidelines: Prevention of Mother-to-Child Transmission** (includes Guidelines on HIV and Infant Feeding) Revised March 2013[20]	FS
2007	**Framework for Implementing Nutrition Interventions for people living with TB, HIV and AIDS**	KZN
2005	**Integrated Management of Childhood Illnesses (IMCI)** Handbook (revised 2011)	KZN

Year	Guideline/Protocol Mentioned by respondents	Provinces
	Road to Health Chart/Booklet Guidelines	WC

In EC, many health care practitioners at district and facility level were unable to refer specifically to a policy, guideline, or protocol for this intervention. In some instances they indicated that they were not in possession of any SOP or guideline for this and other nutrition interventions. One respondent explained that while communication within DOH regarding this intervention was adequate, the problem was lack of engagement by nurses due to their "overloaded schedules." To aid with this problem and ensure correct diagnosis and initiation for this intervention, KZN uses wall charts and classification charts as reference documents.

5.3 M&E systems

All four provinces have M&E systems to track the implementation of TSF. There are malnutrition registers at the facility level to record all those being provided with TSF and the dates for programme entry and exit. Monthly reports are prepared by facilities and submitted to the districts, who in turn submit quarterly reports to provincial DOH.

The one indicator in the routine health information system i.e. the District Health Information System (DHIS) which relates directly to the intervention is:

- The number of undernourished children under 5 years of age receiving therapeutic supplements.

However, there do not appear to be other routinely collected direct indicators in the DHIS capturing data on the other target groups of this intervention e.g. pregnant women.

While KZN respondents reported that the M&E processes in place were adequate to track and monitor the implementation of TSF services, respondents in EC and FS acknowledged that data at the facility level is not captured accurately and consistently. For example, information on eligible and enrolled patients are not always recorded in the malnutrition register, from which monthly reports are prepared and submitted to the districts using the DHIS. Indeed, EC provincial DOH respondents highlighted poor recording of malnutrition data at PHC/CHC health facility level as a challenge for effective monitoring of implementation. The DOH also highlighted the lack of good data to monitor progress of the implementation. A potential solution forwarded by EC respondents is placement of more nutrition advisors at health facilities to help with growth monitoring and data capturing.

In all four provinces, programmatic reviews are said to occur through district supervisory visits, and through management reviews at different levels (including sub-district level in the EC). However, shortage of staff and transport issues limit the frequency of these visits. In addition, provincial quarterly review meetings also serve as a way to review implementation.

5.4 Institutional Capacity for Implementation

Growth/weight monitoring of both children and adults serves as the entry point for the TSF programme. Pregnant women are weighed during the BANC nutrition assessment, and children are weighed during post-natal, child health, and IMCI services. In KZN, DOH staff also use the Nutrition Risk Screening Score Tool in association with MUAC scores to identify beneficiaries.

Unfortunately, poor quality, inconsistent, and/or incomplete plotting of weights and MUAC measurements have been noted as common challenges that most likely contribute to under-enrolment in the programme or delay in treatment until the individual becomes severely malnourished.

Dieticians initiate and exit eligible patients according to national classification criteria for moderate acute malnutrition. But in facilities where dieticians are limited, nurses usually assume responsibility for determining eligibility of patients, and managing their progress. Once a patient is enrolled and their details are recorded onto the appropriate registers, they receive one-on-one counselling and the age-appropriate supplementation product used in that province. Nurses assist dieticians with on-going management and follow-up. Patients are weighed monthly and continue to receive TSF and nutrition counselling until they reach the desired goal weight, and exit the program.

Staff shortages were mentioned as a constraint to implementation across all provinces, but most especially in EC and FS. Respondents expressed the need for additional dieticians, nurses or CHWs. In addition, some respondents in KZN and FS indicated the need for additional training, but in the other provinces, the view is that the constraint is with the number of staff rather than the skills or training of staff.

The majority of facilities visited (92%) had available stock of the nutrition supplements on the day of the visit but over 40% reported having experienced some stock outs during the preceding six months. Facilities in EC and FS noted frequent stock outs as a challenge while some facilities in the FS reported having issues with an oversupply of stock. No expired supplements were observed on the day of the visit. Some respondents expressed concern that government tendering (procurement) systems at times affect the availability of the meal supplements at the facility level (EC, KZN). No difference was identified between high performing and low-performing districts with regards to stock availability of nutrition supplements.

Some FS and KZN district offices indicated a lack of Information, Education and Communication (IEC) materials, and FS district offices also highlighted need for feeding cups and growth monitoring/nutrition screening tools e.g. scales, MUAC tapes, portable height measures, and BMI chart wheels. In addition several facilities noted the need for additional storage space for the supplements (FS, WC).

Transport constraints were mentioned by many district and provincial managers (7 out of 11) for both supervisory visits and TSF stock delivery. At the facility level, however, most respondents (two thirds) did not view transport as an issue for implementation because, in

the words of one of the respondents, "clients come to us."

Although nearly half the facilities visited refrained from commenting on the adequacy of technical leadership for this intervention, the responses received varied across the provinces. KZN indicated adequate technical leadership, while EC and FS and one WC facility mentioned insufficient technical support. This was echoed at the facility level in the FS, with almost all facilities indicating insufficient technical leadership for TSF.

Staff motivation and commitment are reportedly good for implementing this intervention, even where facility conditions made it difficult to implement.

Meal supplements are procured by the province/district through a tendering process and supplies are provided to the facilities by the districts. One district in EC noted that it also provides vegetables to patients enrolled in the programme. Generally, across all provinces, the products used are regarded as culturally acceptable to beneficiaries although some respondents mentioned that some beneficiaries did not like the taste of the meal supplements (WC). Furthermore, there were some reports of stigma associated with the programme due to the association of some of its products with HIV and AIDS. In EC, the meal supplements were sometimes referred to as "AIDS pap".

The exit criteria for the programme may not be consistently implemented, as evidenced by a concern raised by one clinic in KZN around creating dependency. These respondents felt that patients enrolled in the programme may consider meal supplements as a regular source of food, as opposed to a short-term intervention:

> *"…patients on food supplements become too dependent on them, and when we have to stop, sometimes patients do not understand why."*

This points to the need for both clarifying exit criteria as well as improving nutrition counselling delivered to the patients during monthly follow up visits.

A district manager in EC highlighted the need for more education to the community about malnutrition and the importance of seeking timely treatment:

> *"People do not see moderate malnutrition as moderate malnutrition, i.e. if a child loses weight it could be said that they're just growing up this requires clinics to go out to the community and educate them."*

5.5 Linkages, Referrals, and Partnerships

5.5.1 Coordination between Government Departments

Perhaps because TSF/NTP is a DOH facility-based clinical intervention, few respondents mentioned any mechanisms for strategically coordinating with other government departments, such as DSD and DAFF, for complementary assistance to TSF patients. There are no apparent coordination mechanisms at national or provincial level between this intervention and the other departments' services.

5.5.2 Referrals of Patients

At local level, however, there are more instances of coordination and referral. In KZN the ward-level war rooms for Operations Sukuma Sakhe (OSS), a province-wide anti-poverty initiative, provide a mechanism for jointly notifying DOH, DSD, the South African Social Security Agency (SASSA), and DAFF about vulnerable families. In that province, social workers also identify families on social relief who are potentially eligible for TSF, and refer these to nearby health facilities. In FS, there are reportedly strong links between the programme and SASSA, while in EC only 1 clinic mentioned having a referral relationship with DSD for this intervention.

One constraint cited as hampering a more robust linkage between DOH and DSD is lack of transport for DSD social workers to follow-up on moderate malnutrition cases identified by the DOH.

Within the DOH, clinical referrals between DOH services is managed internally by the responsible dieticians and nurses in accordance with referral protocols. In some provinces (EC and KZN), also CHWs and CCGs assist with the identification, referral and follow-up of malnourished children, pregnant and lactating women, as well as others enrolled in the TSF programme.

5.5.3 NGO partners

Few government respondents at national, provincial or district levels indicated any partnerships with non-governmental organizations (NGOs) and other community-based organizations (CBOs)for implementation of the TSF/NTP programme. The lack of NGO engagement might be limiting the coverage of the intervention, particularly given that community-based NGOs can provide support in identification and follow-up of patients.

