Republic of Zambia

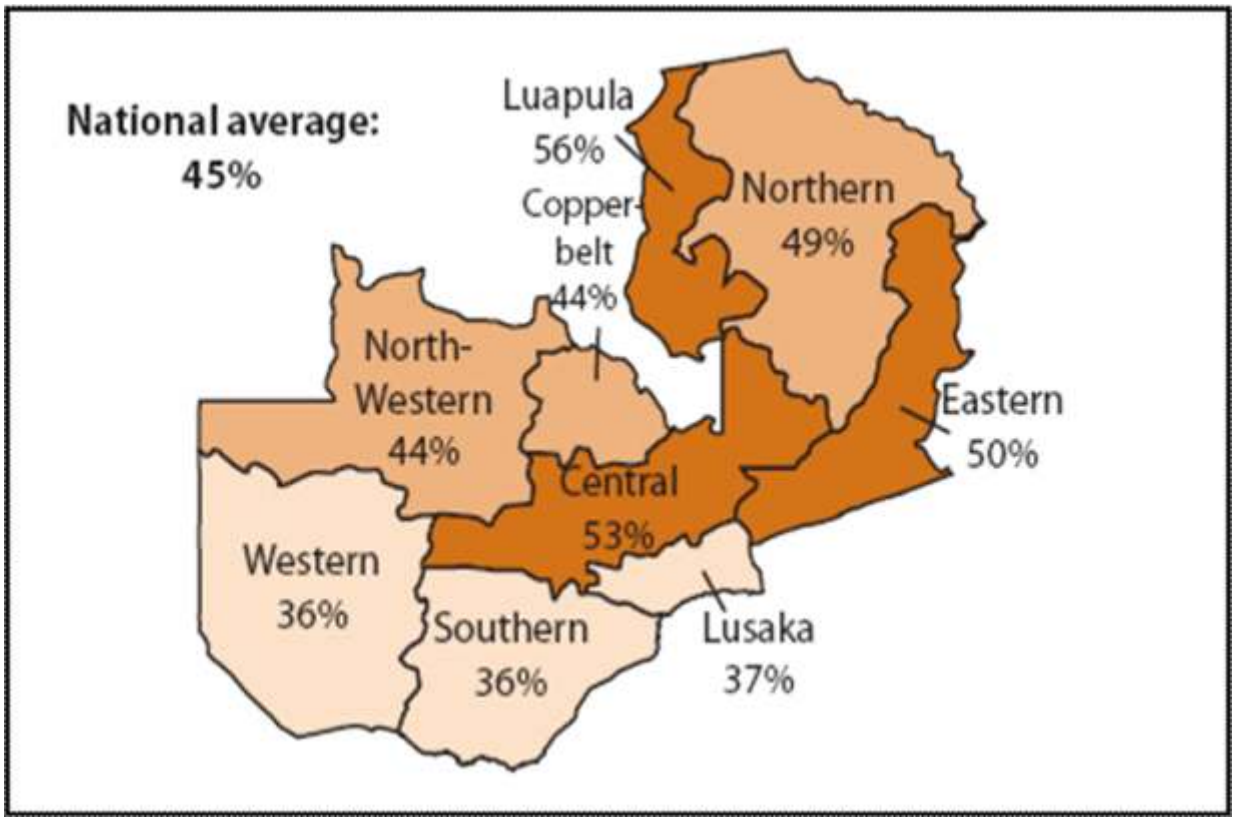
THE FIRST 1000 MOST CRITICAL DAYS

THREE YEAR PROGRAMME 2013-2015

Based on Strategic Direction One:
Prevention of Stunting in Children less than two years of age in the National Food and Nutrition Strategic Plan (NFNSP) 2011-2015

December 2012
National Food and Nutrition Commission of Zambia

Distribution of stunting in Zambia



The National Food and Nutrition Commission

Foreword

The Government of the Republic of Zambia recognizes malnutrition as a serious public health problem. Over one million children under five years and 10 % of women of the reproductive age are malnourished.The common nutrition problems in these children include chronic malnutrition (45%), underweight (15%), wasting (5%) and low birth weight (10%). Micronutrient deficiencies in children under five years include vitamin A (54%) and iron deficiency anaemia (53 %).The impact of chronic malnutrition (stunting) on child cognitive, physical and mental development, irreversible long term effect on health and child mortality, is well documented in the 2008 Lancet Series. Accordingly, the Lancet Series recommends the use of the 1000 most critical days interventions to contribute to the attainment of the Millennium Development Goals 4 and 5. The success in implementing the 1000 days Nutrition actions will require a multi-sectoral approach to addressing the problem of undernutrition particularly among the under five children, pregnant and lactating mothers.

Based on the available evidence, the Government fully endorses the First 1000 Most Critical Days Programme (MCDP) as a national programme. In view of this, all key stakeholders are called upon to fully participate in its implementation in order to adequately reduce malnutrition in Zambia.This programme will explore opportunities to advance the Government's decentralization policy to strengthen coordination structures and systems at national, provincial, districts, and community levels. It is therefore gratifying to note that all stakeholders and cooperating partners have agreed to work together to support this national effort to eliminate all forms of malnutrition for the sake of the young and future generations.

The Government recognizes that investing in well-tested, low-cost and effective nutrition interventions is one of the best effective strategies to save lives and enhance human development. The Government, therefore, welcomes the incorporation of the First 1000 Most Critical Days as a key strategy for scaling up nutrition interventions and the development of the National First 1000 Most Critical Days Programme.

The 1st 1000 MCDP operationalizes the First Strategic Direction of the National Food and Nutrition Strategy 2011-2015 prioritising multi-sectoral, synergistic efforts to strengthen and expand interventions related to "the First 1000 Most Critical Days" to prevent stunting in children less than two years of age. While the 1st 1000 MCDP might seem skewed towards the health sector, its success will depend on the effective contribution of other sectors, especially as regards food security, social protection, water and sanitation, education, and infrastructure. It is, therefore, crucial that the National First 1000 Most Critical Days Programme be supported and fully embraced by these sectors.

The Government is committed to establishing, a National Food and Nutrition Steering Committee at Cabinet level to respond to nutrition problems.The role of this Committee will be to oversee all governance issues in relation to the National Food and Nutrition Policy and the implementation of the National Food and Nutrition Strategic Plan. The Government is also committed to increasing its own resource allocation to nutrition as part of the broader development efforts and to strengthen the National Food and Nutrition Commission to effectively coordinate the national response.

1. Hon. Dr. Joseph Kasonde, MP
   Minister of Health

   Signature.....

2. Hon. Dr. Joseph Katema, MP
   Minister of Community Development Mother and Child Health

   Signature.....

3. Hon. Emmanuel Chenda, MP
   Minister of Agriculture & Livestock

   Signature.....

4. Hon. Emerine Kabanshi , MP
   Minister of Local Government and Housing

   Signature.....

5. Hon. Dr. John Phiri, MP
   Minister of Education, Science, Vocational Training & Early Education

   Signature.....

Acknowledgements

The development of the National First 1000 Most Critical Days Programme (1st 1000 MCDP) owes much to the hard work, dedication, broad consultation and participation of key stakeholders which included: senior government officers in key line ministries and departments, international partners, representatives of non-government organizations, civil societies, academics, faith-based organisations, and the private sector.

The National Food and Nutrition Commission would like to pay special thanks to the following institutions and organizations for their dedication and valuable contributions: - Ministry of Health; Ministry of Agriculture and Livestock; Ministry of Education, Science, Vocational Training & Early Education, Ministry of Community Development, Mother and Child Health; Ministry of Local Government and Housing; United Nations Children's Fund; World Food Programme; United States Aid for International Development (USAID) and the various USAID supported projects - Zambia Integrated System Support Programme, the Communication Support for Health; and Concern Worldwide; too numerous to mention.

The preparation of the 1st 1000 MCDP ensured inclusiveness, transparency, consensus building, and development of an integrated programme focused on a multi-sectoral approach for the national scale up of high impact health and nutrition interventions. This task was effectively managed by a core team of dedicated international experts. Led by Fiona Duby, the team included Patricia Schwerzel, Dianne Stevens, Gary Gleason and Veronica Vargas who worked with dedicated NFNC senior staff namely -Cassim Masi, Beatrice Kawana, Freddie Mubanga and Mike Mwanza. Kebby Mutale - WFP/NFNC Technical Assistant together with Freddie and Mike coordinated the process of gathering information and designing the program. Special thanks to Fiona for her vision and leadership in undertaking this complex task and compiling the draft document.

The NFNC extends his gratitude to the Permanent Secretaries of MoH and MCDMCH – Dr. Peter Mwaba and Professor Elywin Chomba, for their valuable guidance during the whole process, the Permanent Secretaries in Luapula, Northern, Central and Eastern Provinces for facilitating consultative meetings with staff from the key line Ministry Departments at Provincial and District level, the Deputy Permanent Secretary (Central Province) and the District Commissioner for Kabwe District for providing useful information especially on governance issues in relation to food security, health and nutrition.

In addition, the Commission wishes to thank Dr. Elizabeth Chizema Kawesha - Director Public Health and Research - MoH, Ben Chundu and Henry NKhoma—Director Planning and Director Community Development, respectively in the MCDMCH for their contributions.

The Ministry of Community Development, Mother & Child Health is further acknowledged for providing a venue for the first stakeholder workshop which was held to provide initial feedback by the team and share ideas from local experts and participants. The field-based stakeholders who included health staff in district hospitals and health centres, community health workers, and families living in rural communities in Chongwe and Kabwe districts are appreciated for their input.

From the Nutrition Cooperating Partners, thanks go to UNICEF nutrition specialists – Dominique Brunet and Ruth Siyandi; William Kanweka, Senior Health Advisor – Population Health and

Nutrition and Abeje Zegeye, HIV/AIDS Food and Nutrition Advisor (USAID); Maurice Sadlier, Programme Officer - IrishAid and Edna Kalaluka- Head of Programmes - WFP.

The NFNC recognizes and extends appreciation to the UK Department for International Development (DFID) who provided financial and technical support for the development of the draft National First 1000 Most Critical Days Programme. Special gratitude goes to Silke Seco-Grutz who guided and coordinated the development of the programme and secured technical and financial assistance on behalf of the NFNC. Finally, NFNC remains indebted to Dr Victor M. Mukonka, former Director Public Health & Research in the Ministry of Health and now senior lecturer and Head of Public Health at Copperbelt University, School of Medicine for facilitating the stakeholders and partners consultative meeting and editing the final National First 1000 Most Critical Days Programme document.

The Cooperating partners' dedication and support to addressing undernutrition in Zambia is critical and appreciated.

Cassim Masi, Ph.D.
Executive Director,
National Food and Nutrition Commission of Zambia

Contents

Tables

Figures

Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANI	African Nutrition Initiative
ART	Anti-Retroviral Therapy
BAZ	Breastfeeding Association of Zambia
BCC	Behaviour Change Communication
BFHI	Baby Friendly Hospital Initiative
BMI	Body Mass Index
CAADP	Comprehensive African Agricultural Development Program
CBO	Community Based Organization
CBGMP	Community-based Growth Monitoring and Promotion
CHAZ	Churches Health Association of Zambia
CHWs	Child Health Weeks
CSH	Communications Support for Health
CSO	Central Statistical Office
CSOs	Civil Society Organisations
DES	Dietary Energy Supply
DFID	Department for International Development
EMILP	Essential Medicines Logistic Improvement Programme
EPI	Expanded Programme for Immunisation
EU	European Union
FBO	Faith Based Organisation
FNDP	Fifth National Development Plan
GAIN	Global Alliance for Improved Nutrition
GMP	Growth Monitoring and Promotion
GRZ	Government of the Republic of Zambia
HIV	Human Immunodeficiency Virus
IBFAN	International Baby Food Action Network
IMAM	Integrated Management of Acute Malnutrition
ITNs	Insecticide Treated Nets
IYCF	Infant and Young Child Feeding
LNS	Lipid-based nutrition supplement
M&E	Monitoring and Evaluation
MAL	Ministry of Agriculture and Livestock
MAM	Moderate Acute Malnutrition
MCDP	Most Critical Days Programme
MCH	Maternal and Child Health
MCDMCH	Ministry of Community Development Mother and Child Health
MDGs	Millennium Development Goals
MGD	Ministry of Gender and Child Development
MI	Micronutrient Initiative
MICS	Multiple Indicator Cluster Survey
MIS	Malaria Indicator Survey
MLGH	Ministry of Local Government and Housing
MNP	Micronutrient Powder
MoH	Ministry of Health
MUAC	Mid Upper Arm Circumference
M & E	Monitoring and Evaluation
NFNC	National Food and Nutrition Commission
NFNSP	National Food and Nutrition Strategic Plan

OVC	Orphans and Vulnerable Children
PMTCT	Prevention of Mother to Child Transmission
NDP	National Development Plan
NFNC	National Food and Nutrition Commission
NFNSP	National Food and Nutrition Sector Strategic Plan
NGO	Non-Governmental Organisation
GRZ	Government of the Republic of Zambia
RUTF	Ready to Use Therapeutic Food
RDA	Recommended Daily Allowances
SAM	Severe Acute Malnutrition
UN-SCN	United Nations - Standing Committee on Nutrition
SCT	Social Cash Transfer
SNDP	Sixth National Development Plan
SUN	Scaling Up Nutrition
THET	Tropical Health Education Trust
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Aid for International Development
VAS	Vitamin A Supplementation
WBFTI	World Breastfeeding Trends Initiative
WFP	World Food Programme
WHO	World Health Organisation
ZamNIS	Zambia Nutrition Information System
ZDHS	Zambia Demographic and Health Survey

Preamble

The NFNC is pleased to present the framework for the three-year "First 1000 Most Critical Days Programme (MCDP) in Zambia".The framework provides in-depth information on the food and nutrition situation in Zambia. This framework is the result of the collective work of senior specialists from the National Food and Nutrition Commission, national and international consultants, over a three week period in March 2012 in country and further consultations held during the period June-August 2012.

The team consulted various stakeholders involved or associated with nutrition programmes in Zambia.These included senior government officials in key line ministries at national, provincial and district levels, donors, senior academics, health and nutrition officers from United Nations organisations, senior staff from national and international NGOs and Faith Based Organisations (FBOs). Consultations were also held with provincial, district staff from key line Ministry departments, health staff in district hospitals and health centres and community health workers.A stakeholder's workshop at national level was held to provide initial feedback from the team and elicit ideas from local experts. While the time was limited, the depth and breadth of information exchange was valuable. Various documents were produced from the consultations during this mission. These include:

1) Overview of the First 1000 MCDP (2013-2015) and one year implementation plan.
2) Communications and Advocacy Strategy for the First 1000 MCDP.
3) Governance Analysis, Institutional Structure and Management Arrangements for the First 1000 MCDP
4) Social Protection and Nutrition: Implications and Opportunities
5) A national capacity building plan
6) Options for financing the First 1000 MCDP Programme including through a Pooled Fund Mechanism

Executive Summary

The global burden of maternal and child undernutrition remains huge, and is among the greatest constraints facing global development efforts. Surprisingly little effort is being done to tackle this problem particularly in the most affected countries. According to the Lancet Nutrition Series of 2008 on the effects of nutrition interventions, Zambia is among 36 countries with more than 20% stunting.

The WHO's 2009 landscape analysis on nutrition assessed Zambia's nutrition governance as 'medium' and also noted that the country was making 'insufficient progress' towards the First Millennium Development Goal (MDG 1). Stunting affects health, physical and cognitive development capacity as well as productivity in adulthood. It has been estimated that current levels of child stunting of 45% if unchanged in Zambia, will cost over a ten year period (2004-2013), US$775m in productivity[1].

Renewed political commitment to nutrition has been made at the global level, as manifested by the UN-led Scaling Up Nutrition (SUN) movement which aims to address undernutrition, with a focus on the First 1000 MCDs of the child's life. Zambia, now politically committed to tackling undernutrition is one of the priority countries to implement the First 1000 MCDP as its key strategy to reducing stunting.

Maternal and child undernutrition are caused by multiple factors, and addressing the problems therefore requires the collaboration between a wide range of actors from different sectors, working at all levels from community to national level[2]. The NFNC has developed a three year multi-sectoral programme, focused on the First 1000 MCDs, for all funding and implementing partners.

The First 1000 MCDP aims to strengthen and scale up selected priority interventions from different sectors based on global and national evidence of cost effectiveness thereby reducing stunting in children. A review of institutions, systems and human resources capacity related to nutrition was conducted to better understand the context, the players and the challenges that will be associated with this programme. The cumulative information gathered was more than can be incorporated into this framework. Separate reports are available, providing details on institutional, organisational and human capacities and analysis of delivery systems in different sectors that can contribute to the efficiency of the programme and financing options

This three-year framework and the draft first-year implementation plan are intended to guide the various stakeholders in undertaking work related to the First 1000 MCDP, set out under the 5 Strategic Areas:

[1] NFNC. (2008) Annual Report on the Food and Nutrition Situation in Zambia. , Lusaka, Zambia

[2] SCN (2009) Landscape Analysis on Countries' readiness to accelerate action in nutrition. Special Issue of SCN News No. 37 ISSN 1564-3743. http://apps.who.int/nutrition/landscape_analysis/en/index.html

Strategic Area 1: Policy and coordination for robust stewardship, harmonisation and coordination of the Programme

Coordinating a multi-sectoral programme of this complexity and diverse key stakeholders requires a robust stewardship and leadership by the NFNC and commitment from all key sector ministries. In order to minimise duplication and encourage harmonised approaches to reducing stunting, the 'Three Ones' concept similar to the one used for HIV and AIDS programming, will be promoted for the First 1000 MCDP, to ensure effective coordination, harmonisation and programme accountability, greater opportunities for sector linkages and shared responsibilities among the key sectors and players as well as adherence to evidence-based approaches.

Strategic Area 2: Priority interventions across sectors to reduce stunting

The aim is to promote integrated high-impact maternal and child nutrition interventions to be complemented by strong advocacy and communication messages, and a comprehensive monitoring and evaluation plan.

Guided by global evidence, documented in the Lancet in 2008 series, the interventions with the greatest impact on child stunting are known. The Government and various stakeholders have agreed on high impact nutrition priority interventions which are likely to reduce and prevent child stunting if strengthened and scaled up. The advocacy and communication strategy as well as the comprehensive M&E plan aim to cover such interventions under the First 1000 MCDs.

Strategic Area 3: Institutional, Organisational and Human resource Capacity Building

This strategy recognises that institution, organisational and human resource capacity building at various levels of implementation will be needed. Enhanced collaboration and coordination among the sectors, donors and other partners, support from NGOs, M&E as well as use of formal and non-formal media channels will be emphasised. The strategy will also recognise the need for greater community participation.

The institutional, Governance and Capacity needs assessments have set out the anticipated capacity building and training requirements which will be supported under this programme. In addition, Government with support from DFID and other partners are supporting a programme for new academic courses in nutrition at higher institutions of learning.

Strategic Area 4: Communications and Advocacy

Communication and advocacy will be key supporting elements for the First 1000 MCDP. A nationwide campaign around the importance of maternal and child nutrition to prevent stunting, in the context of the first 1000 MCDs, will be disseminated at various levels to reach different audiences, using different messages, channels, and activities.

Advocacy and communication will be critical to generate greater leadership and operational commitment, better cross-sector collaboration and participation, and greater levels of resource commitment from both the Government and development partners.

The advocacy will be evidence-based, drawing primarily on information that will be gained both from relevant research and the comprehensive M&E system for this programme. The NFNC will facilitate and coordinate the overall strategic communication and advocacy under this programme. However each stakeholder will take responsibility for advocacy and communication of respective activities, consistent with the aims of the Programme.

Strategic Area 5: Monitoring, Evaluation and Research

Monitoring and evaluation of the programme is important in order to track progress, identify problems and see how the Programme can be adjusted where needed. Under the First 1000 MCDP, a robust and comprehensive M&E system will be developed and coordinated by the NFNC to capture nutrition information from all stakeholders across the sectors. A first step towards improving information collection and analysis has been the launch of the Zambia Nutrition Information System (ZamNIS) by the NFNC which now needs to become fully operational, expanded, and supported[3]. Research outputs on food and nutrition and other related indicators have not been coordinated, nor used strategically for policy and planning. The programme will build research capacity in NFNC to provide the leadership that will ensure that research is coordinated, prioritised and used effectively.

Financing the Programme

The financing mechanisms for the programme will include: 1) pooled funding; 2) direct programme support to districts or communities, and 3) GRZ funding through approved annual plans and budgets. This approach will provide options to accommodate funding arrangements by different partners intending to support the programme.

The pooled funding mechanism will be established by key donor partners to facilitate greater resource alignment in support of the First 1000 MCD Programme. It will be overseen by a Steering Committee, composed of donors, the NFNC and other government representatives. Management of the Pooled Fund will be awarded through a competitive bidding process. The NFNC will be supported to provide leadership and ensure national priorities are addressed and activities consistent with the National Food and Nutrition Strategic Plan. Line Ministries at all levels and CSOs[4] will be able to submit proposals to support the First 1000 MCDP. A Technical Advisory Group (TAG) will be responsible for assessing proposals against agreed criteria and ensuring that programmatic and geographical priorities are addressed. Details of these mechanisms will be developed and posted on the NFNC website www.nfnc.org.zm after the launch of the programme[5].

Under the direct funding mechanism institutions will be required to finance the programme based on agreed district annual work plans or approved proposals by the financing agency. This will include GRZ funding which is done through the respective sectors based on approved annual work plan and budgets. Indirect funding through technical and logistical support to the districts and communities will also be part of the funding mechanism.

[3] ZamNIS can be accessed on **www.nfnc.org.zm**
[4] NGOs, FBOs, CBOs, academia, and the media,
[5] http://www.nfnc.org.zm/

Section 1: Situation Analysis

The Global Problem

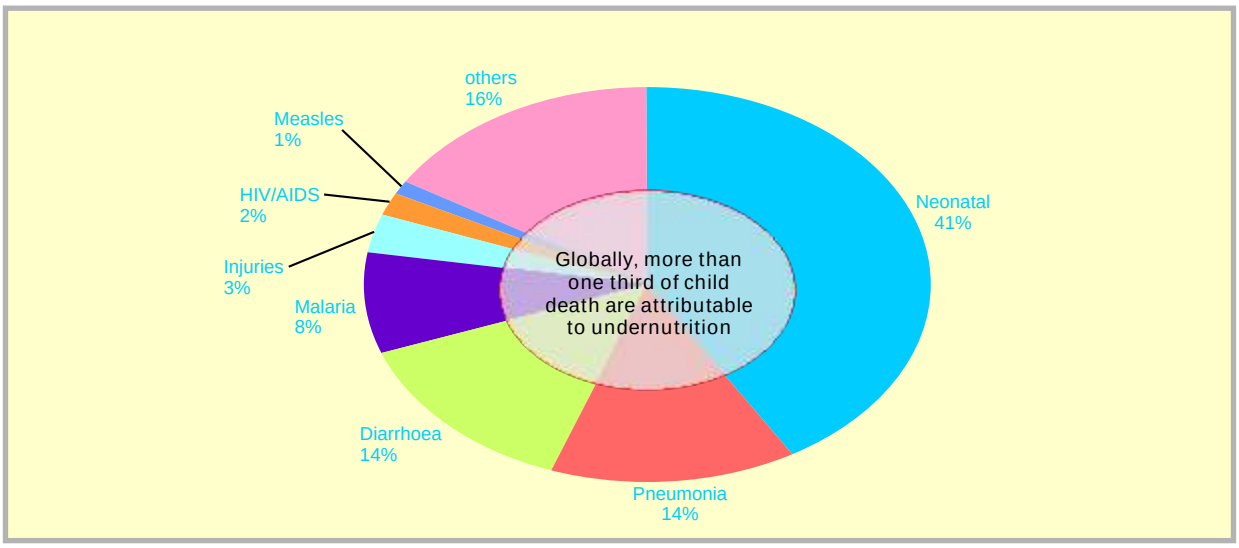
Undernutrition is one of the world's most serious but least addressed health problems.The human and economic costs are enormous, falling hardest on the very poor and on women and children. Nutrition problems are often unnoticed until they reach severe levels. Nearly 200 million children are chronically malnourished. Annually 35% (nearly 3 million) of all deaths among under five children and roughly 20% (nearly 1 million) of all maternal deaths are due to malnutrition globally.

Chronic malnutrition (Stunting), a form of undernutrition affects approximately 195 million or about one in three children under five years of age in the developing world. According to the recent estimates, maternal and child undernutrition contributes to more than one third of child deaths (Figure 1). Twenty-four countries account for more than 80 % of the global burden of chronic undernutrition, as measured by stunting (low height for age). Chronically malnourished children can become locked in a cycle of recurring illnesses and are more likely to be shorter adults and to give birth to low birth weight offspring. Undernutrition can create irreversible damage to growth, development and cognitive abilities[6]. Chronic undernutrition is largely irreversible if not corrected in the first two years of life but is preventable. The factors that contribute to malnutrition are complex, and tackling malnutrition requires the involvement of all sectors[7]. Lessons from other countries, including Bangladesh, Eritrea, Mauritania, Vietnam, Peru, Brazil, Rwanda and Malawi show that progress in reducing malnutrition can be made where there is political commitment, strong leadership and a well-coordinated, multi-sector response.

[6] Prado E., Dewey K.. (2012) Nutrition and brain development in early life. A&T Technical Brief . Issue 4, January

[7] Annex 7 shows the relationship of different sectors to nutrition in Zambia

Figure 1: Causes of mortality for children under 5 years

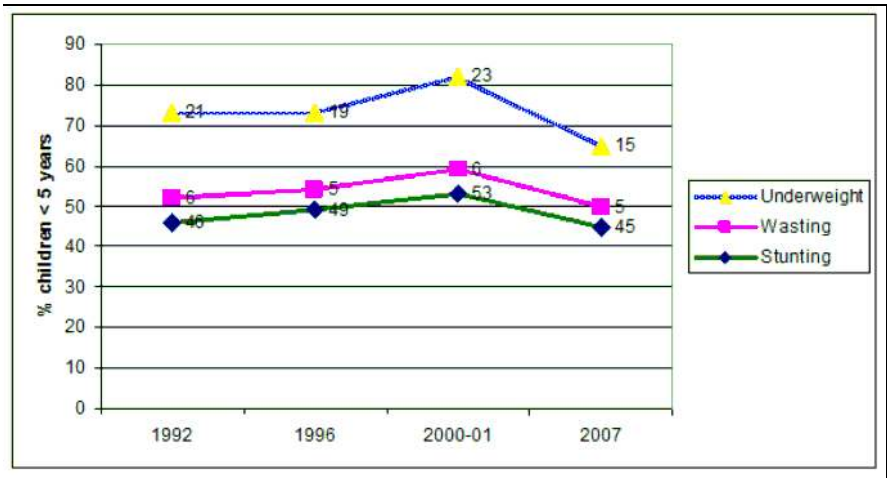


Source: WHO/Child Health Epidemiology Reference Group (CHERG) estimates presented in The Lancet, June 2010.

Undernutrition in Zambia

With 45% stunting, Zambia has one of the highest rates of childhood (6 to 59 months) undernutrition in the world- higher than the 42%average for Africa. Other forms of undernutrition in Zambia include wasting or acute malnutrition, with 5% of children under 5 being wasted, and underweight, with15%[8]. In addition 54% of children have vitamin A deficiency and 53% have iron deficiency anaemia[9] and 9.3 % of children are born with low birth-weight, indicating poor maternal nutrition[10].

Figure 2 below, show the prevalence of child malnutrition children declining from 1992 to 2007. The trends are moving in the right direction but not enough, and unlikely to meet 2015 targets.

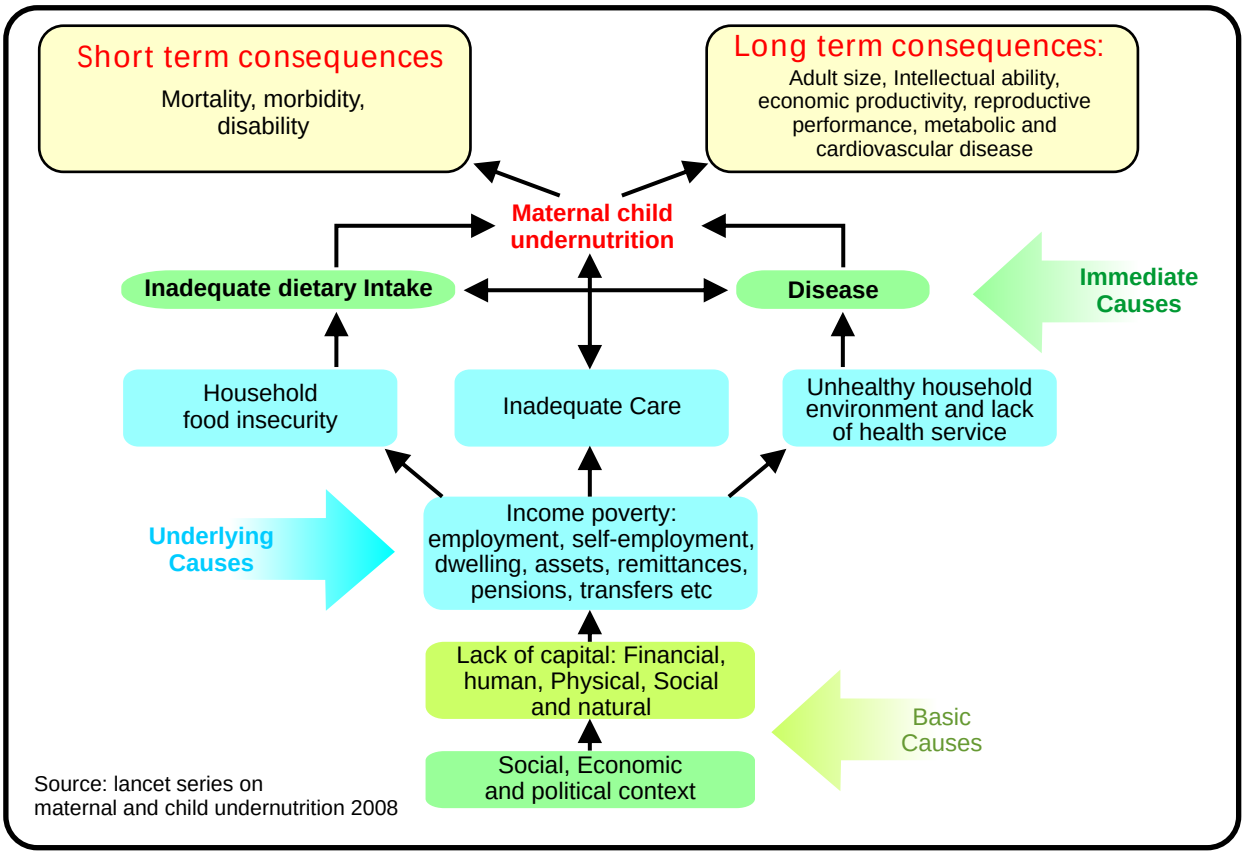


Source: Zambia DHS (CSO, 2007)

[8] CSO (2009), MOH, TDRC, UNZA and Macro Inc; Zambia Demographic and Health Survey (ZDHS)-2007, Calverton, Maryland, USA
[9] NFNC. (2008) Annual Report on the Food and Nutrition Situation in Zambia. , Lusaka, Zambia
[10] CSO (2009), MOH, TDRC, UNZA and Macro Inc; Zambia Demographic and Health Survey (ZDHS)-2007, Calverton, Maryland, USA

If current levels of stunting remain unchanged in Zambia, over the ten year period from 2004-2013, the country is expected to lose US$775million in economic production[11]. Addressing undernutrition is therefore essential to meeting all economic and development targets, attainment of the Millennium Development Goals (MDGs) and protecting the human rights for health and freedom from hunger[12]. Annex 4 provides a detailed profile of nutrition in Zambia.

Figure 3: Framework of the causes of maternal and child undernutrition



Addressing the direct and indirect causes of undernutrition

Undernutrition arises from complex, multiple and interactive causes. The immediate causes include inadequate dietary intake and disease. Underlying these are causes operating at household and community levels: household food insecurity, inadequate care for women and children, unhealthy household environments and lack of health services, with income poverty underpinning all three.

Therefore, the eradication of extreme poverty and hunger, improving educational levels and maternal nutritional status, family planning and disease prevention among other factors, are inextricably linked to reducing undernutrition. Long term improvements in food and nutrition security at various levels will come from sustained and robust economic growth, macroeconomic and structural policies that promote job creation, economic inclusion, social empowerment and

[11] NFNC. (2008) Annual Report on the Food and Nutrition Situation in Zambia. , Lusaka, Zambia .
[12] UNICEF (2010). Tracking Progress on Child and Maternal Nutrition.

improved investment in the key sectors (Health, Agriculture, Water and Sanitation, Education and Social Protection) as envisaged in the National Development Plan[13].

If progress in reducing undernutrition is to be sustained, the underlying causes related to poverty, inequity, low maternal education and women's social status must be addressed. These deep-rooted and complex issues cut across sectors: agriculture, water and sanitation, education, gender and social protection. [14]In Zambia, evidence is emerging from the first phase of the Cash and food voucher transfer programmes where benefits to the local economies have resulted in increased food consumption and asset ownership. In Zambia, it has also been estimated that the elimination of iodine deficiency, by 1% point per year and reduction of maternal anaemia by one third (all very achievable) would increase Zambia's productivity by $1.5 billion over the next 10 years.[15]Figure 3 above, provides an overview of the determinants of maternal and child nutrition and the interventions recommended by global institutions for addressing them.

Poverty and nutrition

Nutrition is one of the fundamental drivers of economic growth. However, economic growth on its own does not necessarily translate into economic prosperity and improved nutrition for all individuals.[16]Between 1991 and 2006, Zambia achieved a modest reduction in extreme poverty of 7.5% and progress made in the proportion of people who suffer from hunger. A reduction of only 2% is now required to achieve the 2015 MDG target. Declining inflation and supportive social policies were largely responsible for this. Sustainable social cash and food voucher transfers support for raising smallholder farm and livestock productivity, and food assistance and alternative livelihood support to the nutritionally vulnerable households with pregnant and lactating women and malnourished children are among the interventions recommended to address poverty[17].

