Improving Nutrition and Health among Infants and Young Children

Nutrition in children

Physical growth and brain development takes place most rapidly during childhood, particularly during the first two years of life. It is essential from birth that children are provided a diet which fully meets their nutritional requirements. In the first six months of life, breastmilk is fully capable of providing all the essential nutrients such as energy, protein, vitamins, and minerals in adequate quantities. Besides providing optimal nutrition, breastmilk is also the first vaccine protecting the infant against infections, as well as chronic diseases that develop later in life. As the infant grows further, breastfeeding needs to be complemented with the introduction of foods from various sources to meet increasing energy, protein, and micronutrient requirements to facilitate optimal growth and development and strengthen immunity against infections.\textsuperscript{1,2}

Poor nutrition in the early years leads to children suffering varying degrees of irreversible damage to their physical and cognitive development. Without the right quantities of essential nutrients for growth and development these young children become stunted (low height-for age) and wasted (low weight-for height). Such children are unable to fight infections or recover from them, and also find it hard to concentrate at school and therefore achieve academic progress. Malnutrition severely hinders the ability of young children to achieve their true potential.

The Sustainable Development Goals (SDGs) call on all governments to end all forms of malnutrition by 2030, and meet the international World Health Assembly (WHA) targets on reducing stunting and wasting by 2025.\textsuperscript{3} Existing efforts to tackle global malnutrition will not achieve this. One of the areas which requires further attention is infant and young child nutrition.
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### Interaction between nutrition and health in children

Malnourished children suffer from frequent illness and are also nine times more likely to die from common childhood infections such as pneumonia, diarrhoea, malaria, and measles. Poor breastfeeding and complementary feeding practices are a leading cause of ill-health among young children.

Infants who are not breastfed are 15 times more likely to die from pneumonia, and 11 times more likely to die from diarrhoea than children who are exclusively breastfed for the first 6 months. Improving timely and exclusive breastfeeding can help avert over 800,000 child deaths, and also result in global economic savings of around US $300 billion. Despite the strong evidence of impact, 3 out of 5 infants under 6 months are not being exclusively breastfed.

During episodes of illness, nutritional requirements are increased, but so are nutritional losses and malabsorption. This results in a vicious cycle of malnutrition and illness, which weakens a child’s immunity, delays recovery, and increases chances of relapse. Such children lag behind in school, or drop out altogether. Poor nutrition during childhood is likely to continue into adolescence and adulthood, undermining productivity and resulting in a loss of individual’s lifetime earnings of at least 10%.

Integrating interventions to improve child nutrition with measures such as routine immunisation to prevent childhood illnesses can improve the beneficial impact of both, thus improving survival and longer term child health. Vitamin A supplementation alongside timely vaccination against measles protects children against this deadly infection, and also boosts immunity against other infections. Zinc supplementation during diarrhoeal episodes can reduce the severity, frequency, and duration of these episodes, and reduce its debilitating impact.

Malnutrition can lower the efficacy of oral vaccines such as rotavirus, particularly in low-income settings. Ensuring all children, everywhere, are provided with WHO recommended vaccinations, can halt the infection-malnutrition cycle. Globally, 19.4 million children under the age of five are still missing out on basic immunisation which is crucial to save their lives, and maintain a good nutritional status.

### Scale of the problem

Malnutrition underlies nearly half of all deaths of children under the age of five years. Despite growing efforts globally to tackle child malnutrition, 156 million children under-five are too short for their age (stunted), and 50 million are too thin for their height (wasted). Although less than half of all children under the age of five live in lower-middle income countries, 2/3rd of all stunted children live in these countries.

### Child nutrition and health in Malawi

Over the past decade, Malawi has reduced under-five mortality by more than half to 64 per 1000 live births. Stunting in children below the age of five has also decreased from 48% to 37% between 2010 and 2015. Despite such progress, two out of every five children are not growing to their full potential, and are more susceptible to pneumonia, diarrhoea, and malaria – the leading causes of child deaths in Malawi. It is estimated that in 2012, Malawi lost 10.3% of its GDP as a result of child undernutrition.

Poor infant and young child feeding practices, particularly inadequate complementary feeding, is an important contributor to child malnutrition in Malawi; which is evident in the increase in stunting from the child’s 7th month onwards. In addition in recent years, erratic and insufficient rains have resulted in massive deficits in maize production, thus exacerbating food and nutrition insecurity in the country.

