Summary evaluation report

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

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This report has been independently prepared by Khulisa Management Services (Pty) Ltd. The Evaluation Steering Committee comprises the Presidency, Department of Performance Monitoring and Evaluation in the Presidency, The Department of Health, the Department of Social Development, the Department of Agriculture, Forestry, and Fisheries, and UNICEF. The Steering Committee oversaw the operation of the evaluation, commented and approved the reports.
The most critical time for nutrition is the first 1000 days of life – between conception and a child’s second birthday. The effects of malnutrition in this period can last a lifetime – resulting in ill health, poor cognitive abilities, and reduced productivity into adulthood.

South Africa has a much higher nutrition problem than countries at comparable income levels and the rate of stunting has increased since 2005. According to the most recent national data (SANHANES, 2013), 26% of boys and 25% of girls aged 1-3 years old are stunted, inflicting irreparable damage on them and their children. High levels of stunting are creating a debilitating and intergenerational problem for South Africa in terms of longevity, educational outcomes and productivity of people, and its related contribution to economic growth. There is also a growing obesity problem in children aged 2 to 5 years, with 18.9% of girls overweight and 4.9% obese, and 17.5% of boys overweight and 4.4% obese.

This evaluation examined 18 nutrition interventions being implemented by various government departments. The evaluation aims to assist government in improving implementation and scale-up of nutrition interventions for children from conception to age 5. Key recommendations from the evaluation are listed below:

- **Nutrition of under 5s should be elevated to the level of an output of Outcome 2 (Health),** and so included in the Medium-Term Strategic Framework and the Delivery Agreement. A well-defined Nutrition Plan should be developed for the output across all sectors that operationalises national priorities and investments in nutrition to achieve integrated and consolidated goals (including an explicit goal to reduce stunting in children under 5), objectives, and budgets. This plan should be developed in time for the approval of the Mid-Term Strategic Framework after the elections and cascading into strategic plans. This should have **common indicators for tracking Food and Nutrition across all sectors** with a common and consolidated M&E framework for tracking both the delivery and the effects of nutrition interventions prioritised under the Plan.

- Elevating nutrition to the level of an output should be accompanied by elevation of the status of nutrition, to at least a cluster manager in national DoH and to a **directorate level at provincial DoH**, as in KZN. Districts also need a nutrition-trained person. Other national and provincial departments need a nutrition-trained focal person to manage their component of their work.

- **Stronger coordination** is needed of the implementation of nutrition interventions by relevant government departments, and monitoring that the nutrition programme plan is being followed. The National DoH is the natural champion as most interventions are within its domain. Support is needed from the Presidency to elevate the political profile of nutrition. The integrated nutrition plan will facilitate cross-sectoral collaboration, as well as more effective planning, budgeting and oversight of each ministry’s performance in achieving nutrition goals. DPME needs to look at lessons in terms of strengthening programme coordination mechanisms across departments.

- A **National Nutrition Council** should be established as a coordinating council, like SANAC for HIV/AIDS, which has broad representation from key government sectors and programmes, civil society, suitable involvement of the private sector, to mobilise all sectors around nutrition. The DoH will provide the secretariat for this. As has been done for maternal mortality and morbidity (COMMiC), this Council should be served by a committee of experts – a Committee on Nutrition (COMMoN). Other committees addressing infant and...
child health should also have a nutrition focal point.

- Change **focus of services and communication** across relevant sectors to focus more on nutrition promotion, exclusive breastfeeding, complementary feeding, dietary diversity, hygiene education and to help create an enabling environment.

- Clarify the **champion for food security**. DAFF’s current food security strategy does not address nutrition in a substantive way. If DSD is to be the food security and food gardens champion, Agriculture or NGOs will need to provide significant technical expertise at all levels.

**INTRODUCTION**

A diagnostic and implementation evaluation of government nutrition programmes was undertaken as part of the National Evaluation Plan for 2012/2013. The purpose of the evaluation was to assess the implementation of 18 nutrition interventions being delivered by the Departments of Health (DoH), Social Development (DSD), and Agriculture (DAFF or DOA) and to determine the enabling and inhibiting factors for implementation. The focus of the evaluation was on the sufficiency of national and provincial policy, leadership and resource allocation; on district management and oversight; and local level services delivery. The conceptual framework comprised an examination of 6 factors that moderate the implementation of nutrition programmes.

**BACKGROUND**

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 not 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 the mid-1990’s the government introduced the Integrated Nutrition Programme (INP) which aimed to improve nutrition through emphasising inter-sectoral collaboration between departments to promote joint action for addressing nutrition problems. This multi-sectoral approach was intended to address the previously neglected underlying determinants of malnutrition. However, despite this effort, nutrition problems such as stunting have persisted. Furthermore, lack of progress on the nutrition front has contributed to a stagnation child mortality and morbidity resulting in South Africa lagging in achieving its Millennium Goals by 2015.

**METHODOLOGY**

Evaluating the implementation of the INP and its 18 nutrition interventions was viewed through the lens of the six moderating factors: (1) Fit of policies and strategies to context; (2) Culture and context; (3) Implementation strategies; (4) Participant responsiveness; (5) Capacity to implement and (6) Communication. A literature review provided the context for the evaluation. The literature review compared the nutrition response of South Africa with that of 5 countries that have successfully improved their nutrition performance (Brazil, Colombia, Malawi, Mozambique, and Malaysia). South African policies around nutrition for pregnant women and children under 5 as well as programme-specific documents were reviewed. Fieldwork was carried out in 4 provinces – KwaZulu-Natal (KZN), Western Cape (WC), Free State (FS), and Eastern Cape (EC). In each province, 2 districts were purposefully selected and in each district Khulisa...
randomly selected 4 health facilities. In each province, 4 NGOs working in food/nutrition were also included in the sample. This resulted in a total sample of 32 health facilities and 16 NGOs across the 4 provinces. Data was collected using: semi-structured key informant interviews; focus groups with beneficiaries; rapid performance assessments of health facilities; and assessment of health worker knowledge around nutrition. Qualitative data was analysed using content analysis from notes transcribed into Excel. Annex 2 presents the data collection methods used, the target respondents for each method, as well as the content explored. In addition to the final report, 8 case studies were prepared for this evaluation: 4 provincial case study reports and case studies for 4 nutrition interventions – Breastfeeding Support, Targeted Supplementary Feeding, Food Access, and Household Food Production and Preservation.
FINDINGS OF THE LITERATURE REVIEW

Compared to the five comparison countries, South Africa shows little improvement between 1999 and 2012 in reducing underweight of children under 5 (Figure 1). In addition, South Africa’s double burden of overweight and underweight in children is much higher than the comparison countries (Figure 2). Generally, South Africa has a good mix of health and nutrition policies which should address the immediate, basic, and underlying factors associated with its nutrition issues. Most policies and strategies from DoH, DSD, as well as the National Development Plan 2030 have language that demonstrates some sensitivity to the nutrition needs of pregnant women and young children. However, policies from agriculture do not, as its Food Security Strategy places emphasis on food production and not nutrition or consumption of nutritious foods.

When compared to successful nutrition programmes in other countries, South Africa’s INP lacks a common consolidated operational plan across all sectors and dedicated budget and staffing for nutrition activities. Analyses of resources allocated to nutrition are constrained by the difficulty in disaggregating the value of staff time and material inputs for nutrition from larger health, agriculture and social development budgets and staff complements.

South Africa and four comparison countries provide cash transfers to alleviate poverty. However in Brazil and Colombia continued participation in cash transfer programmes is contingent on beneficiaries’ adherence to basic health monitoring (i.e. BANC, vaccination schedule, and growth monitoring) and educational attendance. As a result of these conditions, Brazil has dramatically improved nutritional status and exceeded its target of reaching pregnant and lactating women and children in the first year of life. Brazil and Colombia have a common and consolidated M&E framework for tracking both the delivery and the effects of nutrition interventions. They also have invested in Food and Nutrition Security Surveillance systems to monitor the health conditionality of the Conditional Cash Transfers and the nutrition effects among children age 0-5. In contrast, South Africa has few M&E indicators for nutrition and those that exist are department-specific. Moreover, there is no consolidated M&E Framework for nutrition services to U5 children.

South Africa also lacks other key elements of good national nutrition models as shown in Annex 1.

Figure 1: Trends in Underweight (moderate and severe)
Figure 2: Malnutrition Double Burden in Children Under 5

Malnutrition Double Burden in Children under Five Wasting and Overweight in 6 countries (2006-2010)

- South Africa (14.2%)
- Malawi (12.5%)
- Malaysia (11.1%)
- Brazil (9.3%)
- Mozambique (7.6%)
- Colombia (5.8%)

3.1.1 BREASTFEEDING SUPPORT

Numerous DoH policies and guidelines govern Breastfeeding Support which is mainly implemented through primary health care and maternity services. Sufficient institutional structures for implementation exist, and breastfeeding education and counselling is integrated into BANC, Prevention of Mother to Child Transmission (PMTCT), maternity, and post-natal services. However, implementation is constrained by nurses’ weak knowledge and skills in directly supporting breastfeeding behaviours, inconsistent training of health workers on breastfeeding, health care staff shortages, and M&E. There is little evidence of coordination between DoH and other government departments in delivering Breastfeeding Support. While numerous NGOs assist the DoH with breastfeeding promotion, none of these operate at scale, and there are few breastfeeding support groups established at facility or community level. Behaviour change counselling is either ineffective or not continuous enough to support sustained behaviour change.

3.1.2 TARGETED SUPPLEMENTARY FEEDING (TSF)

TSF is a short-term intervention designed to manage moderate malnutrition and to prevent severe malnutrition through the use of food supplementation. In South Africa, TSF is delivered through DoH health facilities with dieticians primarily responsible for entry and exit into the programme and nurses for ongoing management of clients. EC and KZN provinces use Community Health Workers (CHWs) or Community-Caregivers (CCGs) for identifying, referring, and following-up underweight children and adults and giving nutrition education. TSF reportedly has the necessary leadership and champions at provincial, district and facility level to enable effective implementation.

Good standards and norms guide implementation. However, staff shortages contribute to poor nutrition counselling and confusion around entry and exit criteria. Supply management is also an issue with some provinces experiencing stockouts of food supplements. TSF is limited by the poor quality of growth monitoring and promotion, poor M&E of delivery, and lack of linkages with other departments/community based services/NGOs. Furthermore, mothers’ inability to recognise the signs of poor growth leads to delayed care seeking. Some beneficiaries also negatively associate TSF food supplements with HIV/AIDS patients, while others dislike the taste.

3.1.3 HOUSEHOLD FOOD PRODUCTION AND PRESERVATION (HFPP)

Support for HFPP was traditionally part of the DAFF Food Security programme, but in recent years DSD has also taken on this activity through its Sustainable Livelihoods Programme, and DRDLR also reportedly promotes HFPP. However, there is little information on DSD’s and DRDLR’s efforts in this area. The Integrated Food Security Strategy (IFSS) is the main document to guide and inform Food Security interventions, including promotion of home gardens (backyard mixed farming) and, where appropriate, school gardens and urban agriculture.

However, DAFF’s implementation of HFPP has diminished in part due to a shift in strategy toward more commercialised agriculture, but also because of stagnating or declining Food
Security budgets. There are no standardised norms or guidelines for implementing HFPP and each province has a different approach. A shortage of well-trained managers and field extension officers in nearly all provinces inhibits HFPP implementation. There are no standardised referrals or linkages between DAFF, LR and DSD around HFFP, although there is some evidence of coordination at local levels. Effective M&E systems are lacking, and there is little information available on coverage or uptake of home gardens.

