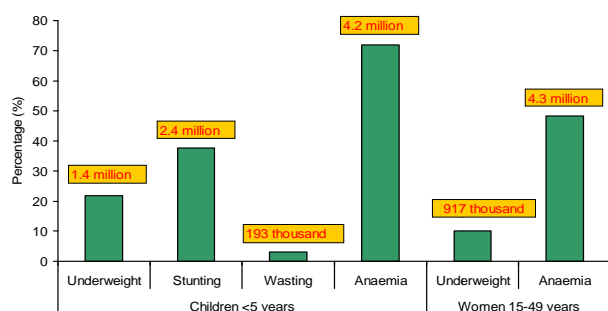


Malnutrition in Tanzania: Declining but not on track

By Ester Elisaria, IHI

Malnutrition is one of the most serious health problems affecting infants, children and women of child-bearing age in Tanzania. Millions of children and women suffer from one or more forms of malnutrition, including stunting, underweight, wasting and anaemia. Almost 40% of children aged less than 5 years have stunted growth, meaning they are short for their age, and 22% are underweight for their aged. A staggering 72% of under five children and 48% of women are anaemic (DHS 2004/5). Estimated numbers of children and women affected are given below.

Figure 1: Percentage and numbers of women and children with malnutrition in Tanzania

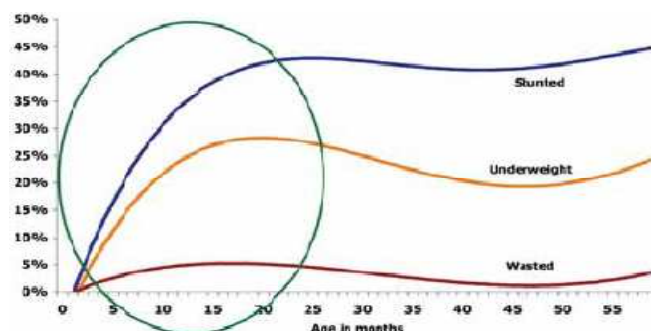


Source: DHS 2004/05

The prevalence of malnutrition in children increases sharply between birth and two years of age (see below diagram). Therefore the most critical period for actions to prevent malnutrition is during the first two years of a child's life (UNICEF, 2008). Actually, the most critical time for the growth and development of a growing child's brain is the first seven (7) years of life. Malnutrition during these early, but critical years in life causes life lasting damage in terms of intelligence development. After two years of age, under nutrition

will have caused irreversible damage for future development towards adulthood (Harton R, 2008).

Figure 2: Window opportunity



Source: UNICEF 2008, Investing in Nutrition, A Foundation for a Prosperous Nation.

Most affected regions of Tanzania

Malnutrition is a problem throughout Tanzania, but some regions are more affected than others. For example, the percentage of stunted children varies from less than 30% in Dar es Salaam, Arusha and Kilimanjaro Regions to over 50% in Lindi, Mtwara Ruvuma, Iringa and Kigoma Regions. The prevalence of child anaemia varies from less than 60% in Iringa, Manyara, Arusha and Kilimanjaro Regions to over 80% in Lindi and Mwanza Regions (THDS, 2004-5).

Causes of malnutrition in Tanzania

Children become malnourished because their diets do not contain sufficient nutritious food or because of repeated episodes of ill health. These diseases include malaria, attacks of diarrhea, pneumonia and other illnesses. Tanzanian children are often affected by poor diets and ill health at the same time. There are underlying causes including household food insecurity, inadequate care for women and children and insufficient health services and unhygienic environment.

What causes poor diets? Many mothers are not given adequate advice or support on how to practice exclusive breastfeeding and instead they give other liquids and foods too early in a child's life. Children should be exclusively breastfed for the first six months of life. Exclusive breastfeeding means that the child should be given only breast milk and no other liquids or foods, not even water. Breast milk is the perfect food for young children and provides all the water and nutrients that a child needs for the first six months.

From six months of age on-wards, children need other nutritious foods twice daily to begin with, and increasing to five times daily when the child is 12 months old. Children should continue to be breastfed for two years, and longer if possible. Many parents struggle to provide nutritious balanced meals for their young children because they lack the resources to grow or purchase nutritious foods, and lack the time or knowledge on how to prepare appropriate meals with the local foods available in their households.

Why illness causes malnutrition? When children get sick, they lose their appetite while their bodies demand extra energy and nutrients to fight the infection and to recover afterwards. Illnesses such as diarrhea, malaria and acute respiratory tract infections are leading causes of malnutrition in Tanzania. Factors such as poor water supply, hygiene and sanitation increase the risks of illnesses.

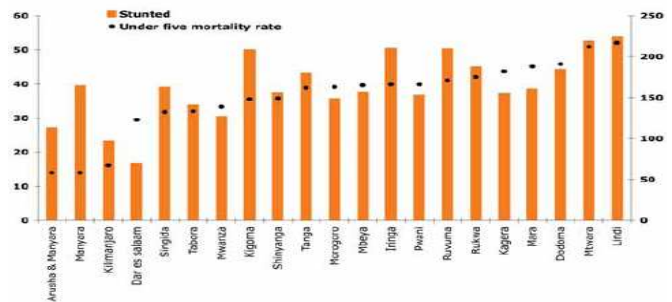
Malnutrition is a concern

Malnutrition threatens the lives of children and women and is a major impediment to economic growth and development.