Several NGOs are involved in growth monitoring of children under five and nutrition screening of adults as part of their community based programmes and thus identify and refer malnourished children and adults to health facilities and also monitor their progress. Some of the ones mentioned by respondents are as follows:

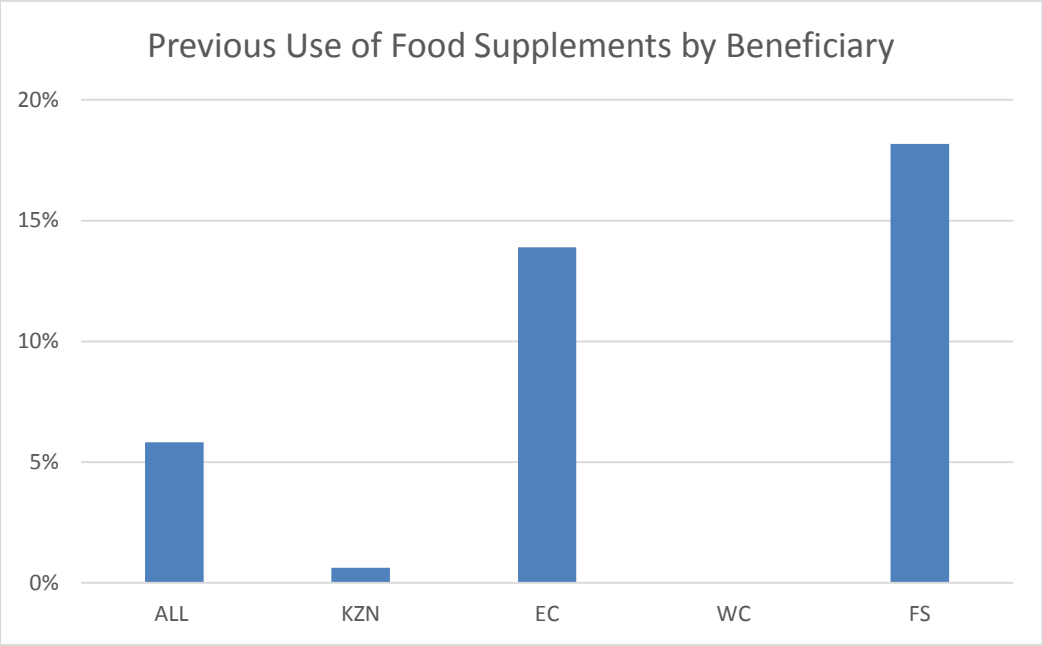
- Hope Foundation helps out some communities of the WC with follow-up and referral of defaulters on this programme to the nearby clinic.
- Philani Zithulele Mentor Mothers, an NGO working in EC and WC, supports this intervention. Mentor Mothers build strong relationships within their communities and deliver health services to people who cannot easily access clinics due to various reasons, including distance. They visit homes and assess the health and welfare of children. They help pick up cases of moderate malnutrition and aid in their management through growth monitoring and nutrition counselling. Their messages are tailored to the education level of mothers as is evidenced by their use of Q cards with simple pictures and in the local language. Philani Zithulele Mentor Mothers works in close collaboration with local clinics and hospitals as well as with the DSD and SASSA in the provision of food parcels.
- United Nations Children's Fund (UNICEF) provides a wide range of technical, material,

and financial support for improving infant and child feeding.

5.6 Beneficiary Engagement

The fact that TSF is a facility based intervention for which entry into and exit from the programme is determined by trained health professionals limits the number of people who are aware of the intervention. However, during beneficiary interviews it was apparent that many more beneficiaries in EC and FS had been exposed to the programme than in KZN and WC, although the reasons why was not possible to determine.

Figure 4: Number of Beneficiary FGDs who had used TSF Products Previously



Although nearly all beneficiary focus groups (36 out of 40 groups) indicated that they would take their children to the local clinic in cases of no weight gain, health professionals note that many communities don't recognise the signs of poor growth, and that there is need for more intensive awareness building on malnutrition.

In this regard, KZN reports undertaking more awareness raising education in communities around malnutrition compared to other provinces. The KZN DOH has held road shows on severe malnutrition and has established severe malnutrition committees at facility level.

It is important to note that among the beneficiaries who were familiar with the programme, there appeared to be some confusion about the entry /exit criteria and that it is a short-term intervention. In one KZN clinic, one mother who had been previously enrolled in the programme, did not appear to have a clear understanding of why she was eventually stopped. She obviously was not adequately counselled and did not relate her being removed from the programme as a positive reflection of her nutritional status. This points to the need for better one-on-one nutrition counselling for those who are enrolled in the intervention.

Economic constraints, particularly in paying for transport to the health facility, was noted as inhibiting the uptake of facility-based nutrition interventions generally in rural areas. EC and

KZN have significant rural populations with a poor network of public transport. In these provinces, CHWs and CCGs are increasingly being used to identify and refer malnourished children, pregnant and lactating mothers and those suffering from other chronic diseases in a timely manner. These community based staff also monitor the progress of those enrolled in the TSF programme between clinic visits.

In WC, some adults reportedly dislike nutritional supplements in the form of porridge, and both children and adults seem to dislike the taste, but DOH staff encourage patients to use the product for their own benefit. WC respondents also noted that certain immigrants, particularly Somalians and Zimbabweans, often present with underweight children who need targeted feeding supplementation. There was concern that households who consume only TSF products and who also have food shortages do not readily improve their health status, and that treating just one individual in a household did not always remedy the malnutrition situation.

In all four provinces, it was noted that there appears to be a stigma attached to the "porridge" provided as part of the TSF Programme due to its association with HIV/AIDS patients, and this is believed to inhibit beneficiary uptake of the intervention. However, few provincial, district and facility level respondents reported any problems with beneficiary buy-in. The few challenges cited include:

- Mothers tend not to bring their children for growth monitoring after the age of 9 months
- Lack of knowledge among staff (which could be addressed via training)
- Clinic personnel feeling sorry for beneficiaries and giving meal supplements to mothers even when they do not meet the criteria
- Transport and storage challenges in extending the intervention to farms/ migrant workers.

5.7 Communication about the intervention to the general public and within government itself.

Communication is key for successful intervention of health interventions; communication within the organisation across all levels and outside of the organisation with the general public. Communication channels are in place, however gaps have been identified both internally and externally. The communication gaps differ across provinces.

5.7.1 Internal Communication

Communication regarding DOH policies, strategies, and SOPs and workplans relevant to this intervention are carried out through various channels including in-service training, monitoring/supervisory visits, planning and review meetings, and updates/circulars. While most provincial, district and facility respondents view this communication as sufficient, national DOH noted that an information gap exists between the policy governing the intervention, the services provided, and communication to lower levels of the health service regarding the intervention.

In EC, a district respondent noted that facility level personnel have very busy schedules and do not have enough time to engage with available programme guidelines. A suggestion was made to simplify the information contained in the guidelines through the use of protocols and important extracts thus making it more accessible.

In provinces, most respondents indicated that the TSF implementation strategy is clear as there are specific entry/exit criteria for dieticians or qualified nurses to follow. However, national DOH observed that the entry/exit criteria may need more clarification in order to better assist health facilities in their implementation.

According to respondents, there is limited internal communication regarding nutrition budgets at the provincial and district levels while budget-related communication rarely takes place at the facility level. However, perceptions regarding the adequacy of budget-related communication at the provincial and district levels differed across provinces with all respondents in KZN reporting an adequate and clear level of communication while the opposite was the case in the FS. Respondents in EC and the WC had mixed views.

Feedback from lower levels is received both formally and informally via monthly and quarterly reports, review of TSF uptake, supervisory visits, training sessions, and planning and programme review meetings. All respondents mentioned that the information is used for planning and developing corrective actions.

5.7.2 Communication to the General Public

Most respondents across all four provinces and at all levels indicated that TSF is not promoted to the general public because of its clinical nature. Communication is instead limited to provision of IEC materials in facilities and one-on-one nutrition counselling sessions between the dietician and/or qualified nurse and the eligible patient. In the case of EC and KZN, additional one-on-one communication and counselling is undertaken by CHWs/CCGs who conduct home visits and weigh children, identifying and referring those who are malnourished.