Urban-rural inequality

The 2011 MDG report for Zambia shows significant inequalities in nutritional status with hunger more concentrated in rural areas, where 15.3% of under-five children are underweight, compared to 12.8% in urban areas (Figure 4). Many other factors affect nutrition status such as gender, education, family size and HIV status. It is the poor who are most vulnerable and among these are women and children.

[13] CSO (2009), MOH, TDRC, UNZA and Macro Inc; Zambia Demographic and Health Survey (ZDHS)-2007, Calverton, Maryland, USA

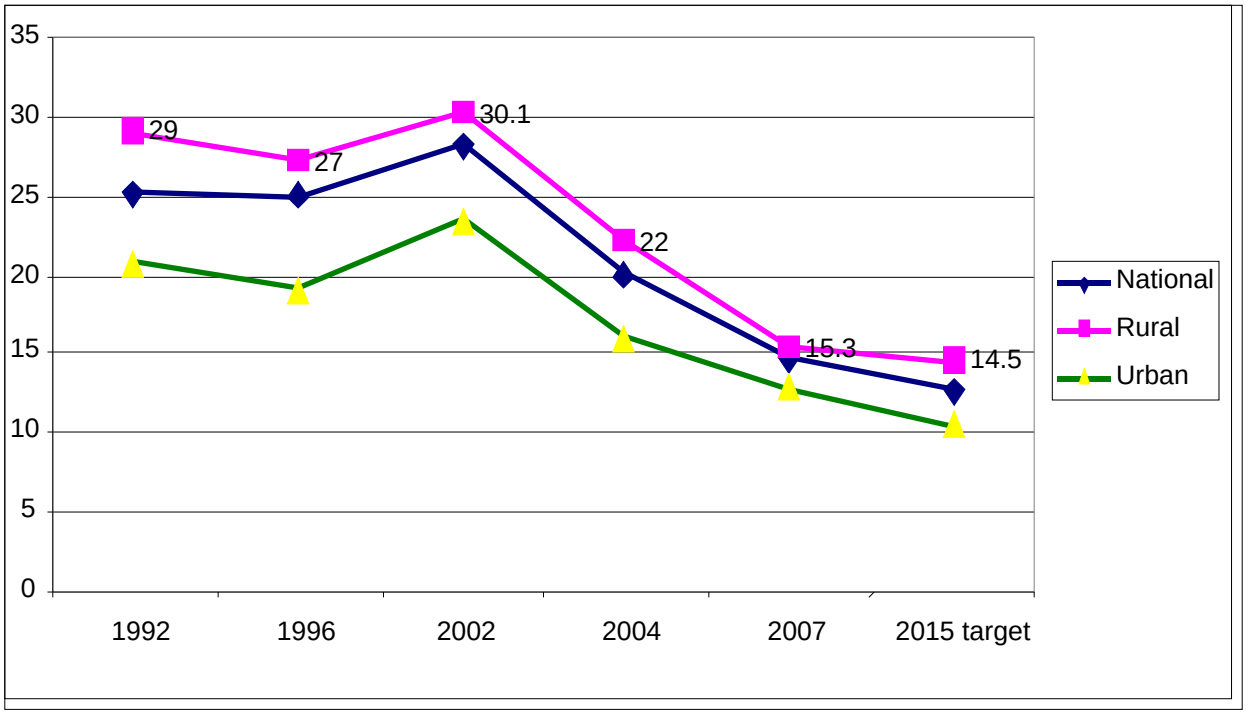
[14] UNDP (2011). Zambia MDG Report.

[15] NFNC 2011, Zambia Nutrition Profiles 2004-2013

[16] UNICEF 2011. Tracking Progress.

[17] UNDP (2011) Zambia Human Development Report. 2011.

Figure 4: Trends and targets for underweight by rural and urban



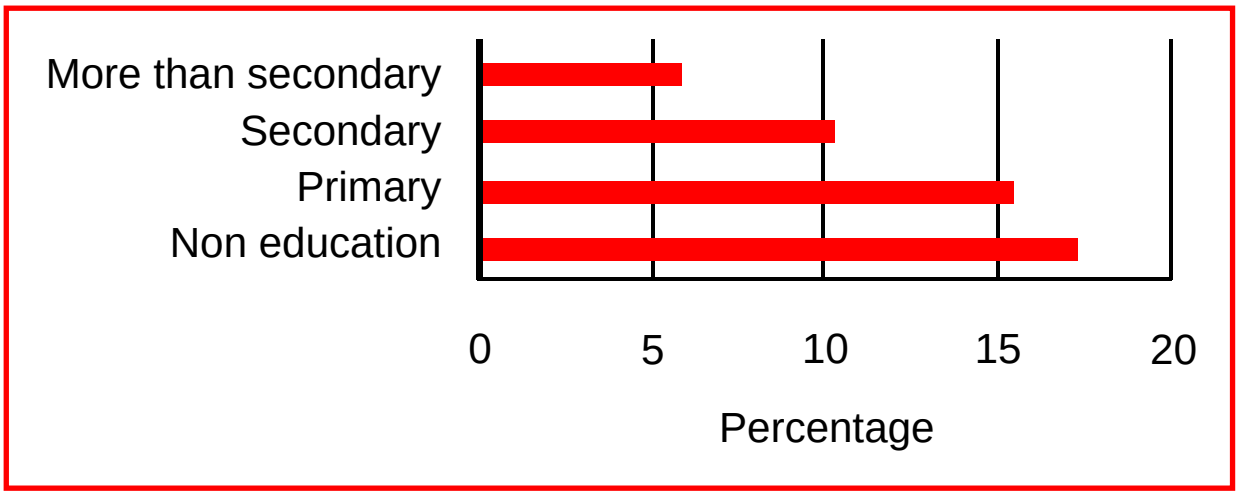
Source: Zambia DHS 2007

Gender

The socially constructed gender roles of men and women have an impact on the nutrition status of the entire family. Women typically have limited access to land, education, information, health services, credit, technology, and decision making forums. Women's contribution to food and nutrition security, improves visits to health facilities for infants, raises household food security production, food preparation, and child care. The education level of women is a key determinant for childhood nutrition as seen in Figure 5. These elements are all critical for the social and economic development of communities, yet efforts in this direction are hampered by malnutrition[18].

[18] Based on literature review conducted on the roles and influence of grandmothers and men under the USAID Infant & Young Child Nutrition Project, 2011.

Figure5 : Percent (%) underweight among under 5 years children by mother's education



Source: Zambia DHS 1992-2007

Given this background, it is crucial that the Ministry of Gender and Child Development is oriented on the importance of nutrition and engaged in the First 1000 Most Critical Days Programme.

Food consumption

Available data highlight deficiencies in terms of both dietary frequency but most importantly quality and diversity. Central Statistical Office data (CSO 2004), show that 51% of households can only afford 2 meals per day, 11% afford 1 meal per day and only 36% can afford 3 meals per day. The Zambian diet has an over-reliance on maize, so is not only insufficient to fulfil energy needs but is also insufficiently diverse to provide adequate quantity and quality of protein, and is highly deficient in micronutrients, all of which have serious implications for nutritional wellbeing[20,21].

The 2008 National Nutrition Surveillance Survey found that on average, only 4 out of 13 food groups were consumed in a day by households. Commonly consumed food groups included cereals and cereal products (98.9%), dark leafy vegetables (80.0%), oil and fats (60.6%), sugary foods (48.8%) and legumes, nuts and oil seeds (40.7%). Only 1% of the dietary energy supply (DES) is provided by fruit and vegetables. The low supply (5%) of foods of animal origin (meat and offal, milk and eggs, and fish) contribute to iron and protein deficiency. Study results show that 27% to 65% of the population cannot afford a minimum cost of a nutritionally adequate diet[22].

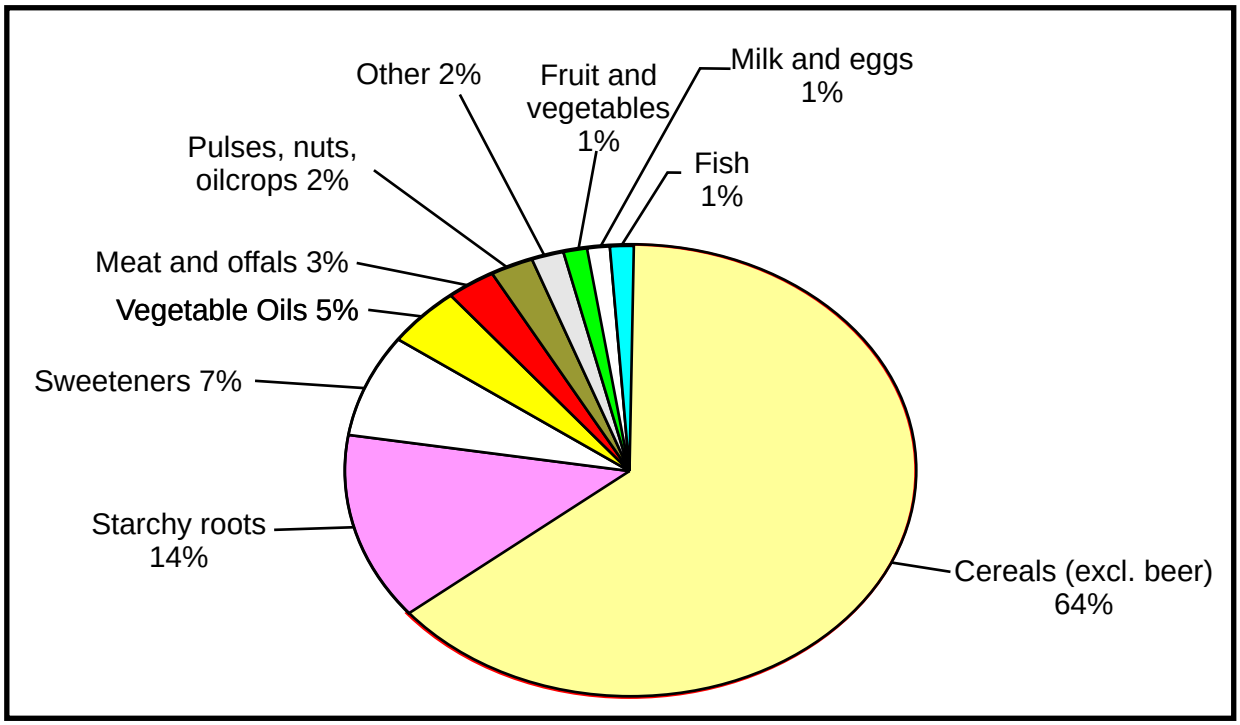
[19] More details on gender and its relationship with nutrition are discussed in the detailed report on Social Protection and Nutrition: Implications and Opportunities. Mwila Mulumbi. 2012.

[20] FAO. Food Insecurity and Vulnerability Information and Mapping Systems.

[21] Animal– Nutrition and Consumer Protection Division, FAO, 2009 26 DES

[22] WFP/DSM(2010) Cost of Diet analysis in Zambia

Figure 6 : Percent (%) dietary energy supply by food group 2000-2002



Source: FAO Zambia Nutrition country profile

Zambia is experiencing a nutrition transition. Urbanisation and globalisation are responsible for changes in dietary patterns, as consumption is shifting from fresh and minimally processed traditional foods to highly refined foods from which essential minerals and vitamins have been removed in the processing.This is significant with maize, consumed by 90% of the population. Over nutrition, another kind of malnutrition is now a growing trend in both the urban and rural areas[23].

Chronic food insecurity continues to affect low income groups such as the urban poor households and small scale farmers. Reliance on maize production can have catastrophic effects for small farmers and their families when crops fail hence the need to promote production and consumption of a variety of foods under this programme.

The evidence for addressing undernutrition

The 2008 Lancet series on nutrition[24] examined evidence from (hundreds of studies in a variety of countries) and identified a range of efficacious nutrition interventions. A World Bank study in 2009 examined issues of programmatic feasibility and cost-effectiveness identified a more selective package of 13 highly cost-effective interventions, concentrating on the "window of opportunity" for children under two years of age and maternal malnutrition.The study estimated the annual costs of the 13 interventions and 90% of undernutrition of children under five in 36 highest burden countries under the Lancet[25].

[23] FAO (2009). Zambia Nutrition Profile..
[24] Black et al. (2008) Maternal and Child Undernutrition 1: Maternal and child undernutrition: global and regional exposures and health consequences. Lancet Series 2008;www.thelancet.com.
[25] Lancet. Ibid

There is a critical window of opportunity to prevent undernutrition – while a mother is pregnant and during a child's first two years of life – when proven nutrition interventions offer children the best chance to survive and reach optimal growth and development. Improving child and maternal nutrition can be affordable and cost-effective. Reducing undernutrition requires urgent action on both direct nutrition-specific interventions and emphasis placed on a broader multi-sector approach.

Box 1: Evidence on Impact of Nutrition Specific Interventions

Vitamin A supplementation. In the early 1990s meta-analysis showed the importance of Vitamin A in reducing severity of infection and mortality in children (a 24% reduction in the risk of all-cause mortality seen in Bangladesh and Nepal trials), There is consensus that this intervention should be delivered as part of the primary health care system[26].

Deworming. This intervention has small positive effects on children's weight and a larger impact on anaemia in populations with high rates of intestinal helminthiasis. Systematic reviews show that regular de-worming in children could lead to a reduction of anaemia rates of between 4.4% to 21%. Iron deficiency anaemia is estimated to cause 1.6 million DALYs in children under the age of 5[27]. Best with hand washing and sanitation.

Iron Folate supplementation for pregnant women. Iron deficiency anaemia in women contributes to maternal deaths. Universal iron and folate supplementation for pregnant women could avert an estimated 84,000 maternal deaths and 2.5 million DALYs. In Zambia, iron folate for pregnant women is provided through ante-natal care. However, although rates for 1st ANC visits are high, this is not the case with follow ANC visits, which explains why 56% of pregnant women do not take iron folate. There are also compliance challenges[28].

Zinc supplementation. Although maternal zinc supplementation is associated with reduced prematurity rates, it does not affect maternal health indicators, weight gain or intra-uterine growth restriction. However, children who take zinc supplements have fewer episodes of diarrhoea, persistent diarrhoea, and lower respiratory infections. A meta-analysis of zinc supplementation indicates a 9% reduction in child mortality and a 15-24% reduction in the duration of diarrhoea[28]. In Zambia, zinc supplements are distributed through the Integrated Management of Childhood Illness programme, but with limited coverage as all procurement is donor funded and done through UNICEF. There is a need to include zinc supplements in the essential drugs list and to explore optimal mechanisms for distribution.

Evidence on impact of nutrition sensitive interventions

Nutrition sensitive development involves adjusting and re-designing programmes which have potential to address the causes of undernutrition to explicitly deliver this result. These programmes have multiple objectives and casual chains and are difficult to measure. However, they

[26] The Challenge of Hunger and Malnutrition, Copenhagen Consensus, 2008
[29] ibid
[28] ibid
[29] The Lancet, 2008

represent a huge untapped potential for reducing undernutrition and may hold the key to much of the remaining 2/3 of the stunting problem. Programmes which offer the greatest scope to improve nutrition include:[30]

Food security and agriculture. Growth in this sector leads to reductions in stunting, especially when this is concentrated in the rural poor. This relationship is even stronger in food insecure contexts and when increased food availability, access and utilisation results from agricultural growth.

Cash and food voucher transfers. The evidence on benefits to nutrition of cash and food transfer programmes is mixed. Annual reports on cash transfer from the MCDMCH and the WFP food voucher evaluation report suggest that social cash and food voucher transfers to contribute to overall household income and food consumption and are directed to support education, improved food intake, health and alternative livelihood support--income generation therefore reducing inter-generational poverty[31].

Water, sanitation and hygiene promotion. There is a strong association between access to improved sanitation and stunting. The Lancet series looked at the impact of hygiene interventions (hand washing, water quality treatment, sanitation and health education) and concluded that they could contribute to a 2-3% reduction in stunting.

Health. The health sector has a crucial role in addressing ill health which contributes to undernutrition. Specifically, malaria frequently causes iron deficiency and anaemia; measles and diarrhoeal infections increase the body's Vitamin A requirements and can trigger severe forms of deficiency such as blindness; parasitic infections, particularly hookworm cause iron deficiency and anaemia; and a wide range of infections often reduce appetite and decrease the amount of food that is consumed, leading to weight loss and micronutrient deficiencies. HIV positive individuals have lower resistance to fight other opportunistic infections and are more prone to be malnourished. HIV infection has also shown to increase the energy consumption needs of affected individuals, and ART adherence improves significantly when combined with food and nutrition support[32]. Disease control interventions are estimated to contribute to a 3% reduction in stunting though not all possible interventions were included in this estimation.

In Zambia, it has been estimated that the elimination of iodine deficiency, reduction in stunting by 1% point per year and reduction of maternal anaemia by one third (all very achievable) would increase Zambia's productivity by $1.5 billion over the period 2004 to 2013[33]. But there are still significant gaps in knowledge around the scale of undernutrition, and the extent and impact of nutrition interventions. A 2012 national food consumption survey undertaken by the NFNC will provide useful information for new nutrition and food security programmes and promote technologies for production of fortified food products for specific nutritionally venerable groups with possible private sector engagement and social marketing strategy in place.

[30] Scaling Up Nutrition: The UK's Position Paper on Undernutrition, September 2011
[31] Mwila Mulumbi. (2011) Social Protection and Nutrition: Implications and Opportunities..
[32] Food Insecurity and HIV/AIDS: Current Knowledge, Gaps and Research Priorities
[33] NFNC 2011 Zambian Nutrition Profile 2004 to 2013

Costs and benefits of different options

Global evidence has also demonstrated the economic case for investing in nutrition as many interventions are highly cost-effective. Zambia was included in the key cost-effectiveness study of nutrition interventions for the Lancet meta-analysis[34] so the results are directly relevant. Improved nutrition leads to positive economic impacts in three main ways:

i. Direct gains in productivity arising from improvements in physical stature and strength, as well as improvements in micronutrient status. Productivity gains at a micro level from improving nutrition are estimated at 10% of lifetime earnings and at a macro level, GDP gains can be as high as 2–3%[35]

ii. Indirect gains arising from links between nutritional status, schooling and cognitive development, as well as subsequent adult labour productivities, and

iii. Savings of resources currently directed to health care, disease treatment and other problems associated with undernutrition.

Table 1 provides estimates of the global cost-effectiveness of a range of different nutrition interventions. Although these interventions would likely prove more expensive in Zambia (due to its large size and highly dispersed population), they would, almost certainly still all prove to be highly cost-effective.

Table 1 : Cost-Effectiveness of Various Nutrition Interventions

Intervention	Cost effectiveness (US)/DALY
Promotion of breastfeeding	3-11
Zinc in management of diarrhoea	73
Vitamin A fortification	6-12
Vitamin A supplementation	6-12
Universal salt iodisation	34-36
Iron fortification	66-70
Hygiene Promotion	3
Treatment of severe acute malnutrition in Zambia	(41)*
Sustained child health & nutrition programme including prenatal care, women's health & nutrition, breastfeeding promotion, complementary feeding, micronutrient supplementation, supplementary feeding with local supplies etc. mix depends on local capacity/conditions	225
Source: DFID Nutrition Evidence Paper	

[34] The Lancet, ibid.
[35] DFID (2009) Nutrition Evidence Paper

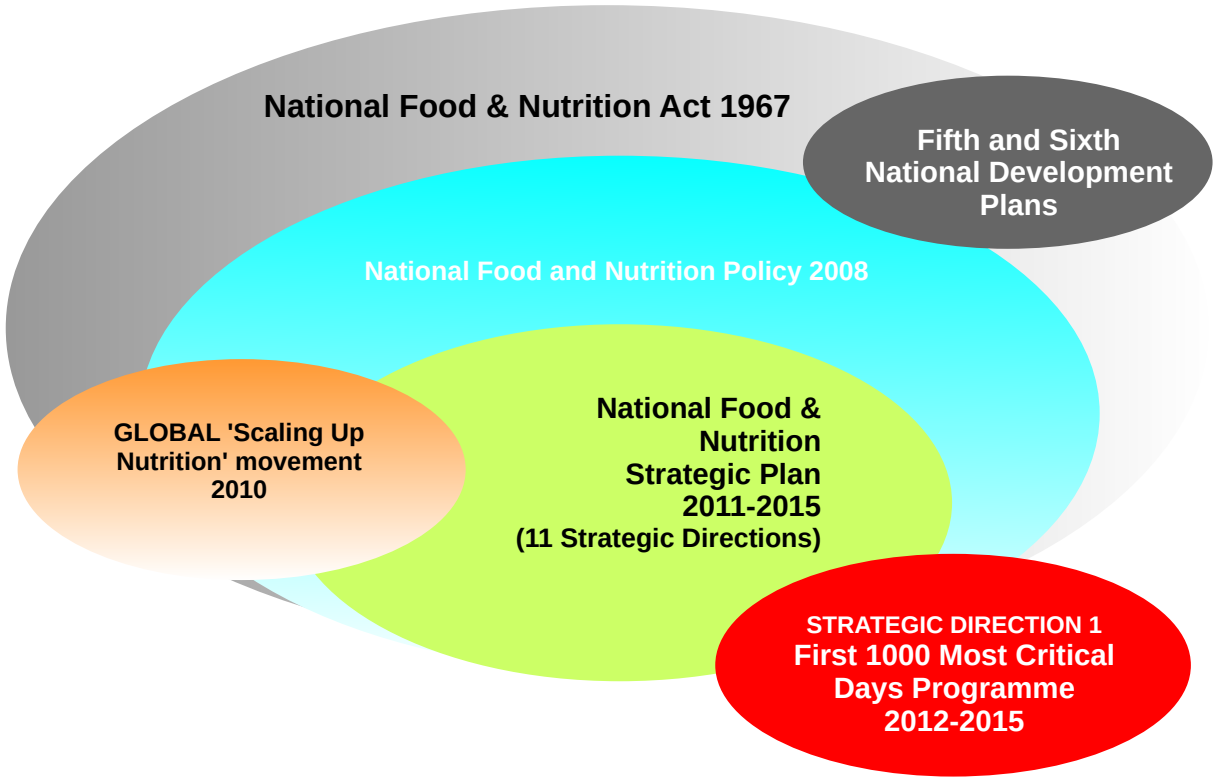
Details on lessons to be learned from other countries which have used the First 1000 Most Critical Days approach to reduce stunting (Rwanda, Malawi and Peru) are provided in Annex 6.

Historical National Response to Undernutrition

Nutrition Policy

Zambia's approach to food and nutrition historically focused on issues of food production and access, with minimal attention to utilisation. After the passing of the National Food and Nutrition Commission (NFNC) Act of 1967, the NFNC was formed- to coordinate nutrition programme implementation, provide technical advice and food and nutrition training to various sectors[36]. Figure 7 below, illustrates the legal, policy and strategy context for the First 1000 Most Critical Days Programme.

Figure7 : Nutrition policy context



[36] Taylor L.(2012) A second chance: Focusing Zambia's nutrition sector in the context of political change. Analysing Nutrition Governance: Zambia Country Report., Institute of Development Studieshttp://www.ids.ac.uk/idsproject/analysing-nutrition-governance

The National Food and Nutrition Policy (2006), launched in March 2008, acknowledged children and adults' right to good nutrition and to services such as micronutrient supplements, fortified foods, food production, preservation, storage and utilization.. It also set out the priorities for a multi-sectoral programme and stated that "in order to ensure that there is proper co-ordination and adequate capacity to undertake nutrition programmes, government shall:

a. Strengthen the NFNC institutional framework to enable it establish strong linkages with other relevant sector ministries and collaborating partners.
b. Amend the NFNC Act in order respond to the demands of emerging nutrition issues.
c. Amend the National Food and Nutrition Commission Act in order to empower the NFNC to create any other bodies as they deem necessary for the promotion of food and nutrition activities.
d. Empower the NFNC to adapt to relevant strategic institutional arrangements as they deem necessary.
e. Strengthen existing and establish new structures for undertaking nutrition activities at national, provincial, district and community levels; including the private sector.
f. Strengthen partnerships and promote collaboration amongst all stakeholders at national, provincial, district and community levels.
g. Establish a National Food and Nutrition Steering Committee to coordinate nutrition activities at all levels[37]."

The Sixth National Development Plan (SNDP) 2011 to 2015 (Table 2), which is intended to accelerating actions towards attainments of MDGs (1, 4 & 5) articulates the links between nutrition and economic development. It indicates that nutrition will be 'mainstreamed' into a programme of Food and Nutrition Coordination and Management, moving away from the more health-focused aspects of the previous national development plan towards ensuring diverse food availability, accessibility and utilisation, social protection, safe water and sanitation. These strategies are intended to contribute to improvements in the overall nutritional status of the population, and to add value to the human capital required for social and economic development.

Table 2 : Nutrition Objective & Strategies in the Sixth National Development Plan (Cross Sectoral)

No.	Objectives	Strategies	Programmes
1	To improve the nutritional status of the Zambian population through the provision of quality nutrition services and increased availability, access and utilization of quality and safe foods	a) Amend the National Food and Nutrition Commission Act No. 41 of 1967; b) Expand proven high impact and cost effective food and nutrition interventions focusing on under-served areas and vulnerable population groups; c) Advocate for the promotion of nutritious diet through crop diversification, adequate food processing, storage and utilization; d) Ensure adequate quality and safety of local and imported food and food products; e) Enhance effective utilization of food by advocating for control, prevention and treatment of diseases having an impact on nutrition and specifically community-based interventions; and f) Support expansion of the school feeding programme and other school nutrition services.	Food and Nutrition Coordination and Management

source: Ministry of Finance and National Planning - SNDP - 2010

These changes in approach do not appear to have significantly influenced the actors in nutrition programming[38]. Although nutrition has no budget line despite being mainstreamed as a cross-cutting issue in the SNDP, the current political commitment to nutrition offers an opportunity for allocating more resources to nutrition and priority in the national agenda. To operationalize the National Food and Nutrition Policy, the National Development Plan advocated for development of a multi-sectoral food and nutrition strategic plan. The NFNC with partners and stakeholders have thus developed the multi-sectoral NFNSP 2011-2015, which is aligned to the SNDP 2011-2015. The NFNSP's first strategic direction is focussed on the prevention of stunting in the context of the first 1000 MCDs of life.

Nutrition Governance and Institutional Architecture[39]

Existing Institutional arrangements and inter-sectoral cooperation

A recent analysis of Nutrition Governance in Zambia[40] illustrates that three main factors have contributed to insufficient inter-sectoral cooperation around nutrition. These include: a lack of highly qualified staff to accelerate nutrition actions in various sectors, limited NFNC mandate to convene high-level actors and insufficient funding for nutrition activities by the government. These have led to a situation where nutrition is divided into health and food security along sectoral lines. However, the National Food and Nutrition policy framework guides the harmonization and alignment of nutrition strategies and services among the key line Ministries, while the NFNC taking a coordinating and advisory role.

Proposed Institutional and Coordination Framework for NFNSP.

The strategic plan and its associated programmes, including the 1st 1000 MCDP will be implemented through the existing key sector institutional and coordinating frameworks. NFNC will take the overall responsibility for coordinating and ensuring successful implementation and attainment of the NFNSP objectives and strategies. The Government key line Ministries and departments; the Cooperating Partners on nutrition (CPNs); the UN system; international and local non-state organisations, the private sector; and communities will be involved in programme implementation.

To ensure efficient and effective coordination of the partners the NFNC shall promote inter-sector collaboration and coordination at all levels as well as strengthen the leadership governance systems and structures. This will ensure highest levels of participation, transparency and accountability by all partners.

The NFNSP 2011-15 will be implemented through the development and implementation of medium-term expenditure framework (MTEF) and annual action plans (AAPs) and budgets, based on a bottom-up planning process, as well as funding or technical support mechanisms from other partners .

---

[37] Government of Zambia (2006). National Food and Nutrition Policy.

[38] IDS report. Ibid

[39] A detailed review of governance and institutional arrangements around nutrition and the NFNC in particular has been made, and is provided as a separate annex to this document.

[40] Taylor, L. (2012) A second chance; Focusing Zambia's nutrition sector in the context of political change: Analysing Nutrition Governance: Zambia Country Report, 2011/2012. Institute of Development Studies,

Links to other National, Regional and International Policies

The First 1000 MCDs programme has been developed within the context of the overall national development agenda, and forms an integral part of the Sixth National Development Plan 2011 to 2015 (SNDP) and the Vision 2030 strategy, which aims at transforming Zambia into a prosperous middle-income nation by 2030. The programme is also linked to multi-sector policies and strategic frameworks for health, food and nutrition, education, agriculture, social protection and water and sanitation.

At regional and international levels, the programme is linked to various initiatives such as the MDGs, the Scaling Up Nutrition (SUN), Comprehensive African Agriculture Development Programme (CAADP), and Feed the Future Initiatives.

Health Sector Organization and Coordination

The nutrition service delivery in Zambia is liberalised and embraces diverse ownership through the public health sector, through the MOH health facilities and some government line ministries and departments; faith-based health sectors, the private health sector, and other NGOs.

Since 1991, Zambia's public health sector approach has focused on decentralization to the districts, where planning, service delivery and resource management takes place. This approach has also inevitably called for broader participation of all the key stakeholders, particularly the communities, in the governance of the health and nutrition services.

Food and Nutrition Service Delivery Coordination

NFNC is responsible for the overall coordination of the food and nutrition matters in Zambia. This can be achieved through the exiting sector structures at national, provincial, district and community levels. However, to ensure that there is proper co-ordination and adequate capacity to undertake nutrition programmes, the NFNC Act of Parliament No. 41 of 1967 will be reviewed as guided by the National Food and Nutrition Policy on the institutional framework, as well as to address the current emerging developments in nutrition.

Civil society involvement in nutrition has been characterised as donor-driven. Until recently, there have been no alliances, partnerships, or unified efforts to deal with matters of nutrition[41]. Lack of a coordinating structure, an agreed action plan and common monitoring and evaluation system has led to non-regular consultation between CSOs and government. This has resulted in duplication of efforts and conflicts. CSOs working in advocacy have not prioritised nutrition in their efforts due to a lack of resources and insufficient technical capacity for engaging in nutrition issues. The SUN campaign has offered an opportunity for CSOs in Zambia to work with Government on nutrition matters. An alliance of national NGOs and international NGOs working in Zambia was formed in 2011 to lead civil society in the SUN/First 1000 MCDP. The alliance is still in its early stages but plans to support the implementation of the NFNSP 2011-2015 for Zambia and the SUN framework. [42]CSOs are part of the technical working group under the NFNC and there have been a number of consultative meetings to discuss how CSOs generally can collaborate

[41] IDS. Ibid. 2012

[42] More detailed information on CSOs and nutrition in the report Social Protection and Nutrition: Implications and Opportunities. Mwila Mulumbi. 2012

[43] Civil society is defined as: International NGOs, national NGOs, Community Based Organisations (CBOs), Faith-Based Organisations (FBOs), Academia (where non-government), the Media and the Private Sector for profit.

with government partners under the NFNSP[43].

The Human Resource Challenge in Nutrition

Zambia has significant human resource gaps both in terms of numbers and competences in nutrition at the national level, but more so at the district and community levels. There are few qualified personnel to effectively coordinate policy and nutrition programmes. Most government Ministries and Departments, as well as NGOs, do not have adequate capacity to plan, implement and monitor nutrition policy and programmes at national, district and community levels[44]. Capacity building, nutrition education and training will be a pivotal component of the NFNSP and of the First 1000 MCDP. (See Strategic Direction 3 for details)

Monitoring, Evaluation and Research

Monitoring and evaluation needs to be well linked with programme decision making and generating evidence for advocacy. The 2008 NFNC Food and Nutrition Situation report is the latest integrated report on progress of nutrition activities in different sectors. The Health Management Information System (HMIS) tracks some nutrition indicators in the health sector. Despite some progress, monitoring and evaluation of nutrition related programmes need substantial improvement and better linkages with others sectors. While the basic framework for monitoring and evaluation is in place in each of the mainline Ministries working on food and nutrition and in the NFNC, most of these units will need to be linked, strengthened and/or expanded. The programme will also improve monitoring and evaluation coordination across sections of relevant Ministries, NGOs and survey coordinators[45].

The NFNC is mandated to collate, synthesise and disseminate all nutrition-related information for Zambia. While the NFNC has been actively engaged in various national surveys, there is no mechanism for drawing in routine data or research from other sectors or from CSOs. Therefore, under the First 1000 MCDP, the NFNC will need capacity building to coordinate and lead on M&E across sectors by establishing specialist skills, systems and technology to support comprehensive data collection, analysis and dissemination. Information flow from source and feedback will need to be strengthened, and ensure information is used by policy makers, planners and implementers at all levels.

The Nutrition Research Agenda

The nutrition research agenda in Zambia is determined by resource availability. Better allocation of resources, improved coordination, dissemination and technical capacity developed within NFNC, will ensure better prioritization of research studies. The academic institutions will be critical in taking a leadership role in coordinating nutrition research in collaboration with the NFNC, in research capacity building and prioritisation of research projects. The programme will also explore partnerships with research institutions both regionally and internationally. The 1st 1000 MCDP will give emphasis to building capacity in operations research.

[44]GRZ (2009) National Food and Nutrition Policy

[45]GRZ (2012). National Food and Nutrition Strategic Plan. 2011-2015

Rationale and Way Forward For First 1000 Most Critical Days Programme

Rolling out a complex, multi-sectoral response to stunting demands strong and effective governance and leadership for effective planning, coordination, efficient service delivery and monitoring at all levels. The programme will be implemented national-wide with rapid but phased implementation approach.