### 3.1.4 ACCESS TO FOOD

This includes numerous interventions: Food Parcels, Monetary Food Vouchers, Soup Kitchens, Sustainable Livelihoods interventions, and support to ECD Centres for meals. DSD is mainly responsible for Food Access at national, provincial and district level. No separate budgets for Access to Food exist in DSD APPs making it difficult to determine the adequacy of financial resources, although most respondents believe financial resources are generally adequate. Implementation is reportedly limited by: a shortage of staff and food and nutrition training; limited inter-departmental coordination; a lack of standardised delivery mechanisms; a lack of standard operating procedures for implementation; and a lack of M&E. DSD undertakes little strategic coordination with other government departments around the food access interventions to vulnerable populations, and although partnerships with NGOs and the private sector reportedly exist, there is no programme documentation to verify these.

### PROVINCIAL CASE STUDIES

#### 3.2.1 KWAZULU NATAL

KZN has made good progress in reducing severe U5 stunting and underweight since 2003 (see Figure 3 and Figure 4). Nutrition “sits” at the highest-level in the province in the Premier’s office, who adapted the “War on Poverty” Campaign and launched it as Operation Sukuma Sake (OSS)– an inter-departmental coordination mechanism of which nutrition is a key element. OSS plays a key role in ensuring service linkages, referrals, and partnerships in a case management approach to poverty and food and nutrition interventions, and Provincial and Ward OSS task teams are reportedly highly effective in coordinating delivery, and numerous NGOs are active in food and nutrition. Of all provinces, KZN-DoH has a more balanced budget allocation for nutrition in proportion to the province’s prevalence of child stunting. DoH and DSD respondents confirm that there is a clear vision and commitment to implement food and nutrition interventions, but nearly all Department of Agriculture and Environmental Affairs (DAEA) respondents reported a lack of clarity around the vision for or commitment to food security. All departments have some M&E for monitoring implementation. The partnership between the DoH and University of KZN (UKZN) is noteworthy as it illustrates the pivotal role academic institutions can play in the production and development of food and nutrition security personnel.

#### 3.2.2 EASTERN CAPE

A large proportion of children in EC are still stunted and/or too underweight, despite some improvements since 2003(see Figure 3 and Figure 4). DoH, DSD-SP and Department of Rural Development and Agrarian Reform (DRDAR) each have their own strategic priorities for addressing food and nutrition in EC. NGOs support nutrition in HIV/AIDS and Maternal, Child and Women’s Health (MCWH) programmes. The EC recently launched its Provincial Integrated Anti-Poverty Strategy (PIAPS) to bring together all departments and social partners for a coordinated and integrated response to poverty. Because each department in the province has a
separate budget for its food and nutrition work, varying levels of financial commitment can be seen. The basic elements for implementation (guidelines, skilled staff, materials, M&E systems) exist in the health sector, but are less evident in the social development and agriculture sectors. There is limited strategic coordination between government departments around food and nutrition, and the evaluation points to a fragmented approach with each department implementing from its own silo. However, the advent of PIAPS is expected to facilitate stronger and more effective coordination and integration between departments. While many NGOs assist in food and nutrition, relationships with government are weak and few NGOs/CBOs are sufficiently engaged in extending government services to community level.

### 3.2.3 FREE STATE

Despite some improvements from 2003, a large proportion of children in the FS are still either stunted or underweight (see Figure 3 and Figure 4). The Nutrition and Child Health Programme is a sub-directorate within the FS Provincial DoH. DSD’s Food and Nutrition Programme is managed under the Community Development Programme at provincial and district levels. The Department of Agriculture and Rural Development (DARD)’s food security programme is under Farmer Support and Food Security. NGOs and CBOs provide support including food and nutrition training, counselling, gardening, and food parcels. The DoH’s Nutrition Programme lacks appropriately skilled and qualified professionals in leadership positions. Respondents believe that the health sector’s focus is mainly on other interventions at the expense of the nutrition programme. Across the board the provincial financial situation is dire.

There are no formal interdepartmental referral systems which connect beneficiaries to services provided by other departments. However, dedicated individuals in the various departments facilitate strong, informal referral networks.

**Figure 3: Stunting in Children under 5 Years of Age – 2003 and 2012**

![Figure 3: Stunting in Children under 5 Years of Age – 2003 and 2012](image)

Source: SANHANES 2012; DHS, 2003
3.2.4 WESTERN CAPE

Since 2003, the WC has seen significant improvements in the prevalence of child stunting which are now lower than the national average, while underweight prevalence has been halved (see Figure 3 and Figure 4). In WC, all government departments have human and financial resources to implement and manage their nutrition interventions. DARD leads coordination among departments with its Food and Nutrition Work group comprised of representation by DSD, DOE, DoH, and COCT. However, implementation is specific to each government department. The provincial DoH implements nutrition services in health facilities and DSD implements several targeted feeding initiatives at ECD centres. DARD carries out a range of food security interventions, while the City of Cape Town (COCT) implements nutrition interventions and services, and various NGOs are also involved. Programme staff at provincial and district levels reported being satisfied with the nutrition leadership and management provided by their respective departments. M&E at DoH, DSD, and DARD is reportedly adequate to track the delivery of nutrition interventions, although there is no consolidated M&E system.
FINDINGS

According to recent national data (SANHANES 2012), 26% of boys and 25% of girls aged 1-3 years old are stunted, an increase from 2005. There is also a growing obesity problem in children aged 2-5 years, with 19% of girls overweight and 5% obese, and 17% of boys overweight and 4% obese.

The 18 nutrition interventions that are the focus of this evaluation are re-grouped into the following 4 categories: (1) improving health or expanding access to health services; (2) food production for increasing the availability of food; (3) access to adequate nutritious food; and (4) increasing income access. The findings are also presented according to the 6 moderating factors introduced earlier.

FIT OF POLICIES AND STRATEGIES TO CONTEXT

The INP is the main policy vehicle for achieving synergies in nutrition investments in the health, social welfare, and agriculture sectors, but there are no readily available guidelines for governing the INP which appears to exist mainly as an approach rather than a formalised programme. Each department’s interventions that contribute to INP are not formally coordinated. Nor do they all demonstrate “nutrition” sensitivity or sensitivity to the first 1000 days of a child’s life. There have been no previous performance reviews of the INP, although performance reviews of specific interventions are reportedly carried out in individual directorates.

Most health sector policies/strategies relating to pregnant women and children under 5 are nutrition sensitive, although they mainly focus on under-nutrition and lack attention to growing obesity in South Africa. In contrast, policies/strategies emanating from the social development and agriculture sectors are largely focused on food quantity with little, if any, attention given to dietary quality or diversity and the growing problem of obesity - the underlying premise of these policies is that people don’t have enough to eat. These policies mainly target poor, vulnerable households, with no further targeting of pregnant women or children under 5, except for the ECD policies.

The recently-published “Roadmap for Nutrition in South Africa” focuses only on the roles and responsibilities of the health sector and lacks specific description around the contributions of agriculture, social development and other sectors to broader strategic goals. Furthermore, there is little awareness of its existence, especially amongst provincial and district managers.

Health and Health Access Interventions

Nutrition-related health interventions for pregnant women and children 0-5 are governed by service-specific policies, strategies and guidelines. Combined, these do address most of the underlying factors of malnutrition in South Africa, although their sheer number and the fact that they are programme- or intervention-specific appears to lead to fragmented delivery during implementation. Furthermore, health workers’ heavy workload hinders them from providing the full complement of nutrition services, regardless of policy, strategy, or guideline.

The new regulations around marketing of infant foods and milks (for enforcing the International Code on Breast Milk Substitutes) appears to be successful in eliminating undue influence of formula companies on the health sector, as few respondents (11%) reported any interaction with industry representatives. In addition, MBFI initiatives in maternity wards, along with breastfeeding education in BANC, the Tshwane Declaration, and the Infant and Young Child Feeding (IYCF) policies have helped to strengthen the reach of breastfeeding messages to
mothers during pregnancy and delivery.

Food Access – Access to Nutritious Food

Generally, there is a lack of policies governing Food Access interventions as well as an absence of nutrition guidelines, although the ECD programme has menu guidelines provided by DoH. The DSD’s food parcel programmes focus more on food quantity, rather than nutritional quality and some parcels include unhealthy processed foods (e.g. energy bars and drinks, crisps, soft drinks). This is probably due to a lack of guidelines around the composition of food parcels and soup kitchens. DSD Annual Reports at national and provincial levels indicate the number of parcels distributed, but not the number of people reached or whether pregnant women and children under 5 benefited. DSD has clearly noted that it finds the management and logistical costs associated with food parcel distribution to far exceed that of food vouchers, and has indicated its desire to substitute food parcels with food vouchers or other cash transfer mechanisms. In contrast, soup kitchens seem to have more nutritionally-balanced meal plans.

The DoH\textsuperscript{1} has recently proposed to reduce the risk factors associated with obesity and non-communicable diseases by encouraging greater consumption of affordable nutrient-rich, fibre-rich foods and green leafy vegetables. To encourage this, there may be scope for taxing undesirable processed foods; exempting healthier choices from taxation (beyond zero-VAT rated foodstuffs\textsuperscript{2}); and reducing the advertising of junk food to children during child-related TV time.

Food Fortification was initiated in response to the 1999 National Food Consumption Survey which found a high prevalence of micronutrient deficiencies in women and children. Regulations require the inclusion of essential micronutrients (Vitamin A, several B vitamins, folic acid, iron, and zinc) into common staples such as maize meal, wheat flour, and bread. These regulations apply to “any person, or company which manufactures, imports, or sells maize meal and wheat flour and foodstuffs that contain 90% of either maize meal or wheat flour, such as bread”\textsuperscript{3}. Given the mandatory nature of this regulation, all food manufacturers are required to comply. However, monitoring and enforcement has proven difficult, especially with regards to compliance by small millers. This is problematic for those living in rural areas who are more likely to suffer from micronutrient deficiencies, and who also grow their own maize and have it milled locally, or purchase locally grown and milled maize. Even with large companies, compliance has been fraught with irregularities. Implementation of Food Fortification has been credited with reducing neural tube defects associated with Folic Acid deficiency in mothers\textsuperscript{4}. However, iron and vitamin A deficiencies have not been effectively addressed by fortification\textsuperscript{5}, possibly because 60% of vitamin A is lost during cooking, due to the instability of the premix added to meal\textsuperscript{6}.

Food Production and Availability

The DAFF’s Food Security Programme aims to expand agricultural production among existing smallholder and subsistence producers for generating sustainable incomes through farming and has not focused on addressing nutrition per se. There is no specific targeting of households with pregnant women or small children. While DAFF spearheaded Home Gardening, this is no longer a strong focus. Rather the Food Security programme is currently being refined through collaboration with DAFF/DRDLR, the provincial departments of agriculture, and a linkage to the Ilima/Letsema Programme\textsuperscript{7}. DSD now assumes responsibility for promoting home gardens as part of its Sustainable Livelihoods initiative, although there are no available policies, strategies, or programme documentation around this initiative. A few respondents observed that those participating in home and community gardens are mainly the elderly. Poor uptake of home gardening by other segments of the population can be explained by poor follow-up by staff after seed distribution; a preference for buying food rather than growing it; and small plots that make
gardening difficult, especially in urban areas.