General messages on the importance of growth monitoring, infant and young child feeding and seeking timely care for malnutrition is communicated to communities through various channels, including: community outreach programmes (e.g. NGOs), home visits by CHWs/CCGs, community talks/dialogues, radio spots or advertisements, and health talks and posters/pamphlets at clinics.

In KZN, there is an active communication campaign involving radio stations particularly designed to raise awareness about severe malnutrition. This is complemented by community nutrition outreach programmes using CCGs.

In EC, there appear to be similar efforts to use radio in promoting nutrition messages. However, the infrequent nature of the broadcasts or advertisements was noted as limiting their use in “focusing and customising messages for beneficiaries.” One clinic in the Chris Hani District of EC mentioned actively promoting this intervention at community level through campaigns and outreach programmes.

6 RESULTS

Overall, facility-level respondents were more forthcoming about what they considered to be "visible/tangible" inputs affecting implementation such as quantity of staff, supplies, and skills of staff than they were commenting on the social, political and economic factors affecting implementation. Roughly 60% of respondents at facilities had something to say about whether the facility had sufficient personnel, material resources and skilled staff to implement the intervention, while fewer than 30% were willing to comment on such factors as the availability of conducive leadership, economic, and social environments.

Institutional Context and Culture:

The DOH has sufficient institutional structures to implement the TSF intervention at national, provincial, district, and local levels. However, staff shortages at health facilities have created heavy workloads for facility staff, and this has often compromised the quality of the interventions' delivery.

The clinical nature of the TSF intervention has led to its delivery being largely integrated into the normal services of health facilities. However, there are issues with the quality of implementation, especially with poor growth monitoring procedures (e.g. issues with proper plotting and interpreting growth monitoring data on RtH booklets or charts and proper recording of cases in the malnutrition registers) which affects the determination of eligibility into the programme. Management of the intervention is also integrated into the regular supervisory visits of facilities by district personnel (although lack of transport reportedly limits these visits).

Given the clinical nature of TSF, there is very little coordination between DOH and other government departments around this intervention. However, beneficiaries' delays in accessing the intervention – due to lack of transport or beneficiaries' lack of understanding of malnutrition – highlight the need for more coordination and linkage, particularly at the community level to reach beneficiaries closer to home. DOH's PHC re-engineering holds great promise for extending the reach of this and other nutrition interventions through community-based health personnel. In the meantime, however, better linkages with other existing community based structures, such as CHWS/CCGS, NGOs and DSD's community based social workers, would significantly contribute to more timely identification and referral of eligible children under 5, pregnant and lactating mothers, and other vulnerable individuals. Such linkages would also facilitate the provision of much needed home- and community based follow up support.

Resource Allocation - Financial and HR:

The availability of financial resources differs by province with KZN and WC reporting adequate financial resources and EC and FS citing financial constraints that adversely affect implementation.

Despite these differing perceptions regarding funds, most respondents agree that there is need for additional skilled staff – especially nutrition-trained personnel such as dieticians, nutritionists, and/or nutrition advisors.

Standards/Norms/Guidelines/Protocols:

The most widely used guidelines in the implementation of this intervention were the *Guidelines for Nutrition Interventions at Health Facilities to Manage and Prevent Child Malnutrition*, 2003. Respondents in all four provinces referred to these guidelines as the main source of guidance in implementing TSF. Among the less commonly mentioned guidelines were IMCI, IYCF and PMTCT guidelines which have relevance to the identification and treatment of moderate malnutrition.

Institutional Capacity for Implementation:

All provinces reported staff shortages as a constraint to implementation of the intervention. The shortage of nutrition trained staff such as dieticians and nutrition advisors was particularly emphasised. In some provinces, the shortage of staff and related heavy workload was noted to affect the quality of delivery. The lack of time by facility personnel (coupled at times with insufficient nutrition training) is manifested in errors in plotting and interpreting children's growth, rushed/no nutrition counselling, and lack of proper recording of cases in the malnutrition registers. In KZN and FS, the need for additional training on nutrition was identified as a way to improve the quality of the intervention's delivery.

Availability of meal supplements at facility level does not appear to be a major problem across the four provinces. However, periodic stock outs were reported by some respondents and there are concerns expressed about delays in the government's procurement process. There is also concern that the criteria may not be applied diligently in some facilities, with some nurses reportedly giving supplements to the "needy" as a way of avoiding stock from expiring.

Transportation for supervisory visits, delivery of supplies, and community outreach (particularly to farms and other inaccessible communities) were cited as constraints that limit adequate oversight and support for the intervention as well as limits coverage or reach.

M&E systems:

All four provinces use the DHIS and the malnutrition registers to track the implementation of TSF. However, the quality and comprehensiveness of this data is not consistent across the provinces. Because the indicators routinely reported via DHIS do not adequately capture all the key target groups of this intervention, provincial and national decision makers are unable to get a complete picture of the extent and quality of implementation.

Linkages, Referrals and Partnerships

No coordination exists between the delivery of this intervention and the other social support services delivered by other government departments (e.g. DSD Food Access and DAFF's Home Gardens Programmes). Patients are not referred to these other services when they are enrolled, meaning that there is a missed opportunity for a holistic and integrated response to malnutrition.

Likewise, there is limited engagement of community structures e.g. NGOs, CHWs/CCGs in

terms of implementation or provision of complementary support.

Better coordination, referrals and linkages has the potential of extending the intervention's reach and effectiveness.

Beneficiary Engagement:

Although many mothers stated they would take their children to the local clinic in cases of no weight gain, their inability to recognise the signs of poor growth leads to delayed care seeking. Some provinces address this lack of knowledge through awareness building activities using mass media and CHWs/CCGs.

Beneficiaries have some reservations about the actual nutrition supplements used in the TSF intervention. As mentioned earlier, some communities associate the "porridge" provided as part of the TSF Programme with HIV/AIDS patients while others do not like the taste of the supplements.

Communication about the intervention to the general public and within government itself:

Messages about TSF are mainly delivered through one-on-one nutrition counselling sessions between the dietician and/or qualified nurse and the eligible patient as well as through IEC materials in facilities. In some provinces, however, CHWs/CCGs are involved in growth monitoring and educating/counselling mothers of malnourished children. There are also mass communication efforts in two provinces (KZN and EC), mostly via radio, to raise public awareness around the problem of malnutrition.

Communication within the government was generally reported to be adequate. There was a suggestion to make guidelines more accessible to time-constrained facility staff by distilling and simplifying the information into user-friendly formats e.g. wall charts (as in KZN). A need to provide further guidance and clarity regarding the entry/exit criteria was also identified.

7 CONCLUSIONS

The TSF intervention is designed to address weight loss rather than stunting per se. However, better management of moderate malnutrition in children through the TSF programme may assist in reducing child stunting over the long-term.

The TSF intervention is mainstreamed into routine health services delivered at the facility level. Good standards and norms guide the implementation of this program however, there is a need to add more information about moderate malnutrition and its intervention in other nutrition-related and Maternal and Child Health (MCH) policies.

TSF is nutrition sensitive to children under 5 and pregnant women but is heavily dependent on patients coming to the clinic to be screened and enrolled in the program. As a result, barriers that generally affect utilisation of facility-based services (e.g. distance and means of transport) also directly affect uptake of this intervention.

Staff shortages have contributed to poor nutrition counselling as is evidenced by poor

communication to beneficiaries about the exit criteria and related confusion and dissatisfaction on the part of the beneficiaries.

Poor growth monitoring at facilities, e.g. poor quality of recording, plotting and interpreting growth, has reportedly led to under-enrolling of moderately malnourished children for the intervention. This points to either the need for more training/supervision of nurses or the need for more manageable workloads.

At the strategic level, there is no coordination between DOH, DSD and DAFF or their counterparts in the provinces or at a local level. Data regarding vulnerable groups are kept in departmental silos. There is a need for this to change and for departments to share data on vulnerable individuals/households and coordinate their responses in a holistic manner.

Except for KZN, there are limited referrals between the different government departments. Malnourished individuals need to be referred to DSD's Food Access programmes and the household connected with DAFF's Food Security programmes.

There are weak linkages with community based social service providers e.g. NGOs, CHWs/CCGs, and faith-based organizations.

Supply management is an issue with some provinces experiencing frequent stockouts of food supplements.