The time is right to launch the NFNSP 2011-2015 and its First Strategic Direction: the First 1000 Most Critical Days Programme because of:

- Clear and compelling evidence on the magnitude of undernutrition and its consequences well documented.
- Clear and existing evidence concerning cost-effective interventions to prevent undernutrition during the "window of opportunity"– during a woman's pregnancy and before a child reaches the age of 2 years.These effective interventions need to be implemented at scale without delay, through a harmonised multi-sectoral response.
- Government, interest in reforms to address nutrition problems and a strong National Development Plan which recognises the importance of multi-sectoral engagement.
- The potential for success is increased because most of the interventions needed to prevent stunting among children are already being developed and implemented in the country, primarily by the Ministry of Health.
- Strong Provincial, district and community structures in different sectors through which the programme implementing organisations can provide support.
- The NFNC has a large body of qualified and competent professionals responsive to support acceleration of actions.
- Donor commitment (e.g. DFID, UNICEF, WFP, Irish Aid, USAID, European Union and World Bank) to support nutrition Government- led actions.
- Sufficient information on magnitude of the nutrition problem in Zambia from various studies: the ZDHS reports, NFNC and NGO nutrition survey reports.

Key issues to address	What and how
Political commitment and championing of nutrition at all levels	Opportunity with government - review of the nutrition policy - increased resources for nutrition; establishment of a national food and nutrition cabinet committee
Leadership and multi-sectoral coordination by NFNC	Repositioning and re-engineering of NFNC Advocacy with sectors for buy -in; improving horizontal coordination at all levels.
Institutional and Capacity building, training and education (NFNC, Line Ministries, Academia, CSOs)	Setting up of academic courses to generate skilled nutritionists; building technical and managerial skills in all related areas
Monitoring, evaluation and research to keep policy and programmes relevant and effective	NFNC to build a comprehensive M&E system at all levels to generate and disseminate information and prioritising research.

Section 2: Components of the First 1000 Most Critical Days Programme

This section describes the approach and principles, the agreed priority interventions for the three years implementation of the first 1000 MCDP, the communication and advocacy needed for its acceptance, promotion, application and the monitoring, evaluation and research needed to measure progress against the targets.

Approach and Principles

The design of the First 1000 MCDP aims to build on a number of key principles:

1) Consistency with the NFNSP (2011 to 2015) and global evidence.
2) Complementary and added value to existing programmes but also looking for innovative approaches in different sectors that can improve nutrition.
3) Appropriate targeting, taking into account needs, demand and equity.
4) Development through consultative processes and implementation through a sector wide approach.
5) Contribution of, and sensitivity to, local experience and culture.
6) Addressing sustainability – giving priority to local, replicable and affordable solutions.
7) Identifying potential to scale up coverage nationally for maximum impact.

Context matters

The choice and design of interventions and delivery strategies that will be strengthened, scaled up or introduced will draw on lessons learned in Zambia and other countries. However, Zambia is culturally, economically and geographically diverse and there are significant differences between provinces districts, communities and families regarding food production, access and consumption patterns. The programme will aim to improve nutrition to reduce stunting with emphasis on regions where the evidence suggests greatest nutrition challenges. The proposed interventions will take into account the different environments and needs. The role of districts and their communities will be important in helping to shape the programme and decide how it will be delivered and monitored[46].

Partners and participants

The First 1000 MCDP will require strong collaboration among key sectors and other stakeholders at national and the various sub-national levels (see Table 3 below). Districts and communities will be at the "heart" of the Programme. The willingness, readiness and programme ownership by communities will be critical. This will be achieved through strong community and district mobilisation regarding the First 1000 Most Critical Day period.

[46] Bryce, J., et al. (2008). Maternal and Child Undernutrition 4: Maternal and child undernutrition: Effective action at national level. Lancet Series.

Table 3: First 1000 Most Critical Days Programme stakeholders at national and sub-national levels

Level	Partners
National 	Ministry of Community Development Mother and Child Health, Ministry of Health, Ministry of Agriculture and Livestock, Ministry of Education, Science, Vocational Training & Early Education, Ministry of Finance and National Planning, Ministry of Local Government and housing, Ministry of Chiefs and Traditional Affairs, National AIDS Council, International and national NGOs, UN organisations, Donor partners and the private sector
Provincial 	Provincial Administration Office, Provincial Health Office, Provincial Agricultural and Livestock Office, Provincial Community Development and Maternal and Child Health Office, Provincial Education, Science, Vocational Training & Early Education Office, Provincial AIDS Task Forces, , MCTA, Provincial-based CSOs[47]
District 	District Commissioner's office, District Development Coordinating Committees (DDCC), District Health Management Office, District Agricultural Office, District Community Development Mother and Child Health Office, District Education, Science, Vocational Training & Early Education Office, District Planning Office, Hospital Management , District HIV/AIDS Task Forces, local CSOs
Community 	Neighbourhood Health Committees (NHCs), Health Centre Committees (HCCs), Community HIV/AIDS Task Forces, Community Leaders, volunteer nutrition groups, community-based CSOs, Community Health Associations, Community Health Workers, Agriculture Extension workers, Community Development Office, Social Protection Office, Environmental technicians, Parent- Teachers Associations

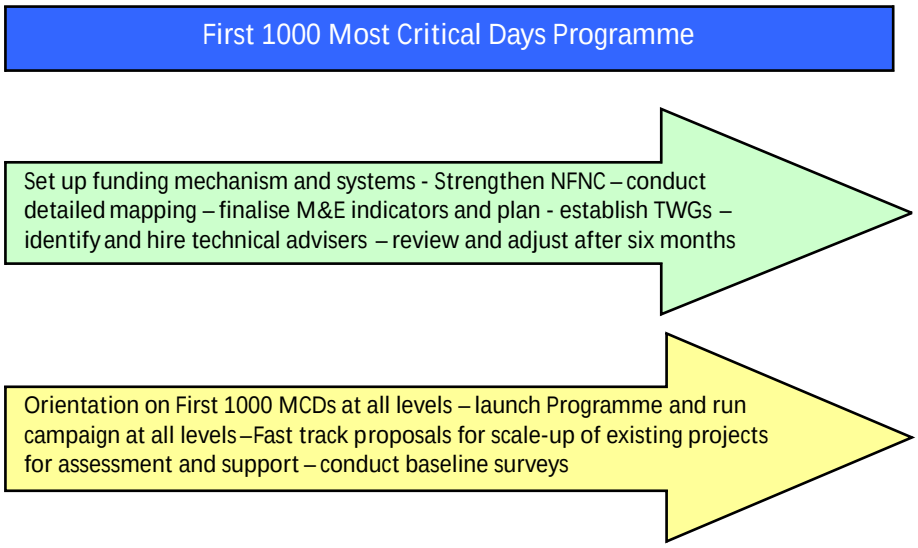
The programme will ensure that existing partnerships maintained and strengthened. New partnerships will be created where they do not yet exist. This could be triggered at national, regional or district levels through multimedia campaigns, SUN launches, and training workshops. There will also be a need for visible involvement of government ministries, Members of Parliament, traditional authorities and village headmen. In addition, the NFNC will need to re-activate the Technical Working Groups to support nutrition initiatives in general, and the roll out of the SUN 1000 Special Days Movement more specifically.

Starting the programme: the Inception Period

The Programme will be launched alongside the NFNSP 2011-2015. It is envisaged that a twin-track approach will be adopted during the first six months "Inception Period". This will involve, firstly, institutional strengthening, capacity building and more detailed mapping and, secondly, scale up of some existing government and CSO interventions (subject to setting-up of appropriate financing mechanisms). The inception period will also allow for some adjustments to be made and focal districts to be agreed based on mapping and consultation.

[47] Civil Society Organisations (CSOs) include all non -state partners: International NGOs, local NGOs, Community Based Organisations, Faith-Based Organisations, academic institutions, the media and the private sector.

Figure8 :Twin-track approach for inception period



Implementation of the Year 1st of the First 1000 Most Critical Days Programme is planned to start in January 2013, to coincide with the NFNSP planning cycle. The three year Programme is, therefore, expected to run through to the end of 2015. Table 4 provides a summary of the proposed First 1000 MCDs three year programme which has 5 strategic areas.

Programme Components

The First 1000 Most Critical Days Programme is set out under the following 5 Strategic Areas:

Strategic Area 1	Policy and coordination for robust stewardship, harmonisation and coordination of the Programme
Strategic Area 2	Priority interventions across sectors to reduce stunting
Strategic Area 3	Institution and capacity building to develop skills and knowledge for Nutrition programming
Strategic Area 4	Communication and advocacy needed for its acceptance, promotion and application
Strategic Area 5	Monitoring, evaluation and research to measure progress against the targets set, assess effectiveness of interventions, document and disseminate lessons learned.

Table 4: First 1000 Most Critical Days Programme Summary: Strategic Areas, Interventions and Objectives

Strategic Area	Interventions and Objectives	
Strategic Area 1:	Policy and coordination for robust stewardship, harmonisation and coordination of the Programme	
Intervention Area	Strengthening nutrition governance and coordination	
	Objective 1.1:	Create strong leadership and effective harmonisat ion and coordination of the 1st 1000 MCDs Programme
	Objective 1.2:	Create multisectoral coordination mechanisms at all levels
Strategic Area 2:	Priority interventions across sectors to reduce stunting	
Intervention Area 1	Development of an integrated Ma ternal, Infant and Young Child Feeding Operational Strategy	
	Objective 2.1:	Alignment of the NFNSP with the revised Infant and Young Child Feeding Operational Strategy, incorporating maternal nutrition
Intervention Area 2:	Improving nutrition during pregnancy	
	Objective 2.2:	Antenatal Guidelines reviewed to strengthen elements related to the First 1000 Most Critical Days
	Objective 2.3:	The 1000 most critical days concept incorporated into nutrition education targeting women of reproductive age
	Objective 2.4:	The 1000 most critical days concept incorporated into disease prevention programmes for mothers, infants and children
Intervention Area 3:	Improving nutrition in infancy 0-6 months	
	Objective 3.1:	Baby Friendly Hospital Initiative revitalised and expanded with links to the community
	Objective 3.2:	Code on the marketing of breast milk substitutes monitored and enforced
	Objective 3.3:	Maternity protection in support of breastfeeding mothers strengthened
Intervention Area 4	Improving nutrition in early childhood 6–24 months	
	Objective 4.1:	Growth monitoring and promotion programme adapted to include mid-upper arm circumference measurements through community agents
	Objective 4.2:	Scaling up the community MIYCF counselling package implemented at facility, community and household levels.
	Objective 4.3:	Vitamin A Supplementation Programme for children 6 -59 months reviewed
	Objective 4.4:	First 1000 MCDs concept incorporated into disease prevention interventions for early childhood

Intervention Area 5:	Supportive strategies	
Intervention Area 5.1	Promotion of food based interventions	
	Objective 5.1:	Re-activation of the National Food Fortification Programme for fortification of staple foods and specialised nutritional products for the 1st 1000 MCD
	Objective 5.2:	Monitoring iodisation of salt at the borders
	Objective 5.3:	Development of Operational Guidelines in Food and Nutrition
	Objective 5.4:	Enhancing diverse food production, accessibility, utilisation and developing technologies for development of specialised nutrition products for specific vulnerable groups, in storage, processing, preparing of food at household level
	Objective 5.5:	Promotion of social protection initiatives for prevention of stunting, treatment of moderate acute malnutrition, and alternative livelihood interventions.
	Objective 5.6:	Operational research and projects on homestead food - based interventions to reduce stunting in children under 2 years.
Intervention Area 5.2	Strengthening Civil Society involvement in prevention of stunting	
	Objective 5.7:	Facilitate Civil Society engagement to enable them contribute to reduction of stunting
Intervention Area 5.3	Early detection and management of acute malnutrition	
	Objective 5.8:	Promote early detection and management of acute malnutrition in communities.
		Management of acute malnutrition in health facilities
Intervention Area 5.4	Improved Logistical management and delivery mechanism for nutrition supplies and commodities	
	Objective 5.9	Expand coverage of nutrition commodities by scale up of Essential medicines logistics improvement programme and other delivery mechanisms.
Intervention Area 5.5	Strengthening the role of education in prevention of stunting	
	Objective 5.10	Enhanced education's food, health and nutrition activities contribution to the reduction of stunting
Intervention Area 5.6	Strengthening linkages with water and sanitation services	
	Objective 5.11	Expanded Community Led access to household water hygiene supply, sanitation and hygiene

Cross Cutting interventions		
Strategic Area 3:	Institution and capacity building to develop skills and knowledge for nutrition programming	
Intervention Area 3.1	Promote Institutional and human capacity development	
	Objective 3.1	To build institutional and human capacity for the effective delivery of nutrition services, including the design, development and implementation of relevant nutrition programmes, projects and interventions targeting relevant service delivery systems.
	Objective 3.2	To increase pre -service and in-service training opportunities for food and nutrition services at National, Provincial, District and Community levels.
Intervention Area 3.2	Infrastructure development for the NFNC	
	Objective 3.3	To develop institutional capacity at NFNC and create conducive working environment that will enhance efficient and effective coordination of the 1st 1000 MCDP.
Strategic Area 4:	Communication and advocacy needed for its acceptance, promotion and application	
	Objective 4.1 :	To increase nationwide knowledge, awareness, ownership, participation and support around the First 1000 1st 1000 MCDs national programme
Strategic Area 5:	M&E and research to measure progress against the targets, assess effectiveness of interventions and document and disseminate lessons learned.	
	Objective 5.1:	To strengthen monitoring and evaluation of the food and nutrition programmes in the First 1000 Critical Days Programme
	Objective 5.2:	To strengthen policy formulation a nd programming using evidence based information from research

Strategic Area 1:

Policy and coordination

Objective 1.1: Leadership, harmonisation and coordination of the Programme

A detailed institutional and governance review of the NFNC was undertaken during the development of this Programme. The programme embraces the findings and recommendations of the National Food and Nutrition Policy and National Development Plans among others. As highlighted in the earlier reviews of the NFNC and the Fifth National Development Plan, there will be a need to recruit adequate human resources with the right skills mix and experience and the repositioning of some of its staff at NFNC. The programme will further seek a complete review of the organisational structure of the commission. A detailed capacity needs assessment was also conducted during the development of this Programme, focusing on the training requirements at the NFNC, the key line Ministries at national, provincial and district levels as well as other implementing stakeholders (discussed under Strategic Area 3).

The Three Ones for the First 1000 Most Critical Days Programme

One coordinating body for the First 1000 Most Critical Days Programme

One Implementation Plan for all stakeholders to follow and

One Monitoring and Evaluation Framework for all stakeholders to use

Strategic Area 1 will therefore address: the institutional, organisational and governance requirements of the NFNC and multi-sector coordination from national to sub-national levels led by the NFNC. The sub-national coordination structures exist but the coordination is weak. In order to minimise duplication of efforts, the 'Three Ones' concept will be adopted to ensure leverage resources and take opportunities for strengthening linkages for evidence-based approaches among sectors. The re-structuring and repositioning of NFNC will be done in the first year of the Programme. This will ensure robust and effective stewardship of the First 1000 MCDP for subsequent years.

Zambia is committed to sector devolution of some key government functions in line with the 2003 decentralisation Policy. The NFNSP has put emphasis on decentralised multi-sector programme development and management, with a focus on community participation. Multi-sector nutrition structures for programme coordination at provincial, district and community levels will be established. The establishment of such structures will be facilitated by the Provincial Administration Offices in collaboration with the NFNC. Activities for the first year implementation plan under Strategic Area 1 are summarised in Table 4 below:

Table 4: Strategic Area 1: Policy and Coordination

Strategic Area 1: Policy and Coordination			
Key activities – national and sub- national levels	Principal implementer	Collaborating implementers	Outputs
Review the NFNC Act No. 41 of 1967 (amended 1975) Cap 308 and recommend changes to be incorporated.	MoH and NFNC	Nutrition Cooperating partners (NCPs)	Institutional re-positioning and legal framework for the NFNC adjusted and conducive for the coordination of the National Food and Nutrition Strategy
Review infrastructural and institutional arrangements and implement necessary changes	NFNC	NCPs, TA	Restructuring of NFNC
Establish First 1000 MCD team Establish all management systems	NFNC	NCPs, TA	NFNC organisational and management systems reviewed, revised and adhered to.
Align or recruit all necessary personnel and TA for First 1000 MCD programme	NFNC	NCPs, TA	NFNC and Programme for First 1000 MCD fully staffed with suitable personnel
Advocacy with government policy makers and parliamentarians to create a high-level commitment.	NFNC	NCPs, Civil Society, Media	Buy-in of policy makers, parliamentarians, and line ministries across sectors
Advocacy and orientation of the media to promote the Programme and raise awareness.	NFNC	NCPs, Civil Society , Media	Well informed media willing to play a key part in promoting the Programme and raising awareness at all levels through different mass media.
Capacity building and advocacy with Line Ministries, in particular MCDMCH to promote cross-sector coordination and planning.	Key line ministries (MoAL, MCDMCH, MLGH, MoE, MoH)	NFNC	Robust stewardship of First 1000 MCDs Programme Enhanced cross-sector coordination and planning
Advocacy with international and national NGOs to encourage harmonisation of their programmes under the national plan.	NFNC	NCPs, Civil Society , Media	Increased international and local NGOs. Buy-in into the 1st 1000 MCDP
Identification of key sources of nutrition related information for M&E and development of mechanisms for coordinated M&E system, programme documentation and dissemination	NFNC, TA		Consensus on key sources of information reached with various partners Collaboration at National level to agree where operations research is needed to inform planning
Map organisations to know who is where and doing what in nutrition, funding gaps, priority districts and identification of existing groups already playing a coordinating role	NFNC,	Key line ministries NCPs, Civil Society	Detailed national mapping of all interventions and resources related to nutrition and undernutrition

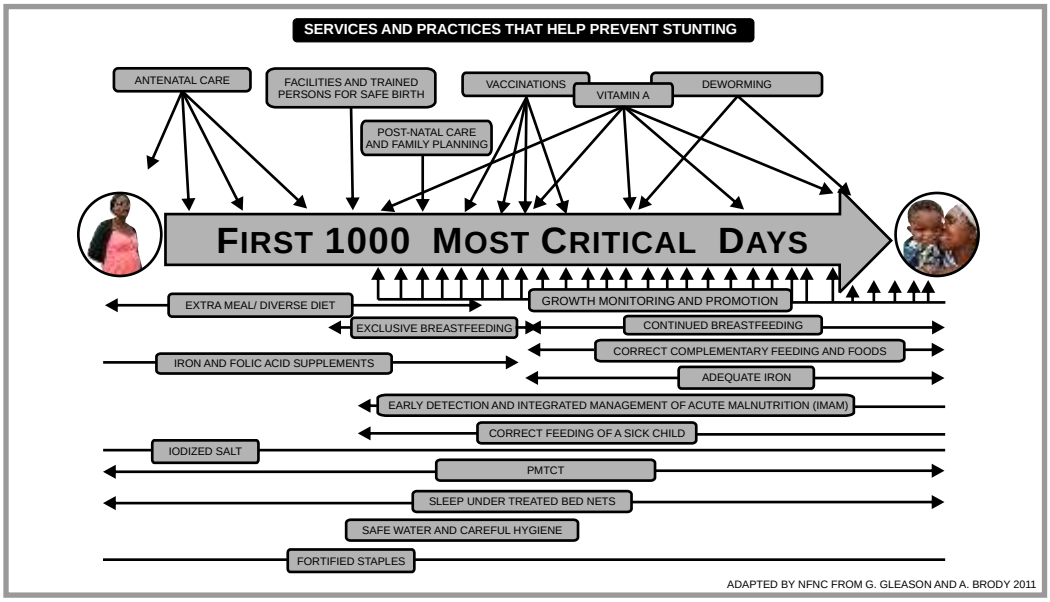
Orientation of Provincial and District officials, local NGOs, FBOs and CBOs on benefits and importance of the First 1000 Most Critical Days Programme and discussion on coordination mechanism	National Provincial and district nutrition multi-sectoral committees	NCPs, Civil Society, and Media	Buy-in to the Programme of Provincial and District officials local NGOs, FBOs and CBOs and agreement on coordination mechanisms for District First 1000 MCDPs to complement other sector
Develop district plans to promote First 1000 MCDP and generate community participation and ownership of the programme	Key line ministries, CSO, NFNC,	NCPs, Civil Society, and Media	Multi-sectoral district community focussed and costed plans developed and implemented.

Strategic Area 2:

Priority interventions

Strategic Area 2. The 2008 Lancet series demonstrate that 13 nutrition interventions have sufficient evidence, if implemented successfully at scale, can reduce stunting by one third. This strategy aims is to scale up the coverage of direct and indirect nutrition priority interventions to deliver value for money. In addition, the Copenhagen consensus ranked 6 nutrition interventions – Vitamin A and zinc supplementation, iron and salt iodisation, bio-fortification, de-worming and community based nutrition programming among the top best development buys. It is estimated that the elimination of iodine deficiency, reduction in stunting by 1% point per year and reduction of maternal anaemia by one third could increase Zambia's productivity by $1.5 billion over the 10 year period (2004 – 2013)[48].

Figure 9 : The First 1000 Most Critical Days concept



Undernutrition rates are highest in the northern part of Zambia, while around 5% of children suffer from wasting nationwide, with pockets of high wasting rates in Western Province. The Southern part of Zambia is more vulnerable to shocks which trigger acute food insecurity. Chronic

[48]NFNC 2011 Zambian Nutrition Profiles 2004-2013

food insecurity persists among small scale farmers and the urban poor.This programme will focus on reducing stunting through a multi-sector approach. Some support will be provided to management of acute malnutrition or wasting, given the scale of the problem. Geographic specific approaches will be based on assessment to target the worst affected health, food and nutrition insecurity areas. Figure 10 below, shows the interventions needed during the First 1000 Most Critical Days period and b) the ones selected as priority interventions for the First 1000 MDCP and c) other sector additional interventions essential for attainment of optimal nutrition status during the First 1000 MCDP, and d) are cross-cutting interventions throughout the First 1000 MCDP.

Figure 10: All interventions and priority interventions selected for the First 1000 Most Critical Days programme

Reduction in stunting from 45% to 30% nationally by 2015 in line with the SNDP

1000 days	a) Global Recommended Interventions for the 1000 Most Critical Days Period	b) Selected interventions for First 1000 MCD Programme in Zambia	c) Complementary interventions to the First 1000 MCD Programme in Zambia	Cross Cutting Interventions	
Pregnancy	• 2 Tetanus toxoid immunisations • Maternal nutrition: extra meals, diverse diet • Iron and folic acid supplements, iodised salt, multiple micronutrients, calcium • Fortified staples • FP and breastfeeding counselling • Insecticide treated bednet promotion and use • Intermittent preventive treatment malaria • De-worming • PMTCT for HIV+ women • Mother/Baby Friendly Hospital Initiative • Safe delivery by trained personnel	• Maternal and adolescent nutrition: extra meals; diverse diet • Iron and folic acid supplements, iodised salt, multiple micronutrients, Breastfeeding counselling • Mother and Baby Friendly Hospital Initiative • Fortified staples and specialised nutritional products • Family planning	• Social protection programmes: ➢ Alternative livelihood support at community & households aimed at improving food and nutrition security of vulnerable households ➢ Food safety nets such as cash & voucher transfers ➢ Promote homestead gardening • Community supportive/nutrition groups/ Mothers' groups • Household food security ➢ Promote Production , accessibility and utilization of diverse foods (crops and livestock) ➢ Promote food processing, preservation and storage • Provision of Safe water, hygiene and sanitation • Maternal and adolescent education and male involvement • School Health and Nutrition/Home grown school feeding • Strategies/legislation/policies for bio-fortification	Communications and Advocacy	Policy and Coordination, Monitoring, Evaluation and Research, capacity building, training
0-6 months	• Immediate initiation of exclusive breastfeeding • Maternal and adolescent nutrition, Postnatal care: postpartum check and FP • Growth monitoring & Promotion • Bednet promotion and use • Immunisation for baby	• Immediate initiation of exclusive breastfeeding • Maternal and adolescent nutrition • Exclusive breastfeeding • Growth monitoring & Promotion			
Early childhood - 7-24 months	• Maternal nutrition • Appropriate complementary foods for baby, locally produced when possible • Continued breastfeeding • Community growth monitoring and promotion Clinic-based GM and promotion • Family planning • Bednet promotion and use • Provision of additional iron through MNP • PMTCT+ for HIV+ women • De-worming and Vitamin A supplementation • Appropriate and timely management of Severely and Moderately Malnourished children • Correct feeding of sick child	• Maternal and adolescent nutrition • Appropriate complementary local foods for baby • Continued breastfeeding • Community growth monitoring and promotion • Clinic-based GM and promotion • 6 monthly de-worming and Vitamin A supplementation for baby • Appropriate and timely management of severely and moderately malnourished children • Correct feeding of sick child • Fortified staples and specialised nutritional products • Provision of additional iron through Micronutrient Powders (MNP)			

The First 1000 MCDP has been clustered into five intervention Areas, which will be implemented through a series of strategies as described below.

Intervention Area 1: Development of an integrated Maternal, Infant and Young Child Feeding Operational Strategy

Objective 2.1: National IYCF Strategy transformed into Maternal and Infant and Young Child Nutrition Operational Strategy

Zambia developed the Infant and Young Child Feeding Operational Strategy (2006 - 2010) drawing from the Global IYCF Strategy. The strategy was intended to provide guidance to government and other stakeholders on key areas for improving the nutrition status of infants and young children in communities and families and for action, based on accumulated evidence of the significance for adequate Infant and Young Child Feeding (IYCF), in the early months of life for optimal child growth and development.

Some gaps or challenges encountered in the 2006 – 2010 IYCF Operational Strategy were due to most of the activities being biased towards the Health sector. This compromised the principle of multi-sector approach hence other line ministries could not find workable strategic areas in relation to IYCF activities. The IYCF Operational Strategy will be reviewed in 2013 to make it more relevant to other line ministries and aligned to the NFNSP strategic Direction 1 on reduction of stunting in children less than two years of age.

Focusing on the First 1000 Most Critical Days provides an opportunity to broaden the IYCF Operational Guidelines for 2012-2016 to include maternal nutrition and to focus on both the mother and child in the continuum of care. As such the strategy will become a Maternal and Infant and Young Child Nutrition (MIYCN) Operational Strategy. It is hoped that MIYCN Operational Strategy will be finalised by the end of Year 1 implementation of the First 1000 MCDP.

The MIYCN Operational Strategy has the potential to make a strong impact on reducing stunting in Zambia if applied in a coordinated and collaborative manner and supported by a robust integrated monitoring and evaluation system and communication activities.

Table 5: Development of integrated MIYCN Operational Strategy

Intervention Area 1			
Key activities	Principal implementer	Collaborating implementers	Output
Review and revise National Maternal and Infant and Young Child Operational Strategy and Action Plan	NFNC	MCDMCH, MOH, MOAL, IBFAN, BAZ	National Maternal, Infant and Young Child Nutrition operational strategy and action plan revised

Intervention Area 2: Improved Nutrition during Pregnancy

Pregnancy makes enormous physical demands on a woman. Good nutrition during pregnancy is essential to avoid nutritional depletion, ensuring the baby will be born healthy and can be successfully breastfed. Preventing malaria, helminths, iron, folate and iodine deficiencies during pregnancy reduces the risk of neurological problems for the baby, abortion, stillbirths, neonatal deaths and low birth weight babies.

The 2007 ZDHS shows that out of 60% of women who had four or more antenatal visits during pregnancy, over 90% took iron and folate oral supplements. However, 56% did not take the required amounts of iron and folate supplementation. Only 30% had two tetanus toxoid injections and 52% delivered at home – 47% of these by a skilled provider. About eight in ten births to urban women are attended by a skilled provider, compared to three in ten births among the rural women. Many women (51%) do not receive postnatal care (6 days after delivery). With high fertility rates (mean of 6.2 births per woman), the prospect of maternal nutritional depletion is significant.

This intervention will address nutritional needs during pregnancy by focusing on improving the quality of information women receive on nutrition before, during and after pregnancy, preparation for breastfeeding and the importance of use of a treated bed-net and appropriate hygiene practices. The roles of health centre staff, community health workers and family members are all vitally important and will be engaged in the programme. Equally important is ensuring men and other household members support the women during this period. The programme will also promote nutrition assessment, counselling and support as well as targeted food and nutrition support to malnourished pregnant/lactating women and adolescent girls.

Objective 2.2: Antenatal Guidelines reviewed to strengthen elements related to the First 1000 Most Critical Days

Historically most of the funding for nutrition intervention in Zambia comes through the child health budgets. To reduce stunting it is vital to address this in-balance and strengthen maternal nutrition interventions through the First 1000 MCDP. Strengthening the nutrition components in antenatal guidelines is an obvious way of achieving this and also provides an opportunity to strengthen collaboration between reproductive health and nutrition.

The key nutrition components in antenatal care are: iron/folate supplementation; monitoring weight gain in pregnancy; and nutrition education for pregnancy, lactation and complementary feeding. Although most women take iron supplements during pregnancy, compliance is low. Supply of nutrition supplements and stock-outs are not uncommon. Community distribution of iron and folate supplements may be one option for increasing coverage and compliance.

Monitoring of weight gain during pregnancy is irregular in Zambia and many mothers may not be aware of their optimal weight gain during pregnancy. Nutrition is one of many health topics discussed during group education sessions conducted by community workers. This is one of the areas that is currently being strengthened in the training of Community Health Workers (short training) and Community Health Assistants (long-term training). It is foreseen that tailor made

trainings on the First 1000 Most Critical Days will be provided during the programme. In addition, health workers will be equipped with skills to enable them conduct effective nutrition education and family planning counselling sessions, during pregnancy.

It is hoped that the MoH will conduct a Knowledge, Attitudes and Practices (KAP) study on Maternal and Adolescent Nutrition. The findings from this study will help in the review of the Antenatal Guidelines planned for Year 1 implementation plan. These revised Guidelines will be rolled out in Year 2 and Year 3 of the programme.

The Essential Medicines Logistics Improvement Programme (EMLIP) supported by DFID and other cooperating partners has been successfully piloted and is expected to be scaled up nationwide to strengthen the supply chain for timely and effective delivery of health commodities. EMLIP already includes a number of nutrition commodities such as iron, folic acid, Oral Rehydration Solution (ORS) and mebendazole (for de-worming). It is recommended that this initiative will need to be complemented by improved monitoring of the coverage of nutrition commodities, and increasing demand at the health centre level.

Objective 2.3: The First 1000 Most Critical Days incorporated into nutrition education targeting women of reproductive age

Behaviour change materials and activities will be targeted to women in reproductive age group directly through interpersonal channels involving frontline field workers for different ministries and NGOs and mass media. They will also be reached indirectly though channels that reach into and involve the community, family members and friends. These channels will provide mutually reinforcing integrated messaging in appropriate language and form on the importance of the First 1000 Most Critical Days and the main interventions, services and practices needed to protect the mother and child from the consequences of poor nutrition and infection.

Objective 2.4: The First 1000 Most Critical Days incorporated into disease prevention programmes for mothers (and their children)

Child malnutrition is a major child morbidity and mortality underling factor. Behaviour change materials for mothers will provide integrated messages that will be delivered in appropriate language on the importance of disease prevention, both for mother and for the child. The messages will include PMTCT, appropriate infant and child feeding in the context of HIV, use of insecticide treated mosquito nets (ITNs) for malaria prevention, promotion of good hygiene practices and use of oral rehydration solution for treatment of diarrhoea as well as the importance of immunisation against preventable diseases.

Table 6: Pregnancy - Roll out of initiatives for improved maternal nutrition rolled out

Intervention Area 2				
SO	Key activities	Principal implementer	Collaborating implementers	Outputs
2.1	Review antenatal guidelines to strengthen nutrition components including iron/folate supplementation, weight monitoring during pregnancy and nutrition education	MCDMCH,	MoH, NFNC	*Antenatal Guidelines reviewed to strengthen elements related to First 1000 MCD*
2.2	KAP study on Maternal and Adolescent Nutrition to include compliance with iron/folate supplementation and anti-helminths during pregnancy	MCDMCH,	MoH, NFNC,	*The 1000 most critical days concept incorporated into nutrition education targeting women of reproductive age*
2.3	Conduct feasibility assessment on iron/folate supplementation and anti-helminths during pregnancy to consider distribution through community agents	MCDMCH,	MoH, NFNC,	
2.4	Develop IEC package to promote compliance to iron and folic acid supplements by pregnant women as a means of better assuring good foetal development for a healthy birth and early child development and health.	MCDMCH,	MoH, NFNC, NCPs	
2.5	Promote nutritionally adequate meals for pregnant women as well as supplements of iron and folic acid.	MoH, MCDMCH, MoAL, CSOs	NFNC, CSOs, MoE	
2.6	Incorporate first 1000 MCD concept into sectoral programmes targeting women (RH, malaria prevention, hygiene promotion)	MOH,MCDMCH,LOCAL GOVERNMENT MoE	CSOs	The 1000 MCD concept incorporated into disease prevention & nutrition programmes for mother s, infants and children
2.7	Provide nutrition assessment, counselling and targeted support to malnourished pregnant/lactating women and adolescent.	MCDMCH	MOH, MoE, CSOs,	Improved care for malnourished pregnant/lactating women and adolescents.

Intervention Area 3: Improving nutrition during the first 6 months of infancy

Early initiation of exclusive breastfeeding is vital for the health of the baby

In Zambia, exclusive breastfeeding rates have increased significantly from 40% in 2002 to 61% in 2007[49]. But this is still not enough. Without adequate vitamin A stores in the body, infants are at greater risk of developing vitamin A deficiency and dying during their first few years of life.

Under this Intervention Area, the focus will be on encouraging early initiation and exclusive breastfeeding up to six months and continued breastfeeding up to 24months. Healthy eating will be essential for the mother to keep her healthy and strong. Both community health workers and health centre staff should be encouraged to promote these practices. Reviving the Baby Friendly Hospital Initiative (BFHI) will help ensuring that all babies are fully breastfed from birth and establish closer links with communities. HIV positive mothers will need special support.