**RESOURCE ALLOCATION AND COST BENEFIT**

One difference between South Africa’s INP and successful nutrition programmes in other countries is that SA lacks a consolidated and dedicated plan and budget for nutrition activities across all sectors. Analysis of resources allocated to nutrition in South Africa is compromised by the inability to disaggregate the value of staff time and material inputs for nutrition apart from larger health, agriculture, and social development budgets and staff complements. Therefore analyses underestimate the resources allocated to nutrition, particularly in the health sector where the bulk of nutrition interventions are delivered by health staff as part of normal PHC services. National Treasury is about to undertake an expenditure review on nutrition which will clarify this question.

### 4.2.1 BUDGET / FUNDING ANALYSIS

Funding for the 18 nutrition interventions is integrated into larger budget line items and the lack of disaggregation makes it difficult to hold departments accountable for spending or budgeting on nutrition and achieving goals. For example DSD, DAFF, and DoH staff time for nutrition education and other services cannot be determined. Input costs for nutrition interventions in the Agriculture and food security budgets is not indicated; and food access costs in DSD budgets are not identified. In DoH budgets, there are line items for nutrition, but it is unclear if this is only for the cost of supplements or if it also covers other activities.

### 4.2.2 HUMAN RESOURCES

Across all sectors in the 4 provinces, many respondents reported staff shortages that they believe inhibit implementation of nutrition interventions. In the health sector, nurses along with dieticians/nutritionists are responsible for delivering most nutrition interventions. However, because there is a dearth of professionally-trained nutrition staff in the health system, there is a great dependence on nurses to implement the DoH’s nutrition interventions. Employment trends over the last 10 years show that the number of health workers has remained fairly stable at around 180,000, although the composition of the health force has altered, with nurses accounting for 72% of the workforce in 2009, compared to 67% in 2002. The number of dieticians/nutritionists has remained relatively stable at 0.4% of the health workforce. Provincial differences in numbers and coverage are evident. While GP, WC, KZN, and LP have the highest overall numbers of dieticians and nutritionists, the coverage per 10 000 population is greatest in NC, LP and FS due to their more sparse populations. Interviews at national level indicated that many dieticians and nutritionists are reportedly located in urban areas and work in hospitals and private health facilities rather than in Community Health Centres (CHCs) or PHCs where the bulk of nutrition services are meant to be provided. However, this could not be confirmed with existing DoH data. This does not reflect the growing use of CHWs and CCGs in extending the reach of PHC and nutrition interventions to households/communities. Indeed, in KZN where CHWs and CCGs are extensively used, nutrition interventions appear to be implemented relatively well, especially those interventions requiring extensive counselling, support, and education.

In the Agricultural and Social Development sectors, nutrition services are meant to be provided by food security personnel and social workers, respectively. However, employment figures for these staff are not readily available. In its most recent annual report, DAFF noted that there were
248 posts established for food security, but that there were “vacancies owing to natural attrition”. Few DSD or Agriculture staff have nutrition training.

**IMPLEMENTATION MODELS**

### 4.3.1 DELIVERY CHANNELS

Minimal engagement of NGOs and peer support groups limits the government’s ability to achieve its nutrition goals, particularly given the human and financial resource constraints described above. The following 6 delivery channels are mainly used for the 18 nutrition interventions.

1. **Facility–based delivery**: In general, more “clinical” nutrition interventions that are provided during episodes of illness or pregnancy are extensively delivered in health facilities (e.g. Management of Malnutrition, BANC, IMCI, etc.). In contrast, when health interventions involve education/counselling/support to otherwise healthy clients, there is evidence of less intensive delivery at health facilities.

2. **Community-based delivery by government personnel** through campaigns (for Vitamin A, deworming, etc.), or through CHWs at community level, although the evidence for this is somewhat limited. One would expect the DoH to prioritise community-based delivery channels for the delivery of some nutrition interventions (either through community-based government staff or NGOs) but there is little evidence of this at present. However, it is recognised that PHC reengineering is designed to address this gap. DSD and DAFF nutrition interventions are delivered mainly at community-level by government staff, and use few other delivery channels.

3. **Community-based delivery by NGOs/CBOs**. There is limited engagement by government with NGOs and CBOs possibly due to the absence of a framework for funding NGOs to assist in implementation or government’s concerns around controlling delivery. However, DSD’s main channel for reaching children under 5 years of age is through its support of ECD Centres.

4. **Peer Support Groups**: Across the 18 interventions, there is little evidence of peer support groups and partnerships with NGOs to strengthen implementation and expand the reach to community level. The exception to this is the DSD’s use of NGOs to deliver soup kitchens and food parcels, and DoH’s establishment of peer support groups for breastfeeding support, especially for PMTCT.

5. **Commercial production** is the main channel used for food fortification. This intervention is governed by legislation.

6. **Linkages with other government services**. Linkages in EC and FS tend to be more informal and dependent on the efforts of individual health facilities and district managers who refer clients to each other’s services.

### 4.3.2 STRATEGIC COORDINATION

Unlike other successful countries, South Africa has no coordination structure that exists above the implementing departments. National level strategic coordination of nutrition is based on the participation of government departments in a forum usually led by DAFF. In KZN the OSS provides a strong and effective coordinating framework at the level of the Office of the Premier in which nutrition features prominently. Other case study provinces did have coordinating
mechanisms, but these do not appear to give nutrition the importance accorded by the OSS. In EC and FS, respondents voiced their frustration at not having a platform where nutrition related issues and concerns are raised and addressed and where progress towards the INP could be monitored. At service delivery level, some limited coordination occurs through linkages/referrals between government personnel.

ORGANISATIONAL CONTEXT AND CULTURE

4.4.1 SUFFICIENCY OF LEADERSHIP ARRANGEMENTS

For Health Access interventions, DoH leadership and management structures related to nutrition are more distinct and separate at higher levels of government and get blurred at lower levels. Across the four provinces there is no uniformity in terms of where nutrition is placed. In KZN, nutrition “sits” at a directorate level, which raises the profile of nutrition in the province and facilitates implementation of various interventions. In contrast, in the other 3 provinces, there is variable DoH nutrition leadership which has resulted in nutrition not being considered as important as other health programmes (particularly in EC and FS). This has led to nutrition interventions getting lost or watered down and constantly competing with clinical interventions (i.e. HIV/AIDS) for scarce resources. District nutrition managers are responsible for ensuring the implementation of nutrition interventions and providing oversight and support at hospitals and health facilities. However, not all districts have district nutrition managers due to the shortage of dieticians and other nutrition-trained personnel and/or budgetary constraints leaving a gap in much-needed oversight and support for implementation levels.

For Food Production interventions, leadership and management does not reflect the commitment spelled out in the Food Security strategy. There is concern among agriculture respondents that frequent changes in political leadership have led to abrupt changes in strategies which have negatively affected implementation of food security interventions.

Food access interventions, Income Access and Social Expenditure are implemented through the DSD and its sister agency SASSA. There is strong commitment to providing increased quantities of food, but no leadership or commitment around the quality (i.e. nutritious value) of food provided.

4.4.2 MONITORING AND EVALUATION

Monitoring and evaluation of the 18 nutrition interventions is fragmented and lacks integration to allow the food and nutrition data to “speak” to each other. Little M&E data appears to be disaggregated to track the number of children under 5 reached with nutrition interventions.

Health and Health Access Interventions: The national and provincial DoH have M&E systems for nutrition, but these differ across provinces. Only a few nutrition indicators are routinely collected through the District Health Information System (DHIS), and respondents acknowledged that other key nutrition interventions are not effectively tracked, e.g. exclusive breastfeeding at 6 months, growth monitoring. KZN collects and reports on more nutrition indicators than other provinces and the national DoH.

Food Access – Access to Nutritious Food: No M&E data is disaggregated to track the number of children under 5 and pregnant or lactating mothers reached with Food Access interventions. Moreover, the quality of existing data is uncertain. For example, there are lists of people who visit Soup Kitchens, but respondents report that many more people visit these
kitchens than are on the list. There is also no consistently employed M&E system which monitors the quality (nutrition) of foods provided through these interventions. Each province appears to track Food Access in its own unique way. DSD-KZN tracks delivery of Food Access interventions from data collected solely within the District Information System (DIS). In EC, Home-Based Care Workers and Social Workers collect data on DSD services, but little data is reported to provincial or national level on the reach or nutritional effects of the food parcels, soup kitchens, or ECD interventions. Although 75% of DSD respondents reported efficient management processes for measuring the effectiveness of Food Access interventions at service delivery points, we could not identify any standard indicators or data collection methods.

**Food Production and Availability:** There is an absence of standardised measures for food security in South Africa at provincial, district, and local levels\(^9\). Across the four provinces and at national level, there is an absence of data disaggregated by pregnant women and children under 5. At national level, data on individual or household dietary diversity comes mainly from income and expenditure surveys, but there are issues with the accuracy and reliability of these data over time, and the data is not sufficient for DAFF to track what households produce and consume vs. what they sell. At provincial level, various M&E approaches are used by provinces to track household gardens, but there is no tracking of food preservation activities, and no tracking of effects in terms of food consumption or nutritional status.

### 4.4.3 Availability and Adequacy of Infrastructure, Materials, Supplies

The evaluation only examined the availability of infrastructure, materials, and supplies in the sample of health facilities in the 4 provinces.

Most facilities assessed (>80%) had key supplements, medicines and supplies required to deliver nutrition interventions, with a few notable exceptions. Approximately 25% did not have ORS available, and nearly 40% had no Zinc tablets on hand, both of which are critical for the management of diarrhoea, a contributor to malnutrition in children under 5. In addition, many facilities had insufficient supplies of breastfeeding aides such as nipple or breast shields, breast pumps for expressing milk, and feeding cups to help mothers with breastfeeding difficulties. It should be noted, however, that many facilities experienced stock-outs of some nutrition-related item in the 6 months prior to the visit (30%-70% of facilities depending on the item).

Over 25% of facilities had no consultation rooms and roughly 50% had no separate counselling rooms. Furthermore, nearly 30% had no counselling space with visual and auditory privacy - a disturbing fact given that nutrition counselling is an integral part of delivering nutrition interventions.

Guidelines and protocols for most nutrition interventions were available at >80% of the facilities visited. The exceptions were the guidelines for the Management of Severe Malnutrition (74% of facilities) and Infant and Young Child Feeding (68% of facilities).

IEC materials on key nutritional messages were generally not available at facility level. Considering that mothers tend to visit facilities only when children are sick, it is noted with concern that the least-available IEC material at the facility level was the “Feeding the Sick Child” poster/pamphlet which was available at only 26% of the facilities. Lack of IEC materials at facilities is a missed opportunity to communicate important nutrition messages to pregnant women and mothers/care-givers of children under 5. This is consistent with the finding that nutrition counselling, support and education is not mainstreamed or prioritised in health facilities.
4.5.1 SUFFICIENCY OF SKILLS, TRAINING (QUANTITY AND QUALITY)

Aside from overall staff shortages, there is evidence of weak skills and nutrition knowledge among existing health facility staff. A Health Workers Knowledge assessment was administered to nurses at health facilities visited. The results varied widely across provinces with nurses in KZN demonstrating the most knowledge and nurses in EC the least. While most nurses understand when to give an intervention, few know why, and knowledge related to counselling and nutrition education was weak across all provinces except KZN. Only 50% of nurses in EC, FS, and WC could recall the main counselling messages to be given around nutrition for different scenarios, in comparison to >80% of KZN nurses (see Figure 5). Worryingly, most nurses could recall the importance of breastfeeding until 6 months of age, but few could recall the importance of continued breastfeeding until 12 months and during illness.

In facilities where nutrition training was received, respondents cited a variety of barriers to delivering nutrition interventions – namely, health workers’ weak skills, lack of time, staff shortages, and/or frequent staff changes of trained staff due to attrition or rotation (particularly in the EC).