There is a need for better M&E of this intervention at the activity, output and outcome levels. Currently, there is poor data on what has been delivered and no data on how long individuals are enrolled in the intervention. Also, the indicators reported on do not distinguish between newly enrolled patients and those who've been receiving the intervention on an ongoing basis.

Overall, while TSF is being implemented as envisioned, it is being limited by the poor quality of growth monitoring, monitoring and evaluation and lack of linkages with community based services/structures.

8 RECOMMENDATIONS

Quality of Service:

1. Improve the quality of facility based growth monitoring and promotion through focused training and increased supportive supervision.

Linkages/Coordination:

2. Establish coordination mechanisms at strategic level to share information between DOH, DSD, and DAFF regarding cases of malnutrition.
3. Establish strong linkages with appropriate DSD and DAFF interventions for individuals enrolled in TSF to enable them to also receive social and agricultural assistance.
4. Likewise, strengthen/establish strong local referral systems for DSD and DAFF to refer vulnerable and potentially malnourished candidates to DOH facilities for

assessment and possible enrolment into the TSF program.

5. Increase linkages with community based service providers, particularly those involved in growth monitoring e.g. NGOs, CHWs/CCGs, and faith-based organisations to better identify and follow up of malnourished mothers and children and reinforce nutrition messages.
6. Better engage NGOs/FBOs in carrying out growth monitoring at community level to diagnose growth faltering or underweight and to refer cases to health facilities for TSF services.
7. Engage ECD centres in carrying out growth monitoring level to diagnose growth faltering or underweight and to refer cases to health facilities for TSF services.

Staffing:

8. Address the shortage of staff at facility and sub-district level by increasing the supply of qualified nutrition personnel such as dieticians, or other relevant staff who can assist in better growth monitoring, nutrition education, and clinical nutrition services delivery.

Supply Management:

9. Strengthen supply and procurement systems to ensure a more adequate supply of food supplements.
10. Consider expanding the OSS project model currently being implemented in KZN to other provinces to strengthen the delivery of the TSF service.

APPENDIX A TERMS OF REFERENCE

DEPARTMENT OF PERFORMANCE MONITORING AND EVALUATION

THE PRESIDENCY

Terms of Reference for Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to age 5

RFP / Bid number: 12/0287

Compulsory briefing session
Date: 27 August 2012
Time: 11.00-13.00
Venue: Room 222, East Wing, Union Buildings

Please note that security procedures at the Union Buildings can take up to 30 minutes.

Bid closing date:
16.00 19 September 2012 with provision of an electronic and 6 hard copies.

1 Background information and rationale

1.1 Background to the intervention being evaluated

South Africa is in a nutrition transition which includes the coexistence of under- and over-nutrition which is evident between and within populations and across age groups. Under-nutrition has stayed roughly constant in South Africa since the early 1990s. Despite our relatively high per capita income, the country has rates of child stunting comparable to other lower-income countries in its region, and higher rates of stunting than lower-income countries in other regions. While some indicators show improvement, several conditions seem to have worsened over the past decade. In addition, children's nutritional status varies considerably among the nine provinces and possibly within each province. This has bearing on targeting and prioritization for interventions and resource allocation. Malnutrition undermines progress towards the Millennium Development Goals (MDGs) directly to those goals related to poverty, maternal health, child mortality and education, and indirectly to the remaining MDGs. Nutrition is critical for, inter alia, the improvement of maternal and child health, as underscored in the Negotiated Service Delivery Agreement

Since the democratisation of South Africa, the Government has remained consistently committed to reducing malnutrition in children and mothers. The appointment of the Nutrition Committee by the Minister of Health in August 1994 to investigate an Integrated Nutrition Strategy for South Africa was the beginning of a new chapter in nutrition in South Africa. In considering the sectoral and multi-faceted causes of malnutrition, the Committee recommended an Integrated Nutrition Strategy (INS) with three components, namely health facility-based services, community-based nutrition programmes and nutrition promotion. Instead of the fragmented and mostly food-based approaches of the past, the INS was to implement complementing strategies and follow an integrated approach to address nutrition problems. The INS was adopted in the Department of Health's White Paper for the Transformation of the Health System in South Africa (1997) and served as the basis for the Integrated Nutrition Programme (INP) for South Africa.

Priority interventions for the Integrated Nutrition Programme for children under five are as follows:

- Infant and young child feeding, which include promotion of safe infant feeding practices;
- Micronutrient malnutrition control-supplements, fortification and food diversification;

- Facility-based nutrition interventions including management of severe malnutrition;
- Growth monitoring and promotion;
- Disease-specific interventions such as nutrition interventions for children living with TB, HIV&AIDS and other debilitating conditions;
- Maternal nutrition which includes provision of micronutrients.

The beneficiaries of nutrition-related interventions and the coverage are as follows:

- Vitamin A provided to post-partum women = 760 000 (current coverage is 94%);
- Vitamin A provided to children from 6 to 59 months – 3 673 584 (current coverage 6-12 months = 90%, and 12-59 months = 41%;
- Nutritional interventions provided to people infected with TB, HIV and AIDS – 640 281;
- Malnourished children (including moderate and severely malnourished) – 134 832;
- School going children through the school nutrition programme – 7 125 273;
- Exclusive breastfeeding promoted to all children under six months old – current coverage of 25% of children from zero to six months.

The health sector is leading and harnessing the efforts to achieve Outcome 2: "A long and healthy life for all South Africans". The Strategic Plan of the National Department of Health (NDOH) provides a framework of the implementation of the 10 Point Plan of the health sector for 2009-2014, which is aimed at creating a well-functioning health system capable of producing improved health outcomes. The outcome-based approach adopted by government to accelerate the implementation of the NDOH Strategic plan guides the development of specific strategies in the sector. The four key outputs that the health sector should produce to achieve Outcome 2 are: increasing life expectancy; decreasing maternal and child mortality; combating HIV and AIDS and decreasing the burden of diseases from Tuberculosis; and strengthening health systems effectiveness.

Improving the nutritional status of the population should benefit the health system and reduce the economic burden of medical treatment and care in a number of ways. It can reduce the demand for curative treatment, and thus the number of patients, shorten the duration of hospital stays and improve recovery rates. Reduced patient loads at primary health care facilities can facilitate improved delivery of nutrition and other preventive and promotive services. Therefore, implementing proven nutrition interventions at scale will contribute in achieving Outcome 2 of the health sector.

The expected outcome of nutrition-related interventions is improving the nutritional status of the South African population, with specific reference to the most vulnerable groups, namely; pregnant women and children under the age of five. The desired outcomes are mainly:

- Reduction of stunting in children;
- Reduction of underweight in children;
- Reduction of case fatality rate due to severe acute malnutrition;
- Reduction of micronutrient deficiencies especially Vitamin A, iron, zinc and iodine;
- Promoting healthy eating amongst the children and adults to combat chronic diseases of lifestyles such as diabetes, cancers and cardiovascular diseases;
- Improving nutritional status of individuals living with chronic and other debilitating conditions.

Recent reports from government, notably the diagnostic report from the National Planning Commission also reflected the need to address the problem of child malnutrition in South Africa. The 2008 input paper from the Development Bank of Southern Africa on "Combating Malnutrition" also highlighted the need to act with speed in tackling malnutrition. The contribution of malnutrition as an underlying cause and major contributor to infant mortality in South Africa has been highlighted through various reports. This has prompted the Minister of Health to urge government to scale-up key child survival interventions such as breastfeeding to contribute in reducing infant mortality rate.

The economic costs of under-nutrition are substantial: productivity losses to individuals are estimated at more than 10 percent of lifetime earnings, and losses to gross domestic product may be as high as 2–3%. The estimated budget allocation for nutrition related interventions in provinces under the health budget vote is R320 million. Therefore the evaluation is important because of the investment that government is making on nutrition related interventions for under-five children. Identifying bottlenecks in scaling up nutrition related interventions targeting children under five will contribute better programme planning and resource allocation.

In order to understand problems of malnutrition and resources and systems needed at different levels, the "UNICEF Conceptual Framework (1990) should be used as a guide. The conceptual framework outlines in diagrammatic form the multiple causes of malnutrition operating at various levels in society. The framework also focuses on the processes, programmes and policies that need to happen at the higher level to ensure that reductions in maternal and child under-nutrition will not only be achieved in the short term, but will be maintained in the long term, will be sustainable, and will be transmitted from one generation to another. Public and private sector interventions need to influence household decision-making to influence nutrition.