Objective 3.1: Maternal and Baby Friendly Facility Hospital Initiative revitalised and expanded with links to the community

The BFHI was developed jointly by the World Health Organisation and UNICEF in 1991, to provide standards that health facilities must meet to ensure they are providing best-practice care and maintaining a breastfeeding-supportive environment. The 10 Steps to Successful Breastfeeding are the criteria against which facilities are assessed and accredited as Baby Friendly, 46 health facilities were declared Baby Friendly in Zambia in the 1990s, but since then the initiative has been in decline and no further declarations have been made.

In the late 2000s, the BFHI was reactivated in Zambia through training of 15 assessors on the revised BFHI materials and carrying out assessments. In 2010, BFHI assessments where undertaken in 23 health facilities. Initial indications are that all 23 facilities have not met all the criteria required to be declared Baby Friendly especially in relation to 'Step 10'. Step 10 is on fostering the establishment of breastfeeding support and on follow up of mothers discharged from the facility.

The Global Strategy for IYCF indicates that revitalization of BFHI is necessary to contribute to an increase in exclusive breastfeeding. Scaling up BFHI is also implicit in the National IYCF Operational Strategy 2006-2010. Yet the capacity to scale up BFHI in Zambia is complicated by the large number of health facilities that provide delivery services. Both hospitals and clinics provide delivery services, which would mean that up to 2000 health facilities require assessments. Private sector facilities must also be considered. In addition, the number of health workers trained as BFHI assessors is inadequate to facilitate quick expansion of BFHI.

HIV positive mothers need special support. Not only do they need to be provided with antiretroviral prophilaxis just before birth (Prevention of mother to child transmission – PMTCT)

[49] CSO (2009), MOH, TDRC, UNZA and Macro Inc; Zambia Demographic and Health Survey (ZDHS)-2007, Calverton, Maryland, USA

but they need clear and accurate information about infant feeding. HIV positive mothers are advised to breastfeed exclusively for six months and then to provide the baby with complementary foods and continue breastfeeding up to at least 12 months and when the mother is able to provide nutritionally adequate and safe complementary foods.The child should also be on ART prophylaxis for the period it is on breastfeeding.

The first year implementation plan will focus on reviewing the BFHI programme based on the Zambian context, lessons learnt from recent experiences and with a focus on Step 10. A costed and realistic plan for scale-up will be developed taking into account the target expansion into 30 districts in 3 years with 80% coverage. The review will require technical assistance for 3 months in Year 1, as well as an additional staff member in the MOH for the final 2 years to co-ordinate the scale up.

Objective 3.2: Code on the marketing of breast milk substitutes monitored and enforced

The aim of the 'International Code of Marketing of Breast Milk Substitutes' is to protect and promote breastfeeding, and ensuring the proper marketing of breast milk substitutes, when necessary. On the basis of adequate information and through appropriate marketing and distribution, Zambia has had legislation that regulates the marketing of Breast Milk Substitutes since 2006, however, monitoring and enforcement activities have been inadequate.

In 2011 a Manual for Environmental Health Officers on Monitoring Compliance and Enforcement of Breast Milk Substitutes Regulations' was developed. A total of 600 Officers were trained who subsequently carried out monitoring activities during which a large number of violations were found, and in some circumstances breastmilk substitutes were pulled off shelves.

Technical Assistance will be required for 2 months in Year 1 of the First 1000 Most Critical Days Programme to facilitate a review of the code of marketing of breast milk substitutes regulations, and to develop a monitoring framework for identifying legal issues around violations.

Some mechanisms under the District Councils or Local Authorities – Department of Public Health, are already in place to facilitate the expansion of Monitoring and Enforcement of Breast Milk Substitute Regulations. Support for this expansion will, therefore, be included in Year 1 of the First 1000 MCD Programme as an intervention to promote exclusive breastfeeding.

Objective 3.3: Maternity protection in support of breastfeeding mothers

Zambia has not ratified the International Labour Organization (ILO) Maternity Protection Convention183 which calls for provision of legislation to protect the breastfeeding rights of working women in both formal and informal sectors. On a positive note, there is provision for maternity protection of vulnerable women. In the formal sector, paid maternity leave is 90 days, whereas there is provision for 120 days paid maternity for vulnerable women who have no collective agreement or are not unionized.

Advocacy is required and is ongoing to ratify the ILO convention on maternity protection. There is

a provision made for revision of domestic legislation in Year 1 of the First 1000 MCD Programme, as well as raising awareness of both employers and employees on the provisions in the legislation.

Table 7: Improving nutrition in infancy 0-6 months

Intervention Area 3				
SO	Key activities	Principal implementer	Collaborating implementers	Outputs
3.1	Scale up Baby Friendly Hospital/ health facility Initiatives	MOH,	UNICEF, WHO, UNFPA	Baby Friendly Hospital Initiatives scaled up.
3.2	Monitoring training and development of a monitoring framework for the Code on the Zambia Breast Milk Substitute Regulations	MoH,	ILO, IBFAN, BAZ	Code on the Zambia Breast Milk Substitute Regulations monitored and enforced
3.3	Ratify the International Labour Organisation (ILO) Maternity Protection Convention 183	Min. Labour	ILO, MOH, NFNC	Maternity Protection in support of breastfeeding mothers aligned to ILO Convention
	Raise awareness of both employers and employees of provisions in the legislation.		ILO, MOH, IBFAN, BAZ, NFNC	
	Review the Food and Drugs regulations on Code of Marketing of Breast milk substitutes	MOH	WHO, UNICEF, IBFAN, BAZ, NFNC	Code regulations reviewed

Intervention Area 4: Nutrition in early childhood 6–24 months

Appropriate IYCF practices include timely initiation of feeding solid/semi-solid foods from age 6 months, while maintaining breastfeeding. Children need adequate iron and Vitamin A for normal growth. According to the 2007 ZDHS results, only 37% of young children aged 6-23 months living with their mother are fed in accordance with IYCF practices. Infection with helminths or intestinal worms is associated with high levels of iron deficiency anaemia and other nutritional deficiencies. Regular treatment with de-worming medicines every six months from the age of 6 months, with Vitamin A supplementation is a, cost-effective measure to address problems resulting from deficiencies.

Intervention Area 4 focuses on the critical period 6-24 months, when a child relies increasingly on adequate and nutritious food, and yet at this stage, the child is also very vulnerable to malaria, helminths and many other life-threatening diseases, such as diarrhoea and pneumonia. Children who are HIV positive are even more vulnerable and need special attention and treatment. Growth monitoring both in the community and in the health centre is one way to detect growth faltering. It is this strategy which will be promoted under the First 1000 MCDP.

Objective 4.1: Growth monitoring and promotion programme adapted to include mid-upper arm circumference measurements through community agents

Clinic-based Growth Monitoring and Promotion (GMP) is included in routine child health services in Zambia. Growth monitoring alone is not sufficient to support child growth unless there is also adequate nutrition counselling and appropriate action. Clinic-based GMP is limited by staff shortages, while in most cases the few trained staff that are available are often too busy with other medical care activities during clinic times or due to high attendance by caregivers.This leaves staff with insufficient time to carry out nutrition counselling component of GMP.

To address these constraints, a community-based GMP programme was developed that uses community workers to increase access to GMP and strengthen the promotion components of the initiative. An implementation guide, training materials and counselling cards are available. The trainings have commenced and continue to be rolled out to the districts. However, expansion has been slow due to lack of equipment and funding.

The First 1000 Most Critical Days programme provides an opportunity to revisit the guidelines for community-based GMP and to explore ways to ensure uptake by the community without placing excessive burden on community workers during the Year 1 of the Programme. It also provides an opportunity to explore how best to make stunting visible at community level and to focus on height measurement in addition to weight.

Simplified community-based GMP guidelines will be used to facilitate the expansion of the initiative across line ministries to 20 districts in Year 2 and another 20 districts in Year 3 through the existing community structures as indicated under Strategic Direction 1 in the NFNSP[50]. NFNSP targets coverage of 50% of health facilities for CBGMP. This target will be reviewed with the increased use of community workers.

In Year 1 of the First 1000 MCD Programme, the emphasis would be on revising and simplifying the community-based GMP Guidelines and creating the linkages to community IYCF Counselling. Year2 and Year 3 would focus on expansion of the initiative into 20 districts (Year 2) and an additional 20 districts (Year 3), making a total of 40 districts as indicated under Strategic Direction 1 in the NFNSP.

[50] The GMP and IYCF counselling are different but linked activities. GMP needs more development and IYCF counselling is ready to roll out hence the different targets. Targets are based on NFNSP

Objective 4.2: Scaling up the community IYCF counselling package implemented at facility, community and household levels

Community support is vital for caregivers to succeed in providing optimal nutrition to children in their households. With this in mind, in 2010 a standardised Community IYCF Counselling Package (in the context of HIV and AIDS) was developed. The package has been tested over the past 18 months and includes training materials, counselling cards and IEC materials for community workers.

The intention of Community IYCF Counseling is to empower mothers and care givers with knowledge and skills to improve feeding practices for the infants and young children in order to reduce morbidity and mortality associated with common nutrition problems. The standardized Community IYCF package can be used by community workers working in various sectors. Integrated community support groups and outreach services will improve coverage and help to ensure women have access to adequate, supportive and appropriate information and counseling. The Community IYCF package has been finalized and is ready to be rolled out.

The First 1000 MCDP will support the rolling out of IYCF activities in 10 phase 1 districts selected, based on the agreed criteria, during the inception phase. In Year 2, 15 more districts will be added and 20 in Year 3, making a total of 45 districts over 3 years.

Objective 4.3: Vitamin A Supplementation Programme for children 6-59 months reviewed

Bi-annual Child Health Weeks (CHWks) were introduced in Zambia in 1999 to provide a package of health interventions including immunisation, 'Vitamin A Supplementation' (VAS) for children 6-59months and provision of anti-helminths. The aim is to supplement routine service efforts to increase coverage. Through CHWks, Zambia has been able to sustain high national coverage of VAS above 70% for two rounds a year since 1999. CHWks are now becoming institutionalised and have been included in district plans and budgets.

Objective 4.4: First 1000 Most Critical Days concept incorporated into disease prevention interventions for early childhood

This is part of the communication component of the First 1000 MCD programme that disseminates information to inform and educate families about the range of relevant services and interventions that support health and nutrition during pregnancy and the first two years of life in order to prevent stunting. For children age 6-24 months, this involves providing messages relating to the links between sleeping under a mosquito net and other malaria prevention methods, as well as prevention of anaemia. A similar approach will be used for the optimal hygiene practices to prevent diarrhoea.

Operational Research will focus on improving the nutritional content of complementary food for young children. The programme will explore and promote research on utilization of locally produced foods for complementary feeding for children 6 – 24 months. This will be spearheaded by MoAL and other research institutions. UNICEF will be supporting a pilot study in 2 districts in

Northern Province on the use of Multiple Micronutrient Powders (MNPs) for home fortification of complementary food for children aged 6-24 months.The pilot will have two arms, one with and the other without cash transfers. Conducted over 2 years, findings from this research will be used to inform scale up of the use of MMPs in Year 3 of the First 1000 MCD Programme.

Considering the variable evidence on the benefits for child growth, complementary food supplements will be piloted in combination with IYCF in some districts that have high stunting levels. Under this pilot phase, promotion of complementary feeding practices in children 6-24 months will be combined with the distribution of age adequate complementary food supplements to identified children 6-24 months old and pregnant and lactating women. In other provinces only nutritional education will be given. Nutritional status in the group receiving food supplements with nutrition education will be compared with the group only receiving nutrition education.This pilot will be supported by the World Food Programme. [52]Possible areas for Operational Research will include:

- The most effective delivery channels for use of complementary food supplements (such as Lipid-based Nutrient Supplement) for the prevention of stunting in children 6-24 months and
- Feasibility study on the integration of Rapid SMS with a mobile delivery and tracking system for programmes to address undernutrition (either prevention of stunting or treatment of acute malnutrition).
- Use of locally manufactured nutritional products for the treatment of acute and moderate malnutrition for children discharged from therapeutic feeding using e-vouchers is being developed by the World Food Programme in collaboration with the Ministry of Health.

Table 8: Improved nutrition in early childhood – 6-24 months

Intervention Area 4				
SO	Key activities	Principal implementer	Collaborating implementers	Outputs
4.1	Services related to growth monitoring and promotion activities until the child reaches at least 24 months of age strengthened and expanded.	MCDMCH, NFNC,	MoH, UNICEF,	Growth Monitoring and Promotion Programme adapted to include MUAC through community agents and expanded to 40 districts over 3 years
4.2	Promote optimal feeding practices for children 6-24 months according to specific age nutrient requirement.	NFNC,	MoH, MCDMCH, WHO, UNICEF	Community MIYCF counselling package implemented at facility, community and household level in 45 districts over 3 years
4.3	Review mechanisms for Vitamin A Supplementation Programme for Children 6-59 months	MoH, NFNC,	UNICEF, WHO, MCDMCH	Support and expand 6 monthly Child Health Weeks Reviewed Vitamin A Supplementation Programme for Children 6-59 months
	On-going support for VAS in poor performing districts where coverage low	NFNC,	UNICEF, other Nutrition CPs	

4.4	Create messaging around links between sleeping under bed net and malaria prevention. Similar approach needed for hygiene practices to prevent diarrhoea.	MLGH	MoH, NFNC, UNICEF	First 1000 MCD incorporated into disease prevention interventions
	Operational Research focused on improving nutritional content of complementary food by home fortification with micronutrients.	MoH, NFNC,	UNICEF, WFP MVDMCH	Operational research conducted and used to inform programme development related to First 1000 MCDs
	Operational research on utilization of locally produced foods for complementary feeding for children 6 – 24 months	MoAL	NFNC, WFP	Operational research on utilization of locally produced foods for complementary feeding for children 6 – 24 months conducted

Intervention Area 5: Additional strategies

These strategies are not included in the NFNSP SD1 to reduce stunting in children under 2 years of age but they are included in the First 1000 MCD programme for Zambia as they have broader benefits for maternal and child nutrition and support the direct interventions included in Strategic Direction 1. They are also included in the 13 evidence-based cost-efficient interventions in the 2008 Lancet series.

Intervention Area 5 will focus on promoting food based fortification; alternative livelihood support to enhance food security and nutrition at household level and the management of acute malnutrition. These strategies will complement the health interventions to ensure sustainable change. The First 1000 MCDP will aim to reactivate and strengthen the systems required for these strategies to operate efficiently. Various international and national NGOs have initiated some projects to address food and nutrition insecurity through integrated approaches that address food production, accessibility and utilisation in a sustainable manner. These approaches help to address the challenge of sustaining change and encourage self-reliance.

It is anticipated that these additional strategies will contribute to reducing stunting. Innovative proposals especially from community based and civil society organisations will be encouraged. With food availability and affordability being key to improving dietary diversity, examples of projects might include home gardens and promoting demonstration gardens in the health facilities and schools located in the communities using local women's groups and schools children. Although the first 1000 Most Critical Day period does not include pre-pregnancy nutrition, it is most important that adolescent girls (both in and out of school) are taught about healthy eating habits and how to grow the right foods.

Objective 5.1: Re-activation of the National Food Fortification Programme for fortification of commercial maize flour, wheat flour and cooking oil

Fortification of staple foods with micronutrient mix has been attempted in the last 4 years and discussion centred on resolving some issues regarding monitoring, compliance and safety issues of fortified staples such as maize meal. Considering that fortified foods are one of the key interventions for the 1st 1000 MCD, efforts will placed to accelerate consensus on these issues through the National Fortification Alliance.

Under the 1st 1000 MCDP food fortification will be promoted to include other staple food vehicles such as maize meal, wheat flour, cooking oil, and cassava in addition to maize meal, sugar and salt. This will require mobilising more food processing companies from the private sector to venture into these fortification initiatives.

Objective 5.2: Monitoring iodisation of salt at the borders

Food fortification in Zambia stated in the 1970s with the fortification of salt with iodine. In 1994, the mandatory salt iodisation programme was strengthened through the revision of regulations. In the early 2000s, the salt iodisation programme fell into disarray with very little monitoring of the levels of iodine in salt. A survey in 2011 found significant variations in the levels of iodine in salt from well above to well below acceptable levels iodisation.

There is a need to strengthen monitoring to ensure all salt in Zambia has acceptable levels of iodisation. All salt in Zambia is imported either from Botswana or Namibia. The most efficient way to monitor is at the production and boarder points before the salt enters Zambia. The First 1000 MCDP will support the establishment of a monitoring system of iodated salt being imported into Zambia.

Objective 5.3: Development of Operational Guidelines in Food and Nutrition in the Ministry of Agriculture and Livestock

The Food and Nutrition Unit within the MoAL attracts minimal government funding. Nutrition is regarded as a stand-alone programme that is not fully integrated within the ministry. Yet, The agricultural extension system across Zambia provides potential for nutrition interventions to reach the community.

Guidelines for mainstreaming food and nutrition are currently being developed by the Food and Nutrition Unit within the MoAL. Once developed, these guidelines will be integrated into programmes within the ministry. The First 1000 Most Critical Days concept will be incorporated into these guidelines with an emphasis on maternal nutrition and age appropriate complementary feeding and promotion of production and utilisation of diverse nutrient dense food. By highlighting the First 1000 most critical days, the profile of nutrition will be raised within the ministry, and

nutrition will potentially attract additional funding. Year 1 of the First 1000 MDCP will focus on finalising and disseminating the guidelines, while in Year 2 and Year 3 emphasis will be placed on using the guidelines within existing programmes. Another opportunity to undertake a similar exercise is within MCDMCH to ensure that food and nutrition are high on the agenda. This will be considered in Year 2 of the First 1000 MCDP.

Objective 5.4: Developing technologies in food processing preservation, storage, and preparation of food at household level

There is minimal emphasis on household food processing, preservation and storage in Zambia. Food produced in small-scale farms or household gardens is typically sold or consumed fresh and in small amounts at the time of harvest, while at times the harvest goes to waste. With minimal food storage facilities, households are vulnerable to nutrition and food insecurity during the period when food is scarce. Off-season processing, preservation and storage of food crops have the potential to bridge the hunger gap particularly in rural areas. Simple and inexpensive technologies are now available and can be utilised at the household and community level. Agro processing reduces waste, enhances food security, improves livelihoods for low-income groups, empowers women and creates employment.

A concept note has been developed by the Food and Nutrition Unit in the MoAL to establish Food Processing and Nutrition Demonstration Centres within District Farmer Training Centres Stocked with affordable and appropriate equipment. These centres will train farmers and extension staff in nutrition and appropriate agro-processing technologies. Keembe Farm Institute in Chibombo District, Central Province has been identified as the first institute where an agro-processing and nutrition centre will be established.

Incorporating First 1000 most critical days concept into the agro-processing programme will bring a focus on nutrition education for mothers and children. This will be accompanied by technologies to develop age-appropriate complementary food for children 6-24 months that can be processed locally. Year 1 of the First 1000 MCDP will focus on the further developing of the model, including ways in which these technologies will be introduced and used in communities. Year 2 and Year 3 will focus on introduction of technologies and expansion of this initiative.

In supporting the agro-processing initiative, the First 1000 MCDP will also support the adaptation of the 'Fruit and Vegetable Processing and preservation Handbook, currently under development by the MoAL. The handbook will be a resource material to be used at the Food Processing and Nutrition Demonstration within District Farmer Training Centres. The revised edition of the 'Recipe Book on Zambian Traditional Foods' will include messages related to the first 1000 most critical days and recommendations on age appropriate complementary foods.

Objective 5.5: Social protection initiatives for prevention of stunting and treatment of moderate acute malnutrition

Women and children's health are at the centre of the First 1000 MCDP. It is intended that work to improve nutrition awareness and demand at community and household levels will strengthen women's decision-making powers regarding children's health and nutrition.

As in most developing countries, undernutrition disproportionally affects the poorest and most vulnerable. What is more, Zambia's severe HIV epidemic significantly overlaps with populations already experiencing low diet quality and quantity, leading to worsened undernutrition for HIV positive men, women and children.

Support to direct and indirect nutrition interventions will focus on the poorest areas and those with the highest rates of under-nutrition. The findings from the Food Consumption and Micronutrient Survey and the mapping exercise, will help to inform where to geographically target interventions so that they are focused on the most vulnerable. The First 1000 MCDP will also support data disaggregation by age and gender, socio-economic and HIV status (wherever possible) as part of the planned support to strengthen nutrition surveillance, and thus generate the necessary information to promote greater prioritisation of women and adolescent girls.

Social protection interventions such as cash and food voucher transfers, alternative livelihood support activities and income generating activities will aim at building resilience to food and nutrition insecurity, targeting women, children and adolescent girls from nutritionally vulnerable households.

Objective 5.6: Operational research and projects on homestead food-based interventions to reduce stunting in children under 2 years.

The Concern Worldwide Realigning Agriculture to Improve Nutrition (RAIN) Project is a research project that 'integrates agriculture and nutrition/health interventions at all project levels to improve nutritional status within the critical 1000 days.. It aims to develop a sustainable and replicable model that can be scaled-up, and is supported by a strong and comprehensive monitoring and evaluation component.' Conducted over 4 years in Mumbwa District, it is expected that findings will inform Zambia's efforts to reduce stunting in the future. The RAIN Project's coordination component is scheduled to be complete by the end of Year 1 of the First 1000 MCD Programme.The findings and lessons learned will be used to improve district level co-ordination of First 1000 MCDP interventions.

Although not strictly research, the Churches' Health Association of Zambia (CHAZ) nutrition and home gardening project uses demonstration gardens in health facilities and communities to educate community members on growing and processing garden crops. There are several projects that use bio-fortification messages, as well as growing and processing suitable complementary foods.

The First 1000 MCD Programme can support CHAZ and other CSOs to focus these initiatives on the prevention of stunting, and also to document lessons learnt for future scale up in Years 2 and 3.

For example, the Harvest Plus project,[53] the Development and Delivery of Micronutrient Rich Staple Crops in Zambia has commenced with Provitamin A Maize, and could be supported in this way. Other operational research initiatives include the Ministry of Agriculture and Livestock's investigation of the production of orange sweet potato and consumer acceptance. The First 1000 MCD Programme should be sufficiently flexible in Years 2 and 3 to adopt and take forward some of the most pertinent findings and recommendations of these studies.

Objective 5.7: Civil Society contributions to reduction of stunting

Civil society organisations (CSOs), including NGOs, faith-based organisations (FBOs) and community based organisations (CBOs), typically work closely with the communities in which they operate. Although the coverage of CSO projects is generally limited, their potential impact on local communities can be great and lessons can be learnt that inform national level programmes. Also, if CSOs work in a harmonised way covering broad geographical areas, their overall coverage can potentially increase.

A number of CSOs are already implementing projects that aim to prevent stunting in children less than 2 years of age. For example, the 'Feed the Future" Programme implemented by NGOs and supported by USAID includes elements of prevention of stunting. Nutrition activities are included under a broad range of interventions with a strong focus on food security and homestead food-based solutions. A mapping exercise on 'who is doing what and where in nutrition' in Zambia will give a better picture of the extent and type of nutrition interventions being undertaken, the geographic coverage and the gaps. A detailed mapping will be undertaken in Year1 of the First 1000 MCD Programme and the information used to develop a robust mechanism for the coordination of programmes by the NFNC. This will include co-ordinated support to CSOs through appropriate funding mechanisms to implement projects that aim to reduce stunting. The emphasis of these projects will be on the links between nutrition and household food security, with flexibility to shift the focus based on the findings of the mapping exercise. The CSO projects supported under the First 1000 MCD Programme will be implemented in Years 2 and 3. (A detailed appraisal of the role of Civil Society Organisations is provided at Annex 5).

Objective 5.8: Early detection and management of acute malnutrition

The emphasis of the First 1000 MCD Programme support to the management of acute malnutrition in Zambia is on strengthening of referral mechanisms, support to guideline development and social protection interventions for the treatment of moderate acute malnutrition.. Due to the complexities of HIV and AIDS and acute malnutrition, and the diverse geographical nature of the IMAM programme in Zambia, investing heavily in these issues through the First 1000 MCD Programme is unlikely to have a significant impact on the reduction in stunting. Nevertheless, some support to the establishment of the IMAM Programme and referral mechanisms for early detection and HIV and AIDS are warranted since the treatment of acute malnutrition is one of the 13 interventions identified by the 2008 Lancet series. Distribution of Ready to Use Therapeutic Food (RUTF) will be considered with support from partners to strengthen

[53] HarvestPlus research and implementation biofortification of crops with iron, zinc, and vitamin A. They are funded by Asian Development Bank (ADB) Austrian Ministry of Finance, Bill and Melinda Gates Foundation, Canadian International Development Agency (CIDA), The International Fertilizer Group International Life Sciences Institute (ILSI) , Royal Danish Ministry of Foreign Affairs (DANIDA), Swedish International Development Agency (SIDA), Syngenta Foundation for Sustainable Agriculture, DFID, USAIDWorld Food Programme

the supply chain for health commodities.
National Guidelines for IMAM are being developed. The First 1000 MCD Programme will, therefore, support to the finalisation and dissemination of the National Guidelines for IMAM.

The First 1000 MCD Programme will focus mostly on the prevention of acute malnutrition through the establishment of referral mechanisms between community-based GMP and IMAM initiatives relating to HIV services and social protection. Links with community-based GMP and IMAM will ensure malnourished children are identified early and referred for treatment before complications arise, hence improving their chances of recovery. With an estimated 40%, of children admitted with severe acute malnutrition and also HIV infection, it is acknowledged that there will be need to create links between IMAM and HIV services in order to address the cycle of infection and malnutrition seen in HIV[54]. All children with acute malnutrition should have the option of being tested for HIV and the nutritional status of all HIV positive children should be regularly assessed. The links between IMAM and social protection initiatives will ensure that families of children that are moderately malnourished have access to interventions that may improve or prevent deterioration in the nutritional status of the child.

Objective 5.9: Expand coverage of nutrition commodities through the scale up of the Essential Medicines Logistic Improvement Programme EMLIP)

Options for improving the supply of nutrition commodities would need to include monitoring coverage of such commodities, as well as increasing demand at the health centre level.

Objective 5.10: Enhance education's contribution to reduce stunting

The Ministry of Education, Science, Vocational Training and Early Education based on its mandate to provide information, educate and equip with a variety of skills, does ultimately contribute to the improvement of health. Additionally, the Ministry implements programmes that are specifically targeted to address the health and nutrition of learners with the goal of improving health and education indicators. Among these is the School Health and Nutrition (SHN) Programme, whose strategy is to deliver basic cost effective health interventions at school level. These include treatment for worms and bilharzia, improvement in water and sanitation, school gardens, micronutrient supplementation, and school feeding. Additionally, the Ministry of Health under school health services provides tetanus toxoid to female learners of child bearing age.

In view of the 1000 most critical days, efforts will be made to ensure that the SHN programme is strengthened so that interventions are delivered regularly and effectively to achieve the intended objective of ensuring learners, and specifically girls, mature into healthy and well informed adults.

School competitions, the School Health Month in July and Teacher Health Days are all opportunities for delivering well packaged messages on the First 1000 days as are nutrition and health clubs in schools. It is worth exploring the possibility of strengthening nutrition and hygiene education in the curriculum to include information relating to the 1000 days.

[54] Although not investing heavily in IMAM it is important to establish links between services as focus in 1000 MCD is about preventing acute malnutrition and preventing moderate deteriorating to severe.

Objective 5.11: Expand Community Led access to household water hygiene supply, sanitation and hygiene

Water and sanitation improvement, in association with behavioural change can have significant effects on the population and health through reduction of diarrheal diseases, intestinal helminths and skin diseases. These improvements in health in turn lead to reduced morbidity which has a direct effect on stunting. This therefore will lead to improved nutritional status and eventually longevity. Studies have shown that Water supply, Sanitation and Hygiene (WASH) interventions can help reduce the incidence of diarrheal diseases by 22% and reduce deaths by 65%.

The Ministry of Local Government and Housing (MLGH) with its partners through the National Rural Water Supply and Sanitation Program (NRWSSP) and National Urban Water Supply and Sanitation Program (NUWSSP) has been implementing interventions aimed at providing safe water supply and sanitation and hygiene in both rural and urban communities. For water supply, this includes drilling of boreholes with community involvement to ensure ownership of facilities in rural areas and commercial utilities in urban areas. There is an increasing need to strengthen Household Water Treatment (HWT).

Community Approaches to Total Sanitation (CATS) such as Community Led Total Sanitation (CLTS), Participatory Hygiene and Sanitation Transformation (PHAST), School Led Total Sanitation (SLTS) and Legal enforcement are used to propel the communities and institutions like schools to take control and make changes towards improving Sanitation and hygiene. The emphasis is on behaviour change targeted at individuals and communities. The intervention aims to break the faecal oral route contamination cycle. Currently there is a national Community-led Total Sanitation Campaign being rolled out with DFID and UNICEF support.

The focus of this objective is the Community Approaches to Total Sanitation (CATS) such as Community Led Total Sanitation (CLTS), Participatory Hygiene and Sanitation Transformation (PHAST), School Led Total Sanitation (SLTS) as well as Household Water Treatment. This is because these interventions among others have more potential to contribute to the 1000MCDs because they focus on behaviour change of the community where the child is born and brought up. The approaches also encourage improved hygiene, safe water supply and safe environment.

Intervention Area 5: Additional strategies outside of Strategic Direction 1 in NFNSP				
	Key activities	Principal implementer	Collaborating implementers	Outputs
5.1	Advocacy for mandatory fortification of commercial maize flour with micronutrients	NFNC, NFA	MoH, Nutrition CPs	National Food Fortification Programme for fortification of commercial maize flour re-activated
5.2	Establish system of monitoring iodine levels of salt imported into Zambia	MoH	NFNC, ZABS, MLGH	System for monitoring iodine levels of salt imported into Zambia
5.3	Guidelines for mainstreaming Food and Nutrition are being developed that will then be incorporated into programmes across the MoAL.	, MoA	NFNC, Nutrition CPs	Operational Guidelines in Food and Nutrition in Agriculture
5.4	Develop model for technologies to be used in communities. YR2 and YR3 focus on expansion	, MoA	NFNC, MCDMCH, CSOs	Technologies in storage, processing, preparation of food at homestead level

5.5	Social Protection Initiatives for prevention of stunting and treatment of moderate acute malnutrition	MCDMCH	CSO, NFNC, Nutrition CPs	Improved women's decision making to improve maternal and complementary feeding practices Reduced risk to food and nutrition security among vulnerable households
5.6	Review results of studies to feed into 1000 MCD	NFNC,	CSOs, nutrition CPs	Operational Research and Projects on homestead food-based interventions to reduce stunting in children under 2 years.
5.7	Develop a robust mechanism for the coordination of CSOs led programmes by the NFNC	NFNC,	MoH, MCDMCH, MoAL, MoE	Co-ordinated support to CSOs through a Pooled Fund mechanism to implement projects that aim to reduce stunting
5.8	Finalise development and roll out of National Guidelines for IMAM	MoH	NFNC, MCDMCH, UNICEF, WFP	Early Detection and appropriate Management of Acute Malnutrition
	Finalise and disseminate Operational research on use of locally produced RUTF for the treatment of IMAM	MoH,	WFP, NFNC	
5.9	Promote compliance to iron and folic acid supplements by pregnant women to ensure good foetal development	MCDMCH, MoH	CSOs, MoE, NFNC	Expand coverage of nutrition commodities through the scale up of EMLIP
5.10	Integrate and deliver 1000 days messages through SHN delivery structures (SHN month, Teachers Days, school garden, school nutrition clubs)	MoE	NFNC, MoH, MCDMCH, MoAL, MLGH	Increased awareness on 1000 days in schools and their respective communities.
5.11	Promote safe water supply through household water treatment, and sanitation and hygiene through Community Approaches to	MLGH	MoH, UNICEF, CSOs	Safe water supply provided Expand coverage of sanitation and hygiene in communities;

Cross Cutting interventions

Strategic Area 3: Institution and Capacity Building, and training

Human Resource Gaps

The Zambian government has identified capacity building as a priority strategy for the nutrition sector to effectively influence and strengthen the nutrition discipline direction and performance of Nutritionists in critical departments with regard to academic knowledge and skills.To emphasise the importance of capacity building, government - through the National Assembly parliamentary committee on health and social welfare, has directed nutrition training at higher levels, which is a welcome and long overdue initiative.

Zambia is facing a serious Human Resources for Health (HRH) crisis, both in the numbers and skills mix.The critical shortage of skilled personnel is a major obstacle to the provision of quality healthcare services and to the achievement of the national health objectives and MDGs.There are three main problems, namely the absolute shortages of health workers, inequities in the distribution of health workers and skills-mix, which all favour urban areas, than rural areas.

The MoH implemented the National Human Resource for Health Strategic Plan 2006 to 2010 (HRH-SP 2006-10). At the moment (2012), the MoH has an approved Human Resource establishment plan of 56,000 health workers. However, it is estimated that only 66% of the approved positions have been filled up.The data for nutritionists (Table 11) reflect an approved staff establishment until the year 2007. The recommended establishment at that time was 200 nutritionists. However, it was not yet estimated what the projected nutritionist requirements would be in the context of the SUN framework.

Table 10 :The Human Resource Gap

Staff category	Existing staff 2006	Number of staff 2008	Approved Staff establishment 2007	Variance (2005)	Recruited
Doctors	646	853	2,380	1,527	207
Nurses	6,096	6,490	16,732	10,242	394
Mid Wives	2,273	2,389	5,600	3,211	116
Clinical Officers	1,161	1,228	3,470	2,242	67
Nutritionist	65	69	200	131	4
Radiologists	3	3	33	30	0
Pharmacist	24	104	110	6	80
Laboratory Technologists	100	223	1,148	925	123
Other paramedics and staff	12,808	12,692	21,731	8,732	
Total	23,176	24,051	51,404	27,353	875

Source: Ministry of Health MoH HRIS database

Nutrition professionals and gaps

Over recent years different assessments have been made to estimate the establishment of nutritionists in Zambia. In 2007, an ECSA[55] comparative study estimated that Zambia had the following cadres of nutritionists in government sectors, NGOS, and Private sector

- 104 nutritionists at diploma level.
- 23 nutritionists at Bachelor degree level.
- 19 nutritionists at Master degree level.
- 3 nutritionists at PHD level.