Constrained time and short staffing limit nurses’ ability to (i) fully digest and understand guidelines, (ii) attend relevant nutrition training when these are offered, and (iii) give adequate time to patients and provide the necessary nutrition counselling. In an attempt to address this skill and personnel gap at facility level, KZN DoH recently initiated a programme of placing Nutrition Advisors at facilities. These Nutrition Advisors are former CCGs trained in nutrition and skilled in providing nutrition support and non-clinical interventions at clinic level. Training of nutrition advisors by the University of KwaZulu-Natal is currently underway and will continue until the target of 655 Nutrition Advisors has been met.

Figure 5. Nurses’ Knowledge of Counseling Messages to be given
Respondents under Food Access interventions broadly cited inadequate training of those currently delivering and monitoring Food Access interventions and ECD support. In FS, the staff charged with managing the key food access interventions reported only receiving informal in-service training on food and nutrition. In KZN, DSD and NGO respondents noted limited training on food and nutrition and a lack of refresher trainings as limiting implementation. Respondents from WC Agriculture noted that training to become an agriculturalist included a nutrition component. On the other hand, EC and KZN Agriculture respondents noted a shortage of skills amongst staff in implementing food security interventions.

4.5.2 SUFFICIENCY OF SERVICE STANDARDS AND NORMS

Most nutrition interventions covered in this evaluation have national and/or provincial standards and norms governing their implementation. Provincial adaptation of national guidelines and/or protocols varies by province with KZN and WC observed as adapting guidelines more than EC and FS. However, the degree of adaptation is generally not significant, with the key elements retained.

4.5.3 SUFFICIENCY OF PLANNING AND MANAGEMENT FOR IMPLEMENTATION
Planning for nutrition is inconsistent across departments and provinces. It is part and parcel of each department’s Annual Performance Plan (APP), although the specific targets and budgets for nutrition are not always evident, and the extent to which nutrition is considered in the plan and budget varies.

National and provincial Health APPs contain separate budget line items for nutrition. Separate APPs have been developed for the nutrition sub-programme in KZN and WC. Few APPs contain programmatic targets for nutrition services delivery, except in KZN where the APP has clear nutrition-specific targets. The KZN DoH Nutrition Directorate has strong business planning processes where districts use the provincial nutrition business plan to devise their own district-specific plans. There is no evidence that other provinces have similar decentralised planning approaches. The strong political will and vision in WC DoH has resulted in sufficient nutrition resources to match identified needs. Indeed, WC is the only province that has successfully protected its DoH nutrition budget over the last 4 years, while the nutrition budgets in other provinces have had a downward trend, even if provincial DoH budgets have increased. In both EC and FS, there is a strong sentiment that DoH management do not consider nutrition as important as other health programmes such as HIV, TB, and maternal health and as a result, nutrition is forced to compete with other programmes for human and financial resources.

DSD respondents were generally satisfied with the quality of management at provincial and district levels despite an overall shortage of social workers and heavy workloads. APPs at provincial and national level contains little to no information about budgets for Food Access interventions, although there are targets for Food Access interventions in the national and EC Provincial APPs.

APPs for national and provincial agriculture departments have separate budget line items for food security interventions, but contain little to no explanation as to how these budgets will be expended for food security and there is no consistency around indicators. DAFF has indicators around increasing “profitable food production” among subsistence and smallholders, while the APP for EC-DOA has targets for “food security support to verified food insecure households”.

**4.5.4 SUFFICIENCY OF INTEGRATION, LINKAGES, REFERRALS, AND PARTNERSHIPS**

**Integration of services within government departments**

DoH nutrition interventions are fairly well integrated into existing clinical services (e.g. nutrition is a component of BANC, maternity, well-baby services), but the integration of nutrition-related counselling, education, and support services is lacking. This is partially attributed to the high workloads of health care workers, but also to health care workers’ poor understanding of the role nutrition counselling and education plays in increasing the uptake of other nutrition-related services (growth monitoring, vitamin A supplementation, de-worming, etc.). Furthermore, there is little nutrition outreach except in KZN, which has a strong community-based service delivery model, and to a lesser degree in EC.

Within DSD, integration of nutrition interventions was less evident. Its Sustainable Livelihoods interventions, food parcels, soup kitchens, and support to ECD centres are implemented separately with little to no effort to integrate these to vulnerable families. In addition, there is no integration of nutrition education into any DSD interventions, nor are there any nutrition guidelines for food access interventions (with the exception of ECD).

Within agriculture, nutrition activities (e.g. nutrition education or growth monitoring) are not
integrated into food security services, and there are no nutrition guidelines governing food security.

**Linkages and referrals between government departments**

At provincial, district, and local levels, most respondents were able to speak knowledgeably about the nutrition interventions implemented by their specific government department, but few were able to comment on the adequacy of implementation for interventions outside their sector. This speaks to a lack of linkages between government departments around food and nutrition and demonstrates the silo nature of implementation at all levels for the 18 interventions. Referrals and linkages between the different departments’ services are ad hoc or weak, with the exception of KZN, where the OSS mechanism enables an integrated case-management approach across departments at local level.

For example, severe malnutrition cases treated by DoH are not consistently enrolled in DSD Social Relief of Distress programme and given food parcels. As one DoH respondent lamented, “Severely malnourished children are discharged from hospitals without food support, and then they end up being re-admitted”. Likewise, vulnerable households identified by DSD or agriculture are not consistently linked to relevant DoH services (e.g. growth monitoring, micronutrient supplementation, treatment of diarrhoea and respiratory illnesses, etc.). More robust linkages between departments are reportedly constrained by staff shortages and insufficient transport for following-up identified cases.

There are positive examples of linkages. In some provinces, Agriculture supplies seeds to clinics and ECD centres for gardens, and some food security beneficiaries supply vegetables to DSD soup kitchens or the Food Bank. ECD centres often have close relationships with local clinics to access health services for children in the centre, but the extent to which nutrition services (e.g. growth monitoring, deworming or vitamin A supplementation) were part of these services is unknown. There is no evidence that any of these initiatives, however, are implemented at scale.

Duplication of household profiling efforts are also evident between DSD and agriculture in many provinces. There were also reports of duplication between EC food security and some EC-municipalities who co-finance irrigation schemes and buy tractors for communities.

**Partnerships with NGOs/CBOs and other Institutions**

As indicated earlier, government has only limited engagement of NGOs and CBOs for delivery of nutrition interventions, despite most respondents’ recognition of the value given by NGOs/CBOs. This may be due to the absence of a framework for funding NGOs to assist in implementation or government’s concerns around controlling delivery. In the health sector, support groups and partnerships with NGOs/CBOs are most common with PMTCT services where mothers are given breastfeeding and complementary feeding counselling to protect their infants from HIV/AIDS. A few nutrition-focused NGOs (e.g. Philani) work with DoH in EC and WC, but this is not at scale.

Social Development has an extensive network of NGOs and CBOs to implement its food access interventions (food parcels and soup kitchens), and has a network of registered ECD centres, but only an estimated 10% of preschool-aged children in South Africa attend DSD-supported ECD centres. In WC, a shortage of Social Work Coordinators spurred the Province to engage NGOs for supporting referrals and linkages between ECD centres and other government services. Also in the WC, a partnership with the University of the Western Cape secures additional support from students/interns who visit ECD sites once per quarter to give talks on healthy living and nutrition.

DAFF has few partnerships and this limits the reach of its food security interventions, especially
those suited to implementation at community level, e.g. household gardens and nutrition education.

**BENEFICIARY RESPONSIVENESS**

Beneficiaries that were interviewed are generally responsive to government interventions around nutrition, particularly DoH health services and DSD Food Access interventions, and they show no resistance to utilising these services. However, beneficiaries are less responsive to household food production and breastfeeding promotion, reportedly because of cultural and/or social values that inhibit uptake. Scaling up these interventions will require massive investments in persuasive communications to overcome resistance and change behaviours in the general public. Beneficiaries’ economic constraints (particularly in paying for transport to health facilities) were noted as generally inhibiting the uptake of facility-based nutrition interventions in rural areas.

**COMMUNICATION**

National level government respondents cited poor internal communication as resulting in an information gap between national policies governing nutrition interventions (especially new or revised policies/initiatives) and the services actually provided at local level. One EC respondent noted even if the documentation is “pushed” effectively to lower levels, the busy schedules of personnel on the ground mean that they have little time to engage with the documentation and absorb the instructions. Several district and provincial managers expressed dissatisfaction with the sufficiency of monthly and quarterly reports from lower levels, and their inability to conduct supportive supervision due to staff shortages and lack of transport.

Government communication to the general public on nutrition is primarily done by the health sector, which largely focuses on IEC materials (posters and pamphlets), group health talks, and (limited) one-on-one counselling. In addition, the general public receives lots of food and nutrition information from the intensive marketing of food companies especially in urban areas. Health professionals noted that there is need for the government to undertake more intensive awareness-building around nutrition, especially using mass media which would enhance the government’s ability to “focus and customise messages to targeted beneficiaries.”

**RESPONSES TO THE 17 EVALUATION QUESTIONS**

Responses to the 17 research questions are presented below.

1. Do relevant policies exist for the 18 nutrition interventions; have they been adopted by appropriate departments/levels of government; are they funded; are they coherent across sectors; are there policy gaps?

There are relevant policies governing health and health access nutrition interventions (DoH) and food production (DAFF). But aside from ECD policies, DSD has no policies governing other food access interventions such as food parcels and soup kitchens. Across these policies, the focus is mainly on underweight and/or lack of food, and gaps exist in prioritising reduction of overweight and obesity. In addition, DAFF and DSD policies lack any targets for the most vulnerable groups for nutrition – i.e. pregnant women and children under 5. There is also a lack of coherence in the policies of the DoH, DSD and DAFF – the three main implementers of the INP, and there is no common goal uniting the policies and their respective efforts. In contrast, Brazil and Mozambique have identified “reduction of stunting” as the overarching goal to which all government department food and nutrition efforts are expected to contribute. Having a common, measurable goal lends coherence across the various policies in these two countries and...
harmonises the efforts of the relevant ministries.

2. 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?

The new regulations governing the inappropriate marketing of breast milk substitutes issued in 2012 are comprehensive and appropriate for enforcing the International Code. The passing of these regulations demonstrates the government’s leadership in promoting and protecting breastfeeding. While the regulations define the processes and responsibilities for enforcement, they only come into effect in 2014, and therefore it is not possible to determine if enforcement is consistent or effective. However, government can do more by establishing a strong “counter-marketing” strategy to replace the branded materials distributed by commercial manufacturers to private health practitioners, such as distributing non-commercial breastfeeding posters and educational materials to private paediatricians, family practitioners, obstetricians/gynaecologists, and nurse-midwives. In addition, government could build stronger relationships with health and medical associations (for paediatricians, obstetricians/gynaecologists, family practitioners, and nurses) to discourage use of information and educational materials provided by or bearing the logos of infant formula manufacturers. Lastly, government can strengthen whistle blowing procedures within companies, and implement ‘prevention of code violations’ into the job descriptions of companies’ senior representatives in each country.

It is worth highlighting that no policies or regulations currently exist which govern the inappropriate marketing of unhealthy (junk) food to children. However, in light of the growing problem of obesity in South Africa, the DoH is currently considering new tax policies which would levy excise taxes on unhealthy foods while exempting healthy ones.

3. 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?