The multi-sectoral nature of nutrition requires various government departments, donor agencies and the industry to work together. The following stakeholders within and outside government are critical in the successful implementation of various nutrition related interventions: Departments of Basic Education, Social Development, Agriculture, Trade and Industry, Treasury, Water Affairs, Rural Development and Land Reform, United Nations agencies, food industry, NGOs and other development partners. The Integrated Nutrition Programme became operational in 1994.

Various nutrition interventions are currently being implemented. Table 1 shows a list of the interventions to include in this evaluation.

Table 1: Nutrition interventions to be covered by this evaluation (*= high impact interventions drawn from Copenhagen Consensus of 2012 and the Lancet Series 2008)

Interventions to cover	Department responsible
Breast-feeding support*	Health
Complementary feeding*	Health
Food fortification (Vitamin A, Iron and Iodine)*	Health
Micronutrient inc Vitamin A supplementation*	Health
ORS and Zinc*	Health
Management of severe malnutrition*	Health
Management of moderate malnutrition inc targeted supplementary feeding*	Health
Deworming	Health
Growth monitoring and promotion including the use of MUAC	Health
Nutrition education and counselling (part of all of these)	Health
Improving hygiene practice (including in relation to water and sanitation) – should be in all	Health
BANC (Basic ante-natal care) – education and supplements, timing	Health
IMCI (integrated management of childhood illnesses)	Health
Household food production and preservation (home gardening)	DAFF
Access to (nutritious) food, food prices	DAFF
Food security (output 2 of outcome 7)	DRDLR/DAFF
Food access (eg food parcels, soup kitchens) (DSD)	DSD
ECD (food in ECD centres) (DSD)	DSD

The evaluation should feed into other government priorities that are geared towards the reduction of infant mortality in South Africa, especially policy initiatives such as re-engineering of Primary Health care

that are pioneered by the Department of Health. The recent review of the ECD interventions also provides an opportunity to address issues of nutrition comprehensively, focus on the most vulnerable members of the society. Malnutrition is an underlying cause of the death of children in one-third of the total of children's deaths in South Africa. Malnutrition undermines economic growth and reduces the productivity of people trying to work their way out of poverty. It is estimated that 2-3% of the national income of a country can be lost to malnutrition. Therefore it is imperative that South Africa act now to address problems of malnutrition, since we have been identified as one of the 36 countries where 90% of the world's stunted children resides.

1.2 Purpose of the evaluation

The evaluation will focus on identifying the critical system and implementation issues inhibiting or enabling people's access to nutrition-related interventions targeting children from conception to below the age of five, how these should be addressed and scaled up where appropriate.

The evaluation will provide the opportunity to re-focus interventions targeting children under five.

2 The focus of the evaluation

2.1 Evaluation questions

The key evaluation questions that this evaluation will address include:

- Do relevant **policies** exist for these interventions (those in table 1), have they been adopted by appropriate departments/levels of government, are they funded, and are they coherent across sectors?[1] Are there policy gaps?
- Does government have the appropriate policy and **regulations** to avoid inappropriate marketing of products affecting child nutrition? What are the gaps in monitoring and enforcement? How consistent is this across government? Why are some regulations not being applied effectively, or not enforced? Is there sufficient capacity in regulatory agencies? What type of partnership with industry is appropriate to promote child nutrition and development?[2]
- To what extent are nutrition interventions from different agencies (government and non-government) influencing household decisions and **reaching under 5 children** across the country (from secondary data and facility monitoring) and which are being carried by government and which by non-government agencies?
- Are **high impact interventions** being prioritised in practice? See Table 1 for a list of high impact interventions.
- What interventions are being **implemented effectively**, what aren't?
- Why are some interventions not being implemented effectively and efficiently and what is needed to strengthen, upscale and sustain them? Sub-questions include:
    - How far is nutrition **mainstreamed** into the work of relevant services which impact directly on children? These services should be defined in the inception report.
    - Are there appropriate **plans** to implement these nutrition interventions, are they included in departmental strategic plans, APPs and operational plans?
    - Is there appropriate **leadership** for nutrition at the respective levels and are they empowered to play that role?
    - Are there **relevant workers** (not necessarily professional dieticians or nutritionists) to address nutrition-related interventions?
    - Do key staff (government and non-government) at different levels have the skills to play the roles they need to play and deliver the services needed?

[1] A list will be provided
[2] Note some work has been happening in terms of food control agencies

- Do the PHC and other service facilities have the necessary equipment, guidelines, protocols and supplies to deal with nutrition in under-five children?
- Do service standards/norms exist for relevant interventions?
- Are resources allocated appropriately and sufficiently (this would draw on international evidence of cost-benefits)
- In terms of the service delivery model operating in practice, do we have appropriate systems and structures operating at community level to have effective outreach to communities (eg community-based services such as nutrition advisors, and platforms for community involvement). How extensive are these?

➢ What institutional arrangements are currently in place within and across departments and agencies (government, private sector, community actors) to address child nutrition and what is needed to improve the effectiveness of nutrition interventions?

➢ What monitoring and evaluation systems are in place and needed to monitor and improve the evidence base for and implementation of nutrition-related interventions?

2.2 Intended users and stakeholders of the evaluation

The key potential users of the evaluation results and how they may use it are shown in Table 2.

Table 2: Users and their use of the evaluation results

User	Key question	How they may use the evaluation results
Political leadership at national and provincial levels	• What do we need to do to ensure that our children are well nourished and able to use their full potential? • What institutional arrangements and M&E is needed across departments and agencies (government, private sector, community actors) to improve the effectiveness of nutrition interventions for children?	• Reprioritise resources • To strengthen intergovernmental cooperation (and with civil society) around child nutrition and development?
All departments and provinces	• What interventions are being implemented effectively, what aren't and where are the gaps? • Why are some interventions not being implemented effectively and efficiently and how can we strengthen, upscale and sustain them? • How does each department's role need to be strengthened to address this?	• Overcoming blockages and improving implementation • Reprioritise resources • Collaborate more effectively with other agencies
Development partners and NGOs	As above plus: • Where are the key gaps where our support can make a difference?	• Prioritise funding and support to programmes
Staff at facility or community level	• What skills and support do we need to ensure we can deliver services appropriately	• Recognising their shortcomings • Motivate for the support they need Allocating their time differently • Motivating and mobilising the community more appropriately
Industry	• How can industry's products and services be more appropriate in addressing child	• Refocusing products and services

User	Key question	How they may use the evaluation results
	nutrition • What type of partnership with government is appropriate to promote child nutrition?	• Appropriate partnerships established

2.3 Scope of the evaluation

Table 3 shows the issues which are to be covered, and those to be excluded.

Table 3: Scope of the nutrition evaluation

To be included	To be excluded
System issues include policy, the design of programmes, budgets, how processes work in practice	
Period from conception to age 5 Women pregnant/caring for children under 5	Exclude children >5 Women of child-bearing age who are not pregnant, and are not caring for children under 5
Link with HIV	
Main intervention programmes targeting under 5s across government	Indirect issues such as Child Support Grant. Build on existing CSG evaluation.
Underweight and overweight	
ECD	Don't cover what already covered by ECD Diagnostic Review
Public health interventions including at community level	Exclude tertiary and district hospitals except for management of severe acute malnutrition (SAM). Main focus not on clinical interventions
Budget for wider nutrition interventions beyond the Integrated Nutrition Programme, but will also look at previous INP budget for infant formula.	
Role of industry and how government engages with industry	
Relate to international experience eg in middle income countries	

3 Evaluation design

The key elements of the design include:

1. Good literature review to draw together existing research and evaluation (a set of core documents will be provided at the bidders briefing).
2. Review of existing national and provincial policies, regulations and interventions to show how these cohere or not and govern provision (bearing in mind that most nutrition action is taken at household level).
3. Some comparison with other middle-income countries, especially where data is limited. The countries should be suggested in the inception report.
4. Overview of all the interventions and the progress/not and challenges using secondary data.
5. Four provinces selected for detailed case studies to explain what is occurring and why (including those working well, those working less well). This should include KwaZulu Natal where there is

extensive community-based nutrition work happening, Western Cape, Free State/North West and Eastern Cape. These should cover urban to remote rural communities and facilities, perhaps 6 per province, covering a relatively well performing district and a poorly performing. See Annex 2.