The ECSA assessment (Table 12) showed that Zambia actually had the highest number of qualified nutritionists compared to the other five countries.The assessment also showed that more women than men took up nutrition as a graduate or postgraduate subject.

Table 11: Number of Nutrition Professionals in Possession of Various Certificates

Associate/ Diploma / Degree (Nutrition / dietetics / Home Economics / Food Science / Public health nutrition/community nutrition)	Malawi[56]		Zambia		Zimbabwe		Swaziland[57]		Lesotho		Tanzania	
	M	F	M	F	M	F	M	F	M	F	M	F
Certificate	0	1	0	0	0	0	0	2	0	1	2	1
Diploma	0	2	34	70	0	0	3	13	2	21	5	15
Bachelor's degree	12	26	15	8	29	49	4	45	4	34	15	26
Masters	6	13	8	11	3	12	1	6	0	17	18	27
Doctoral degree	0	4	2	1	1	7	2	1	2	3	20	11
Sub Total	18	46	59	90	33	68	9	67	8	75	60	80
Grant Total	64		149		101		76		83		140	

Source: ECSA, 2007.A report on data collection for the development of the data base for nutrition professionals in East, Central and Southern Africa (ECSA) Health Community. ECSA, Arusha, Tanzania

The assessment carried out in 2009 (table 11), estimated the nutritionist requirements in Zambia. The estimates of minimum human resource needs (Table 13) indicated that about 1,808 Nutrition degree holders would be required in the work force, if Zambia was to achieve nutrition security and develop economically to a medium income country (FNDP, MOFNP, 2006-2011).

[55] ECSA is East Africa Southern Africa Health Community (www.ecsa.or.tz). Zambia is an ECSA member and participated in health and nutrition studies.

[56] The numbers of nutrition professionals in Malawi include a higher number of Home Economists

[57] The numbers of nutrition professionals in Swaziland include a higher number of Home Economists

Table 12: Estimated Zambian Needs for Professionally Qualified Degree Holding Nutritionists

SECTOR	NATIONAL HQ	HOSPITAL/HEALTH CENTER	PROVINCIAL	DISTRICT
Health	3	290	9	72
Agriculture	3	-	9	72
Training Institutions	25	-	9	1000
Private/NGO	60	20	40	216
Total	71	310	67	1360

Source: Expert Committee estimates 2009: Nutritionists and Dieticians Needs Assessment for Zambia

However, the 2009 assessment did not take into account the SUN framework and its requirements for the roll out of the National Food and Nutrition Strategic Plan and the First 1000 Most Critical Days programme across the key line ministries (health, community development, agriculture, education and local government) and NFNC. It can therefore be assumed that the real needs should even be higher. In this case, a training needs assessment across sectors should be undertaken.

Training institutes and estimated outputs

Natural Resource Development College

Capacity to deliver quality teaching for nutrition education is still limited. The Natural Resource Development College (NRDC) is a government institute positioned under the Ministry of Agriculture. The NRDC Food and Nutrition Department provides a 3 year diploma in Food and Nutrition. The course is more oriented towards agriculture than human nutrition. There has been a concern that the course is not able to address human nutritional issues and challenges sufficiently. The NRDC has recently started with the development of a BSc degree course for Nutritionists. This course is still in the development stage. Both the diploma course and the upcoming BSc degree course will need to be harmonised and streamlined with the BSC degree course in the University of Zambia (UNZA) which was started recently.

The NRDC nutrition diploma course has seen an increasing number of student applications over the past years. For this reason, the NRDC increased in 2009 the intake of the students. Despite the fact that the number of students was increased, the number of tutors did not increase. As a consequence, the Food and Nutrition Department has only two full time tutors for the course and engages part-time lecturers for specific lectures. It is generally felt that the quality of the diploma course may be compromised due to the serious shortage of full time lecturers and tutors.

The estimated needs of the required nutritionists in Zambia are in stark contrast with the current output of the NRDC. Table 14 shows the output of the NRDC Food and Nutrition Department during the period 2006-2011. During this period, a total number of only 130 diploma holders graduated. Since 2009, only 64 diploma holders graduated. Although the NRDC increased the intake of nutrition students from 2009 onwards, this has not contributed yet to an increased output.

Table 13: Output of Natural Resources Development College

Academic year	Programme					
	Regular		Parallel		Open and Distance learning (ODL)	
	Enrolment	Graduating	Enrolment	Graduating	Enrolment	Graduating
2006/2007	59	10	N/A	N/A	27	N/A
2007/2008	48	34	N/A	N/A	25	N/A
2008/2009	51	22	N/A	N/A	47	N/A
2009/2010	57	42	68	N/A	80	N/A
2010/2011	50	22	68	N/A	N/A	11

Source: NRDC 2012

The NRDC graduates have so far been largely absorbed by the Ministry of Health. In 2011, all the graduates were recruited by the MoH. In other years, graduates were also absorbed by the Ministry of Agriculture and by the NGO sector.

University of Zambia (UNZA)

The proposed Human Nutrition Department at UNZA is a collaborative joint effort between the Schools of Agricultural Sciences and Medicine (Department of Biomedical Sciences). DFID provides support to the University of Zambia (UNZA) with the development and establishment of both BSc and an MSc degrees in human nutrition. This intervention receives technical support from the UK-based charity Tropical Health Education Trust (THET).

The degree is a 5 year programme inclusive of 1st year in Natural Sciences and was only started recently. The first three years will be covered by a foundation course in the School of Natural Sciences, Agricultural Sciences and Medical School. The recent start of the degree course implies that there will be no student output during the next four years. The UNZA receives training expertise through THET but also aims to build the capacity of lecturers for the BSc programme. The limited lecturer availability (full time or part time) was identified as a constraint.

The first cohort of graduates is expected to complete their studies in 2016. The aim of the degree is to create a cadre of health professionals who can work in dietetics and nutrition with individuals, families and communities. There is still limited local capacity to deliver the BSc course with three lecturers in the Department of Agricultural Sciences teaching on the BSc course and a fourth lecturer expected to return from her doctoral studies in two years. In addition, the University of Zambia has committed to the establishment of four lecturer posts in the Department. While able to draw on other University Departments to teach specialist modules, such as Fundamentals of Macro-Economics, a shortfall remains in teaching capacity, particularly in the latter years of the degree, when the nutrition and dietetics modules become more specialised.

Other training opportunities

The current situation implies that the intake of students does not match the nutritionist requirements in Zambia. It can be stated that there is a clear "mismatch". With an estimated requirement of 1,808 nutritionists and the limited annual outputs in the NRDC and UNZA, it will be a tremendous challenge to reach the required number of graduates at the current pace.

There is no doubt that the scaling up of the multi-sector staff training requires much more attention than has been the case so far. Without an increased output, it will be virtually impossible to achieve the objectives of the National Food and Nutrition Strategic Plan and to increase the implementation of the food and nutrition interventions by the various ministries at national, provincial and district level.

Other nutrition training opportunities to improve service delivery will include an increased number of diploma and/or Bachelor degree courses, through the integration of human nutrition modules in the Master of Public Health Course (School of Community Medicine), the nurse training schools or the Chainama College of Allied Health Sciences (CHCHS). However, this will need to be explored further.

At this stage, it is not clear whether the NRDC nutrition graduates from previous years are still active in the technical field of nutrition. It is also not clear whether former NRDC graduates who work in another technical discipline, would be interested to return to a position as nutritionist (with refresher training) if more positions become available. This option would need to be explored further.

Positions for nutritionists

In summary, it is evident that there is a critical shortage of trained Nutritionists and Dieticians in Zambia. This cadre of professionals is in high demand in both public and private sectors, including research and educational institutions, food industries, NGOs and government ministries and international organisations. Currently, there are no trained dieticians guiding the therapeutic management of health conditions at hospital facility level. Furthermore, there is need for a large number of nutritionists to fill the needs in the agricultural sector and in community, private/NGO and training institutions.

Even though there is a need for qualified nutritionists in the ministries, as shown in Table 4, budgeted nutrition positions are few, compared with other cohorts, and there is a significant variance in positions filled against those approved. This is an area that will need to be addressed in the First 1000 Most Critical Days programme.

Focus on the First 1000 Most Critical Days programme

In the First 1000 Most Critical Days programme, capacity building will receive ample attention. This has been reflected in the Year one document (Annex 2 Costed Implementation Plan and Annex 4 M&E Framework).

Strategic Area 3 will strengthen institutional capacity, human capacity and partnerships in support of Food and Nutrition interventions at all levels

Objective 3.1: To build institutional and human capacity for the effective delivery of nutrition services, including the design, development and implementation of relevant nutrition programmes, projects and interventions targeting relevant service delivery systems.

Currently, DFID is providing support to the University of Zambia to establish a nutrition BSc and a Master Degree course through the Tropical Health Education Trust (THET). In this way, nutrition will gain status and more nutritionists will be trained. In tandem, under this programme, it is aimed to extend nutrition training to many different levels of service providers.

The first cohort of MSc students (July 2013 to June 2015) will be taught by a UK/regional faculty. Upon graduating, the first cohort will be given opportunities to take up lectureships and begin teaching the BSc course. Capacity for teaching post-graduate students is likely to present challenges, and THET will initially draw from regional and international expertise as appropriate[58].

Objective3.2: To increase pre-service and in-service training opportunities for food and nutrition services at National, Provincial, District and Community levels.

To emphasise the importance of capacity building, government, through the National Assembly parliamentary committee on health and social welfare has directed introduction of nutrition training programmes at higher levels.

Several steps have been made in providing a strong and sustainable institutional framework for nutrition programming, but little has been achieved in ensuring that sufficient professional capacity is developed to deal with nutrition both at policy and programme level. Addressing nutrition problems is complex and requires technical competence across sectors, particularly at prevention and curative levels, where skilled professional capability is critical (UNZA BSc document). It has furthermore been pointed out that Zambia lacks a Nutrition Education and Promotion programme aimed at reducing all forms of malnutrition, including micronutrient deficiencies and establish safe levels of nutrient intake. Table 15 below provides an overview of key activities and outputs that will be addressed.

Table 14: Capacity building, training and education

Strategic Area 3				
	Key activities	Principal implementer(s)	Collaborating implementers	Outputs
1.1	Increase pre-service and in-service training opportunities for food and nutrition services provided at National, Provincial, District and Community levels.	Ministries NRDC UNZA	Nutrition CPs, NFNC	Institutional and human capacity developed for the effective delivery of nutrition services
1.2	Establish positions for food and nutrition officers and advisors and/or focal points in ministries and local government	Ministries	Cabinet Office DFID	Well-equipped institutions with efficient management systems established and functional.
1.3	Pre-service and in-service staff receiving food and nutrition training in key sectors at National, Provincial, District and Community level.	NRDC UNZA Nurse and CHA Training schools Chainama	NFNC, Nutrition CPS	Appropriate competencies to manage food and nutrition services at National, Provincial, District and Community levels

1.4	Facilitate establishment of degree programmes in food and nutrition at the University of Zambia and / or other institutions of higher learning.	UNZA NRDC,	DFID, Other Nutrition CPs	Diploma and degree courses available in Zambian institutions
1.5	Support capacity building for community based organisations in food and nutrition issues.	Ministries Districts & LGAs NGOs & CBOs Private sector entities	NFNC, Nutrition CPs	Increased participation of private and Civil Society Organisations in Food and Nutrition programmes.

The NFNC will have an overall coordinating role and will discuss key issues in the different stakeholder committees.The principal implementers have been included in the table.

Strategic Area 4: Communication and Advocacy

The Communication Support Strategy highlighted in the NFNSP's First Strategic Direction,serves as the foundation for advocacy and communication planning for the First 1000 Most Critical Days three year programme. Implementation of this strategy requires new awareness,information and commitment across Zambian society and key services nationwide. Every province and every district,both rural and urban, will need to see a broad package of interventions and services strengthened and scaled up. Advocacy, education and communication activities will play an essential role in achieving programme objectives. NFNC will harness the expertise and resources of different civil society organisations including the media,Project and other NGOs.

The First 1000 Most Critical Days Programme will seek to mobilise ownership, commitment and participation by the whole nation. Integrated communication support and well-focused advocacy is intended to bring a new state of national awareness whereby everyone knows and values the importance of preventing stunting. This will require a good understanding among public and private stakeholders that this can be achieved as well as what it will take and what their roles are in protecting the growth and development of every child.The Programme thus plans for effective promotion to bring in active participation and support by key stakeholders in the public and private sector.

Objective 4.1: To increase nationwide knowledge, awareness, ownership, participation and support around the First 1000 Most Critical Days national programme

The Integrated Advocacy and Communication Strategy include four key components, which together will ensure that nutrition in the First 1000 Most Critical Days Programme is successfully implemented.These components are

1. Raising awareness and building commitment on the importance of the first 1000 most critical days period nationwide
2. Raising family awareness and knowledge around practices and services that prevent stunting
3. Information,Education and Communication Support for Services and Improved Practices
4. Enhancing Documentation,Information and Knowledge for all programme levels

The details of these components are outlined in the sections below:

Component 1: Raising awareness and building commitment to the importance of the First 1000 most critical days period nationwide

The first component of the advocacy and communication support of the First 1000 Most Critical Days Programme will focus on building commitment among political leaders and decision makers and reinforcing the importance of preventing stunting to families across the nations to ensure the national programme is successful.

The national launch requires systematic and innovative planning as both a major advocacy and communication support activity. It aims to provide a brief overview of the programme, show ownership at the highest political levels,and also demonstrate broad,multi-sector commitment to reducing stunting in young children. Active support from mass media will help to promote and raise awareness of the programme at national and international levels. National, provincial and district launch events will be important to motivate government officials, civil society, the private sector and communities to support this programme.

The programme will incorporate advocacy and awareness-raising activities in preparation for the launches themselves. This approach will be linked to on-going, integrated media support and a series of activities aimed at orienting all staff in ministries, and CSOs through organisational communication channels. Combined, these activities aim to:

- Provide national, provincial and district policy and decision-makers with an understanding of the impact of stunting on both individual and national development.
- Ensure that national, provincial and district policy and decision-makers know their potential role and involvement relating to the First 1000 Most Critical Days Programme.

The aim of this component is to foster integration and multi-sector ownership and collaboration on related interventions using linked messages, channels and activities.The work will involve many stakeholders coordinated by the programme's advocacy and communication task force, which will

be centred at the NFNC. Communication support to achieve these objectives requires close collaboration with government ministries and departments directly responsible for multi-sector support of key interventions. Collaboration will also include others such as NGOs and CSOs that provide related services. Support for generating additional demand for services will include activities and messages on the linkages of both specific intervention and multiple intervention "packages" that help prevent stunting. Communication and advocacy support for the multi-sector approaches called for in the NFNSP will be key.

Demand generation around the First 1000 Most Critical Days will begin with activities that link the national launch of the programme to production of communication materials that explain and promote the programme and the range of interventions that will prevent stunting.These materials, many of which will be in the form of clear letters signed by Ministers will be sent through the organizational channels of key ministries from national to provincial and district levels and to each staff members and volunteer working at community and neighbourhood levels.The letters will also spell out initial actions that are expected by each member of staff within ministries in support of the programme. To facilitate the work of all community level staff and volunteers in five ministries a "Field Workers Reference Guide for the First 1000 MCDs will be developed and disseminated for their use as an initial programme activity.The content of this FWRG will cut across sectors focusing on and providing key "actionable" information interventions/services that can contribute to prevent stunting by families.An integrated set of mass and traditional media messages and activities will also be developed and carried out using direct and indirect channels to introduce and promote the programme, the importance of its objectives and what a family can do to maintain and improve good nutrition during pregnancy and the first two years.

Component 2: Raising family awareness and knowledge around practices and services that prevent stunting

The second major communication support component for the programme will focus on disseminating information that informs and educates families on relevant services and interventions that they should learn, access or practice, in areas of health, food consumption and education. The aim is to strengthen the demand for and use of the interventions and services that are priorities for preventing stunting among families and communities.

In order for the First 1000 Most Critical Days Programme to be successful, families across the country need to know why and how the programme affects them and their children. At the family level, the programme will provide greater knowledge on the value and importance of a healthy pregnancy, a safe delivery and early years' nutrition and hygiene in relation to long term mental and physical health and development.

Component 3: Information, Education and Communication (IEC) Support for Services and Improved Practices

The third component supports the information, education and practices of specific packages of interventions that contribute to preventing stunting. While linked closely to the second component, IEC support will address specific problems of knowledge, skills and practices. This support will ensure wider and stronger dissemination of programme related messages by various stakeholders. In many cases, development of more effective communication will rely on the most up to date and effective models for behaviour change and social change communication.

Efforts will be made to review and support existing IEC strategies, messages, channels and activities. IEC support activities will also aim to provide useful and related messages using appropriate communication mix to ensure reinforcement in terms of knowledge and skills acquisition, increased demand for current services, and the adoption of key practices that help address interrelated causes of child stunting. Increasing the synergy of IEC support for the programme will be an important element of these activities.

The IEC component will be coordinated by the NFNC, and carried out in close collaboration with a wide range of stakeholders within and across sectors to strengthen, scale up and/or introduce new interventions under the umbrella of the First 1000 Most Critical Days Programme. Activities will be implemented at all levels, national, provincial, district and community to ensure effective communication strategies are shared and implemented widely, while taking into consideration specific local communication peculiarities.

The two initial key objectives of the IEC intervention support activities and products of the First 1000 Most Critical Days Programme are:

- Provision of effective communication support that assists in ensuring that mothers and families know their roles and how they can effectively access, use and comply with key interventions and related services. The focus will be on service use, compliance with required follow-up action and on behaviour change.
- Provision of useful guidance on environmental and social factors that may constrain desired knowledge and practices. Where necessary IEC intervention support strategies may also target such factors through a broader approach that follows principles of communication for social change.

Additional and more detailed objectives and key indicators will be developed in the early stages of the programme's implementation.

Component 4: Enhancing Documentation, Information and Knowledge for all programme levels
The fourth component concentrates on generating and sharing useful information, research out comes and lessons learnt. These lessons will be documented and shared to assist in solving operational problems in other districts. It is important to create an open two-way communication channel so that information can easily flow between the participants and the Programme. NFNC will coordinate and manage this component which includes a range of knowledge management activities. Systems will be developed to encourage and reward programme participants at various levels to document and share operational information that may improve the efficiency of the Programme. The NFNC library and website, currently acting as the hub of these communication support initiatives, will be substantially reorganised and expanded to create an easily accessible information base for the Programme. The NFNC will also gather and disseminate information that can improve the Programme's scope and effectiveness. Monitoring and evaluation systems of key stakeholders developed specifically for the First 1000 Most Critical Days Programme will be among the major sources of information to be appropriately shared.

Principles to guide advocacy and communications for the First 1000 Most Critical Days Programme

A number of principles should be adhered to and drawn upon to guide this integrated advocacy and communication strategy.

- On-going development and improvement of advocacy and communication support plans for the programme are integral to their formulation and use. These plans anticipate and recommend initial strategies be adjusted as experience accumulates during initial implementation over the first and second years.
- Communication support to introduce and gain leadership and multi-sector ownership of the programme will require "mainstreaming" of the key First 1000 Most Critical Days Programme's messages into a wide range of existing programmes.
- Advocacy and communication support planning and activities will seek to find, adapt and use lessons learnt from related projects, including strategies, IEC and training materials, and media products.
- To achieve communication objectives, a range of mass media and organisational channels of communication will be used and combined with existing and new interpersonal and group communication potential at community level.
- The programme's communication support will use all levels of activities to help create within households, communities and wider society a "culture" that values special care for women and children during the first 1000 most critical days.

Table 15: To increase nationwide knowledge, awareness, ownership, participation and support around the First 1000 Most Critical Days national programme

Strategic Area 4				
SO	Key activities	Principal implementer(s)	Collaborating implementers	Outputs
4.1	Promoting the new programme and its core themes nationwide: Organise national 1st 1000 MCD Programme national launch by the President	NFNC, key line ministries, CSOs, CSH	Nutrition CPs	Increased knowledge among Policy makers and other stakeholders on prevention of stunting .
	Hold advocacy meetings with line ministries, private sector, CSOs, local leadership	NFNC	Key line ministries, Nutrition CPs CSOs, CSH	
4.2	Raising family awareness and knowledge around practices and services that prevent stunting:	NFNC, line ministries, CSOs, CSH	Media, Private sector	Improved knowledge on prevention of stunting among the general public especially women of child bearing age
	Conduct nationwide multi-media, multi-channel promotion campaign for 1st 1000 MCDs			
4.3	The 1000 Most Critical Days incorporated into nutrition education targeting women of reproductive age	NFNC, line ministries, CSOs, CSH	Nutrition CPs	
	Promotion of use of treated bed nets during pregnancy and for the first 24 months of life assured.	MoH, MCDMCH,	NFNC, MLGH, CSOs, Media	Improved behaviours and practices for prevention of stunting among children 0 to 24 month
4.4	Enacting the documentation, information and knowledge for all programme levels: Disseminate and promote knowledge at all levels to families and mothers on behaviour and services to prevent stunting	NFNC,	Key line ministries, Nutrition CPs CSOs, bilateral programmes/projects	

Strategic Area 5: Monitoring, Evaluation and Research

Monitoring, evaluation and research are vital for informing policy and programming. Different sectors and organisations collect information on nutrition but as seen in Table 17 below, the bulk of the information is from the health sector. Most information comes from periodic surveys, such as the DHS and from the health sector through the Health Management Information System. The NFNC's Food and Nutrition Report provides overview of nutrition activities in different sectors but the most recent one was done in2008 and is yet to be published. Availability of data, frequency and latest information on nutrition is a major challenge.

An integrated monitoring and evaluation (M&E) system needs to be developed urgently to provide consolidated information on nutrition programmes from all sectors. This will make it possible for NFNC to provide regular updates on what each sector is doing in the area of Nutrition. Systems for monitoring, evaluation and research need to be strengthened and information disseminated for use in policy, planning and programming..

Objective 5.1: To strengthen monitoring and evaluation of the food and nutrition programmes in the First 1000 Most Critical Days Programme

A first step towards improving information collection and analysis is the development of the Zambia Nutrition Information System (ZamNIS). This system will provide Government and other users with relevant, accurate and timely information to plan, monitor and evaluate nutrition programmes within limits of available social, economic, human and financial resources in the country[59]. This system is not yet fully functional and it has been recommended by different reviews, including the current review, that technical assistance is needed in M&E to support the ZamNIS, M&E and research capacity.

The NFNC developed a proposal entitled Development of the Zambia Nutrition Information System (ZamNIS) in 1998. Among other things, the proposal provided for a local consultant to "collect the necessary data and store it in a manner amenable to manipulation by computer." The specific objectives of ZamNIS under the proposal were:

1. To inform Government about the evolution of the nutrition status of the population
2. To inform sectoral managers (Education, Health, Agriculture and Community Development) at national, district and local levels, and partners, about the evolution and impact of the different activities and programs aimed to improve the nutritional well-being of the population
3. Identify and support actions to improve sectoral data collecting system (Education, Health, Agriculture and Community Development) related to nutrition information
4. Identify and support pilot activities (research-action) at local level aimed to improve nutritional status
5. Support the decentralization process by bringing to the district level the information both on sector and operational level

[59] ZamNIS can be accessed on www.nfnc.org.zm

The first process for the ZamNIS is to develop a Bibliographic Database for monographs and collections: books, reports, thesis, conference proceedings, etc. The second part was the localisation, collection, analysis and evaluation of information accessible on the Internet, focusing particularly on information, library network resources on nutrition.

Technical Assistance to be provided under the First 1000 Most Critical Days Programme will help to create a robust and comprehensive M&E system to capture information from all stakeholders across the sectors. Monitoring of the factors that contribute to stunting will require data on selected indicators relating to: household food security; food consumption and dietary variety; key infectious diseases that affect pregnant women and young children. In addition, the actual progress of the First 1000 Most Critical Days Programme will need to be regularly observed and reported upon. This will require information to be collected on process targets (such as trainings held, plans developed, key community related activities completed), as well as evidence of intersectoral and CSO collaboration and participation.

Table 16: Overview of nutrition information generated by different stakeholders and structural levels

Level	M&E Outputs	Frequency	Partners
National NFNC	Food and nutrition situation annual Report Food Consumption Iodine Deficiency Survey National Nutrition Surveillance Cost of Diet Analysis reports	Last 2008 One off (current) Every ten yrs. (2011) One off (2009) One off (2011)	HSSP UNICEF UNICEF UNICEF WFP
Central Statistical Office and Ministry of Health	DHS HMIS Joint Annual Review	Every 4 years since 1992. (Due 2012) Routine Annual	MACRO WHO Donors
Ministry of Agriculture, Fisheries& Livestock	Crop forecasting analysis Food balance sheet analysis	Twice yearly Annual	CSO
Disaster Management and Mitigation Unit (VP's office)	Vulnerability assessment and analysis In-depth analysis (e.g. of crop forecasting)	Annual Annual	Vulnerability Assessment Committee
Provincial	HMIS	Routine	WHO
District	HMIS Hospital records (underweight, wasting, anaemia GMP (Wt. for age)	Routine	MoH
Community	HMIS Growth Monitoring (HC) IMCI	Routine	MoH
Household	Growth Monitoring using salter and standing scales (CHWs)	Routine	MoH
Civil Society Organisations			
Jesuit Centre for Theological Reflection	Food Basket Analysis	Monthly	NFNC

[60] NFNC (n.d) HIGHLIGHTS ON ZamNIS . Zambia Nutrition Information System (ZamNIS)

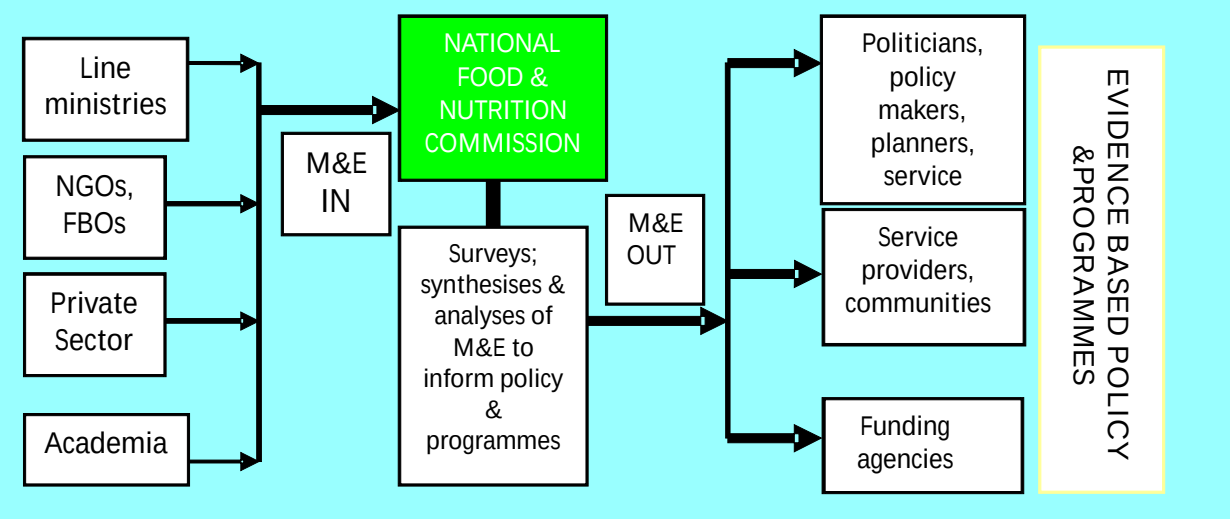
Flow of information: Information collected and synthesised by the NFNC must be disseminated to policy makers and planners as shown in Figure 11 and also disseminated back to the community and to service providers at all levels. It is also important for information to be analysed at all levels. The strengthening of the M&E and Research department in NFNC will give priority to the need for inflow and outflow of information, without duplicating existing systems.

Mechanisms for collecting, analysing and using service statistics and operations research at community level will be defined during the first six months of the First 1000 Most Critical Days Programme[61]. The USAID-funded programme, ZISSP already provides support for M&E and health information systems at district level. Methodologies used might be adapted and used for nutrition M&E in districts not already covered[62].

Dissemination and use of national monitoring and evaluation information

Information obtained through monitoring and evaluation activities and from food and nutrition related surveys and research often lacks systematic and strategic dissemination to key stakeholders. Currently there is insufficient use of important available channels such as website postings, dissemination meetings, and targeted report distribution.

Figure 11: Proposed flow of information into and out of NFNC



Objective 5.2: Strengthened policy formulation and programming using evidence based information from research

Advocacy focused research in the area of nutrition including that generated through use of Profiles software and related reports, is periodically used for advocacy. However, the impact of this evidence-based tool and similar information based on surveys and other research has greater potential for use in nutrition policies and programmes if strategically packaged.

Under Strategic Area 5, a Technical Working Group (TWG) for research will be created in NFNC drawing on research expertise in the country (from government, academic institutions and CSOs) to ensure that research is coordinated, focuses on priority areas and is of a high quality,

[61] Lessons learned from Zambia's HIV and AIDs programme and the Malawi 1000 Critical Days Programme are likely to be useful.
[62] During field visits to Chongwe and Kabwe, the team was able to observe the results of Technical Assistance from the USAID-funded project 'ZISSP'. What was not visible in the displays was any information on nutrition

follows ethical guidelines and meets agreed time frames. Results are expected to be strategically and widely disseminated with priority given to the most important potential "users" of research results.

Under the First 1000 Most Critical Days Programme, it is recommended that the University of Zambia is twinned with reputable universities in the world so that research capacity can be strengthened through joint research projects. The funding would come from First 1000 Most Critical Days Fund managed by a funding agency on behalf of the donors supporting the Programme. Applications to the Fund will be reviewed by a Technical Advisory Group attached to the Pooled Fund Mechanism (PFM).

Operations research

All service providers and programmers benefit from having a well-planned, problem- based research agenda that includes routine operations research to monitor trends, to understand behaviours and learn how to keep programmes relevant and effective. Skills in operations research will need to be developed at all levels and in all sectors and results fed back to programme staff to ensure that programmes remain relevant and deliver the planned interventions for impact.

Table 17: Robust Monitoring, Evaluating and Research to support and inform the First 1000 Most Critical Days Programme

Strategic Area 5				
SO	Key activities	Principal implementer(s)	Collaborating implementers	Outputs
5.1	Build capacities for conducting operations research, monitoring and evaluation at National, Provincial and Districts. Technical support to be provided to NFNC.	NFNC, Academia	Nutrition CPs, Key line ministries	Strengthened monitoring and evaluation of the food and nutrition programmes in the First 1000 Most Critical Days Programme
	Disseminate results through quarterly bulletin and on NFNC website, policy briefs and other channels	NFNC	Nutrition CPs	
	Strengthen the food and nutrition data base (Zambia Nutrition Information System).	NFNC	Nutrition CPs	
	Strengthen nutrition surveillance system.	NFNC	Nutrition CPs	
5.2	Re-design implementation of national Monitoring and Evaluation Framework incorporating appropriate indicators and data sources.	NFNC	World Bank and other Nutrition CPs	
5.3	o Form Research Technical Working Group and develop food and nutrition research agenda and protocols to generate evidence based information. o Develop dissemination mechanism for research results.	NFNC	Key line ministries, UNICEF and other Nutrition CPs	Strengthened policy formulation and programming using evidence based information from research
	Submit research proposals to Technical Advisory Group for 1000 MCD Donor Pooled Fund.	Academia, Line Ministries, CSOs, NFNC	Nutrition CPs	
	Develop an institutional partnership with international,regionallyand local universities	UNZA	NRDC, other Universities in Zambia offering nutrition training courses	
5.4	Training, education for research including operations research	NFNC, academia, TA	Nutrition CPs	Monitoring and evaluation capacity (equipment and human resource) is built at all levels

Social protection & key social development issues

Addressing the Underlying Causes of Under-nutrition

Extreme poverty and hunger are inextricably linked with undernutrition as well as low educational and nutritional status of the mother, family size and HIV status (of mother and child) among others. Long term improvements in food and nutrition security will come from sustained and robust economic growth, macroeconomic and structural policies that promote job creation, economic inclusion, social empowerment and significant levels of investment in health and education essential as envisaged in the National Development Plan. The First 1000 Most Critical Days Programme will support programmes addressing household vulnerability to food and nutrition insecurity, access to information and services related to food, health and nutrition. A detailed analysis of a wide range of issues regarding social protection, social exclusion and the role of the non-state sector is provided separately.

The Relationship between Nutrition and Social Protection

Social protection measures can play a critical role in addressing moderate malnutrition. Social protection refers broadly to public, private or informal actions taken in response to levels of food and nutrition vulnerability, risk and deprivation.Therefore, social protection in the context of the First 1000 Most Critical Days Programme will aim at reaching nutritionally vulnerable women and young children (below 24 months) who cannot provide for themselves and require some form of assistance or women who need opportunities to be lifted out of poverty.

The Ministry of Community Development, Mother and Child Health, has a history of being engaged with social protection. Currently, the MCDMCH, together with cooperating partners, is engaged in a process to take a long-term strategic approach to social protection in the country.The food and nutrition sector have a shared and overlapping goal with social protection, creating significant opportunities for collaboration in responding to moderate malnutrition. As NFNC looks to reinforce a multi-sector approach to food and nutrition, there is significant opportunity to link these two processes.These linkages can be strengthened through a number of different ways:

a) Strengthen the dialogue between social protection and food and nutrition. For example, ensure that representatives of social protection, MCDMCH, are fully engaged in the different mechanisms and structures of the NFNC, the Ministry of Agriculture and livestock and the Ministry of Health.
b) Explore and build on mechanisms used in various social protection programmes. For example, the targeting method used in the Social Cash Transfer (SCT) programme can assist in identifying the most vulnerable women for nutrition interventions.