In the health sector, most facility-based nutrition interventions are integrated into the routine services delivered at clinics. However, as mothers and caregivers tend to only bring their children to health facilities when their children are sick, the uptake of these interventions is generally low - particularly for the routine health promoting or behaviour change interventions. Table 1 below illustrates the interplay between demand and supply for several nutrition interventions. It shows that the demand for facility-based interventions for the sick child or pregnant mother tends to be higher than the demand for interventions involving health promotion or behaviour change. Furthermore, given workloads at most health facilities, interventions that involve education or counselling are not as readily provided as interventions that are “commodity-based” such as medicines, or immunisations. Coupled with the fact that mothers wait until their children are sick to bring them to health facilities, this highlights the need to take key nutrition interventions closer to households and communities and raise their awareness of the importance of these interventions. The more mothers and caregivers understand the benefits of routine nutrition and health interventions, the more likely they will seek these services.

Table 1. Demand for and Supply of Selected Nutrition Interventions
## Beneficiary Demand/Uptake

<table>
<thead>
<tr>
<th>Supply</th>
<th>High Uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• BANC</td>
</tr>
<tr>
<td></td>
<td>• Management of Moderate Malnutrition</td>
</tr>
<tr>
<td></td>
<td>• Management of Severe Malnutrition</td>
</tr>
<tr>
<td>Medium</td>
<td>• Food Parcels</td>
</tr>
<tr>
<td></td>
<td>• Soup Kitchens</td>
</tr>
<tr>
<td>Low</td>
<td>• ECD</td>
</tr>
<tr>
<td></td>
<td>• Vitamin A Supplementation</td>
</tr>
<tr>
<td></td>
<td>• Deworming</td>
</tr>
<tr>
<td></td>
<td>• Growth Monitoring</td>
</tr>
<tr>
<td></td>
<td>• Water and Sanitation services</td>
</tr>
<tr>
<td></td>
<td>• Hygiene and Health Education</td>
</tr>
<tr>
<td></td>
<td>• Complementary Feeding</td>
</tr>
<tr>
<td></td>
<td>• Household Food Production</td>
</tr>
<tr>
<td></td>
<td>• Food Preservation</td>
</tr>
</tbody>
</table>

Growth monitoring does not pull mothers and children into health facilities like other interventions, such as immunisations or care for the sick child. Indeed, the sharp drop-off in health services utilisation after 12 months (mirroring the immunisation schedule) is in keeping with the pattern of low demand among mothers and caregivers for key nutrition interventions not directly related to the sick child. This further highlights the insufficiency of counselling and education given to mothers and caregivers around the importance of growth monitoring. It also highlights the limited provision of growth monitoring services at community level currently provided by NGOs/CBOs.

In general, DSD food access interventions are not targeted to children under 5 or pregnant women, but they do reach children through ECD centres. But because ECD centres do not commonly enrol young children aged 0-2, more children aged 3-4 years benefit from this support. Moreover, ECD food subsidies are only provided to registered ECD centres which presently represent only a fraction of the ECD centres in operation. Hence the coverage for this intervention is low.

In general management, delivery, and tracking of nutrition interventions for pregnant women and children under 5 in South Africa are intervention-specific, and few households (outside of KZN) receive integrated support from DoH, DSD and DAFF. A more holistic approach based on household vulnerability and determinants of malnutrition would allow for better targeting of vulnerable households and more comprehensive and harmonised delivery of the various nutrition interventions such as happens in KZN. Such an approach facilitates the monitoring of household uptake and behaviour, in contrast to the current monitoring system which only monitors the supply of services and not utilisation. Such an approach also lends itself to more effective partnerships with NGOs as they can be called upon to attend to identified vulnerable households.
and to assist in linking growth monitoring and household/community visits with other relevant services.

4. Are high impact interventions being prioritised in practice?

The Government has defined 7 of the 18 nutrition interventions as 'high impact' interventions, all of which are implemented by the DoH. The evaluation team has defined prioritised as services that are as actually delivered to all or most eligible patients/clients as evidenced by coverage rates or other measures. Table 2 shows that 6 of the high impact nutrition interventions are prioritised with the exception of Complementary Feeding, although improvements could be made for all.

Table 2. Prioritisation of “High Impact” Nutrition Interventions

<table>
<thead>
<tr>
<th>High Impact Nutrition Intervention</th>
<th>Prioritised</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Breastfeeding support</td>
<td>Yes</td>
<td>Prioritised but suffers from the poor quality of counselling accompanying it.</td>
</tr>
<tr>
<td>2. Management of moderate malnutrition including targeted supplementary feeding</td>
<td>Yes</td>
<td>Prioritised, though meal supplementation is not always limited to those who meet the criteria.</td>
</tr>
<tr>
<td>3. Complementary feeding</td>
<td>Partially</td>
<td>Not prioritised. Messages regarding continued breastfeeding after six months are not clear and messages regarding solid foods are not structured or standardised and are not given to all members of the household.</td>
</tr>
<tr>
<td>4. Food fortification (Vitamin A, Iron and Iodine)</td>
<td>Yes</td>
<td>Prioritised but lacks the effective monitoring mechanisms necessary to enhance compliance among all companies and small millers.</td>
</tr>
<tr>
<td>5. Micronutrient including Vitamin A supplementation</td>
<td>Yes</td>
<td>Prioritised but dependent on mothers/caregivers bringing children to health facilities.</td>
</tr>
<tr>
<td>6. ORS and Zinc</td>
<td>Yes</td>
<td>Prioritised but affected by stockouts.</td>
</tr>
</tbody>
</table>

5. What interventions are being implemented effectively, what aren't?

The effectiveness of implementation of the 18 nutrition interventions, in relation to pregnant women and children under 5, was scored by examining the following elements deemed critical for implementation success associated with the moderating factors for policy implementation:

- Nutrition Specific or Sensitive:
Nutrition-specific interventions address the immediate determinants of foetal and child nutrition and development such as adequate food and nutrient intake\textsuperscript{11};

Nutrition-sensitive interventions address the underlying determinants of foetal and child nutrition and development such as food security, adequate caregiving resources, and access to health services.

- Clear targeting of pregnant and children under 5;
- Existence of guidelines, SOPs, manuals, etc.;
- Sufficiency of human resources – in terms of numbers and skills;
- Sufficiency of material supplies e.g. equipment, commodities, and IEC materials;
- Sound M&E system with set targets for service delivery;
- Targets being reached;
- Service delivery linkages with other governmental departments;
- Service delivery linkages with other partners (private or non-profit).

Using a scoring system that provided points for “yes” or “partially”, we obtained an implementation score for each intervention as shown in Table 3. Half the interventions (N=9), received implementation effectiveness scores over 66%, mostly “clinical” interventions implemented by the DoH, along with ECD food. The remaining 9 had scores below 50% and these include all the DoH behaviour change interventions, food access, and agriculture interventions. More detail on the table below can be found in Annex 4.

Table 3. Implementation Effectiveness Scores for the 18 interventions

<table>
<thead>
<tr>
<th>Nutrition Intervention</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>BANC (Basic ante-natal care) – education and supplements, timing. (DoH)</td>
<td>81.3%</td>
</tr>
<tr>
<td>Food fortification - Vitamin A, Iron and Iodine* (DoH)</td>
<td>80.0%</td>
</tr>
<tr>
<td>Early Childhood Development - food in ECD centres. (DSD)</td>
<td>75.0%</td>
</tr>
<tr>
<td>Management of moderate malnutrition including targeted supplementary feeding* (DoH)</td>
<td>68.8%</td>
</tr>
<tr>
<td>Oral Rehydration Salts (ORS) and Zinc* (DoH)</td>
<td>68.8%</td>
</tr>
<tr>
<td>Micronutrient supplementation, including Vitamin A * (DoH)</td>
<td>66.7%</td>
</tr>
</tbody>
</table>
### Nutrition Intervention

* High impact interventions

<table>
<thead>
<tr>
<th>Nutrition Intervention</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Responsible Government Department)</td>
<td></td>
</tr>
<tr>
<td><strong>7</strong> Deworming. (DoH)</td>
<td>66.7%</td>
</tr>
<tr>
<td><strong>8</strong> Management of severe malnutrition* (DoH)</td>
<td>66.7%</td>
</tr>
<tr>
<td><strong>9</strong> IMCI (Integrated management of childhood illnesses) (DoH)</td>
<td>66.7%</td>
</tr>
<tr>
<td><strong>10</strong> Growth monitoring and promotion including the use of Mid-Upper Arm Circumference (MUAC) measurements (DoH)</td>
<td>50.0%</td>
</tr>
<tr>
<td><strong>11</strong> Access to (nutritious) food, food prices (DAFF, DSD)</td>
<td>50.0%</td>
</tr>
<tr>
<td><strong>12</strong> Breastfeeding support* (DoH)</td>
<td>44.4%</td>
</tr>
<tr>
<td><strong>13</strong> Complementary feeding* (DoH)</td>
<td>37.5%</td>
</tr>
<tr>
<td><strong>14</strong> Food access (e.g. food parcels, soup kitchens) (DSD)</td>
<td>33.3%</td>
</tr>
<tr>
<td><strong>15</strong> Food security (output 2 of outcome 7 in the National Priority Outcomes) (DRDLR &amp;DAFF)</td>
<td>25.0%</td>
</tr>
<tr>
<td><strong>16</strong> Nutrition education and counselling (part of all of these) (DoH)</td>
<td>22.2%</td>
</tr>
<tr>
<td><strong>17</strong> Improving hygiene practice (including in relation to water and sanitation) (DoH, DWA and local government)</td>
<td>18.8%</td>
</tr>
<tr>
<td><strong>18</strong> Household food production and preservation (home gardening) (DAFF, DSD)</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

6. Why are some interventions not being implemented effectively and efficiently, and what is needed to strengthen, upscale, and sustain them?

The criteria used for the analysis in the previous question show that enabling factors predictive of strong implementation relate to nutrition specificity and sensitivity, clear targets for pregnant women and children under 5, and standard operating procedures (SOPs) and guidelines (Table 4). Impeding factors that predict weak implementation concern the poor linkages with other government departments and NGOs, and poor participant responsiveness related to poor communications around the interventions. Other enabling and inhibiting factors mentioned by respondents are presented in Table 5.

Table 4: Average score of elements across the interventions
## Table 5: Factors Affecting Implementation as Identified by Respondents

<table>
<thead>
<tr>
<th>Moderating Factors</th>
<th>Elements of Effective Implementation</th>
<th>Ave Score across the 18 interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy Content and Fit</strong></td>
<td>Nutrition Specific/ Sensitive</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>Clearly Targeted at Pregnant Women and Children U5</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Capacity to Implement</strong></td>
<td>SOPs, Guidelines exist</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>Sound M&amp;E System with set targets for services delivery</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Sufficient material supplies</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Sufficient HR (numbers and skills)</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Participant Responsiveness</strong></td>
<td>Targets being reached</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Institutional Context and Communication</strong></td>
<td>Service Delivery Linkages w/other Govt Departments</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Service Delivery Linkages w/other partners (private or non-profit)</td>
<td>27%</td>
</tr>
</tbody>
</table>

### ENABLING FACTORS FOR IMPLEMENTATION

- Nutrition is strategically important. Nutrition is an integral part of provincial war on poverty and there is a common understanding of the central role nutrition plays in poverty alleviation (per KZN).
- A common operational plan and approach across sectors (as seen in KZN with OSS)
- Use of community-based workers to extend the reach of services to households and communities where appropriate
- Examples of coordinated case management at local level for food insecure and malnourished households and individuals (e.g. OSS)
- Use of mass media communications and road shows to spread “nutrition” messages
- Use of wall charts or protocols to make guidelines more accessible to time-constrained staff

### INHIBITING FACTORS FOR IMPLEMENTATION

**Staff and Institutional Capacity**
- Shortage of staff, especially for nutrition interventions that rely on counselling, education, and support
- Insufficient supportive supervision for nutrition, due to staff shortages, and transportation constraints
- Lack of, or insufficient, knowledge and understanding of nutrition (and counselling) among implementation staff and supervisors
- Attrition and redeployment of staff after training
- Lack of job aids to guide worker in the delivery of behaviour-based nutrition interventions
- Communication that is focused on “selling” nutrition rather than providing practical advice for changing behaviour
- Poor stock management that lead to stockouts of key nutrition related materials
- Insufficient indicators for tracking the delivery of nutrition services and effects on nutritional status.