6. Some high impact interventions selected for detailed case studies (probably breast-feeding support, targeted meal supplementation, management of severe malnutrition and possibly Vitamin A supplementation) as well as household food production and preservation (home gardening). These should show the linkages and value chain between household and the decisions made, community, facility, district, province and national level including the private sector. This should explain and illustrate implementation challenges and proposals to strengthen.
7. Thorough institutional analysis to understand how within and across departmental systems, structures, capacity, organisational culture and leadership is facilitating or limiting impacts. This will build on the landscape analysis.
8. Recommendations should take a short/medium/long term perspective.

APPENDIX B METHODOLOGY

LITERATURE REVIEW

The starting point for this evaluation was a literature review that provided the context for this implementation evaluation. The literature review examined the following relevant topics:

1. Current health and nutrition status of children under 5 and pregnant women in South Africa;
2. South Africa's policy framework on maternal and child nutrition;
3. A review of nutrition policies and interventions from 5 countries that have successfully improved their nutrition performance (Brazil, Colombia, Malawi, Mozambique, and Malaysia). These countries were selected by the Evaluation Steering Committee as comparisons to South Africa based on one of the following two reasons:
   - the country has similar economic or infrastructure characteristics to South Africa but much better nutrition performance at a national level (i.e. Brazil, Colombia, and Malaysia), or
   - the country is geographically proximate to South Africa and thus has similar environmental and cultural characteristics, but again better nutrition performance (i.e. Malawi and Mozambique);
4. An analysis of implementation issues present in the literature.

SAMPLING

Before we began fieldwork, the Evaluation Steering Committee identified the geographic areas where fieldwork was to be carried out and the important subgroups or categories of people to be sampled. The four stages involved are further described below.

Stage 1: Selection of Provinces

Aside from data collection at national level, the Evaluation Steering Committee identified 4 provinces (purposefully-selected) for the reasons indicated below:

JUSTIFICATION FOR THE PROVINCES SAMPLED

Province	Justification
KwaZulu-Natal	Its emphasis on community nutrition
Western Cape	The general perception that nutrition and health programmes are well implemented in the Western Cape
Free State	The general perception that nutrition and health programmes are well implemented in the Free State
Eastern Cape	Its unique development profile and its challenges in implementing government programmes

Stage 2: Selection of Districts

In each province, 2 districts were purposefully selected based on their levels of performance (i.e. high performing and low performing). We obtained recommendations from provincial nutrition focal persons regarding the names of high-performing districts in their province. Selection of the poor-performing districts were identified with the Evaluation Steering Committee using the following criteria:

- NDOH score for district's performance in child health indicators
- NDOH pilot districts for implementing the NHI (these tend to be districts with vulnerable population and have a high burden of disease, and have demonstrated poor performance in 27 socio-economic, health service and financial and resource management indicators).
- Rural Development scores for district performance
- Agriculture scores for district performance
- DSD district performance scores

Two of the poor-performing districts chosen with the Evaluation Steering Committee (in FS and WC) were revised, with the final sample of districts being presented in the table below.

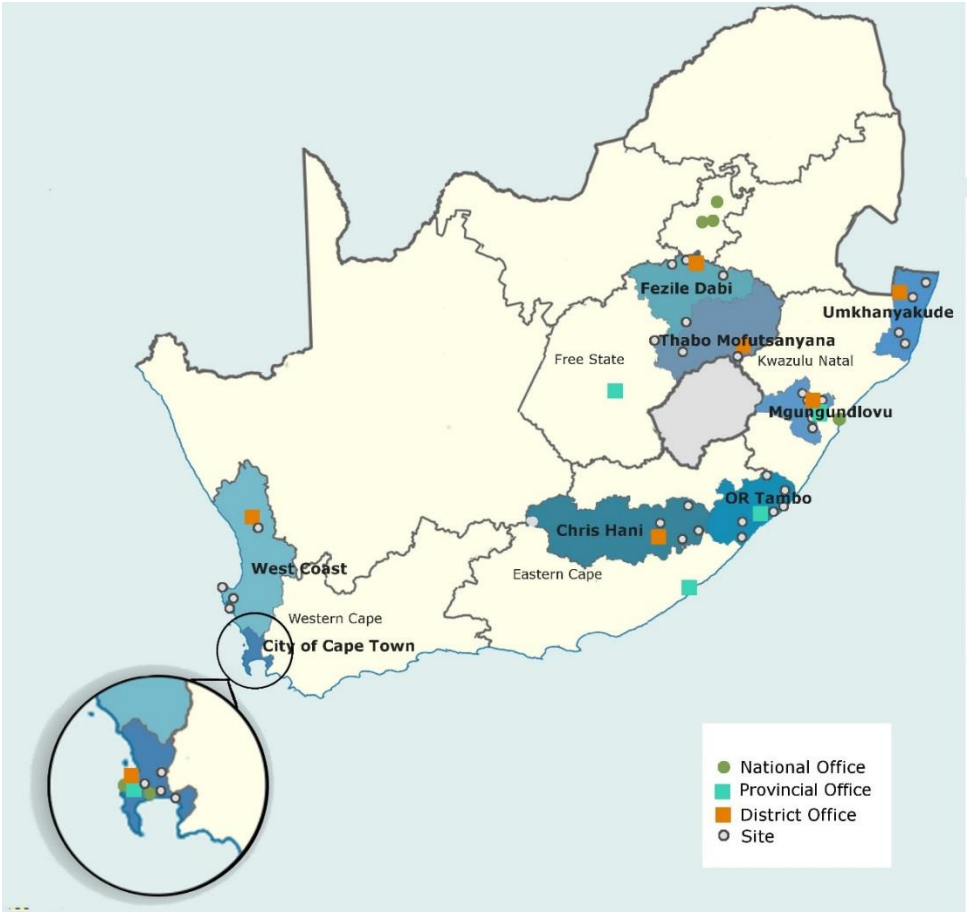
DISTRICTS INCLUDED IN THE SAMPLE

PROVINCE	HIGH PERFORMING DISTRICTS		POOR PERFORMING DISTRICTS	
	District Name	Justification	District Name	Justification
Eastern Cape	Chris Hani	Recommendation from the EC nutrition focal person.	OR Tambo (Umtata)	NHI pilot site Poor Child Health indicator score Poor Rural Development indicator Score
KZN	Umgungundlovu	Recommendation from the KZN nutrition focal person.	Umkhanyakude (Mkuze / Jozini)	Poor Child Health indicator score Poor Rural Development indicator Score High poverty levels based on DSD indicators
Free State	Thabo Mofutsanyane	Recommendation from FS nutrition focal person	Fezile Dabi	Recommendation from Nutrition Manager in FS province
Western Cape	West Coast	Recommendation from WC nutrition focal person.	City of Cape Town	Recommendation from Nutrition Manager in WC province

Stage 3: Selection of Facilities/Organisations

In each district, Khulisa randomly selected 4 health facilities according to their geographic status (urban/rural), and purposefully selected 4 NGOs that work in food/nutrition. This resulted in a total sample of 32 health facilities and 16 NGOs as across the 4 provinces.

FIELDWORK LOCATIONS



Stage 4: Selection of Individual Respondents

Key informant respondents were purposefully sampled based on a list of stakeholders provided by the Evaluation Steering Committee. The sampling strategy for beneficiaries was based on a convenience sample obtained during site visits to health facilities and NGOs. The method for data collection in each group in the sample is indicated in brackets in the box below.