Role of Communities

The community is key and the most important player in the implementation of this programme. Sustainability will require community ownership and engagement and it is imperative that the

[63]Social and cultural factors play an important role in food and nutrition. A more detailed report is provided as a separate annex.

programme design takes into consideration community structures and dynamics to know how it can be coordinated at community level, monitored and evaluated. Also how information sharing can work and who the change agents are to influence and motivate others. Currently there are various groups, individuals and community based organisations working directly and indirectly on food and nutrition at community level. Some of the key ones include:

- Neighbourhood Health Committees (MoH)
- Community Health Assistants (MoH)
- AIDS committees
- Community Health Workers (Min of Health and NGOs)
- Community Welfare Assistance Committees (such as Social Cash Transfers, and Public Welfare Assistance Scheme)
- Community Agriculture Committees (Farmers Input Support Programme)
- Camp Extension Officers (Min of Agriculture and Livestock)
- Community Development Officers (Min of Community Development)
- Parent Teacher Associations
- Nutrition Groups (NFNC)
- Young Farmers Groups, Women's groups (MCDMCH, MAL)
- Area Development Committees (MLGH,)
- Area Coordinating Committees (MCDMCH)

Beyond these groups, community agents such as agriculture extension workers, teachers, headmen, traditional birth attendants, and local counsellors can also play a direct role in scaling up nutrition at the community level. They have an understanding of cultural practices and barriers and can influence the implementation and monitoring of community programmes at the household level. They are perceived to have intimate knowledge of particular families and their problems, and are in the best position to visit homes regularly.

A mechanism to coordinate the community institutions during the 1000 critical days programme would have to be effectively put in place. The Nutrition Groups under the National Food and Nutrition Act were set up to provide this type of mechanism. However, the role of the Nutrition Groups has not been prominent due to a number of challenges such as lack of capacity, but there is an opportunity under the First 1000 Most Critical Days Programme for these groups to be re-structured and trained.

Gender and Social Exclusion

The 2007 DHS indicated that there is no significant difference in undernutrition rates between girls and boys in Zambia. However the time and knowledge available to mothers to care for their children is a significant factor in preventing undernutritionand we know that gender inequality retards progress in tackling under-nutrition. There is also international evidence which shows that gender inequality can divert household expenditure priorities (IFPRI, 2006). When women have access to resources they tend to spend on their children's food, health and education as opposed to most of their male counterparts.

Barriers to Antenatal and Postal Care and Services Generally

Antenatal and postnatal care seeking behaviours have significant impact on the lives of women and children. There is a lot of evidence that suggests that health care seeking behaviour is deep-rooted

within the economic, and cultural context as well as in specific social relations[64]. Factors associated with health care seeking behaviour, which can thus act as barriers to antenatal and postal care, include:

? Poor socioeconomic status of women	? Perceived quality of service
? Lack of physical accessibility	? Availability of transport
? Cultural beliefs and perceptions	? Physical distance of the facility
? Low literacy level of the mothers	? Time taken to reach the facility
? Large family size	? Occupation of the head of the family
? Age	? HIV status and mandatory testing for pregnant women
? Marital status	
? Religious beliefs	? Men's b elief that pregnancy is a ''woman's affair''
? Lack of awareness of and access to services	

On the basis of these barriers highlighted, key gender considerations to be included in the First 1000 Most Critical Days programme are:

- Education effort to make men as responsible participants, not obstacles in providing antenatal and postnatal care.
- Encouraging the village and community leaders to build upon the present cultural expectation that a man's role is one of financial responsibility and expand this expectation to include additional social support of women
- The formal and informal educational efforts concerning HIV and PMTCT in the general and hospital communities should be increased.
- Continuing to encourage women to participate in PMTCT activities, including HIV counselling and testing; and providing further education about PMTCT and HIV, including the reasons for HIV testing, to all health staff and the general community.

To better understand the role that gender inequality plays in undernutrition in Zambia, and its implications for the 1000 days action plan, the programme will support a study to look at the role of gender during the inception phase and use its findings and recommendations to inform decision to support direct and enabling interventions.

[64]USAID (2011) IYCN,

Section 3: Financing the First 1000 Most Critical Days Programme

One of the challenges to programme harmonisation is fragmentation of funding which makes financial management very difficult. However, there is the Cooperating Partners Group tasked to harmonise donor support. The group, which includes UK, UNICEF, Irish Aid, World Food Programme (WFP), World Bank and USAID, is already co-funding nutrition activities and is now considering the establishment of a pooled Partnership Fund to align technical assistance and resources behind national nutrition priorities. It is anticipated that the First 1000 Most Critical Days Programme will be financed through several financial mechanisms, including the suggested pooled funding. The other mechanisms that will be applied include direct donor or GRZ funding for implementation. The First 1000 Most Critical Days programme Memorandum of Understanding (MoU) between donor partners, the government and key stakeholders will be signed. The GRZ will use the already existing financing mechanism through the approved Medium Term Expenditure Framework - 3 year rolling and annual work plans.

One of the roles of the Collaborating Partner (CP) group would be to lobby Stakeholders, including the Government to increase financial resources allocated to the First 1000 Most Critical Days Programme.

Despite GRZ paying the salaries of NFNC staff and of all civil servants in nutrition-related work at national and sub-national levels, the allocation for nutrition programmes is inadequate. For example the budget commitment to nutrition in the health sector for the fiscal year 2012-13 is only around ZK 804 million.

It is expected that funding will come from a variety of sources. Other than the Cooperating Partners funding nutrition cited above Government will also explore further opportunities for funding or technical support to the 1st 1000 MCD programmes from the local and international Civil Society Organizations and the private sector that have demonstrated interest in driving their nutrition agenda in Zambia. This will contribute towards meeting the additional funding that will be needed to supplement the resources provisionally allocated for the interventions that will come together within this strategic direction so that they can be strengthened, better consolidated where appropriate and, in some cases, scaled up. New funding will be needed for communication support to give the First 1000 Most Critical Days the high profile that is needed to achieve results. It is expected that in the increasingly favourable economic environment of Zambia, the Government will increase its contribution to the NFNC and the key line ministries (agriculture, local government, community development, education and health) to the 1000 Most Critical Days Programme.

Ownership and support is needed at all levels, but most importantly at the level of the community and the household where we want to see a difference.

[65] Personal communication Agnes Aongola – Nutrition Officer MoH

A pooled funding mechanism will ensure coordination, harmonisation and give value for money.

To reduce transaction costs, ensure efficiency and effectiveness and maximum programme coverage, it is planned to establish a pooled funding mechanism which will be managed by a suitably experienced agency engaged by the donor community. The specific role of the management agency will need to be agreed upon (e.g. Grant management, disbursement, procurement, monitoring and evaluation).

Fiduciary risk management

The Ministry of Finance and Auditor's General office have introduced and are using a set of different mechanisms with common principles and sufficient flexibility that could be easily adapted to this project.

The financial control of the programme assumes regular reporting and functioning accounting systems of checks and balances, without slowing down the process to the detriment of beneficiaries. The MOF is introducing the Integrated Financial and Management Information System (IFMIS) in the public system. This new system is not the answer to all the problems but will help for financial monitoring purposes[66].

In addition, the Auditor General's office conducts annual audits of public and government institutions. It is also working in close collaboration with external private auditing firms to increase the frequency of financial monitoring of Social Cash Transfers. A similar arrangement could be used for this pooled funding mechanism to ensure accountability is done by an independent, external auditor.

Key Actors of the Programme

The options discussed in this report include a number of key participants other than the Collaborating Partner. A list of these, alongside their main roles, is provided below:

Table 18: Key participants and roles

Actor	Role
? Ministry of Finance	In charge of signing the MOU with donors, as representative of the government Assuring sufficient allocation of funds to food and nutrition activities under the respective Ministries.
? Ministries of Health, Community Development, Mother and Child, Agriculture and Livestock, Education , and Local Government	National programme counterparts.
? National Food and Nutrition Commission	Main national coordinator of the First 1000 Most Critical Days Programme activities, and main partner of the programme.

[66]Presentation by Denis Wood and Carole Pretorious on Fiduciary Risk and Capacity Assessment. Ministry of Community Development, Mother and Child Health

? Auditor General and auditing firms	Provides framework for financial accountability and auditing procedures of private auditing firms
? Pooling/coordinating CPs	Donors providing voluntary funding for launching and scaling up the First 1000 Most Critical Days Programme activities under pooled funds or common arrangements
? Non pooling CPs e.g. USAID	Other donors providing funds for nutrition activities independently but aligned with the national programme
? Third party managing agency	Contracted agent responsible for managing procurement and disbursements, as well as tracking funds utilization
? Steering Committee	To support and advise the managing agent throughout the entire process of fund allocation and fund management.
? Technical advisor group	Team of experts providing TA to the programme
? NGOs working at the district level	NGOs contracted under pay-for-performance arrangements to deliver priority interventions to the target population in selected districts.
? Pregnant women and children under 2 years old and family households	Beneficiaries of this programme

A Pool funding mechanism Steering Committee (SC) with membership from donors, NFNC and key line Ministries will have oversight of the Pooled Fund mechanism (PFM) and the PFM will provide quarterly or fourth-monthly reports to the SC. These reports will indicate, among others, proposed projects to be funded in the quarter which must meet the PFM criteria. (Terms of Reference for this arrangement will be agreed upon by the SC). Line Ministries, CSOs and academic institutions will be eligible to apply for funding through this mechanism provided their projects are consistent and in line with the First 1000 Most Critical Days plan and that they contribute to the M&E Framework to be managed by NFNC.

A Technical Advisory Group (TAG) of experts will be established to review proposals and recommend those to be funded under the Pooled Fund Mechanism.

Who can apply to the Fund?

The fund will be used to support programme interventions, planning, M&E and research and institutional strengthening, which are integral to the First 1000 Most Critical Days Programme as described in the framework on Annex 1. The fund will be accessed by different stakeholders from government and civil society who submit proposals which meet the criteria set by the Technical Advisory Group (TAG). A financial ceiling for each year will be established by the Steering Committee and an external arrangement for monitoring and evaluation of the projects will be established.

Research proposals will be reviewed by the Research TWG coordinated by the NFNC. Those that meet the priority research criteria and quality will be pre-approved, enabling the PFM to release funds.

Other proposals related to planning or programme implementation will be reviewed and approved by the TWG in line with the set criteria.

Options for funding the implementation in selected districts

The district level is the centre of First 1000 Most Critical Days activities.The Regional offices of the Ministries of Health, Community Development Mother and Child Health, Agriculture and Livestock, Education, and Local Government; the delivery structures for these ministries at community level,and communities themselves are the main partners of this programme.

The districts will be supported mainly at two levels:

- Technical support, which includes Information Education and Communication, monitoring and evaluation,and training for the community-based interventions.

- Funds to assist the selected districts with the implementation of priority interventions.

Developing funding mechanisms that can reach to the community level while simultaneously maintaining reasonable financial and administrative oversight is challenging.

Government and civil society: community grants

Several successful mechanisms for community grants have been implemented in Zambia, such as the Community Response to HIV and AIDS (CRAIDS) model for providing grants to community-based organisations by district level organisations, which was supported by the World Bank and DFID[67]. Under this model the community based organisation was required to register,open a bank account, and submit a proposal to the District AIDS coordination body, which approved and funded successful proposals.This programme will adopt workable financing mechanisms used for community level responses.

Contracting NGOs and Payment for Performance

Contracting NGOs with a solid record of community work to deliver priority interventions will be another option. Rating the risk of NGO partners according to their capacity to manage funds using basic accounting and project management practices is a useful lesson learned from other countries. Operating requirements would then vary according to risk level. For example, the frequency of progress reports could depend on the risk level of the NGO, with quarterly reports for NGOs with high and significant risk,and biannual reports for those with moderate risk.

In addition, contracting NGOs could be combined with another successful model - results-based financing (RBF). Under this approach disbursements are linked to the delivery of specific services and interventions

This mechanism has been used in Eastern Province of Zambia in the delivery of Maternal Health services and in Juntos, a nutrition project in Peru. Under this model, the programme would finance a capitation fee paid by a financing agency (the pool) to the provider (i.e. NGO) for each of its registered affiliates belonging to the target population, i.e. new-borns. The fee will cover the provision of services for a fixed period.

[67]Amoaten, S (2011) Exploring opportunities to strengthen Community Based Organisations' access to funding at district level in Zambia Commissioned by the National AIDS Council,April 2011,Lusaka, Zambia

The implementing organisation requests for disbursements made on the basis of regular reports that document outcomes, for example number of new-borns saved. This outcome will later be independently verified by the financing agency.

Since the programme is highly dependent in verifying outputs, another possible component would finance outputs related to the strengthening of the monitoring capacity of the Nutrition Programme.

Costs of the Programme

This section provides preliminary estimates of the costs and financial resources necessary to scale up the delivery of a package of proven and cost-effective nutrition interventions. Zambia's income per capita at US$ 1,134 allows for a higher threshold for selecting cost-effective interventions. According to the WHO, any intervention that saves a disability-adjusted-life year (DALY) at a cost equal to, or under the income per-capita is very cost-effective. All selected interventions; even the most expensive such as treating children with Ready-to-use-Food (RUTF), are very cost-effective. RUFT has a cost per DALY of between $12-$132 depending on the targeting modality and provided the RUTF is used appropriately.

There are 10 selected, priority interventions (refer to Figure 10). Some of these are already operational and others are at an early stage of implementation. They can be summarized in three broad categories:

1) Pregnancy related interventions: includes provision of micronutrients for pregnant women; iron-folic acid supplements, vitamin A and iodized salt. Also includes fortification of staple foods for the whole family and a Food Security Programme -targeting the families of pregnant women, delivering inputs to grow their own food supply (homestead gardening) and support for livestock.

2) Children 0-6 months. This group includes the Mother and Baby Friendly Hospital concept to promote among others, exclusive breastfeeding, appropriate complementary feeding practices -receiving semi-solid food (but excluding provision of food, and hygiene, specially hand washing). Also included are growth monitoring and promotion, aiming at the early identification of children with potential severe acute malnutrition, and referring them to the appropriate service. It is assumed that these services are delivered at the community level by community health workers (potentially linked to the primary health care system or to an NGO).

3) Early childhood 6-24 months. This phase includes community based growth monitoring. These services are delivered at the community level by community health workers (potentially linked to the primary health care system or to an NGO). Also included are de-worming, vitamin A supplementation for children 6-24months, and use of multiple micronutrient powders to improve the quality of complementary foods. Finally, therapeutic feeding interventions are incorporated, including the provision of Ready-to-use-food (RUFT) for the treatment of acute malnutrition.

[68] Honorati, M., Rawlings, L., & Van Domelen J. (2011) Results-Based Lending Approaches in Social Protection and Labor, World Bank Experiences

[69] Watson F., Vargas, V., Schlossman, N., & Perry A. (2010) The use of nutrition supplements for the prevention and treatment of undernutrition.

There is good evidence that RUTFs are effective for the treatment of acute malnutrition using a community based management approach but there must be careful supervision and monitoring to ensure correct and appropriate use while giving emphasis to the importance of home-produced foods.

This plan presents some preliminary national estimates based on assumptions concerning coverage, baseline and target, and unit costs as presented in Table 20 below:

Table 19: Interventions, Coverage and Unit Costs

Target population	Interventions	Current coverage	Target coverage 2014-15	Unit cost per beneficiary US$ 2012
Pregnant women	Iron-folic acid	56%	86%	US$2.11
	Vitamin A	56%	86%	US$1.33
	Iodised oil capsules	1%	4%	US$2.3
	Seeds, and livestock	1%	4%	US$50
	Iron fortification of staple foods such as flour, and /or maize	1%	5% of total population	US$1.05 per capita
Children 0-6 months	Mother and Baby Friendly Hospital Initiative, promotion of exclusive breastfeeding, complementary feeding, and hygiene promotion.	20%	50%	US$17.2
	Growth, monitoring and promotion	1%	4%	US$4.99
Children 6–24 months	Growth, monitoring and promotion Initial identification of children with potential SAM, referral to health system Procurement and Distribution of micronutrient powders.	1%	4%	US$4.99
	Delivery of Ready-to-use-Food (Therapeutic and Supplementary Foods)	21% of 5.2% incidence	30%	US$215
	Vitamin A supplementation Deworming	100%= 30% routine services 70% campaign	100%	Funded

Source: All unit cost data are expressed in 2012 US dollars.

For calculating the programme total costs, the following variables are estimated:

1) the number of individuals in the target group, and
2) Each intervention current coverage and target coverage, as listed in Table 21. The baseline coverage of several interventions has been extracted from the latest available Demographic Health Survey 2007 and other relevant official sources.
3) Regarding the costs of each intervention, since there are no detailed studies available, the unit costs reported by the most comprehensive studies on scaling up nutrition, DCP 2006[70] and Horton et al 2010, have been used[71].

[70] Caulfield L, Richard S, Rivera J, Musgrove P, & Black R. (2006) Stunting, Wasting, and Micronutrient Deficiency Disorders. Disease Control Priorities in Developing Countries. 2nd edn. Washington, DC: The World Bank and Oxford University Press, pp. 551–67.

[71] Horton S., Shekar, M., McDonald, C., Mahal, A., Krystene J. (2010) Scaling Up Nutrition: What will it cost? The World Bank.

The total cost of the programme

Delivery costs include the nutrition interventions directly related to the target beneficiary population. In contrast, costs related to activities undertaken by the national coordination body, the NFNC and all participating ministries at the national level, plus the training provided by the University are usually not directly related to beneficiaries, but refer to supporting the entire system of scaling up implementation. Examples of activities include policy design, national IEC activities, M&E and operational research, and specialized training.

Table 20: Summary indicative costs for the First Critical Days Programme over 3 years

First 1000 Most Critical Days Programme					
	2012-13	2013-14	2014-15	Total(KR)	Total(US Dollar)
SERVICE DELIVERY COSTS					
Pregnancy	11,383,344.00	15,557,950.80	20,141,142.00	47,082,436.80	9,071,760.46
0-6 months	1,805,722.80	8,181,961.20	14,896,610.40	24,884,294.40	4,794,661.73
7-24 months	2,409,464.40	5,336,041.20	8,403,536.40	16,149,042.00	3,111,568.79
Subtotal	15,598,531.20	29,075,953.20	43,441,288.80	88,115,773.20	16,977,990.98
SUPPORTING COSTS					
Policy, and coordination	4,614,792.00	3,827,157.60	3,827,157.60	12,269,107.20	2,363,989.83
M & E and Research	3,996,577.20	2,702,170.80	2,702,170.80	9,400,918.80	1,811,352.37
Communications & Advocacy	4,450,437.60	4,190,088.00	4,190,088.00	12,830,613.60	2,472,179.88
Specialised training	3,033,492.00	2,750,118.00	2,750,118.00	8,533,719.60	1,644,261.97
University training	3,308,382.00	1,992,723.60	1,992,723.60	7,293,829.20	1,405,362.08
Subtotal	19,403,680.80	15,462,258.00	15,462,258.00	50,328,188.40	9,697,146.13
TECHNICAL ASSISTANCE & MANAGEMENT					
Technical assistance	17,139,242.40	15,695,248.80	15,695,248.80	48,529,731.60	9,350,622.66
Pool management costs	3,780,000.00	3,780,000.00	3,780,000.00	11,340,000.00	2,184,971.10
Subtotal	20,919,242.40	19,475,248.80	19,475,248.80	59,869,731.60	11,535,593.76
GRAND TOTAL	55,921,454.40	64,013,460.00	78,378,795.60	198,313,693.20	38,210,730.87

NOTE ON EXCHANGE RATES USED
KR 5.19 to US$ 1

The estimated programme total cost reaches KR23,608,773.00 (US$ 37.3 million). The total costs can be broken down into the intervention costs at KR10,489,973.00 (US$16,6 million), the programme supporting activities at US$9.5 million and the cost of technical assistance and management at KR 59,869,731.60 (US$11,3). The cost of phasing in the programme over the period 2012-2015 in three districts, where the Conditional Cash Transfer Programme is in place, reaches approximately KR5,334,000 (US$ 1 million).

Assumptions about estimating number of beneficiaries and costs

As a first step in calculating costs, the number of individuals is estimated in the appropriate target populations, as defined in the third column of Table 22.

- Total population projections have been extracted from Zambia's Population Census 2011 (2012)
- Number of pregnant women was assumed to be equal to 1.3 the number of born children, to account for abortions and stillbirths, based on a birth rate of 45 per 1000 population (World Bank statistics web).
- Children under 6 months or 6-12 months have been the estimated as the total number of children born minus the neonatal deaths resulting from a mortality of 30 per 1000 births as reported by UNICEF, 2010.
- Children 13-24 months were based on total number of children born children minus the number of infants deaths under one year corresponding to the IMR of 69 per 1000 births (UNICEF).
- Finally the number of children aged 6-24 months is the result of summing up the two previous categories.

The baseline coverage of several interventions has been extracted from the latest available Demographic Health Survey 2007, namely:

- Antenatal care and delivery of iron and iron-folic acid - 56%,
- Exclusive breastfeeding - 61%.
- Promotion of appropriate complementary feeding - only 37% of children ages 6-23 months living with their mothers are fed in accordance with IYCF practices.
- Acute malnutrition is estimated at 5.2% by the DHS 2007.

In addition, estimates of the number of children being treated for acute malnutrition via inpatient care have been taken from UNICEF's report on Commodity Requirements for Zambia.As regards, the Child Health Weeks programme, the NFNC estimates that 100% of the target population is covered during the 2 weeks bi-annual campaign. DFID and other donors are already funding this programme, which is why the intervention has not been included here.

Finally, some estimates are taken from the Food Security Pack programme (FSP), whose aim is to support household food security: the Ministry of Community Development spends about K 25 billion (US$4.702 million[72]) and reaches around 22,000 families at the national level (Mulumbi 2012). Assuming that 30% of the beneficiaries' families have a pregnant woman, and then the programme only covers around 1% of the food security intervention target group[73].

[72] Personal communication Edmond Mwakalombe – Chief Budget Officer Ministry of Community Development.

[73] Mwila Mulumbi (2012) Social Protection and Nutrition: Implications and opportunities.

Table 21 : Interventions, Coverage, and Unit Costs

Target Group	Intervention	Current coverage 2012	Target Coverage 2015	Unit cost US$ 2012	Source	Assumptions
Pregnant women	Iron-folic acid	56%	86%	US$2.11	Demographic Health Survey (DHS) 2007 Horton 2010	90 percent of women with ANC visit (60% coverage) took iron supplements during pregnancy.
	Vitamin A supplementation	56%	86%	US$1.33	Horton 2010	
	Community food security, seeds and livestock	1%	4%	US$50	Coverage:Mulumbi,2012	Food pack around US$213 Incorporated after discussion with NFNC March 19, 2009
	Food Fortification for staples Iron fortification of staple foods such as flour, and /or maize	1%	4%	US$1.05 per capita per year	Micronutrient Initiative, 2006	Only selected districts or 10% of total population
Children aged 0-6 months	Mother and Baby Friendly Hospital promotion of breastfeeding, complementary feeding, and hygiene behaviors.	20%	50%	US$17.2	Disease Control Priorities 2006 (DCP)	
	Community based growth monitoring: early identification of children with potential SAM. Distribution of micronutrient powders	1% (?)	4%	US$4.99	DHS 2007	
Children aged - 7-24 months	Community based growth monitoring: early identification of children with potential SAM. Distribution of micronutrient powders	1% (?)	4%	US$4.99	DHS 2007	
	Community-based management of malnutrition Delivery of Ready-to-use-Food therapeutic foods.	21% (children < 5)	30%	Around US$340 inpatient care US$ 215 Community-based therapeutic care	Inpatient cost UNICEF 2010 Community based Bachmann, 2009	Overall acute malnutrition was 5.2% in the 2007 DHS

Assumptions on intervention unit costs

There is a variety of approaches to cost studies. Costs can be classified as recurrent (one year or less) and capital items (more than one year). Recurrent cost categories include salaries and per diems of community workers, operating costs such as transport, commodities, materials, IEC, and training at the community level. On the other hand capital items include specialized training, vehicles, and equipment.

The gold standard in the health sector is the "ingredients" approach to costing, which consists of determining quantities and proportions used for each different input: personnel, commodities, materials, IEC and training at the community level for one standard case; valuing the inputs with local prices; and multiplying these values by the number of beneficiaries.

Since there are no local cost studies on the selected interventions, we use unit costs reported by the most comprehensive studies on scaling up nutrition, Disease Control Priorities in Developing Countries 2006 and Horton et al 2010[74]. All cost data are expressed in 2012 US dollars.

Costs of supporting implementation activities

The programme implementation support components costs such as policy design, M&E and operational research, were estimated by the team members with expertise in the specific areas and working in direct collaboration with the NFNC senior management. The main sources of information on costs and expenditures include:

- National Food and Nutrition Commission: Medium Term Expenditure Framework 2012-2014[75]
- National Food and Nutrition Commission Budget 2012-13
- Budget 2012-2013 Ministry of Health, Ministry of Community Development and Ministry of Agriculture
- Ministry of Health Medium Term Planning Framework 2011-2013

These were supplemented by additional information provided by UNICEF and using estimates from other countries with similar programmes, like Malawi.

Table 22: Components, main items and sources of information

	Main items	Sources
Policy design	? Incentives fees NFNC personnel ? Policy Meetings ? Workshops	? Salaries based on discussions at NFNC and with Zambian professionals $2800/month
M&E and operational research	? Survey ? Pilot ? Information System ? Monitoring system	

[74] Horton S., Shekar, M., McDonald, C., Mahal, A., & Krystene J., Brooks 2010 Scaling Up Nutrition: What will it cost? The World Bank.

[75] National Food and Nutrition Commission: (2011) Medium Term Expenditure Framework 2012-2014, August

	Main items	Sources
National IEC	? Fees IEC professionals ? IEC printed materials ? Air time broadcast	? Salaries based on discussions at NFNC and with Zambian professionals $2800/month ? IEC materials and workshop from UNICEF Zambia ? Air time broadcast costs from government stations ? Reference Guide- books
Specialised training, University	? TA ? Training	? International prices

Table 23 : Summary indicative costs for the First MCDP over 3 years in Districts with CCT: Kalomo, Chipata, Monze

First 1000 Most Critical Days Programme					
	2012-13	2013-14	2014-15	Total(KR)	Total(US$)
SERVICE DELIVERY COSTS					
Pregnancy	519994	814590	1123718	2458302	473661
0-6 months	127949	580591	1055779	1764319	339946
7-24 months	166051	367735	579130	1112916	214435
Subtotal	813994	1762916	2758627	5335537	1028042

All selected districts have a Conditional Cash Transfer Programme in place. All assumptions regarding coverage and unit costs followed the same methodology as national estimates.

The districts' population estimates are based on the latest Population Census 2011: 254,211 in Kalomo with an annual rate growth of 4.1%, Chipata 452,428 with a rate growth of 2.1% and Monze with 195,921 and a rate growth of 1.8%.

Continuity of the 1000 MCDP after 2015 will be critical. Some of the planned actions for sustaining the gains that the first 1000 MCDP will generate include:

- Sensitization of local communities in the project area at project inception especially by involving them at all critical stages of programme implementation from problem identification and analysis to the actual implementation, monitoring, evaluation and information dissemination on the lessons learnt. The programme will utilize traditional leaders, and civic leaders to mobilize support for the first 1000 MCDP.

- Capacity building for community structures for joint planning and resource mobilization for the 1000 MCDP. This will require strengthening partnerships and sharpening negotiation and lobbying skills for the members of the provincial, district and community food and nutrition multisectoral committees.

- The first 1000 MCD programme will work towards supporting initiatives that will promote and roll out alternative livelihood interventions to enhance sustainable food and nutrition

security at community and household level. In addition, communities should be motivated to develop viable projects especially those that do not demand a lot of external resources while encouraging mutual skills transfers among members to enhance programme continuity.

- Initiate advocacy in the early stages of the 1000 MCDP, targeting decision and policy makers in key line ministries in order for them to buy-in into the 1000 MCDP. This will necessitate ownership among the key line Ministries as they start to mainstream the 1000 MCDP activities in their respective annual plans& budgets. In addition the programme will deliberately utilize the Provincial permanent Secretary and District Commissioners' Offices to encourage NGO and partners in the respective areas to "invest or buy-in" the 1000 MCDP.

- Promote joint district planning, monitoring and technical support to leverage resources and to ensure transparency and accountability.

- Promote frequent review meetings and ensuring consistency in representation at the multisectoral food and nutrition committees at provincial, district and community. Preferably, at provincial and district levels formal appointments should be made by the Provincial Permanent Secretaries and the District Commissioners.

Section 4: Annexes

Annex 1: Monitoring and Evaluation Framework Summary 2013-2015

Narrative	Indicators	Targets by 2015	Means of Verification	Assumptions
Goal				
Improved health and nutritional status of children under 5	? Reduction in under 5 mortality ? Prevalence of stunting U-5 ? Prevalence LBW babies (<2.5 Kg) ? Prevalence food insecure households	U5 mortality 75 :1,000 LBs to 56/1000 Reduction in stunting from 45% to 30% LBW reduced from 9%-6% Reduced 30% to 20%	Demographic Health Survey, LCMS, NNSS	Commitment to scale up nutrition is sustained by all Partners.
Outcome				
High impact, harmonised multisectoral First 1000 Most Critical Days response at all levels	? Maternal nutrition during pregnancy and lactation. ? Micronutrient status children 6-24 months ? Prevalence acute malnutrition among children 0-24 months ? Disease prevalence among children 0-24 months.	46% iron deficiency anaemia; 53% Vit A deficiency to 20%	Demographic Health Survey HMIS Hospital and clinic records	Ownership by all line ministries Smooth transfer to Ministry Community Development and MCH Adequate funds available from donors Willingness of all stakeholders to follow the 'three ones concept' Ability of NFNC to provide leadership Functional M&E system led by NFNC
Outputs				
Strategic Area 1: POLICY & COORDINATION				
	Evidence of NFNC-led coordinated, harmonised effective and fully funded Programme		External evaluation	
Strategic Area 2: PRIORITY INTERVENTIONS				
	Evidence of priority First 1000 MCDs interventions scaled up & delivering results to reduce stunting		NMIS, HMIS Surveys and research	
Strategic Area 3: INSTITUITION &CAPACITY BUILDING				
	Evidence of increased skills, trained personnel, systems development		External evaluation GRZ HR reports	
Strategic Area 4: COMMUNICATION & ADVOCACY				
	Evidence of behaviour change at all levels and in all areas related to Programme		KAP studies External evaluation, OR	
Strategic Area 5: MONITORING, EVALUATION AND RESEARCH				
	Evidence of comprehensive functional M&E system and research informing policy and programmes		NFNC reports Evaluation	

Annex 2: 3 Year Monitoring and Evaluation Framework (2013-2015)

Strategic Area 1	Policy and coordination									
Strategic objective	Evidence of NFNC-led coordinated, harmonised effective and fully funded Programme									
Outcomes	Indicators	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
							(000)			(000)
1.1 Institutional re-positioning and legal framework for the NFNC adjusted and conducive for the coordination of the National Food and Nutrition Strategy 1.2 NFNC organisational and management systems reviewed, revised and adhered to. 1.3 Effective Governing and technical fora	# positions filled against establishment				NFNC reports. Evaluations	NFNC, cooperating partners	5,338,003	GRZ	Cooperating Partners	
	Type of systems put in place to support institutional efficiency				NFNC reports. Evaluations	NFNC, cooperating partners	87,000			
	Level of funding against plan				NFNC reports. Evaluations	NFNC, cooperating partners	12,200	GRZ		
	# Funding mechanisms established				NFNC reports. Evaluations	NFNC	2,208		Cooperating Partners	
	Coordination systems and plans at district level				NFNC reports, evaluation reports	NFNC	71,150		Cooperating Partners	
	# staff trained in the management and implementation of 1000 most critical days				NFNC reports	NFNC	184,000		Cooperating Partners	
	Type of TA contracted				NFNC reports. Evaluations	NFNC, cooperating partners	270,000	GRZ		
Resources committed by local and international agencies to Scale Up Nutrition initiatives	# agencies committing resources to support the Scale up of nutrition				NFNC reports. Evaluations	NFNC, cooperating partners	6,307			
	Total yearly allocation to SUN				NFNC reports. Evaluations	NFNC, cooperating partners		GRZ	Cooperating Partners	
Buy in from leadership, sector ministries and other stakeholders at national and sub national levels	% sectors and ministries buying in at national and sub national levels				Evaluation reports	NFNC, cooperating partners	12,200		Cooperating Partners	
Nutrition recognised as part of the development agenda at national and sub national level across all sectors	# sector plans incorporating scaling up nutrition issues				Evaluation reports	NFNC, cooperating partners	32,345	GRZ		

Strategic Area 1	Policy and coordination									
Strategic objective	Evidence of NFNC-led coordinated, harmonised effective and fully funded Programme									
Outcomes	Indicators	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
							(000)			(000)
Improved coordination in food and nutrition response.	Number of partners involved in implementing food and nutrition activities.				NFNC reports. Evaluations	NFNC, cooperating partners	5,338,003			
	Number of activities jointly planned and implemented.				NFNC reports. Evaluations	NFNC, cooperating partners	87,000			
	Number and types of institutions capacitated at National, Provincial, District and Community levels.				NFNC reports. Evaluations	NFNC, cooperating partners	12,200			
Sufficient re-sources commit-ted by both local and international agencies to Scale Up Nutrition initiatives	Number of agencies committing resources to support the Scale up of nutrition				NFNC reports. Evaluations	NFNC, cooperating partners	6,307			
	Total yearly allocation to SUN				NFNC reports. Evaluations	NFNC, cooperating partners				
Nutrition recognised as part of the development agenda at national and sub national level across all sectors	Number of sector plans incorrupt-rating scaling up nutrition issues									
Increased participation of private and Civil Society Organisations in Food and Nutrition programmes.	# and type of programmes that involve private and Civil Society Organisations.									