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**Graph:**

- **Global burden of stunting in children under the age of five years**
  - Low Income: 15%
  - Low Middle Income: 47%
  - Upper Middle Income: 26%
  - High Income: 9%
- **Proportion of global stunting in children under five**
  - Global proportion of children under five
- **Country income status**
  - Low Income: 66%
  - Low Middle Income: 24%
  - Upper Middle Income: 11%
  - High Income: 1%

**Results:**

- **Infant Feeding Practices in Malawi**
  - 61% Infants up to the age of 6 months exclusively breastfed
  - 8% Children 6-23 months fed the minimum acceptable diet
  - 71% Children 12-23 months fully immunised

- **Child Nutritional Status in Malawi**
  - 37% Stunting in children <5 yrs
  - 3% Wasting in children <5 yrs
  - 63% Anaemia in children <5 yrs

- **Immunization Rates in Malawi**
  - 71% Children 12-23 months fully immunised

- **Infection Rates in Malawi Children**
  - 22% Diarrhoeal episodes
  - 29% Fever

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Best practices

Government ownership of nutrition and the establishment of a governance structure for nutrition
The Government of Malawi recognises malnutrition as a national problem within its Malawi Health Sector Strategic plan. It has brought programmes to tackle malnutrition into the Essential Health Package alongside interventions to prevent vaccine preventable diseases, neglected tropical diseases, and HIV. These include the promotion of exclusive breastfeeding, micronutrient supplementation, and treatment of severe acute malnutrition. A new nutrition policy for 2016-2020 is being developed which seeks to set out time-bound targets on nutrition aligned with the WHA nutrition targets.

The government has also established a National Nutrition Committee; a convening body for coordinating efforts across Malawi on tackling malnutrition. This committee comprises of multiple technical working groups such as those focusing on micronutrient deficiencies, infant and young child feeding, nutrition education, monitoring and evaluation, and research. In addition, important coordination bodies have been established which support the Department of Nutrition, HIV and AIDS (DNHA) to strengthen planning, financing, and implementation of policy and programmes relating to nutrition and health. These include a political structure composed of a Cabinet committee, parliamentary committee, Principal Secretaries’ committee, and a development partners committee which discuss evidence as necessary and approve legislation on nutrition. The DNHA coordinates the integration of nutrition across the ministries of Health, Agriculture, Local Government, and Gender, Children, Disability, and Social Welfare among others.

A donor group on nutrition security also harmonises donor efforts to align them with the government’s strategy and priorities for nutrition and health. The UN network supports the roll out of national nutrition plans and programmes on the ground, whilst the Civil Society Organisation Nutrition Alliance (CSONA) supports activities such as budgetary analysis, scaling up evidence based interventions, and advocates for greater accountability for efforts on nutrition.

Care Group Model: community members as effective change agents for improving nutrition behaviour
In this model, households are grouped into clusters of 10-15 consisting of pregnant or lactating women, and children under the age of five. Each cluster chooses a ‘lead volunteer, who is trained on important health and nutrition issues. A care group is formed of 10-14 lead care givers, and is supported by the Health Surveillance Assistant (a cadre of government paid community health workers) to impart messages on nutrition and health for women and children.

The lead care group volunteers conduct home visits to encourage pregnant women to seek antenatal services and guide them on safe motherhood. They promote exclusive breastfeeding for the first six months and complementary feeding practices, and advise care givers to take children for growth monitoring and timely immunisation. They also inform the health surveillance assistants of poorly nourished children who need referral to Nutrition Rehabilitation Units and counsel mothers on caring for children with diarrhoea and on the prevention of malaria by using insecticide treated bed nets.

The lead care groups also conduct food demonstrations to educate mothers on quantity and consistency of complementary feeding for children aged 6-23 months, and on diversifying diets with at least 4-6 food groups using locally grown food to affordably improve nutritional quality of diets for young children.

The care group volunteers understand their community and respond better to its needs. This peer-to-peer nutrition and health education is instrumental in promoting better acceptance of messages, and contributes significantly to positive behaviour change.