Proposed Respondents (and method of data collection)

1) **National Level Respondents** *(in-depth interviews)*
   - National DOH nutrition managers
   - National DSD managers
   - National Rural Development food/nutrition managers
   - National Agriculture food security managers
   - National ECD managers
   - Bilateral Donors: USAID, CDC
   - Multi-lateral Donors: UNICEF, WHO
   - Relevant local and international health/development organizations:
   - Relevant food industries
2) **Provincial Level Respondents in WC, EC, FS, and KZN** *(in-depth interviews)*

- Provincial DOH nutrition managers
- Provincial DSD nutrition managers
- Provincial Rural Development food/nutrition managers
- Provincial Agriculture food security managers

3) **District Level Respondents** *(in-depth interviews or focus group discussions)*
   - District DOH nutrition managers
   - District DSD nutrition managers
   - District Rural Development food/nutrition managers
   - District Agriculture food security managers
4) **Health Facility Respondents** *(in-depth interviews or focus group discussions)*
   - MCH nurse or nursing assistant
   - Counsellors for pregnant women and/or mothers of young children
   - Community health workers attached to health facilities
5) **NGO Respondents** *(in-depth interviews or focus group discussions)*
   - Programme or Site Manager
   - Community workers
6) **Beneficiary Respondents** *(focus group discussions)*
   - Pregnant women and mothers of children under 5 years present at health facilities
   - Beneficiary participants in NGO programmes

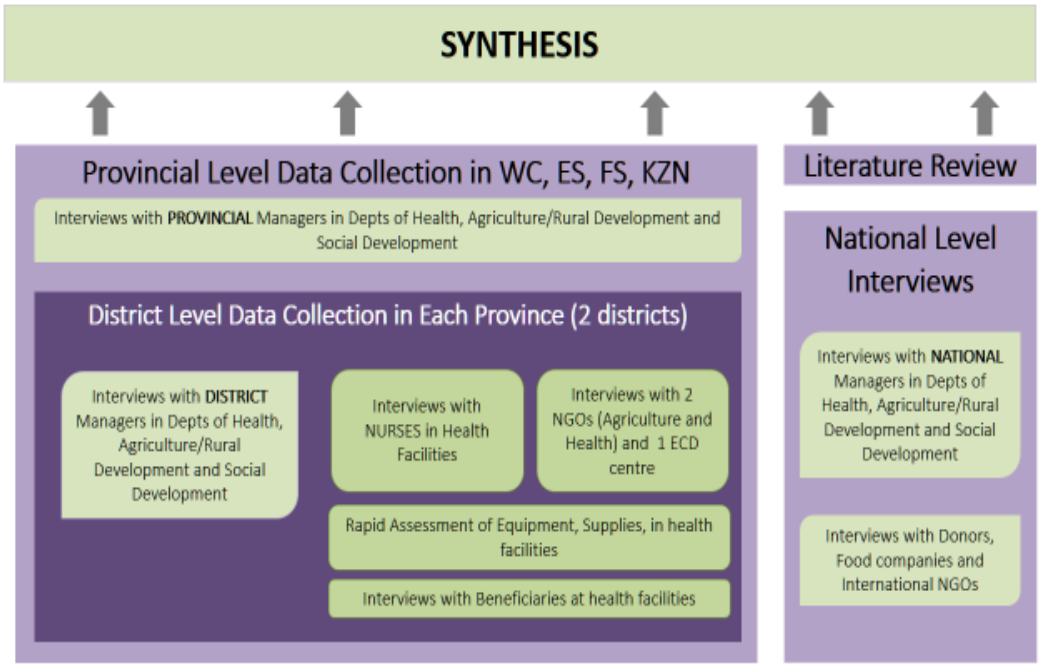
DATA COLLECTION METHODS

Data collection methods used in the evaluation are as follows:

1. Semi-structured Key Informant Interviews
2. Focus Groups with beneficiaries
3. Rapid Performance Assessments of health facilities
4. Assessment of Health Worker Knowledge around nutrition

The figure below summarises the data collection components of the evaluation.

SUMMARY OF DATA COLLECTION COMPONENTS OF THE EVALUATION



The table below presents the data collection methods used, the target respondents for each method, as well as the content explored.

DATA COLLECTION METHODS AND TARGET RESPONDENTS BY CONTENT

Method	Target Respondents	Content explored
Key informant interviews	Relevant Government managers at national, provincial, and district levels	• Perceptions on current needs and practice around nutrition • Moderating factors (i.e. policy content and fit, organisational context and culture, commitment, capacity, facilitation processes that affect participant responsiveness, and communication) • Institutional arrangements • M&E for food/nutrition • Funding levels
	Food industry representatives	
	Bilateral and multilateral donors and international health/development NGOs	
	Health facility staff or managers	
	Representatives from CBOS/NGOS involved in food/nutrition programmes	
	Programme managers at district level, groups of health staff at facility level	
	Representatives from community-based projects and services (ECD, agriculture, health)	
Focus Group Discussions	Beneficiaries	• Experiences with food and nutrition programmes and services • Satisfaction with services • Need for food/nutrition support

Method	Target Respondents	Content explored
Rapid Performance Assessment	Health Facilities	Review of relevant infrastructure, equipment, and supplies for delivering nutrition interventions
Assessment of Health worker Knowledge	Nurses, counsellors, or others providing nutrition services	Knowledge of diagnostic steps and counselling around breastfeeding difficulties, growth faltering, and knowledge of the benefits of micronutrient supplementation

PLANNED VS. ACTUAL DATA COLLECTION

The fieldwork was conducted in 100 of the intended 104 intended locations (96%). The missing locations include: one national level interview (not conducted because of difficulties in scheduling or refusals), two district level offices (not interviewed in the Western Cape (DOA for West Coast district and DOH for City of Cape Town Metro)), and one health facility in the Free State.

As shown in in the table below, 143 interviews and Focus Group Discussions (FGDs) were conducted across these 100 locations. Half of these were held at Government offices or health facilities, 30% were Beneficiary FGDs, and the remaining 20% were with NGOs or other (donor representatives, international agencies, and private companies). Many interviews were conducted with more than 1 respondent, resulting in the total number of respondents being more than 400 people.

Two additional assessments were conducted at health facilities: (i) a rapid assessment of relevant equipment and supplies for delivery of nutrition interventions, and (ii) an assessment of health worker's knowledge around nutrition interventions.

FIELDWORK PLANNED AND ACTUAL

Data Collection Method and Stakeholders Group	No. of Interviews / FGDs			Total No. Persons interviewed
	Planned	Actual	%	
Individual or Group Interviews				
National Government Managers	4	5	125%	7
Representatives of International NGOs	4	7	175%	8
Donors	3	4	133%	5
Private Food Companies	4	4	100%	8
Provincial Government Managers	12	15	125%	22
District Government Managers	24	21	88%	37
Health Facilities	32	31	97%	61
Local NGO	8	8	100%	18
ECD Centre	4	5	125%	12
Focus Group Discussions				

Beneficiaries FGDs at health services and community projects	48	40	83%	267
TOTAL	**143**	**140**	**98%**	**445**

Other Assessments	**Planned**	**Actual**	**%**	**No. Persons Reached**
Health Facilities Rapid Assessments	40	36	90%	--
Health Worker's Assessment of Nutrition Knowledge	76	132	174%	136

A breakdown of the number of respondents per province can be seen in in the table below.

ACTUAL NO. INTERVIEWS AND FGDS CONDUCTED BY PROVINCE

	Western Cape		Free State		Kwa-Zulu Natal		Eastern Cape		National Level		Total	
	No. Interviews / FGDs	No. Resp.	No. Interviews / FGDs	No. Resp.	No. Interviews / FGDs	No. Resp.	No. Interviews / FGDs	No. Resp.	No. Interviews / FGDs	No. Resp.	No. Interviews / FGDs	No. Resp.
DOH Mgmt	2	2	4	5	3	4	3	7	1	2	13	20
DSD Mgmt	2	4	5	6	3	7	4	6	2	3	16	26
Ag Mgmt	1	1	3	5	3	7	3	5	2	2	12	20
Donors, companies	--	--	--	--	--	--	--	--	14	21	14	21
NGOs (local) /ECD	1	1	4	7	4	15	4	7	--	--	13	30
Health Facilities	8	9	7	7	8	31	8	14	--	--	31	61
Beneficiary FGDs	7	21	10	69	11	106	12	71	--	--	40	267
TOTAL	**21**	**38**	**33**	**99**	**32**	**170**	**34**	**110**	**19**	**28**	**139**	**445**

NB: *No. Resp* = Number of respondents across the interviews and focus group discussions. Because interviews were often conducted with more than one person, the number of respondents is often greater than the number of interviews or FDGs held.

DATA RECORDING AND CAPTURING

During each interview or assessment, the researcher took extensive notes on the instruments specific to the interview. An interview guide provided researchers with further guidance on when to probe for answers and when not to. The notes were then captured in Excel for data analysis and then coded according to themes.