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
Intervention Area 1	National Maternal and Infant and Young Child Operational Strategy and Action Plan						(000)			(000)
Improvement in maternal nutrition (micro and macro) during pregnancy and lactation	% women in child bearing age with BMI less that 18.5 and or MUAC less 16.5cm.	8	7	5	Surveillance/DHS/ HMIS	MOH/CSO/N FNC				
	Average number of ante-natal visits per pregnancy.	3	3	3	DHS	MOH/CSO/N FNC				
	Percent women adopting special diet (frequency, quantity quality) during pregnancy &lactation.				Surveillance, Surveys	NFNC				
	Percent pregnant women receiving Fe+FA and taking > than 90 days	70	80	90	HMIS /DHS/Surveillance	MoH, NFNS				
	Percent women with low haemoglobin level.				DHS/surveys	MoH/CSO/N FNC				
Intervention Area 2	Pregnancy (270 days)					MOH				
Improvement in maternal nutrition (micro and macro) during pregnancy and lactation										
Antenatal Guidelines reviewed to strengthen elements related to First 1000 MCD	KAP study on Maternal and Adolescent Nutrition to include compliance with Iron/folate supplementation and anti-helminths during pregnancy									
	Feasibility assessment on Iron/folate					MoH,				

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
	supplementation and anti-helminths during pregnancy to consider distribution through community agents					MCDMCH, MoAL, CSOs				
The 1000 Most Critical Days incorporated into disease prevention programmes for mother (and for the child)										
Intervention Area 3	Infancy 0-6 months									
Reduction in low birth weight babies	Percent neonates with low birth weight (<2.5kg)			5%	HMIS /DHS/Surveillance	MOH		2) Reduction in low birth weight babies	Percent neonates with low birth weight (<2.5kg)	
Improved Infant and Young Child Feeding Practices	Percent children born in the last 24 months put to breast within one hour of birth			80%	DHS/Surveys	MOH/MCD MCH/CSO/NFNC				
	Percent infants 0–5 months of age who fed exclusively with breast milk			80%	DHS/Surveys	MOH/MCD MCH/CSO/NFNC				
	Percent children 12–15 months of age are fed breast milk				DHS/Surveys	MOH/MCD MCH/CSO/NFNC				
	Percent infants 6–8 months of age who receive solid, semi-solid or soft foods				DHS/Surveys	MOH/MCD MCH/CSO/NFNC				
	Percent children 6–23 months of age who receive foods from 4 or more food groups			75	DHS/Surveys	MOH/MCD MCH/CSO/NFNC				

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
	Percent breastfed and non-breastfed children 6–23 months receiving solid, semi-solid, or soft foods minimum number of times or more.			75	DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent children 6–23 months who receive minimum acceptable diet (apart from breast milk).				DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent children 6–23 months of age receiving iron-rich food or iron-fortified food designed for infants and young children, or that is fortified in the home.				DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
Improved Infant and Young Child Feeding Practices	Percent children born in the last 24 months put to breast within one hour of birth			80%	DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent infants 0–5 months of age who fed exclusively with breast milk			80%	DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent children 12–15 months of age are fed breast milk				DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent infants 6–8 months of age who receive solid, semi-solid or soft foods				DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent children 6–23 months of age who receive foods from 4 or more food groups			75	DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent breastfed and non-breastfed children 6–23 months receiving solid, semi-solid, or soft foods minimum number of times or more.			75	DHS/Surveys	MOH/MCD MCH/CSO/N FNC				

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
	Percent children 6–23 months who receive minimum acceptable diet (apart from breast milk).				DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
	Percent children 6–23 months of age receiving iron-rich food or iron-fortified food designed for infants and young children, or that is fortified in the home.				DHS/Surveys	MOH/MCD MCH/CSO/N FNC				
Baby Friendly Hospital Initiative revitalised and expanded with links to the community	Number /percent health facilities implementing BFHI with links to the community				IBFAN reports, WBTI reports	MOH				
Code on the Marketing of Breast milk Substitutes monitored and enforced	Monitoring and Enforcement of Zambia Breast Milk Substitute Regulations					ILO, MinLabour, MoH, IBFAN, BAZ				
Maternity Protection in support of breastfeeding mothers	Maternity protection legislation revised and implemented									
Intervention Area 4	*Early Childhood 6-24 months*									
Increased vitamin A supplementation coverage	Percent children 6-24 months supplemented with vitamin A	75	80	85	HMIS	MOH				
Improvement in micronutrient status in children 6-24 months of age	Percent children 6-24 months with low serum retinol levels i.e. <0.70 µmol/L or <20g/dl				Surveys	MoH, NFNC				
	Percent children 6-24 months with low haemoglobin levels (<11gµ/dl)				Surveys	MoH, NFNC				
Growth Monitoring and Promotion Programme adapted to include MUAC through community agents										

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
Scaling up Community MIYCF counselling package implemented at facility, community and household level in 10 districts										
Vitamin A Supplementation Programme for Children 6-59 months reviewed mechanisms	Food Consumption and Micronutrient Survey and review VAS Programme in Zambia to rethink the strategies to provide VAS.									
First 1000 MCD incorporated into disease prevention interventions	Sleeping under bed net and malaria prevention and prevention. Similar approach needed for hygiene practices to prevent diarrhoea.									
	Operational Research focused on improving nutritional content of complementary food by home fortification with micronutrients.									
Intervention Area 5	Additional strategies									
More than 50 percent of households with improved dietary score above 5.0	1) Percent of households with dietary score above 5.0.	*			Nutrition Surveillance	NFNC				
Nutritionally improved food crops, fish and livestock varieties and breeds available at household level	1) Number of improved food crop varieties, fish and small livestock breeds released.	*			Reports	MOAL, MCDMCH				
	2) Number of households acquiring improved food crops varieties, fish, and small livestock breeds.				MOAL, MCDMCH and MOAL REPORTS (Quarterly and	MOAL, MCDMCH				

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
					Annual					
	3) Number of households consuming improved food crops varieties , fish, and small livestock breeds				MOAL, MCDMCH and MOAL REPORTS (Quarterly and Annual	MOAL, MCDMCH				
Severe malnutrition managed according to the protocol.	1) Availability of new protocol at health facility and community levels.				Quarterly and Annual Reports	MoH				
	2) Number of health workers and community workers trained in the new protocol				Quarterly and Annual Reports	MoH				
Reduced mortality due to severe malnutrition at all management levels.	1) Under five mortality rates due to malnutrition.			<10%	HMIS	MoH				
Re-activation of the National Food Fortification Programme for fortification of commercial maize flour										
Salt iodisation monitored at the borders	System for monitoring iodine levels of salt entering Zambia									
Development of Operational Guidelines in Food and Nutrition in Ministry of Agriculture	Guidelines for mainstreaming Food and Nutrition are being developed that will then be incorporated into programmes across the MoAL.									
Social Protection Initiatives for prevention of stunting and treatment of moderate acute malnutrition										

Strategic Area 2	PRIORITY INTERVENTIONS									
Outcomes	Indicators and targets	Time Frame			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GRZ	Others	
Operational Research and Projects on homestead food-based interventions to reduce stunting in children under 2 years.										
Civil Society contributions to reduction of stunting	Finalise development and roll out of National Guidelines for IMAM									
Early Detection and Management of Acute Malnutrition	Strengthen and expand services related to growth monitoring and promotion activities until the child reaches at least 24 months of age.									
	Operational research on use of locally produced RUTF for the treatment of IMAM									
Expand coverage of nutrition commodities through the scale up of EMLIP	Assure promotion of use of treated bed nets during pregnancy and for the first 24 months of life.									

Strategic Area 3	INSTITUTIONAL AND CAPACITY STRENGTHENING, TRAINING AND EDUCATION								
Strategic Objective	To strengthen human resource and institutional capacity in nutrition at all levels								
Outcomes	Indicators	Time Frame and targets			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GoZ	Others	
							(000)			(000)
Well-equipped institutions with efficient management systems established and functional.	Number and types of institutions capacitated at National, Provincial, District and Community levels.					NFNC, MoH, MoAL, MoE, MLGH, MCDMCH				
Appropriate competencies to manage food and nutrition services at National, Provincial, District and Community levels.	Number of pre-service and In-service staff receiving food and nutrition training in key sectors at National, Provincial, District and Community levels.					NFNC, MoH, MoAL, MoE, MLGH, MCDMCH				
	# and type of staff with competencies available at National, Provincial, District and Community levels.									
Increased participation of private and Civil Society Organisations in Food and Nutrition programmes.	Number and type of programmes that involve private and Civil Society Organisations.					CSO				

Strategic Area 4	COMMUNICATION AND ADVOCACY									
Strategic Objectives	Increase knowledge and awareness among, Policy makers and other stakeholders in Zambia on the prevention of stunting in children under two and promote better and sustainable nutritional and health practices among mothers and families.									
Outcomes	Indicators	Time Frame and targets			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2012-13	2013-14	2014-15				GRZ	Others	(000)
					Survey	NFNC Cooperating Partners			Cooperating Partners	
Improved knowledge on prevention of stunting among the general public especially women of child bearing age	Percent women in the child bearing age group with knowledge on prevention of stunting									
Increased knowledge among Policy makers and other stakeholders on prevention of stunting	Percent policy makers influencing positive decisions on preventing stunting in children 0 to 24 months.				Survey	NFNC Cooperating Partners			Cooperating Partners	
Improved behaviours and practices for prevention of stunting among children 0 to 24 month	Percent women adopting new behaviours and practices for prevention of stunting				Survey Survey	NFNC Cooperating Partners			Cooperating Partners	

Strategic Area 5	MONITORING, EVALUATION AND RESEARCH									
Strategic Objective 4	2015 policy formulation and programming using evidence based information from research will have been									
Outcomes	Indicators	Time Frame and targets			Data sources	Lead and Collaborating institutions	Indicative funds required	Source of funds		Gaps
		2013	2014	2015				GoZ	Others	
							(000)			(000)
National multisectoral Food and Nutrition Monitoring and evaluation system focussing on the First 1000 most critical days significantly strengthened	# multisectoral Monitoring and Evaluation systems integrated into the First 1000 Most Critical days programme				NFNC reports	NFNC Cooperating Partners	64,404	GRZ	DFID	
Monitoring and evaluation capacity (equipment and human resource) is built at all levels	Quarterly M&E reports on website				NFNC reports					
National research agenda on the First 1000 most critical days informing programmes and activities	Availability of a national research agenda				NFNC reports	NFNC Cooperating Partners	42,000		DFID	
	# research proposals approved & funded				NFNC reports	NFNC				
Effective national coordinating mechanism for Research led by NFNC	Research TWG meetings				NFNC reports	NFNC, UoZ	7,477,356			

Annex 3: Definitions

Acute hunger	Acute Hunger is when lack of food is short term, and is often caused when shocks such as drought or war affect vulnerable populations
Breast milk substitute	Any food being marketed or otherwise represented as a partial or total replacement for breast milk, whether or not it is suitable for that purpose.
Chronic hunger	Chronic hunger is a constant or recurrent lack of food and results in underweight and stunted children, and high infant mortality. „Hidden hunger ? is a lack of essential micronutrients in diets.
Complementary feeding	The process starting when breast milk alone or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant, and therefore other foods and liquids are needed along with breast milk or a breast milk substitute. The target range for complementary feeding is generally consi dered to be 6–23 months.
Disability Adjusted Life Years (DALY)	DALY is the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability (WHO)
Exclusive breastfeeding:	Infant receives only breast milk (including breast milk that has been expressed or from a wet nurse) and nothing else, even water or tea. Medicines, oral rehydration solution, vitamins and minerals, as recommended by health providers, are allowed during exclusive breastfeeding.
Food security	When all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.
Hunger	Hunger is often used to refer in gene ral terms to MDG1 and food insecurity. Hunger is the body's way of signalling that it is running short of food and needs to eat something. Hunger can lead to malnutrition.
Low birth weight (LBW)	Low birth weight: refers to a birth weight of less than 2,5 00 grams. This may be due to prematurity, growth restriction, or a combination of the two.
Malnutrition	An abnormal physiological condition caused by inadequate, excessive or imbalanced intake in macronutrients, -carbohydrates, protein, fats - and micronutrients. This is a broad term commonly used as an alternative to undernutrition, but technically it also refers to over nutrition. People are malnourished if their diet does not provide adequate nutrients for growth and maintenance or they are unable to fu lly utilize the food they eat due to illness (undernutrition). They are also malnourished if they consume too many calories (over nutrition).
Moderate acute malnutrition	Defined as weight for height between minus two and minus three standard deviations from the median weight for height of the standard reference population.

Millennium Development Goal 1 (MDG 1)	Eradicate extreme poverty and hunger - has two associated indicators for its hunger target: 1) Prevalence of underweight among children under five years of age measures undernutrition at an individual level, collated by WHO a nd maintained in a global database on nutrition that allows comparability across countries. 2) Proportion of the population below a minimum level of dietary
Millennium Development Goal 1 (MDG 1)	Eradicate extreme poverty and hunger - has two associated indicators for its hunger target: 1) Prevalence of underweight among children under five years of age measures undernutrition at an individual level, collated by WHO a nd maintained in a global database on nutrition that allows comparability across countries. 2) Proportion of the population below a minimum level of dietary energy consumption measures hunger and food security, and is measured only at a national level (not at an individual level) through national food balance sheets based on aggregate data on food availability and assumed patterns of food distribution in each country. However, increased aggregate food availability is not synonymous with improved nutritional status.
Nutrition security	Achieved when secure access to an appropriately nutritious diet is coupled with a sanitary environment, adequate health services and care, to ensure a healthy and active life for all household members.
Severe Acute Malnutrition (SAM)	A weight-for-height measurement of 70% or less below the median or 3 SD or more below the mean international reference values, the presence of bilateral pitting oedema, or a mid-upper arm circumference of less than 115 mm in children 6 – 60 months old. Categories of SAM Severe Acute Malnutrition (WFH <-3 Z scores or <70% of the reference median and /or bilateral oedema and/or MUAC < 11cm)
Stunting	Reflects shortness-for-age; an indicator of chronic malnutrition and calculated by comparing the height-for-age of a child with a reference population of well - nourished and healthy children
Supplementary feeding	Additional foods provided to vulnerable groups, including moderately malnourished children.
Undernutrition	When the body does not have adequate amounts of one or more nutrients reflected in biochemical tests (e.g. Haemoglobin level for iron deficiency anaemia), in anthropometric indicators such as stunting (low height -for-age) or wasting (low weight-for-height) and/or in clinical signs (e.g. goitre for iodine deficiency or bilateral oedema).
Underweight	Measured by comparing the weight-for-age of a child with a reference population of well-nourished and healthy children.
Wasting	Reflects a recent and severe process that has led to su bstantial weight loss, usually associated with starvation and/or disease. Wasting is calculated by comparing weight-for-height of a child with a reference population of well - nourished and healthy children. Often used to assess the severity of emergencies because it is strongly related to mortality.

ANNEX 4: Evidence for management of nutrition-related conditions for the 1st 1000 Most Critical Days

(from (Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, New-born and Child Health A Global Re view of the key Interventions related to Re productive, Maternal, New-born and Child Health (RMN CH) WHO, Aga Khan University, PMNCH 2011)

Intervention	Evidence
Folic acid fortification and/or supplementation to prevent Neural Tube De fects	● Folic Acid for the Prevention of Neural Tube Defects: U.S. Preventive Services Task Force Recommendation Statement www.annals.org/content/150/9/626.abstract ● De-Regil LM, Fernández-Gaxiola AC, Dowswell T, Peña -Rosas JP. Effects and safety of periconceptional folate supplementation for preventing birth defects. Cochrane Database of Systematic Reviews. 2010 ; Issue 10. Art. No.: CD007950. ● Blencowe H, Cousens S, Modell B, Lawn J. Folic acid to reduce neonatal mortality from neural tube disorders. International Journal of Epidemiology. 2010;39(Suppl. 1):i110 -i121.
Iron and folic acid supplementation during pregnancy	● Guidelines for the use of iron supplements to prevent and treat iron deficie ncy anaemia www.who.int/nutrition/publications/micronutrients/guidelines_for_Iron_supplementation.pdf ● Pregnancy, Childbirth, Postpartum and Ne wborn Care: a guide to essential practice http://whqlibdoc.who.int/publications/2006/924159084X_eng.pdf ● Peña-Rosas JP, Viteri FE. Effects and safety of preventive oral iron or iron+ folic acid supplementation for women during pregnancy. Cochrane Database o f Systematic Reviews. 2009;Issue 4. Art. No.: CD005462. ● Imdad A, Yakoob MY, Bhutta ZA. The effect of folic acid, protein energy and multiple micronutrient supplements in pregnancy on stillbirths. BMC Public Health. 2011;11(Suppl 3):S4.
Prevention and management of malaria in pregnancy a) Prophylactic antimalarial for preventing malaria in pregnancy b) Provision and promotion of use of Insecticide Treated Nets for preventing malaria in pregnancy	● Pregnancy, Childbirth, Postpartum and Newborn Care: a guide t o essential practice http://whqlibdoc.who.int/publications/2006/924159084X_eng.pdf ● Insecticide treated bednets: a WHO position statement www.who.int/malaria/publications/atoz/itnspospaperfinal.pdf ● Gamble C, Ekwaru JP, Ter Kuile FO. Insecticide -treated nets for preventing malaria in pregnancy. Cochrane Database of Systematic Reviews. 2006;Issue 2. Art. No.: CD003755.
Prevention and management of HIV and Prevention of Mother-to-Child Transmission in Pregnancy	● Pregnancy, Childbirth, Postpartum and New-born Care: a guide to essential practice http://whqlibdoc.who.int/publications/2006/924159084X_eng.pdf ● Rapid advice: use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants www.who.int/hiv/pub/mtct/advice/en/index.html ● Siegfried N, van der Merwe L, Brocklehurst P, Sint TT. Antiretrovirals for reducing the risk of mother -to-child transmission of HIV infection. Cochrane Database of Systematic Reviews. 2011;I ssue 7. Art. No.: CD003510. ● Read JS, Newell ML. Efficacy and safety of cesarean delivery for prevention of mother -to-child transmission of HIV-1. Cochrane Database of Systematic Reviews. 2005;Issue 4. Art. No.: CD005479. ● Sturt AS, Dokubo EK, Sint TT. Antir etroviral therapy (ART) for treating HIV infection in ART -eligible pregnant women. Cochrane Database of Systematic Reviews. 2010;Issue 3. Art. No.: CD008440.

Intervention	Evidence
Promotion and provision of thermal care for all newborns to prevent hypothermia (immediate drying, warming, skin to skin, delayed bathing)	● WHO essential new-born care www.who.int/making_pregnancy_safer/documents/newborncare_course/en/index.html ● WHO. Thermal protection of the new-born: a practical guide (Part of training material) http://www.who.int/ making_pregnancy_safer/documents/ws42097th/en/ ● WHO. IMCI chart booklet (2008) www.who.int/child_adolescent_health/documents/IMCI_chartbooklet/en/index.ht ● 55. McCall EM, Alderdice F, Halliday HL, Jenkins JG, Vohra S. Interventions to prevent hypothermia at birth in preterm and/or low birth weight infants. Cochrane ● Database of Systematic Reviews 2010;Issue 3. Art. No.: CD004210.
Promotion and support for early initiation and exclusive breastfeeding (within the first hour)	● WHO. Infant and Young child feedin g - Programming Guide www.who.int/child_adolescent_health/documents/9241591218/en/index.html ● WHO. IMCI chart booklet (2008) www.who.int/child_adolescent_health/documents/IMCI_chartbooklet/en/index.ht ● Infant young child feeding counselling: An integrated co urse (Part of training material) www.who.int/nutrition/publications/infantfeeding/9789241594745/en/index.html ● Imdad A, Yakoob MY, Bhutta ZA. 56. Imdad A, Yakoob MY, Bhutta ZA. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. BMC Public Health 2011;11(Suppl 3):S24. ● Dyson L, McCormick FM, Renfrew MJ. Interventions for promoting the initiation of breastfeeding. Cochrane Database of Systematic Reviews. 2005;Issue 2. Art. No.: CD001688. ● Lewin S, Munabi-Babigumira S, Glenton C, et al. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. Cochrane Database of Systematic Reviews. 2010;Issue 3. Art. No.: CD004015. ● Lassi ZS, Haider BA, Bhutta ZA. Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes. Cochrane Database of Systematic Reviews. 2010;Issue 11. Art. No.: CD007754.
Kangaroo mother care (KMC) for preterm and for < 2000g babies	● WHO | Kangaroo mother care: a practical guide www.who.int/making_pregnancy_safer/documents/9241590351/en/ ● WHO. Essential newborn care course (2010) - Training Tool www.who.int/making_pregnancy_safer/documents/newborncare_c ourse/en/ ● Lawn JE, Mwansa-Kambafwile J, Horta BL, Barros FC, Cousens S. 'Kangaroo mother care' to prevent neonatal deaths due to preterm birth complications. ● International Journal of Epidemiology. 2010;39(suppl 1):i144 - i154. Conde-Agudelo A, Belizán JM, Diaz-Rossello J. ● Kangaroo mother care to reduce morbidity and mortality in low birthweight infants. Cochrane Database of Systematic Reviews. 2011;Issue 3. Art. No.: CD002771.

Intervention	Evidence
Extra support for feeding the small and preterm baby	● WHO guide for feeding preterm and LBW babies (forthcoming in the web) ● WHO. Essential newborn care course (2010) - Training Tool www.who.int/making_pregnancy_safer/documents/newborncare_course/en/ ● Edmond K, Bahl R. Optimal feeding of low-birth-weight infants. Geneva: World Health Organization; 2006.
Promotion and support for exclusive breastfeeding for 6 months	● WHO. Exclusive Breastfeeding www.who.int/nutrition/topics/exclusive_breastfeeding/en/ ● WHO. Infant and young child feeding counselling: an integrated course (2006) - Training tool www.who.int/nutrition/publications/infantfeeding/9789241594745/en/index.html ● WHO. Community-based strategies for breastfeeding promotion and support in developing countries (2003) – Technical Review www.who.int/child_adolescent_health/documents/9241591218/en/index.html ● WHO. IMCI chart booklet (2008) www.who.int/child_adolescent_health/documents/IMCI_chartbooklet/en/index.ht ● Imdad A, Yakoob MY, Bhutta Z. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. BMC Public Health. 2011;11(Suppl 3):S24. ● Kramer MS, Kakuma R. Optimal duration of exclusive breastfeeding. Cochrane Database of Systematic Reviews. 2002;Issue 1. Art. No.: CD003517.
Promotion and support of continued breastfeeding and complementary feeding a) Continued breastfeeding up to 2 years and beyond b) Appropriate complementary feeding starting supplementation from 6 months in Vitamin A deficient populations	● WHO. Guiding principles for complementary feeding of the breastfed child (2003) http://whqlibdoc.who.int/paho/2003/a85622.pdf ● WHO. Guiding principles for feeding non breastfed children 6-24 months of age (2005) www.who.int/child_adolescent_health/documents/9241593431/en/index.html ● Kramer MS, Kakuma R. Optimal duration of exclusive breastfeeding. Cochrane Database of Systematic Reviews. 2002;Issue 1. Art. No.: CD003517. ● Mayo-Wilson E, Imdad A, Herzer K, Yakoob MY, Bhutta ZA. Vitamin A supplements for preventing mortality, illness, and blindness in children aged under 5: systematic review and meta-analysis. BMJ. 2011;343:d5094. ● Imdad A, Herzer K, Mayo-Wilson E, Yakoob MY, Bhutta ZA. Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. Cochrane Database of Systematic Revie ws. 2010;Issue 12. Art. No.: CD008524. ● Vitamin A .WHO Guideline: Vitamin A supplementation in infants and children 6-59 months of age (2011) www.who.int/nutrition/publications/micronutrients/guidelines/vas_6to59_months/en/index.html
Management of severe acute malnutrition: a) without complications (all levels) b) with complications (Referral)	● WHO. Management of severe malnutrition: a manual for physicians and other senior health workers (1999) www.who.int/nutrition/publications/severemalnutrition/en/manage_severe_malnutrition_eng.pdf ● WHO. Pocket book of hospital care for children: guidelines for the management of ● common illnesses with limited resources www.who.int/child_adolescent_health/documents/9241546700/en/index.html ● Ahmed T, Ahmed SAM, Mahfuz M, Abdullah K, Cravioto A, Sack D. Systematic review of management of childhood severe malnutrition. Nutrition intervention for

Intervention	Evidence
	● maternal and child health and survival. Vol ISBN- 978-0-19-547360-5. Oxford University Press.; 2010. ● Community management of severe acute malnutrition: World Health Organization/World Food Programme/United Nations System Standing Committee on Nutrition/The United Nations C hildren's Fund- 2007.
Case management of childhood Pneumonia a) Vitamin A as part of treatment for measles-associated pneumonia for children above 6 months b) Vitamin A as part of treatment for non-measles associated pneumonia for children above 6 months	● WHO. Manual for the Community Health Worker: Caring for the sick child in the community (Working Version) ● WHO and UNICEF. Management of Sick Children by Community Health Worker (2006) www.unicef.org/publications/files/Management_of_Sick_Children_by_ Community_Health_Workers.pdf ● WHO. IMCI chart booklet (2008) - Guideline www.who.int/child_adolescent_health/documents/IMCI_chartbooklet/en/index.ht ● WHO. Pocket book of hospital care for children - Guideline www.who.int/child_adolescent_health/documents/924 1546700/en/index.html ● Theodoratou E, Al-Jilaihawi S, Woodward F, et al. The effect of case management on childhood pneumonia mortality in developing countries. International Journal of Epidemiology. 2010;39(suppl 1):i155 -i171. ● Fawzi WW, Chalmers TC, Herrer a MG, Mosteller F. Vitamin A supplementation and child mortality. A meta -analysis. JAMA. 1993;269(7):898-903. ● Sudfeld CR, Navar AM, Halsey NA. Effectiveness of measles vaccination and vitamin A treatment. International journal of epidemiology. 2010;39(suppl 1):i48-i55. ● Brown N, Roberts C. Vitamin A for acute respiratory infection in developing countries: a meta -analysis. Acta Pediatricia. 2004;93(11):1437-1442. ● Wu T, Ni J, Wei J. Vitamin A for non -measles pneumonia in children. Cochrane Database of Systemat ic Reviews. 2005;Issue 3. Art. No.: CD003700. ● Grotto I, Mimouni M, Gdalevich M, Mimouni D. Vitamin A supplementation and childhood morbidity from diarrhoea and respiratory infections: A meta -analysis. ● Journal of Pediatrics. 2003;142(3):297-304. ● Chen H, Zhuo Q, Yuan W, Wang J, Wu T. Vitamin A for preventing acute lower respiratory tract infections in children up to seven years of age. Cochrane Database of Systematic Reviews. 2008;Issue 1. Art. No.: CD006090.

Source: Essential Interventions, Commodities and Guidelines for reproductive, Maternal, Newborn and Child Health A Global Re view of the key interventions related to Re productive, Maternal, Newborn and Child Health.WHO. PMNCH.Aga Khan University. 2011.

Annex 5: Institutional Arrangements for Coordinating the First 1000 MCDP

Purpose

The main purpose is to ensure that there is proper co-ordination and adequate capacity to scale up nutrition programmes in the country.

Membership

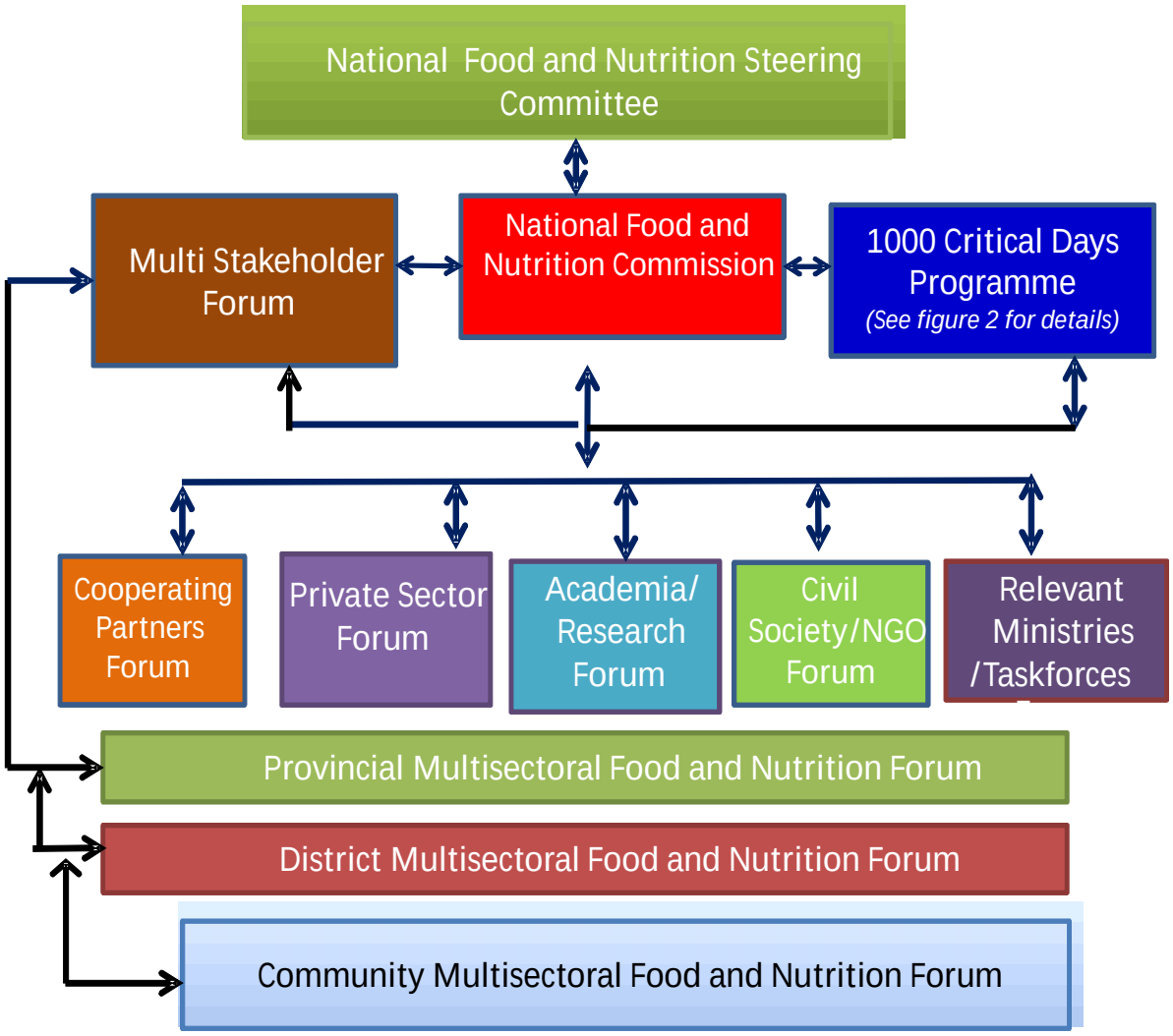
Governance structure will include the National Food and Nutrition steering committee at Cabinet level to ensure political commitment. This will mainly involve decision makers such as Permanent secretaries from key line ministries with a stake in food and nutrition.At technical and implementation level there will be the National Food and Nutrition Multi-stakeholder Committee whose secretariat is the NFNC. Other SUN committees will be the Cooperating Partners forum, the Civil Society Forum, the Private sector Forum who will work closely with the NFNC on following up recommendations from the national multi-stakeholder committee. For speedy execution of the recommendations from the National Multi-stakeholders committee, the NFNC will operate through the technical working groups or taskforces as need arises.

Scope of work

The proposed governance framework for SUN in Zambia will have several committees at various levels.These will include the following in order of superiority:

1) Committee of Cabinet Ministers especially those from the five key ministries (Community Development, Mother and Child Health, Education,Vocational Training and Early Education, Agriculture & Livestock,Local Government and Housing);
2) The National Nutrition Multisectoral Committee;
3) Provincial Nutrition Multisectoral Committees;
4) District Nutrition Multisectoral Committees;and
5) Community Nutrition Multisectoral Committees.
6) Nutrition Cooperating Partners Forum
7) Civil Society Forum
8) Private/Business Forum
9) Academia and Research

Figure 12: Proposed nutrition governance framework



This section below provides the composition and ToRs for the various committees as explained under the respective committees below:

1) National Food and Nutrition Cabinet committee:

This will be a special cabinet sub-committee comprising of cabinet ministers from the 6 key line namely Ministry of Agriculture and Livestock, Ministry of Community Development, Mother and Child Health, Ministry of Health, Ministry of Local Government & Housing, Ministry of Education, and Ministry of Finance and National Development. Its formation is aimed at ensuring political commitment towards implementation of the National Food and Nutrition Policy and its strategic plan. The Chairperson of the National Food and Nutrition Commission will attend as Secretariat. The main roles of the committee are highlighted in box 1.

The committee will be meeting biannually and provide report to Cabinet on the progress and challenges of food and nutrition programs with special focus on the SUN's First 1000 Most Critical Days Programme.

Box 1: Terms of Reference of National Food and Nutrition Steering Committee

- Oversees nutrition governance in relation to National Food and Nutrition Policy and strategic plan implementation
- Provide strategic guidance in relation to national development agenda
- Lobby for more resources from national treasury and from Cooperating Partners & donors.
- Ensure high impact nutrition actions receive adequate budgetary allocation from the sector budgets
- Review key performance indicators and share with cabinet
- Review and endorse the annual country SUN progress report before submission to Global SUN Movement during the UNGA

2) National Food and Nutrition Multi-stakeholder Committee (NFNMC):

The National Food and Nutrition Steering Committee at cabinet level will have its decisions implemented through the National Food and Nutrition Multi-stakeholder Committee (NFNMC). This will comprise of senior executives/officers from implementing agencies such as directors, senior representation from various institution including but not limited to the following; Directors or Senior Officials from key line ministries - MAL, MLGH, MCDMCH, MEVTEE, MoH, , MCTI, and MFNP; Senior Representatives from UN System - WFP, WHO, UNICEF, FAO, World Bank; Senior Representation from Bilateral Agencies (USAID, DFID, Irish Aid, European Union); Senior Representations from Local and International NGOs; Chairpersons and Secretaries from Civil Society forum, Private/Business forum, and Academia and Research Forum. The committee will operate through terms of reference highlighted in Box 2 and will meet biannually. Permanent Secretaries from the five key line ministries will chair these meetings on rotational basis while the NFNC will be the secretariat. Scheduled meetings will be held biannually.