### Integration of Nutrition into Interventions

- Nutrition not considered a core function by health facility, social development and agriculture staff
- Lack of a nutrition focus in food and agricultural interventions
- Poor attention to quality of food parcels

### Social and Cultural Factors

- Cultural and social influences that counter health-promoting messages, especially around infant and young child feeding
- Mothers’ health-seeking behaviours (only come to facilities for immunisations or when their children are sick). In addition, this leads to a gap in health service for children between the ages of 1 and 2 and to a lesser degree children between the ages 3-5, although some of these are captured in ECD where there are linkages between DoH and DSD.

### Implementation Models

- Limited engagement of community-based actors to extend the reach of nutrition services to community level
- Limited community-based delivery of nutrition interventions by CHWs (although this is changing given PHC re-engineering)

### TO STRENGTHEN, UPSCALE, AND SUSTAIN

- At national level, a coordination mechanism above the line ministries to facilitate a clear common vision around a measurable and compelling nutrition goal (e.g. “reduce stunting” per Mozambique and Brazil)
- The development of a common national strategy, operational plan, and indicators that facilitate sufficient resources for implementation in a coordinated fashion at national, provincial, district, and service delivery levels.
7. How far is nutrition mainstreamed into the work of relevant services which impact directly on children?

In the health sector, nutrition is better mainstreamed when it is part and parcel of more “clinical” health services; but the intervention is not mainstreamed when nutrition support, education, or counselling is required for behaviour change. One exception is growth monitoring (a diagnostic “clinical” skill) which is not well mainstreamed, possibly because nurses rely on visual assessments of a child’s growth rather than specific weight and height measures, or because they haven’t been well trained, or because growth monitoring is insufficiently integrated into standard operating procedures and protocols for IMCI and other child services.

The social development sector recognises the importance of nutritious food for young children in ECD centres, and therefore incorporates nutrition support through the funding of ECD centres and the DoH guidelines. However, DSD’s food access interventions fail to be mainstreamed due to the lack of guidelines and monitoring systems that address the quality of food provided, and the lack of specific targeting of younger children (0-2) who are most vulnerable to malnutrition. In the agriculture sector, there is no nutrition sensitivity in the design of the programme or the targeting of households with young children. Little to no nutrition counselling/education is carried out in the social development and agriculture sectors, resulting in many missed opportunities for influencing nutrition behaviours.

8. Are there appropriate plans to implement these nutrition interventions, are they included in departmental strategic plans, APPs and operational plans?

In the health sector, nutrition is included in DoH strategic plans and annual performance plans (APPs) as a separate line item. However, this line item is generally small and many of the nutrition interventions are integrated into the routine services for children under 5 delivered at the facility level. This makes it difficult to determine what resources are truly available to nutrition aside from this amount. Moreover, it is not possible to determine the time allocated by nursing and other staff to nutrition interventions. Not all DoH APPs contain targets for nutrition services, and this makes it further difficult to determine the adequacy of planned resources allocation.

Both social development and agriculture have strategic plans that broadly address food access and food production interventions. Furthermore, the APPs for these two sectors contain targets for food access and home food production interventions. However, these are not based on nutrition measures (e.g. stunted children) – rather proxy measures (poverty) are used to determine who is eligible; and within the pool of people who qualify, there’s no additional attempt to further target the most vulnerable (impoverished infants/children and pregnant women). Likewise, there is no attention given to the quality of food disbursed or grown.

9. Is there appropriate leadership for nutrition at the respective levels and are they empowered to play that role?

At national level, leadership for nutrition is specific to each line department. There is no explicit vision or leadership for nutrition at a level above line departments and this may partially explain poor coordination for nutrition overall.

The DoH minister’s recent declaration for breastfeeding promotion spurred implementation of breastfeeding counselling throughout the health system. But he has given no other nutrition intervention comparable emphasis and as a result nutrition is somewhat lost amidst the DoH’s other health priorities related to HIV, TB, and PHC reengineering.

At provincial level, however, it is clear that when the importance of nutrition is recognised by
leaders above the line department (e.g. as is the case with the KZN Premier), departmental leadership for nutrition can flourish. Variance in DoH leadership at provincial level also relates (in part) to “where” nutrition sits in the organisational structure – when nutrition is positioned at the sub-directorate level or lower, there is a sense that it is not given the same importance as other health programmes, especially HIV.

The leadership for food security is seen to be lacking at national and provincial levels, and as a result there is a lack of confidence in the vision surrounding food security. Although the recently revised DAFF strategy clarifies the vision for food security in South Africa, this unfortunately does not include any reference to nutrition.

DSD has a clear vision for “food for all” and strong champions at national and provincial levels. But the lack of focus on nutritional quality diminishes the strength of the Food Access programme.

10. Are there relevant workers (not necessarily professional dieticians or nutritionists) to address nutrition-related interventions?

Respondents from all sectors report staff shortages and the need for more nutrition-trained personnel, especially for nutrition monitoring. While many respondents believe that more nutrition professionals should be hired to fill this need, the evaluation team believe that it is more appropriate to emphasise the use of community-based workers, either government employees like CHWs, or contracted NGOs workers to provide these services on behalf of DoH, DSD, and DOA. But support, oversight and monitoring by nutrition-trained supervisors is crucial to ensuring quality services delivery – and presently there are insufficient numbers of nutrition-trained supervisors to play this role across most of the 18 nutrition interventions. In the agriculture sector, most food security staff on the ground are food production agriculturalists (often former farmers) with little to no understanding of how nutrition fits in the larger food security picture.

11. 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?

Personnel charged with delivering nutrition interventions across all sectors generally lack sufficient knowledge and skills. Nutrition knowledge among nurses is somewhat superficial, except for nurses in KZN (see Figure 5). This lack of knowledge was consistent with whether or not they had received any nutrition training in the previous two years. In addition, a barrier to retaining skills at service delivery points is the frequent changes of trained staff due to attrition or rotation. Supervisors also need nutrition training and understanding to effectively support implementation at service delivery level.

12. Do the PHC and other service facilities have the necessary equipment, guidelines, protocols, and supplies to deal with nutrition in under-five children?

Most health facilities have the necessary equipment, guidelines and protocols to address nutrition in under-five children. However, stockouts of key commodities, a general shortage of IEC materials and lack of adequate infrastructure are challenges faced by many facilities. Many facilities had shortages of ORS and Zinc – both used to treat diarrhoea, a major contributor to malnutrition. However, the problem of stockouts is not limited to these two commodities as many facilities reported experiencing stockouts of other nutrition commodities during the 6 months prior to the evaluation.

While most facilities have posters and pamphlets promoting exclusive breastfeeding, few had IEC materials on “feeding the sick child”. Because mothers tend to visit facilities mainly when
their children are sick, this means lost opportunities to communicate this important nutrition message. Over a quarter of facilities visited did not have sufficient numbers of consultation rooms while almost 30% lacked appropriate space for counselling. This, coupled with the general lack of IEC materials, may partially explain the low delivery of nutrition education and counselling.

13. Do service standards/norms exist for relevant interventions?

In the health sector, service standards and norms exist for most nutrition interventions, but are missing for growth monitoring and nutrition education/counselling. However, even when norms and standards exist, it doesn’t mean that health workers fully engage with them. To facilitate a better understanding of the service requirements, more user friendly SOPs or protocols (e.g. wall charts) based on the life stage of the client would bring more coherence to the interventions.

There are no norms or standards for DSD food access interventions, although there are norms and standards for ECD in the Norms and Standards and practice guidelines for the Children’s Act. There do not appear to be any DAFF norms or standards around household food production.

14. Are resources allocated appropriately and sufficiently?

The evaluation team could find no international benchmarks for the appropriate staffing and funding of nutrition interventions in a country. Therefore, it is not possible to determine if financial and human resources allocated to nutrition are sufficient in South Africa. Most resources allocated to nutrition are “blended” into the budgets of other programmes. While this is appropriate for achieving integrated services delivery, it does make it difficult to determine if resources are adequate. Requiring that all APPs contain more specific nutrition indicators and targets would facilitate transparency.

15. 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 (e.g. community-based services such as nutrition advisors, and platforms for community involvement)? How extensive are these?

In the health sector, community-based delivery is generally limited and most nutrition services are facility-based, although in rural areas of KZN and EC community-based staff are increasingly being used to extend the reach of services. PHC reengineering offers the opportunity to provide nutrition monitoring services at community-level along with other key child health services. Indeed, KZN has its own community-based IMCI guidelines.

Food Access and Food production do operate at community-level, but they are not community-based, and as a result transport issues do at times pose a constraint in the continuing of service provision. DSD is more engaged with NGOs than the other departments, but monitoring of implementation is a significant challenge.

16. 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?

At national strategic level, implementation and coordination of an integrated approach to nutrition is constrained by the lack of a common operational plan and a coordinating body that sits above the line ministries. At provincial level, the OSS and PIAPS mechanisms in KZN and EC respectively are meant to link and harmonise the efforts of line ministries’ efforts to alleviate poverty with an emphasis on nutrition and food security. DAFF may not be in a position to
provide a wide range of nutrition-specific interventions, given its recent shift in food security strategy; but the food security programme could play a stronger role in promoting “nutrition-led agriculture” whereby food production goals and activities are better aligned to better contribute to nutrition security.

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

There are no common metrics for nutrition that consolidate measurements of implementation from different sectors. There is also a general lack of routinely-reported indicators or data points to track the supply of nutrition interventions delivered (disaggregated by key target groups) as well as the effects of these interventions on nutritional status. The absence of these indicators generally hampers the ability of management to make informed decisions around nutrition services delivery, and to take timely and informed corrective actions. Even where indicators exist there are data quality concerns, particularly around data accuracy, timeliness, and completeness. In addition, many existing indicators cannot be disaggregated by the key target groups of women and children under five. Finally, many indicators collected at provincial level are not reported to national level, limiting national’s ability to guide and support implementation from a policy or strategic perspective.
CONCLUSIONS

Despite the presence of the INP, South Africa has made limited progress in improving child nutrition since 1999. Among all children under 5, stunting rates remain high and poor nutrition is the principal factor in deaths of South African children.

DoH, DSD, DAFF, and DRDLR each have sufficient policies, regulations, and strategies to guide their respective portfolio of nutrition interventions. However, no policies or regulations currently exist which govern the inappropriate marketing of unhealthy (obesogenic) food to children.

Evidence points to unequal commitment to nutrition across departments with varying leadership, management, planning, budgeting, and staffing. The absence of both a coordination body above the line departments (to hold each department accountable) and a consolidated operational plan with a common goal/objectives and common metrics for tracking interventions across all sectors, has led to a silo’d and somewhat fragmented approach to addressing child nutrition in South Africa.

Staff shortages and insufficient nutrition training constrains the implementation effectiveness across all departments. In addition, there is an absence of coordinated service delivery at local level whereby social workers, health workers, and food security personnel share information and harmonise their responses. There are also few partnerships with NGOs and CBOs across all sectors. Both these factors limit the reach and uptake of the 18 nutrition interventions.