Child Health Days: campaign mode for delivering nutrition and health interventions
Since 2003, Malawi has introduced bi-annual ‘Child Health Days’; a week-long campaign to deliver a package of services to improve child health and nutrition in the community. During these weeks, vitamin A supplementation, deworming to prevent parasitic infections and anaemia, routine immunisation to protect against vaccine preventable diseases, and weighing of children are conducted. Social mobilisation on infant and young child feeding, the use of insecticide treated nets, hygiene, use of iodised salt, and other health seeking behaviours is also conducted through the care group, Health Surveillance Assistants, other health staff and development partners.

The above services are provided at health facilities, outreach clinics in the community, as well as designated temporary sites such as local churches to ensure no child is left behind. By co-locating nutrition and health services for children, these Child Health Days are helping tackle the nutrition-health-infection cycle in a more integrated manner.

Strong engagement with the Scaling Up Nutrition (SUN) movement
Malawi joined the SUN movement in 2011. Since then it has taken further steps to tackle malnutrition. These include the launch of the SUN 1000 Special Days National Nutrition Education and Communication Strategy to prevent child stunting, which created a multi-stakeholder platform and coordination structure for nutrition. The setting up of various SUN networks (donors, UN, and civil society) has also enabled open dialogue with the government on issues such as resource mobilisation, scaling up evidence based interventions, setting national targets on nutrition, and building parliamentary support for nutrition.
"Without good nutrition a child cannot grow, fight infection, or focus in school. It is sad that nearly four out of ten Malawian children are stunted and will not reach their full potential. As parliamentarians it is our responsibility to strengthen and sustain the political will to end malnutrition."

Hon. Dr. Clement T Chiwaya MP Second Deputy Speaker, Malawi National Assembly

RECOMMENDATIONS FOR FURTHER IMPROVEMENT

◆ Increase government ownership of efforts to scale up nutrition
The Malawian Government is lauded for setting up coordinating structures for multi-stakeholder efforts on nutrition, as this creates an enabling environment and avoids duplication of efforts. However, it must take greater ownership for sustaining efforts to tackle malnutrition. Whilst the results of a financial tracking system to track resources for nutrition from various sources are still awaited, it is clear that overall resources need scaling up. Domestic resources to improve nutrition must be increased to bridge the financing gap from donors and other partners. Each of the government departments with a role in improving the nutrition and health of children must also ensure their respective work plans and budgets include nutrition objectives and targets, and make adequate budgetary provisions to meet them.

◆ Strengthen decentralised efforts to improve nutrition and health
Despite structures, such as the District Nutrition Coordination Committees, to coordinate decentralised nutrition policy and programme implementation, budgetary allocation within district plans do not match the level of ambition at the national level to reduce malnutrition. This requires the further sensitisation of district level authorities on the issue of malnutrition, greater district budgetary allocation to nutrition, and stronger monitoring and accountability on district level progress.
In addition, continued capacity building and engagement of local government staff and local NGOs, Health Surveillance Assistants, and care group volunteers is necessary to ensure quality and outreach of nutrition interventions to those who need them the most - even in the remotest areas of the country.

◆ Strengthen efforts to prevent adolescent and early pregnancy
29% of adolescents aged 15-19 in Malawi are either pregnant with their first child or have already given birth. Prevalence of child bearing among adolescents is higher in rural populations, and among adolescents with lower levels of education10. This has grave consequences on the nutritional status, health and survival of the mother and child. Robust efforts are needed to improve retention of adolescent girls in school, delay early marriage, and prevent early pregnancy to improve longer term health and nutrition.

◆ Tackle humanitarian crises and improve resilience
Malawi is facing a food crisis on account of recent and prolonged periods of drought and floods which have resulted in failed crops over multiple seasons. Recently, El Niño has resulted in the large scale failure of the maize crop; the main staple food in Malawi. Food shortages and price rises have resulted in chronic food insecurity among millions, particularly small holder famers and the poorest and most vulnerable sections of some communities. This is contributing to severe cases of wasting, stunting, and mortality.
There is a need for the government, donors, and other stakeholders to support more long term social protection and resilience activities including the use of climate risk insurance (despite recent challenges) to help assuage food shortages, secure small holder farmer incomes and promote better diets in adversity.

Footnotes
This policy brief forms a part of a series developed by RESULTS UK to document best practice in integrating nutrition within policy, programmes and investments for Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH). This brief focuses on the early years of infancy and young childhood, taking Malawi as a case study.

1 UNICEF (2016). From the First Hour of Life. Making the Case for Improved Infant and Young Child Feeding Everywhere.
7 ibid.
10 ibid
14 ibid
15 ibid