Box 2: Terms of Reference for National Food and Nutrition Multi Stakeholder Committee (NFNMC)

- Review progress reports from national and provinces against set targets.
- Analyse resource utilisation by the respective sectors
- Consensus on priority actions for annual work plan from stakeholders.
- Generate recommendations to the National Steering Committee for consideration and approval
- Translate directives from the National Steering Committee into possible result oriented actions.
- Review and recommend actions for capacity building for the implementing agencies
- Provide feedback to PFNMCs

3) Provincial Food and Nutrition Multisectoral Committee (PFNMC):

The National Food and Nutrition Multi Stakeholder Committee (NFNMC) will receive and discuss progress reports from all the Provincial Food and Nutrition Multisectoral Committees (PFNMC). Decisions made by the National Multi-stakeholder Committee will be translated into implementable actions by the PFNMC. It will be comprised of Senior technical staff dealing with food and nutrition from the five key line ministries- Agriculture, Health, Community Development, Education, and Local Government; representation from Civil Society organizations involved in food, health and nutrition projects/ programme in the province; and representation from private sector active in the province.The PFNMC will meet quarterly with Chairperson and secretariat selected on annual rotational basis.The terms of reference at this level are in box 3 below

Box 3: Terms of Reference of Provincial Food and Nutrition Multisectoral Committee (PFNMC)

- Review progress against from the district set targets
- Review priority actions included in district annual work plans
- Facilitate implementation of district multisectoral action plans
- Provide technical support and backstopping to district multisectoral plans.
- Review resource requirement for result oriented actions from district multisectoral plans
- Identify capacity building needs
- Undertake joint monitoring and evaluation to districts.
- Submit progress report to Provincial Development Coordinating Committee and to National Food and Nutrition Multisectoral Committee.
- Provide feedback to DFNMCs

4) District Food and Nutrition Multisectoral Committee (DFNMC):

The district level is the implementer of most of the programs ensuring that they reach the intended target groups, through joint action planning and implementation. The DFNMC will consist of technical staff dealing with food and nutrition from the five key line ministries - Agriculture, Health, Community Development, education, and Local Government; representation from Civil society organization involved in food, health and nutrition projects/ programme; and representation from private/business sector. The DFNMC will be meeting quarterly with Chairperson and secretariat selected on annual rotational basis. The terms of reference at this level are in box 4 below

The DFNMCs will also have a role of ensuring that the recommendations of the PFNMC are executed.The terms of reference are provided in Box 4 below.

Box 4: Terms of Reference for District Nutrition Multisectoral committee

- Review progress reports from community food and nutrition multisectoral committees against set targets
- Review priority actions included in community multisectoral annual work plans
- Facilitate implementation of community multisectoral action plans
- Provide technical support and backstopping to community based multisectoral plans.
- Review resource requirement for result oriented actions from community based multisectoral plans
- Identify capacity building needs
- Undertake joint monitoring and evaluation to community level 1st 1000 MCDP.
- Submit progress report to District Development Coordinating Committee and to Provincial Multisectoral Food and Nutrition Committee.
- Provide feedback to Community food and nutrition multisectoral committees

5) Community Food and Nutrition Multisectoral Committees (CFNMC):

These forums will be based in communities and will be the closest to households.They will be the implementing arm of the districts and will ensure that adequate sensitization is conducted in communities. It will involve the efforts of technical staff dealing with food and nutrition from the five key line ministries - Agriculture, Health, Community Development, education, and Local Government at sub district level; representation from local leadership (Chiefs and Headmen); representation from Civil Society organization involved in food, health and nutrition projects/ programme; and representation from private/business sector.The meetings will be held quarterly and when need arises. Terms of reference for CFNMC are provided in Box 5.

Box 5: Community Nutrition Multisectoral committee

- Review progress against set targets
- Identify and develop priority actions to include in community multisectoral annual work plans
- Implementation of community multisectoral action plans
- Provide technical support and backstopping to community based service delivery structures.
- Review resource requirement for result oriented actions from community based multisectoral plans delivery structures
- Identify capacity building needs in respective communities
- Undertake joint monitoring and evaluation to community level programmes and activities.
- Submit progress and financial report to DFNMC.
- Regularly update local leadership on progress of the various programmes in the multisectoral nutrition plans.

6) Other Taskforces as guided by the NFNMC:

For speedy execution of the recommendations from the National Multi-stakeholders committee, the NFNC will operate through the existing technical working groups or taskforces especially those attached to the five key line ministries, such as the IYCF committee, , Food Security Committees, WASHE committees, School Health and Nutrition National Fortification Alliance, Child Health technical working group, Pool Funding Committee, etc. Formation of relevant ones will also be encouraged as need arises.. All such committees will be feeding information to the NFNMC through the NFNC (secretariat). Membership will include senior representation from key line ministries, representation from UN system, representation from bilateral programmes/projects and other institutions.

Box 6: Relevant Task forces as guided by the NFNMC

- Review progress against set targets
- Consensus on priority actions to include in annual work plans
- Translate recommendations from Multi-stakeholder forum into possible result oriented actions
- Review resource requirement for result oriented actions
- Identify capacity building needs
- Define indicators for monitoring and evaluation of strategic directions

7) Civil Society Forum (CSF):

Civil society advocates for the most marginalized and disadvantaged and help to bring accountability to government and cooperating partners for commitment they make. They have advantage of this because they are on the ground as implementers of nutrition programs and supporting human rights. The civil society forum (CSF) will draw representation from Civil Society for Poverty Reduction (CS, Jesuit Centre for Theological Reflection, Programme Against Malnutrition (PAM), Nutrition Association of Zambia (NAZ), IBFAN Zambia/Breastfeeding Association of Zambia and other organizations involved in providing services related to the 1st 1000 MCDP ..The CSF will be meeting quarterly and chairmanship and secretariat will be decided upon by the forum. The forum will be guided by the terms of reference in box 7.

Box 7: Civil society Forum

- Develop, implement and review advocacy strategy
- Lobby for investment in food and nutrition from GRZ, NGO, and private/corporate world.
- Prepare update report to the National Food and Nutrition Multi-stakeholder Committee.
- Implement recommendations from the NFNMC

8) Private Sector Forum:

The private/business sector need to be better engaged in the scaling up nutrition at all levels as part of their corporate responsibility. Memberships will be comprised of organizations such as Manufacturers Association of Zambia, Millers Association of Zambia, Zambia National Farmers Union, Poultry Association, Seed Growers Association, and other companies providing services in related to the 1st 1000 MCDP. The Private/business Sector Forum (PSF) will be meeting twice in a year and will be guided by the terms of reference in box 8.

Box 8: Terms of Reference Private Sector Forum

- Mobilize resources to support government efforts in relation to the First 1000 Most Critical Days interventions
- Corporate social responsibility in relation to interventions under the First 1000 Most Critical Days campaign.
- Partner with district/community GRZ or NGO projects and /or programmes.

9) Nutrition Cooperating Partners forum (NCPF):

Addressing the issues of undernutrition cannot be a country's role alone but requires the support of many partners including the donor community.According to the SUN framework, a country will require a "significant share of the resources from international initiatives to finance country nutrition strategies". In order to tap from such sources, a Cooperating Partners forum (CPF) will be formed. Working closely with the NFNC will be following up recommendations from the national multi-stakeholder committee. The NCPF will draw membership from UN System (UNICEF, WHO, FAO, WFP); Bilateral Agencies (USAID, DFID, Irish Aid); Multilateral Agencies (Word Bank); and International Non-Governmental Organization.The roles range from providing funding to advisory on nutrition governance (Box 9)

Box 9:Terms of Reference of Cooperating Partners Forum

- Review funding mechanism for NFNSP and SUN
- Mobilize resources for NFNSP/SUN
- Manage the pooled funding system
- Monitor utilisation of resources
- Advisory on nutrition governance

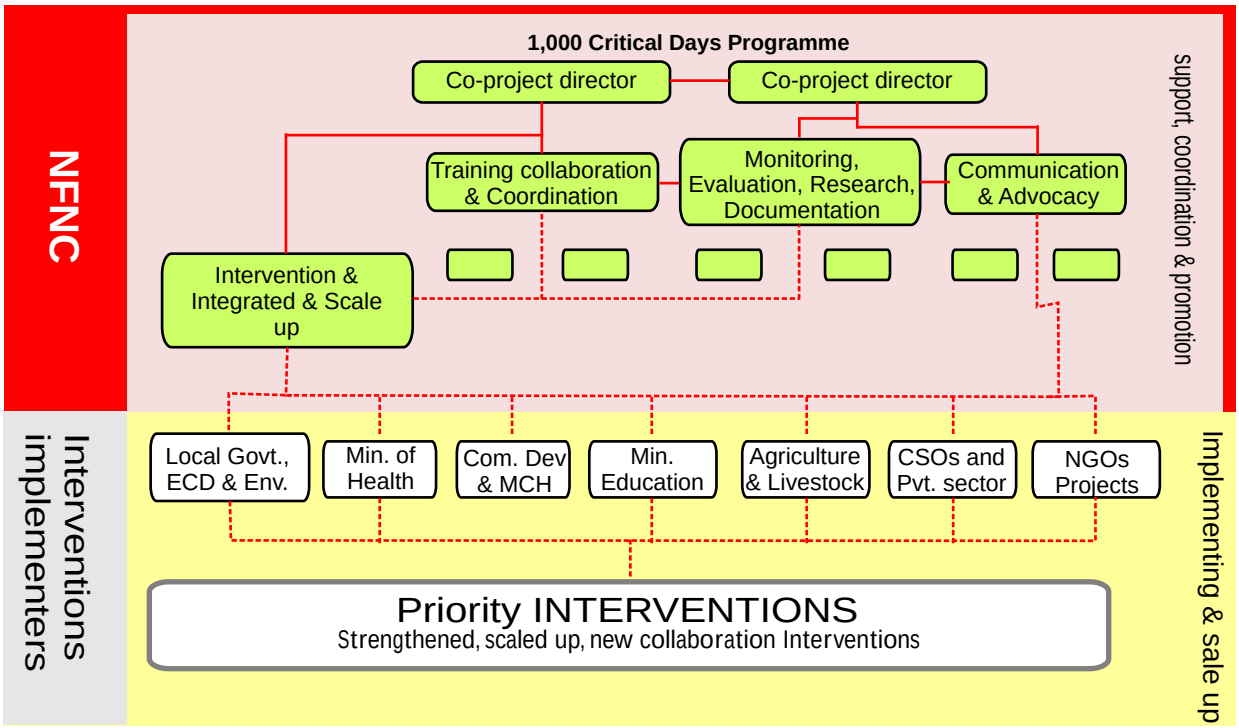
10) Academia and Research Forum:

This forum will provide scientific guidance on the 1st 1000 MCDP interventions. It will draw representation from national universities and colleges, as well as research institutions with a stake in food, health and nutrition aspects. The committee will select its chairperson and secretariat and will hold quarterly meeting and when need arises. This committee will be guided by the terms of reference in box 9.

Box 10: Terms of Reference of Cooperating Partners Forum

- Conduct operational research on 1st 1000 MCDP interventions
- Provide scientific advice on technical matters related 1st 1000 MCD interventions to various planners and implementers.
- Participate in monitoring and evaluation of 1st 1000 MCDP interventions
- Generate annual progress reports based on key performance indicators

Figure 13: Proposed First 1000 MCDP organization within NFNC and key line ministries



Annex 6: Lessons from Rwanda and Malawi and Peru

A few countries have demonstrated how improvements in nutrition can be achieved. Notable among these are Rwanda, Malawi and Peru[76].

Rwanda

The District Plans to Eliminate Malnutrition (DPEM) models in Rwanda and the process by which they are developing have useful lessons for Zambia's new First 1000 Most Critical Days programme. The development of a national template for a multisector decentralised response to the prevention of stunting proved to be a necessary step in guiding district level plans. The need for advocacy at provincial and district levels and multisector orientation on how to effectively use the templates also proved important. Rwanda's system of Community Health Workers (4 per village) is a major asset. Funding from UNICEF and others supported key national meetings; workshops and technical assistance that helped introduce and facilitate district work on the DPEMS.

The Rwanda experience demonstrates the importance and impact of on-going commitment by senior government officials. In national efforts to effectively treat acute malnutrition, while setting up the more complex measures to prevent stunting in young children, this commitment is clearly found in Rwanda, in the leadership of the current Health Minister, Dr. Agnes Binagwaho. In her former position as MoH Permanent Secretary, she led and followed up continually on the development of these nutrition programmes. She guided donors and assured necessary intersector collaboration was adhered to at all stages. Now in the position of Health Minister and this bodes well for Rwanda national efforts to substantially lower the prevalence of stunting among children less than two years of age

Malawi

The main messages of the SUN 1000 Special Days in Malawi relate to the Essential Nutrition Actions (ENA). These are well developed in several Eastern African countries and in Zambia as well. The strategy calls for innovative monitoring displays linked closely to cross-sector planning and programme adjustment at district level. However, progress on the operational side of the Malawi project has been slow with a lower than anticipated level of coordinated funding.

In both Malawi and Rwanda there is strong consensus that the SUN package of interventions includes what is needed for national programmes to prevent stunting. Many of these interventions are already in place in each country although gaps exist in terms of effectiveness and in some cases scale. The overall set of interventions can best be viewed as the responsibility of multiple sectors in terms of related services. However, these interventions often have an "intrasector" characteristic as well. This is found when such services are in the domain of more than one department of ministries such as health, rural development and agriculture. Coordination and collaboration efforts need to consider this. Coordination and visible, high-level leadership and commitment are both important to the successful development and operations of such programmes.

[76] UNICEF. Tracking Progress. .

Strengthening and integrating their delivery, increasing community awareness, knowledge, participation and commitment to the actions and services needed to prevent stunting in children are necessary elements of a national SUN programme. While accepted, as important, monitoring systems need to be operational at all levels from national to the community. Information obtained needs to be linked not only to policy makers and donors but also into the on-going operational regular discussions and decisions, particularly at decentralised levels.

Building national ownership of such multisector efforts requires champions inside and often outside government in NGOs and Civil Society. There is great room for media creativity and private sector participation. 1000 Days, 1000 Special Days, 1000 Precious Days in the Land of 1000 Hills and First 1000 Most Critical Days each give a human face to national efforts to Scale up Nutrition and prevent stunting in young children.

Peru

One reason for the continued high prevalence of stunting in Peru is the perception that undernutrition is primarily a food security issue. But in some regions of the country, more holistic, community-based efforts to improve basic health practices have led to an reduction in stunting levels among young children.

In 1999, the programme 'A Good Start in Life' was initiated in five regions – four in the Andean highlands and one in the Amazon region – as a collaboration between the Ministry of Health, USAID and UNICEF. Efforts focused on reaching pregnant and lactating women. Methods included such community-based interventions as antenatal care, promotion of adequate food intake during pregnancy and lactation, promotion of exclusive breastfeeding of infants under 6 months of age and improved complementary feeding from six months, growth promotion, control of iron and vitamin A deficiency, promotion of iodised salt, and personal and family hygiene. Programme teams were led by local government, which worked with communities, health facility staff and local non-governmental organisations. The programme emphasised strengthening the capacity and skills of female counsellors and rural health promoters.

By 2004, it covered the inhabitants of 223 poor, rural communities, including approximately 75,000 children under 3 years old, and 35,000 pregnant and lactating women. A comparison between 2000 and 2004 shows that in the communities covered by the programme the stunting rate for children under 3 years old declined from 54 per cent to 37 per cent, while anaemia rates dropped from 76 per cent to 52 per cent. The total cost of the programme was estimated to be US$116.50 per child per year. 'A Good Start in Life' inspired the design and implementation of a national programme, which has since been associated with reduced stunting rates.

There are many additional lessons to be learned from early work on developing, implementing and scaling up these programmes. Support is needed for innovative operationally focused documentation and information sharing within and across such national scale efforts.

Annex 7: Line Ministries and their relationship to nutrition

This section aims to provide information on nutrition-related responsibilities for different line ministries. The role of the different ministries in the First 1000 Most Critical Days programme is important.

Ministry of Health (MoH)

The MoH plays an important role in effecting improvements in nutrition. A lot of nutrition programmes are implemented directly by the ministry or through it. These include primary health care activities like immunizations, growth monitoring and promotion, micronutrient supplementation, breastfeeding and complementary and supplementary feeding. The MOH has several statutory bodies under its jurisdiction including the NFNC.

Although nutrition has been included as part of the minimum package of basic health services to be delivered as close to the family as possible, the objectives, strategies and activities need to be strengthened in order to tackle the broader nutrition issues within the health setting.

Ministry of Agriculture and Livestock (MoAL)

The MoAL is one of the key ministries directly responsible for food and nutrition improvement. It covers the production of food and to some extent its utilization, storage and preservation. Over the years, efforts have been made to incorporate nutrition components and considerations in agricultural development programmes with some success. The incorporation of nutrition into mainstream agricultural sector objectives is still far from being achieved.

Ministry of Community Development, Mother and Child Health (MCDMCH)

The MCDMCH has recently taken on roles for maternal and child from the MoH. It is responsible for the general welfare including food and nutrition security of the vulnerable groups which include the aged, the disabled, the chronically ill, the displaced or disaster victims, orphans /street kids and infants, young children and women of child bearing age and single/female-headed households.

The Ministry has been running programmes to cushion the poor and vulnerable against hardships caused by the implementation of the economic reforms. It also runs the Public Welfare Assistance Scheme (PWAS) through which financial/material assistance is provided to the needy. Others are public works programmes through which communities/individuals perform some community work in exchange for food. The major challenge is addressing the increased needs of the poor and vulnerable within limited Government funding.

Ministry of Commerce, Trade and Industry (MCTI)

This Ministry plays a part in the importation of foodstuffs. However, there should be strong links with the MoH – Food and Drugs Control Laboratory, the Zambia Bureau of Standards and the NFNC to ensure that all imported foods meet the set nutritional standards and safety regulations. Currently, there seems to be more emphasis in the ministry on clearing than monitoring the

[77] From the National Food and Nutrition Policy 2006.

quality of imports. Since there is inadequate inspectorate capacity in the country, many sub-standard food products have flooded the Zambian market in the advent of trade liberalization.

Ministry of Labour

The Ministry is responsible for ensuring appropriate working conditions for employees. However, many aspects of worker satisfaction especially with regard to proper nutrition have not been adequately addressed. As articulated in the National Food and Nutrition Policy, the Ministry should work closely with the NFNC to ensure that the minimum wages take account of the nutritional requirements. The Ministry is also responsible for regulating issue of maternity protection to ensure promotion, protection and support of breastfeeding among the working women.The Ministry can also advocate for baby friendly work sites.Work-place canteens have not been adequately supported to maximize productivity and enhancing women's nutritional status.

Ministry of Education (MOE)

The MOE provides the best opportunity for nutrition education and ultimately influence nutrition behaviour of the population. Unfortunately, the level of collaboration between this Ministry and the NFNC, and other key sectors is not strong. Currently, consultations between the MoE, the NFNC and other relevant partners in nutrition curriculum development or nutrition expertise requirements of the ministry are minimal. Another area of concern is the lack of supplementary feeding programmes in most schools countrywide. School feeding programmes are known to contribute to improved school attendance and academic performance,

Ministry of Local Government and Housing (MLGH)

The Ministry is involved in the provision of essential social services such as housing, health, education, safe water and sanitation.These services have a strong bearing on health and nutritional status. However, the performance of this ministry through district local councils with regards to the provision of adequate safe water and sanitation has been generally inadequate. Also, its public health inspectorate is faced with a number of challenges particularly in the areas of food inspection to ensure food safety for the general population.

Ministry of Finance and National Planning (MFNP)

The MFNP is responsible for allocation of resources to the various Government wings, including grants to the statutory institutions like the NFNC. It coordinates the planning, implementation, monitoring and evaluation of the national development plans.The food and nutrition is one of the cross cutting issues in the sixth national development plan (2011-2015), to which the multisectoral NFNSP 2011-2015 is aligned. In addition, the |Ministry is responsible for resource mobilisation on behalf of the Government.

Office of theVice President (OVP)

The DMMU under the Office of theVice President (OVP) was established to ensure expediency in disaster response systems including food distribution. Food distribution has focused more on cereal provision without taking into account nutritional requirement of beneficiaries.

Annex 8: Bibliography

National Policy and Strategy

- Republic of Zambia, 2011. Sixth National Development Plan 2011-2015. "Sustained economic growth and poverty reduction".
- Republic of Zambia, Ministry of Agriculture and Co-operatives, 2004. National Agricultural Policy (2004-2015).
- Republic of Zambia, Ministry of Education, 2006. National School Health and Nutrition Policy.
- Republic of Zambia, Ministry of Health, 2005. Human Resources for Health Strategic Plan (2006-2010).
- Republic of Zambia, Ministry of Health, 2005. National Health Strategic Plan 2006-2010.
- Republic of Zambia, Ministry of Health. National Health Strategic Plan 2011-2015.
- Republic of Zambia, Ministry of Health, 2007. Assessment of the Health Information System in Zambia.
- Republic of Zambia, Ministry of Health, 2007. Report on the comprehensive countrywide assessment of Ministry of Health Training Institutions. 14th August- 30th October.
- Republic of Zambia, Ministry of Health, 2008. National Health Research Strategic Plan 2008-2011.
- Republic of Zambia, Ministry of Health, 2010. The National Food and Nutrition Policy.
- Republic of Zambia, Ministry of Health, 2011 Action Plan.
- National Food and Nutrition Commission of Zambia, 2011. National Food and Nutrition Strategic Plan 2011-2015 [penultimate draft].
- National Food and Nutrition Commission of Zambia. Medium Term Expenditure Framework for the period 2012-2014. July 2011
- Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia and Macro International Inc., 2009.
- Republic of Zambia,FAO. Nutrition Country Profile. 2009.

National Surveys

- Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and Macro International Inc.
- NFNC. National Nutrition Surveillance Survey July 2008 Report.http://www.nfnc.org.zm/index.php?option=com_docman&task=doc_details&gid=33&Itemid=76
- Republic of Zambia. MOH. NFNC. School of Agricultural Sciences, University of Zambia. The common Zambian foodstuff, Ethnicity, Preparation and Nutrient Composition of selected foods report. 2007
- Republic of Zambia. MOH. NFNC. Lusaka Urban District Rapid Nutrition Assessment Report. Dec 2008.
- Republic of Zambia. MOH. NFNC. Recommendations for Infant and Young Child Feeding in the context of HIV for Zambia. 2007
- Republic of Zambia. MOH. NFNC. Lusaka urban district rapid nutrition assessment report. 2008
- NFNC. IBFAN. The World Breastfeeding Trends Initiative. Zambia Country Assessment Report. 2008. Raider Mugode et al.

Development Partners

- Department for International Development, 2010. The neglected crisis of undernutrition: DFID's Strategy. Available at: http://www.parliament.uk/deposits/depositedpapers/2010/DEP2010-0651.pdf.
- Department for International Development, 2011. Scaling up nutrition. The UK's position paper on undernutrition. Available at: http://www.dfid.gov.uk/Documents/publications1/scal-up-nutr-uk-pos-undernutr.pdf
- Department for International Development, 2011. Summary of DFID's work in Zambia 2011-2015.
- DFID Zambia, 2011. Operational Plan 2011-2015.
- European Commission. GRZ-EU-UN Joint Programme to Accelerate Progress in Maternal, Neonatal and Child Morbidity and Mortality Reduction in Zambia - Grant Application Form.
- Global Health Council, 2008. Fact Sheet. The importance of nutrition for child survival. http://www.thousanddays.org/author/global-health-council/
- United Nations Development Programme, 2009. Zambia. Country Cooperation Strategy at a glance.
- United Nations Development Programme, 2011. Zambia Human Development Report 2011. Service Delivery for Sustainable Human Development.
- United Nations General Assembly, 2011. Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter. A/HR/C/19/59.
- United Nations Standing Committee on Nutrition. Maternal nutrition and the intergenerational cycle of growth failure. Available at: http://www.unscn.org/files/Publications/RWNS6/report/chapter3.pdf. [Accessed 23 February 2012].
- UNDP. GRZ. Zambia Millennium Development Goals Progress Report. 2011. www.undp.org.zm/joomla/attachments/052_compressed%201.pdf
- United Nations, 2010. A roadmap for scaling-up nutrition (SUN). Available at: http://un-foodsecurity.org/sites/default/files/SUNRoadMap_English.pdf [Accessed 22 February 2012].
- USAID, Fact Sheet. Food security and gender. Available at: http://pdf.usaid.gov/pdf_docs/PNADR706.pdf. [Accessed 23 February 2012].
- The World Bank, 2006. Repositioning nutrition as central to development. Available at: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTNUTRITION/0,,contentMDK:20787550~menuPK:282580~pagePK:64020865~piPK:149114~theSitePK:282575,00.html [Accessed 22 February 2012].
- World Health Organization, 2011. Global database on Child Growth and Malnutrition. Zambia. Available at: http://www.who.int/nutgrowthdb/database/countries/zmb/en/. [Accessed 23 February 2012].
- World Health Organization, 2011. Zambia: Health profile. Available at: http://www.afro.who.int/en/zambia/country-health-profile.html. [Accessed 23 February 2012].
- World Health Organization, 2011, Aga Khan University, PMNCH. Essential Interventions, Commodities and Guidelines for Reproductive,Maternal, Newborn and Child Health A Global Re view of the key Interventions related to Re productive, Maternal, Ne wborn and Child Health (RMNCH) . 2011
- World Health Organization, World Food Programme, United Nations System Standing Committee on Nutrition and United Nations Children's Fund, 2007. Community-based management of severe acute malnutrition.

http://www.who.int/maternal_child_adolescent/documents/a91065/en/index.html
- World Health Organization. Developing Country Scale-up Plans. Available at: http://www.who.int/nutrition/EB128_18_backgroundpaper3_developingcountryscaleupplans.pdf [Accessed 22 February 2012].
- World Health Organization. Zambia. WHO Country Cooperation Strategy 2008-2013. India: World Health Organization Africa.
- UNDP. Zambia Human Development Report. 2011
- WHO. Zambia National Expenditure on Health.
- USAID. Scaling up micronutrient Programs: what works and what needs more work?. The 2008 Innocenti Process. Micronutrient Forum. August 2009.
- Various organisations, 2010. Scaling up nutrition. A framework for action. Available at: http://www.unscn.org/files/Announcements/Scaling_Up_Nutrition-A_Framework_for_Action.pdf [Accessed 22 February 2012].
- Various organizations, 2009. Investing in the future. A united call to action on vitamin and mineral deficiencies. Global Report 2009. Available at: www.unitedcalltoaction.org/documents/Investing_in_the_future.pdf. [Accessed 23 February 2012].

Other documents

- The Lancet, Nutrition Series: Volume 371, Issue 9608, January 2008. Issue 9609, January 2008 . Issue 9610, February 2008. Issue 9612, February 2008.
- Scoping Study . Exploring opportunities to strengthen Community Based Organisations' access to funding at district level in Zambia Commissioned by the National AIDS Council, Lusaka, Zambia Susan Amoaten April 2011
- Black, R.E., Allen, L.H., Bhutta, Z.q.A., Caulfield, L.E., Onis, M.d., Ezzati, M., Mathers, C. and Rivera, J., 2008. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet, 371, pp.243-260.
- Bread for the World Institute, 2010. Fact Sheet Gender, Nutrition and Agriculture. http://thousanddays.org/wpontent/uploads/2011/05/InternationalWomensDay_FactSheet.pdf. [Accessed 23 February 2012].
- Chankova, S. and Sulzbach, S., 2006. Zambia Health Services and Systems Program. Occasional Paper Series.Human Resources for Health, Number 1. Bethesda, MD: Health Services and Systems Program, Abt Associates Inc.
- Chiwele, D.K. and Syampungani, S., 2011. Zambia. Millennium Development Goals Progress Report 2011. A report of the United Nations Development Programme.
- Heywood, A., Nielsen, E. and Orzeszyna, S., 2007. Assessment report community, hospital and FAMS sub-system development. Integrated Health Management Information System. A report of Euro Health Group.
- Imperial College London, CONCERN worldwide, 2011. A Montpellier panel briefing. Scaling up nutrition (SUN).
- Independent Review Team, 2008. Report of the mid term review of the Zambia National Strategic Plan NHSP IV, 2006-2010.
- Kimani-Murage, E., Kahn, K., Pettifor, J., Tollman, S., Dunger, D., Gómez-Olivé, X., and Norris, S., 2010. The prevalence of stunting, overweight and obesity, and metabolic disease risk in rural South African children. BMC Public Health, 10, pp.158-171.
- Klemm R.D.W., Harvey P.W.J., Wainwright E., Faillace S., Wasantwisut, E., 2009. Micronutrient Programs: What Works and What Needs More Work? A Report of the 2008 Innocenti Process. Washington, DC: Micronutrient Forum.

- Lanigan, J. and Singhal, A., 2009. Early nutrition and long-term health: a practical approach. Proceedings of the Nutrition Society, 68, 422-429.
- Martorell, R., Horta, B.L., Adair, L.S., Stein, A.D., Richter, L., Fall, C.H.D., Bhargava, S.K., Dey Biswas, S.K., Perez, L., Barros, F.C. and Victora, C. G., 2010. Weight gain in the first two years of life is an important predictor of schooling outcomes in pooled analyses from five birth cohorts from low- and middle-income countries. Journal of Nutrition,140, pp.348–354.
- Meinzen-Dick R., Behrman, J., Menon, P. and Quisumbing A., 2011. Gender: A key dimension linking agricultural programs to improved nutrition and health. 2020 conference brief 9, Leveraging Agriculture for Improving Nutrition and Health.
- Muñoz, E., 2009. New hope for malnourished mothers and children. A briefing paper of the Bread for the World Institute.
- Mwanza, J.B., 2010. Human Resources for Health – Country Profile Zambia. A report of the Africa Workforce Observatory.
- Nyirenda, D.B., Martha, M., Habulembe, R.M., 2007. The common Zambian foodstuff, ethenicity, preparation and nutrient composition of selected foods report. A research report for the Republic of Zambia.
- Onis, M. d., Blössner, M., & Borghi, E., 2011. Prevalence and trends of stunting among pre-school children, 1990–2020. Public Health and Nutrition, 15, pp.142-148.
- Package Consultancy, MOH/CBOH, 2000. Basic health care package from community to 3rd level.
- Paulo, F., Siziya. S., Goma F. and Dussault, G., 2011. The human resource for health situation in Zambia: deficit and maldistribution. Human Resources for Health, 9,pp. 30-44.
- Pee, S.d., Brinkman, H.-J., Webb, P., Godfrey, S., Darnton-Hill, I., Alderman, H., Semba, R., Piwoz, E. and Bloem, M.W., 2010. How to ensure nutrition security in the global economic crisis to protect and enhance development of young children and our common future. Journal of Nutrition, 140, pp.139-142.
- Pereira, J., 2009. Zambia. Aid effectiveness in the health sector. Case study. A report of Action for Global Health.
- Prudhon, C., Briend, A., Prinzo, Z.W., Daelmans, B.M.E.G., and Mason, J.B., 2006. WHO, UNICEF, and SCN informal consultation on community-based management of severe malnutrition in children. SCN Nutrition Policy Paper No. 21.
- Victora, C.G., Onis, M.d., Hallal, P.C., Blössner, M., & Shrimpton, R., 2010. Worldwide Timing of Growth Faltering: Revisiting Implications for Interventions. Pediatrics, 125, pp.473-480.
- Victora, C.G., Adaire, L., Fallb, C., Hallala, P.C., Martorelld, R., Richterf, L., and Sachdevc, H.S., 2008. Maternal and child undernutrition: consequences for adult health and human capital. Lancet, 371, pp.340-357.
- Walmani, H., Åstrøm, A.N., Peterson, S., Tumwine, J.K., and Tylleskär, T., 2007. Boya are more stunted than girls in Sub-Saharan Africa: a meta-analysis of 16 demographic and health surveys. BMC Pediatrics, 7, pp.17-27.
- Wang, H. and Groce, N., 2008. Economic Valuations of Community Health Workers' Recompense in Zambia. Health Systems for Outcome Publication.
- Zambia Aid effectiveness in the health sector case study. Javier Pereira. September 2009
- Community, Hospital and FAMS Sub-System Development Integrated Health Management Information System Arthur Heywood Erik Nielsen Stanislaw Orzeszyna March 2007 EURO HEALTH GROUP Zambia

- Aid effectiveness in the health sector case study Author: Javier Pereira September 2009
- The human resource for health situation in Zambia: deficit and maldistribution. Human Resources for Health 2011,Biomed central. 9:30 doi:10.1186/1478-4491-9-30. Ferrinho et al.
- Assessment Report Community, Hospital and FAMS Sub-System Development Integrated Health Management Information
- Why stunting matters. Insight. A&T Technical Brief Issue 2, September 2010
- Nutrition and brain development in early life. Elizabeth Prado and Kathryn Dewey. A&T Technical Brief. Issue 4, January 2012

Ministry of Health

Ministry of Agriculture and Livestock

Ministry of Community Development, Mother and Child Health

Ministry of Education, Science, Vocational Training and Early Education

Ministry of Local Government and Housing

UKaid

Irish Aid
Rialtas na hÉireann
Government of Ireland

unicef

USAID
FROM THE AMERICAN PEOPLE

World Bank

World Food Programme