Beneficiaries are generally responsive to government nutrition interventions, particularly DoH health services for the sick child and DSD Food Access interventions. However, cultural and/or social values reportedly inhibit beneficiaries’ uptake of household food production and breastfeeding promotion. The government’s relatively infrequent use of mass media for promoting nutrition limits its ability to “focus and customise messages to targeted beneficiaries”, particularly in light of intensive marketing by food companies (of non-nutritious foods) to the general public.

Food access and food production interventions primarily focus on the quantity of food provided with limited attention to the quality and nutrient-density of the foods. South Africa’s food security strategy focuses on commercialisation and does not cover nutrition in a substantive way.
**RECOMMENDATIONS**

R1. According to the most recent national data (SANHANES, 2013), 26.9% of boys and 25.9% of girls aged 1-3 years old are stunted, which has increased from 2005. The high levels of stunting are creating a long-term and debilitating problem for the country in terms of longevity, educational outcomes and productivity of people, and its related contribution to economic growth. **Nutrition of under 5s should be elevated to the level of an output of Outcome 2 on Health, and so included in the Medium-Term Strategic Framework and the Delivery Agreement.**

R2. **Develop a well-defined Nutrition Plan for nutrition outputs across all sectors** that operationalises national priorities and investments in nutrition to achieve integrated and consolidated goals (including an explicit goal to reduce stunting in children under 5), objectives, activities, targets, and budget at all levels national, provincial district, facility and community. This plan should be developed in time for the approval of the Medium Term Strategic Framework (MTSF) after the elections, and its subsequent cascading into strategic plans. This plan should:

1. Include common, measurable goals to create coherence across the various food and nutrition security policies, in the short, medium and long-term.

2. Re-configure or consolidate service-specific policies, strategies, and guidelines along life cycle stages, rather than basing them by the intervention (Annex 3). This could help health workers to understand all the elements required in interacting with a client of a certain age, as well as to facilitate integration of nutrition into service provision.

3. DoH, DSD, and DAFF should work together to plan and then provide a comprehensive package of services to vulnerable families and communities. Referrals and linkages between different departments’ services depend on close communication and integrated information systems to track services delivery and progress in remediating the nutrition problem. The KZNS OSS is an example of this type of integration.

4. Communicate effectively about the Nutrition Plan across sectors and levels of government (national, provincial, municipal, district, facility, community).

5. National Treasury is doing an expenditure review of nutrition and this should be done quickly to inform this planning process and to revise budgets for nutrition.

R3. **As part of the Nutrition Plan create common indicators for tracking Food and Nutrition across all sectors** with a common and consolidated M&E framework for tracking both the delivery and the effects of nutrition interventions prioritised under the Plan, including:

1. Creating Sensitive Indicators to measure the outputs of nutrition programmes: particularly food fortification; micronutrient supplementation, ORS, Zinc, breastfeeding and complementary feeding; as well as changes at outcome level in terms of changed practice.

2. Indicators need to be able to be tracked for priority groups including pregnant women and children under 5, in both administrative data and surveys. Work with Statistics SA and the Demographic Health Survey and SANHANES to see how there can be better tracking of changes in practice of these groups.
R4. Elevating nutrition to an output should be accompanied by giving responsibility for nutrition to at least a cluster manager in national DoH and to a directorate level at provincial DoH. Districts also need a nutrition-trained person. Other national and provincial departments need a nutrition-trained focal person to manage their contributions. Vacant posts must be filled. National DoH should track this.

R5. **Stronger coordination** is needed of the implementation of nutrition interventions by the individual line ministries responsible for the nutrition response, and ensuring that the nutrition programme plan is being followed. The national DoH is the natural champion as most interventions are within its domain. Support is needed from the Presidency to elevate the political profile of nutrition. An integrated programme plan is needed to facilitate cross-sectoral collaboration, and facilitates more effective consolidated planning, budgeting and oversight of each ministry’s performance in achieving nutrition goals. DPME needs to look at lessons which can strengthen programme coordination mechanisms.

R6. Establish a **National Nutrition Council** as a coordinating council, like SANAC for HIV/AIDS, which has broad representation from key government sectors and programmes, civil society, suitable involvement of the private sector, to mobilise all sectors around nutrition. The DoH will provide the secretariat for this. As has been done for maternal mortality and morbidity (COMMiC), this Council should be served by a committee of experts – a Committee on Nutrition (COMMoN). Other committees addressing infant and child health should also have a nutrition focal point.

R7. Change **focus of services and communication** across relevant sectors to focus more on promotion and prevention, exclusive breastfeeding, complementary feeding, dietary diversity, hygiene education and to help create an enabling environment:

1. DoH to use real **change management efforts** to change behaviours (e.g. to ensure exclusive breastfeeding for 6 months). Do not expect only counselling of mothers to effect practices; their support network (grannies, husbands, community leaders) must understand and support the new practice. Examples for achieving this include the use of TV and radio as platforms to educate about sound nutrition. Make use of civil society and CHWs/CCGs to provide relevant nutrition counselling and to help change behaviours and attitudes at community and household level. This should be a key focus of the Nutrition Plan.

2. DoH to create a specific, well-defined, dedicated **health promotion and communication strategy on nutrition for under 5s**, as with HIV/AIDS. Presently, nutrition education (forming part of other strategies) is not reported on as an individual outcome and therefore not prioritized. Develop relevant multi-media IEC interventions (e.g. radio in EC) and materials to address incorrect or negative perceptions about nutrition interventions e.g. perceived stigma around the use of targeted supplementary feeding (TSF), and counter messages to food advertising. Use the public broadcaster (both TV and radio) to educate pregnant women and children under 5 about the importance of sound nutrition, use celebrities to elevate the status of breastfeeding, and encourage good nutrition practices targeting all members of the family.

3. DoH to address the growing problem of **overweight and obesity** among children under 5 years of age (18.9% overweight/4.9% obesity in girls and 17.5% overweight/4.4% obesity in boys aged 2 to 5 years), and promote exclusive breastfeeding and appropriate infant and young child feeding.
4. Incorporate private providers, NGOs and other civil society actors in behaviour change efforts, and in the proposed National Nutrition Council.

5. DoH to analyse the SANHANES data to see if there is a particular problem for teenage and working mothers in breastfeeding, which may need targeted responses.

R8. **DoH to use the PHC reengineering process to ensure clinics and CHWs provide**

   growth monitoring and provision of nutrition advice and targeted supplementary feeding and provide appropriate space for counselling:

   1. Ensure there is a nutrition-trained person in the PHC teams, ideally nutritionists or dieticians. Training of these specialists has been scaled back because there has been no market for these staff even though the need is great.

   2. Ensure pregnant women and children under 5 receive regular health services, either from clinics or CHWs/CCGs etc.

      a. Develop “a one-stop” approach for delivering routine health/nutrition interventions at community level to provide mothers/caregivers a full range of services during one visit. Such an approach complements the eventual scale-up of PHC re-engineering.

      b. Use **Community Level Assistants** (CHWs/CCGs) as in KZN to identify, refer, and follow-up underweight, stunted and overweight children and pregnant/lactating mothers, to give talks to communities on nutrition and advice to mothers on food preparation and appropriate feeding practices. Improve training to ensure that quality growth monitoring is done. This model is equally relevant to other sectors such as community food gardening advisors, community animal health workers. DPME should evaluate the optimal use of community-based workers in different sectors and identify lessons for widespread scale-up of such models.

      c. Similarly, to make this work, there will need to be **an expansion of NGO involvement**. In the health sector such partnerships are more common with PMTCT services, but there are some nutrition-focused NGOs such as Philani working with health facilities in EC and WC. DPME should conduct an evaluation of the experiences of NGO delivery of services for government and how these can be scaled-up effectively, for nutrition but potentially for other sectors.

3. As access to supply systems expands, DoH to engage Treasury and DSD to consider the possibility of conditionality such as adherence to basic health monitoring (i.e. BANC, vaccination schedule, and growth monitoring) to social grants.

R9. **Promote use of healthy and diverse food:**

   1. DSD to consider options to **restrict use of vouchers to prescribed food options**, e.g. by linking voucher use/parcels only to fortified staple foods and VAT zero-rated food.

   2. DoH to develop guidance on food quality and diversity for DSD interventions such as soup kitchens/ECD and for DSD/departments of agriculture for good gardens.

   3. Rather than focusing on the quantity of food consumed, departments of agriculture should change strategies to focus on **diversified diets** by emphasising the production
of special crops with high nutritional value (e.g. Orange-fleshed Sweet Potato, morogo) and promotion of local food production and preservation of food, as well as goat’s milk.

4. Establish and enforce regulations to reduce children’s access to unhealthy foods, including restricting fundraisers from selling unhealthy food at functions; adding taxes to unhealthy food, regulating fast foods; prohibiting sweets and unhealthy foods at supermarket checkout aisles; and prohibiting unhealthy food at ECD centres. Use the National Nutrition Council to name and shame companies promoting inappropriate food. Ensure food companies adhere to food fortification regulations and other codes of marketing practices. DoH to establish linkages with the National Consumer Commission (NCC) to encourage whistle blowing on companies that transgress regulations on inappropriate marketing of food to children. Violations should be treated seriously and the companies should be charged accordingly.

5. DoH to review the micronutrient programme to (i) use CHWs/CCGs to distribute Vitamin A twice per year, optimise the levels of bioavailable micronutrients in fortified foods and explore alternative delivery mechanisms, e.g. multiple micronutrient powders; (iii) DSD to use fortified products DoH-approved, (iv) explore more effective mechanisms for engaging small millers to fortify grain, or by promoting household fortification.

R10. Improve Knowledge, Skills and Attitudes:

1. Improve pre- and in-service nutrition training of health, agriculture and social development employees (including ECD Managers) to expand knowledge and skills (e.g. diagnosing malnutrition; nutrition education, and teaching communities to plant and care for gardens).

2. Levels of awareness of nurses of key nutrition messages only averaged 50% in the 3 provinces apart from KZN, and means to ensure regular training is needed. Nutrition should be included in pre-service training and regular updating of health professionals including doctors and nurses through strong partnerships with academic institutions. Academic institutions should be involved as with the example of the UKZN working closely with the DoH in KZN, and University of WC students giving talks at ECD centres.

3. Create Standard Operating Procedures (SOPs) for all nutrition programmes specifying the steps to be taken and referrals/follow-up. These SOPs should be published in wall charts for easy reference. This is particular important around behaviour change interventions e.g. breastfeeding counselling and support, hygiene education.

4. Expanding the use of CHWs/CCGs and support groups can relieve nurses’ workload and provide more time for counselling, and additional support. KZN has allocated dedicated nutrition advisors in every clinic, as well as CHWs trained in nutrition.

R11. Improve focus on food security:

1. Food security should be a sub-output of the main nutrition plan with some standard indicators. There is a challenge of who is the right champion for this. DAFF’s food security strategy has focused on commercialisation and does not cover nutrition in a substantive way. However even supporting household subsistence production requires technical skills. The key champion for food production for subsistence needs
to be clarified and if it is to be DSD then significant technical expertise still needs to be provided by Agriculture and NGOs.

2. A review of the experience of NGOs supporting food gardens in SA should be undertaken and a major new programme designed, using NGOs and community-extension mechanisms. There is extensive experience internationally in doing this at scale (e.g. PRADAN in India) which should be brought in to assist in the planning.

3. Support for food production should include nutritious indigenous foods (e.g. morogo, orange sweet potato), as well as small livestock. DSD food parcels should contain only nutritious foods including fresh produce procured locally e.g. through cooperatives.