DATA ANALYSIS

Quantitative data collected in the KIIs, FGDs, Health Facilities Rapid Assessments, and Health Worker's Assessment of Nutrition Knowledge were analysed using descriptive statistics.

Qualitative data collected under the KIIs and FGDs were analysed using content analysis, from the notes that had been transcribed into Excel. The following criteria were utilised to determine the 'reliability and validity' of the data.

1. Truth value/Credibility: Truth value describes the level of confidence the researcher has with the truth of the findings based on: research design, informants and context.

2. Consistency/Dependability: Due to the non-experimental and complex nature of qualitative research, variability is expected and consistency is explained as dependability. Dependability requires that variability is tracked and explained and informant's range of experience from typical to atypical experience explained.
3. Neutrality: Neutrality in qualitative research involves neutrality in relation to data rather than the investigator.

Once the qualitative notes were checked for reliability and validity, these were coded for themes. These themes were tabulated and reported on according to the KII and FGD questions.

REPORTS PRODUCED

Case Study reports were prepared for each of the four provinces where fieldwork took place, as well as for each of the four priority interventions. In all, 11 reports for dissemination prepared for this evaluation as listed below:

1. Literature Review
2. Breastfeeding Case Study
3. Targeted Supplementary Feeding Case Study
4. Home Gardens Case Study
5. Food Access Case Study
6. KwaZulu-Natal Provincial Case Study
7. Eastern Cape Provincial Case Study
8. Free State Provincial Case Study
9. Western Cape Provincial Case Study
10. Final Evaluation Report
11. Summary of Final Evaluation Report (1-5-25)

LIMITATIONS OF THE EVALUATION

By their nature, qualitative evaluations of policies and programme implementation allow examination of the broader context, rather than specific measurements of compliance to policy elements or programmatic guidelines. This evaluation's extremely broad scope (18 interventions, 17 research questions, and investigation of 6 moderating factors) resulted in very lengthy interviews with respondents who often had time constraints. Consequently, many respondents gave only cursory information around the issues that we sought to explore more deeply.

Because nutrition interventions for pregnant women and children under 5 in the health sector far outweigh the number of nutrition interventions in the social development and agriculture sectors, the evaluation's sampling framework is biased toward respondents from health. In addition, at provincial, district, and local levels, most respondents were able to

speak knowledgeably about nutrition interventions implemented by their specific government department, but few were able to comment on the adequacy of implementation for interventions outside their sector. Consequently, data collected from social development and agriculture is sparse compared to that collected from health, making generalisations on implementation in agriculture and social development more difficult.

Data collection in the WC was significantly delayed due to the need to secure ethics clearance from the province before the commencement of field work. This delay led to time constraints on the part of the researcher which in turn resulted in less complete data for the WC compared to that for the other 3 provinces.

APPENDIX C LIST OF PEOPLE INTERVIEWED BY LOCATION

Provincial Respondents:
1. DOH Provincial Nutrition Programme Manager
2. DOH Provincial Nutrition Deputy Programme Manager
3. DSD Provincial Children Services Manager
4. DAEA Provincial Food Security Manager
5. DAEA Provincial Food Security Facilitator
District Respondents:
6. DOH uMkhanyakude District Nutritionist
7. DOH uMgungundlovu District Nutritionist
8. DSD uMgungundlovu Acting ECD Manager
9. DSD uMgungundlovu Acting ECD Coordinator
10. DAEA uMgungundlovu District Manager
11. DAEA uMgungundlovu Local Manager (Camperdown)
12. DAEA uMgungundlovu Local Manager (uMgeni)
13. DAEA uMkhanyakude Food Security Advisor
14. DSD uMkhanyakude Cluster Social Work Manager
15. DSD uMkhanyakude Cluster ECD Manager
16. DSD uMkhanyakude District Service Office Manager
17. DSD uMkhanyakude ECD Social Work Coordinator
Facility Respondents:
18. Eastwood Clinic Operation Manager
19. Eastwood PHC Coordinator
20. Eastwood staff nurse
21. Maguzu Clinic Operational Manager
22. Maguzu Clinic IMCI Nurse
23. Maguzu Clinic MCH Staff Nurse
24. Maguzu Clinic Lay Counsellor for PMTCT
25. Nxamalala Clinic IMCI Nurse
26. Nxamalala Clinic Operational Manager
27. Nxamalala Clinic Professional Nurse
28. Nxamalala Clinic Enrolled Nursing Assistant
29. Howick Central Clinic Operational Manager
30. Howick Central Clinic IMCI Nurse
31. Howick Central Clinic Professional Nurse
32. Howick Central Clinic Professional Nurse
33. Thengane Clinic Operational Manager
34. Thengane Clinic PHC Coordinator
35. Thengane Clinic Professional Nurse
36. Thengane Clinic Auxiliary Nurse
37. Oqondweni Clinic Operational Manager
38. Oqondweni Clinic Professional Nurse
39. Oqondweni Clinic Professional Nurse
40. Oqondweni Clinic Lay Counsellor
41. KwaMsane Clinic Professional Nurse

42. KwaMsane Clinic Professional Nurse
43. KwaMsane Clinic Pharmacist Assistant
44. KwaMsane Nutrition Advisor
45. Machibini Clinic Professional Nurse
46. Machibini Clinic Professional Nurse
47. Machibini Clinic Enrolled Nursing Assistant
48. Machibini Clinic Enrolled Nursing Assistant
NGO Respondents:
49. Founder and chairperson of Active women Association
50. Kheth'Impilo uMgungundlovu District Project Manager
51. Kheth'Impilo uMgungundlovu District Quality Assurance Mentor
52. EastBoom Operational Manager
53. Kheth'Impilo Professional Nurse
54. DAEA Ward 6 Extension Officer
55. KwaDindi Community Agricultural mushroom project, Project Manager
56. KwaDindi Community Agricultural mushroom Project, Farm workers supervisor.
57. Khuzwayo ECD Principal
58. Khuzwayo ECD Teacher
59. Khuzwayo ECD Teacher
60. Khuzwayo ECD Cook
61. Khuzwayo ECD Chair
62. Khuzwayo ECD Treasurer
63. Khuzwayo ECD Vice Secretary.

APPENDIX D FIELDWORK CHALLENGES IN THE FS

Scheduling and Timing: Some of the district level respondents confirmed appointments but had to attend to other priorities on the day of the interview or indicated that they were not the relevant person to interview and referred to colleagues who were hesitant to do the interview.

Communication about the evaluation to the provinces and districts: The evaluation was not clearly communicated by the DDG's office to the relevant Departments. FS Department of Health respondents wanted a letter from their Acting HOD, giving permission for data to be collected in Health Facilities and District Offices. This was facilitated because of the relationships built previously with staff in the HOD's Office.

Respondent substitutions: During the interview with the Chief Director – ECD at DSD, it was recommended that an interview be scheduled with the Chief Director of Community Development, the section directly responsible for Food Security Programmes, in order to get a more comprehensive picture of Food or Nutrition services within the department. Respondent substitutions happened at the Thabo Mofutsanyane District – DSD. The initial respondents were not available on the day confirmed for the interview and also cited that they were not the relevant people to interview. This resulted in the researcher having to set up additional appointments with related time and logistical issues.

Collecting data at health clinics: One (1) facility, Villiers Clinic was left out due to a scheduling misunderstanding between the researcher and the logistics coordinator. Data collection at health facilities was a challenge due to staff shortages as the EPI Campaign was also running at the same time as the data collection, the time taken to conduct the interviews as the tools were quite lengthy and respondents became restless, impatient and complained about the time taken, and the distances between the facilities. During Focus Group Discussions with Beneficiaries, one would start the discussion with a group of 10 to 12 mothers, but most would leave in the middle of the session due to various reasons – fear they would miss their place in the queue, lack of interest in the topic discussed or they were in a hurry to leave the facility as they had prior engagements to attend to. At times those present would not respond to questions and would keep quiet. This happened in spite of attempts to break the ice to develop a rapport by discussing issues other than food or nutrition. Upon further investigation with health workers, one learned that mothers do not like to be asked about food or nutrition related issues concerning their children.

APPENDIX E ENDNOTE REFERENCES

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