4. DSD should increase registered ECD sites and learners subsidised, thus improving their access to food. The menu guidelines must be followed and implementation monitored.

5. There is a need to standardise measurement of food security to incorporate nutrition indicators at national, provincial and district levels, including for impact indicators such as level of stunting. DAFF should work with DoH to do this.

R12. Reduce frequent stockouts for food supplements, ORS, Zinc, as well as equipment such as breast pumps and posters. The budget needs to be ring-fenced as a non-negotiable.

R13. At Provincial level, DSD to establish with the War on Poverty unit in DRDLR a case management approach, based on household vulnerability and determinants of malnutrition. This would allow for better targeting of vulnerable households and a more comprehensive and harmonised delivery of the various nutrition interventions. This approach is being used in KZN and it seems to be working at a provincial and ward level in DoH, but less so at district level and with the provincial department of agriculture. Such an approach could also facilitate the monitoring of household uptake and behaviour, in contrast to the current monitoring system which only monitors the supply of services and not utilisation. A particular target would be pregnant and breastfeeding women and children U5.

1. Further evaluate the KZN experience to identify lessons; if proven to work well, adopt the model.

2. There is duplication of households and communities profiling between DSD, DRDLR, DAFF, and DoH. A standard approach should be used and captured in a common database. Doing so will eliminate multiple profiles and better integrate services. Ensure referrals are tracked and followed and successfully addressed. SASSA cards provide the opportunity to track vulnerable children and resources provided;

3. There should also be tracking of severely malnourished children leaving hospital to ensure that the family are linked to food and nutrition support.
## ANNEX 1: ELEMENTS FOR NATIONAL NUTRITION MODELS

<table>
<thead>
<tr>
<th>KEY ELEMENTS OF NATIONAL NUTRITION MODELS</th>
<th>EVIDENT IN SOUTH AFRICA?</th>
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<tbody>
<tr>
<td><strong>INTEGRATED SERVICES:</strong> Because nutrition is not a sector, but contributes to the activities and outcomes in a variety of sectors, nutrition services need to be integrated into existing sectoral programs and build on existing institutional capacity.</td>
<td>YES - for the most part, nutrition services are integrated into existing health, social development, and agriculture programmes.</td>
</tr>
<tr>
<td><strong>SOUND MANAGEMENT SYSTEMS</strong> Giving attention to the detailed micro-level design of systems for targeting program clients and selecting, training, and supervising staff</td>
<td>PARTIALLY - within the health sector, there is relatively clear targeting and training of staff. However, in the social development and agriculture sectors, this is not evident.</td>
</tr>
<tr>
<td><strong>COMMUNITY INVOLVEMENT:</strong> Involving and, as far as possible, empowering communities through well-planned communication programs and giving them a role in designing, monitoring, and managing nutrition services.</td>
<td>NO - nearly all nutrition interventions are controlled by government to communities. Communication to the general public around nutrition is also weak</td>
</tr>
<tr>
<td><strong>SOUND M&amp;E SYSTEMS</strong> that focus on both delivery of nutrition interventions as well as the effects (i.e. outcomes or results).</td>
<td>PARTIALLY - some useful indicators exist for health-based interventions, but there is a dearth of nutrition indicators related to social development and agriculture, and there are few to no routine indicators around nutrition effects. There is no common indicator (e.g. stunting) whereby all departments can measure their contributions to the goals of the INP.</td>
</tr>
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## ANNEX 2: METHODOLOGY

Data Collection Methods and Target Respondents by Content

<table>
<thead>
<tr>
<th>Method</th>
<th>Target Respondents</th>
<th>Content explored</th>
</tr>
</thead>
</table>
| **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                                                                                                                    |
| **Rapid Performance Assessment** | Health Facilities                                                                  | inspection 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 |

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ANNEX 3: HEALTH INTERVENTIONS ALONG THE LIFE CYCLE

Life Cycle

Adolescence

Pregnancy

Birth

Postnatal (mother)

Infancy

Childhood

Health and Health Access

SRH, Growth Monitoring, IMCI, Micronutrient Supplements

BF Support, GM Complementary Feeding, Micronutrient Supplements

BFHI, Maternity Sycs, BF Support, BFHI, PMTCT, Micronutrient Supplements

BANC, PMTCT, BF Support Micronutrient Supplements, TMS/NTP

Micronutrient Supplements
## ANNEX 4: IMPLEMENTATION EFFECTIVENESS SCORES FOR THE 18 INTERVENTIONS

<table>
<thead>
<tr>
<th>Nutrition Intervention</th>
<th>TOTAL SCORE (% possible points)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BANC (Basic ante-natal care) – education and supplements, timing. (DoH)</strong></td>
<td><strong>81.3%</strong></td>
<td>Intervention is mainstreamed, prioritised, tracked through M&amp;E. Staff are skilled, supplies are adequate.</td>
</tr>
<tr>
<td><em><em>Food fortification - Vitamin A, Iron and Iodine</em>. (DoH)</em>*</td>
<td><strong>80.0%</strong></td>
<td>Targets only partially being reached as small millers are not fully engaged, and insufficient monitoring of fortified products produced by large food companies.</td>
</tr>
<tr>
<td><strong>Early Childhood Development - food in ECD centres. (DSD)</strong></td>
<td><strong>75.0%</strong></td>
<td>Targets are unknown, access to ECD centres is limited; DoH-DSD linkages are established.</td>
</tr>
<tr>
<td><em><em>Management of moderate malnutrition including targeted supplementary feeding</em> (DoH)</em>*</td>
<td><strong>68.8%</strong></td>
<td>Recording in the malnutrition registers is inconsistent; stockouts occur. Counselling is weak. Limited to no linkages with community-based workers (govt or NGO) for referral or follow-up support.</td>
</tr>
<tr>
<td><em><em>Oral Rehydration Salts (ORS) and Zinc</em> (DoH)</em>*</td>
<td><strong>68.8%</strong></td>
<td>Indicator is incidence of diarrhoea - not service being provided and no measures of ORS or Zn provision. No targets for provision of this service. Staff knowledge variable. Stockouts occur. Space for ORS demonstrations limited.</td>
</tr>
<tr>
<td>*<em>Micronutrient supplementation, including Vitamin A <em>. (DoH)</em></em></td>
<td><strong>66.7%</strong></td>
<td>Targets are not set for all micronutrients. Health worker knowledge around micronutrients is highly variable; stockouts occur; limited engagement with NGOs, DSD, or ECD for supplementation campaigns; Vitamin A target is low, and is being reached, but doesn’t specify number of doses (Vitamin A).</td>
</tr>
<tr>
<td><strong>Deworming. (DoH)</strong></td>
<td><strong>66.7%</strong></td>
<td>Target is not set for deworming, but assumption is that it is the same as Vitamin A. Target doesn’t specify number of doses. Limited engagement with NGOs, DSD, or ECD for deworming campaigns.</td>
</tr>
<tr>
<td><em><em>Management of severe malnutrition</em> (DoH)</em>*</td>
<td><strong>66.7%</strong></td>
<td>This is delivered at hospitals, but hospitals were not included in data collection. Target around case fatality is tracked. Downward referral or follow-up support is lacking or limited. Linkages with (DSD) food access and DAFF food security not evident.</td>
</tr>
<tr>
<td><strong>IMCI (Integrated management of childhood illnesses) (DoH)</strong></td>
<td><strong>66.7%</strong></td>
<td>Some of the components of IMCI have targets, and some don’t. There’s some shortage of trained IMCI staff. There are no linkages with other govt departments or partners. IEC materials around feeding sick children are lacking in many facilities. Counselling is limited.</td>
</tr>
<tr>
<td><strong>Growth monitoring and promotion including the use of Mid-Upper Arm Circumference (MUAC) measurements (DoH)</strong></td>
<td><strong>50.0%</strong></td>
<td>No indicator for tracking of the delivery of the service; GM equipment at facilities is not always available; limited routine GM services; when GM occurs, there is often inaccuracies in plotting and interpretation; and little attendant counselling. No linkages with community based services or other govt interventions.</td>
</tr>
<tr>
<td><strong>Access to (nutritious) food, food prices (DAFF)</strong></td>
<td><strong>50.0%</strong></td>
<td>Zero-VAT rating provides everyone with a nutrition benefit. But even with zero-VAT rating, nutritious foods can be more expensive than non-nutritious food. Taxation policies can be refined to be more nutrition sensitive.</td>
</tr>
<tr>
<td><em><em>Breastfeeding support</em> (DoH)</em>*</td>
<td><strong>44.4%</strong></td>
<td>The EBF goal is not being reached. There are limited linkages with Department of Public Service and Administration (DPSA) around workplace opportunities, with municipalities around the monitoring of the new Regulations, and with DSD around community based BF support (EC only). Few if any breast</td>
</tr>
<tr>
<td>Nutrition Intervention</td>
<td>TOTAL SCORE (% possible points)</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>11 <strong>Complementary feeding</strong> (DoH)</td>
<td>37.5%</td>
<td>Little to no evidence of implementation. No linkages with other govt departments or other partners. Insufficient staff to do counselling.</td>
</tr>
<tr>
<td>14 <strong>Food access</strong> (e.g. food parcels, soup kitchens) (DoH)</td>
<td>33.3%</td>
<td>Intervention is focused on quantity of food and not quality. No nutrition focus.</td>
</tr>
<tr>
<td>15 <strong>Food security</strong> (output 2 of outcome 7 in the National Priority Outcomes) (DRDLR and DAFF)</td>
<td>25.0%</td>
<td>Records based on households, but no specific targeting of those w/ pregnant women or young children. Staffing in short supply everywhere. No to limited linkages with other govt departments or partners.</td>
</tr>
<tr>
<td>16 <strong>Nutrition education and counselling</strong> (part of all of these) (DoH)</td>
<td>22.2%</td>
<td>No targets established, no or very limited linkages with other govt departments or partners for outreach of intervention. Insufficient IEC. Insufficient knowledge among health care workers around important counselling topics.</td>
</tr>
<tr>
<td>17 <strong>Improving hygiene practice</strong> (including in relation to water and sanitation) (DoH)</td>
<td>18.8%</td>
<td>Although the supply of water and sanitation has increased, there's little information about the hygiene education that is meant to accompany toilet construction. Few respondents could comment on this intervention, but the literature suggests that little education is being done.</td>
</tr>
<tr>
<td>18 <strong>Household food production and preservation</strong> (home gardening) (DAFF)</td>
<td>18.8%</td>
<td>Although both DAFF and DSD provide this intervention, coordination and linkages between the 2 is not evident. Both have staff shortages. There are limited to no linkages with other partners.</td>
</tr>
</tbody>
</table>
ANNEX 5: BIBLIOGRAPHY

http://ageconsearch.umn.edu/bitstream/58211/2/1.%20Altman,%20Hart%20%26%20Jacobs.pdf

2. Anon. *Figures for current coverage provided via email communication from the National Department of Health.* 2013.


7. CARRMA:  


http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673609611235.pdf?id=5bbe37e152166496:618ca4b5:13d8696b15c:-521f1363764143405


46. South Africa Yearbook 2012/13


ANNEX 6: ENDNOTES


2 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.


5 GAIN. Lessons learned from 10 Years of experience in Africa: Sharing Experiences in Food Fortification. Food Fortification Workshop, Ethiopia. 2012.

6 Pretorius, B, and H Schonfeldt. Vitamin A content of Fortified Maize meal and porridge as Purchased and Consumed in South Africa. School of Agriculture, University of Pretoria. 2012


   http://ageconsearch.umn.edu/bitstream/58211/2/1.%20Altman,%20Hart%20%26%20Jacobs.pdf