Malnutrition causes high mortality in children: Malnutrition is the single greatest cause of child mortality in Tanzania. It contributes to over one half of the deaths of children under-five years by weakening the body's immune system and reducing the effectiveness and safety of drugs. A child who is severely underweight is 8.4 times more likely to die than a child who is well nourished. For children who

survive malnutrition, there are long-lasting effects on their health, development and well-being.

Figure 3: Percentage of Malnutrition in relation to mortality per region



Source: Authors calculations using DHS 2004 and Population and housing Census of 2002

Malnutrition causes poor learning and impairs school performance: Malnourished children start school late in life, do less well at school, and are more likely to drop out. It is not surprising that a hungry and anaemic child is unable to concentrate during lessons. Evidence from Kagera shows that improving child nutrition reduces the proportion of children who never attended school by up to 13%, reduces the years of delay in school enrollment by approximately one year, and increases the total years of schooling by up to 1.5 years.

Malnutrition reduces work capacity and productivity: Malnourished adults are less productive adults because poor dietary intake and anaemia make people tired and weak. Recent analysis shows that the poorest 20% of Tanzanians, many of whom are engaged in heavy agricultural work, consume inadequate calories for even light office work. The lifelong income earnings for malnourished children are reduced by 12%. Deficiencies in iron, vitamin A and folic acid are estimated to cost the country every year over US\$ 540 million, around 2 % of the country's GDP.

Why invest in nutrition?

Thus improved nutrition will contribute to the achievement of MDG 1 (eradicate extreme poverty and hunger), MDG 2 (achieving universal education), MDG 3 (promoting gender equality and empowerment of

women), MDG 4 (reduce child mortality), and MDG 5 (improving maternal health) (TFNC and UNICEF 200, Advancing Nutrition for long-term equitable growth).

Malnutrition causes immense suffering and is a major impediment to economic growth and development. Emerging problems like HIV AIDS, rising food prices, and the economic down-turn—are likely to worsen nutritional status of the population, particularly the under fives.

Addressing malnutrition brings considerable economic and social benefits as it reduces morbidity and mortality, leads to resource savings in health, improves education outcomes, enhances productivity and increases incomes. Reducing malnutrition is critical for achievement of most of the Millennium Development Goals (MDGs).

Ifakara Health Institution’s contribution

IHI is currently working with other partners to:

- Establish nationally representative sentinel panel of districts (approximately 24) to generate population-based demographic, health, mortality and facility based data that will monitor progress and inform the health sector on an annual basis. The platform will enable calculation of trends in nutritional in Tanzania which will be used to advocate for mainstreaming of nutrition in national development plans, and the allocation of resources for nutrition from within the budgets of the government and Development Partners.
- IHI through UNICEF support will monitor children’s nutritional status thrice yearly; explore coping strategies used by families when there are certain shocks, such as the global financial crisis, drought, floods; and produce easily accessible information for interested parties focusing on nutrition in a quarterly basis.
- Pilot pre-pregnancy supplementation of women aged 15-25 years with multiple micronutrients or placebo. The objective of this study is to determine predictors of poor compliance to multivitamin supplements among Tanzanian girls in the early reproductive age and determine whether the supplements will lower prevalence of anaemia in preparation for pregnancy when compared to iron and folic acid or folic acid alone. When scaled-up to

larger population, pre-pregnancy supplementation will assist to correct maternal and foetal abnormalities that might be too severe to be corrected during pregnancy or after the child is born.

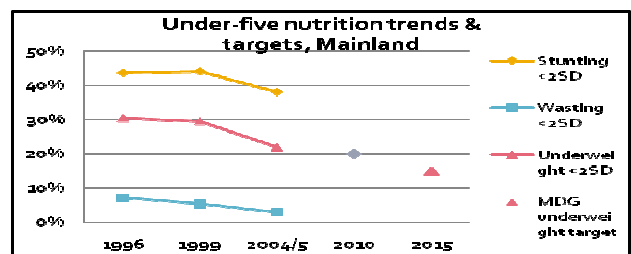
- Undertake an intervention study on Neonatal Vitamin A supplementation. This is part of a large multi-country study that will enroll over 100,000 children in Tanzania, India and Ghana to determine the safety and efficacy of vitamin A supplementation within two days of birth in reducing mortality in the first six months of life. Evidence generated from this studies is expected to support the adaptation of neonatal supplementation with vitamin A in Tanzania and globally.
- Provide evidence based information and technical support to ensure that policies, strategies, standards and regulations create a supportive environment for nutrition.

Success stories in Tanzania

Improvement in several indicators of malnutrition:

There have been improvements in several indicators of malnutrition, which suggest that actions are beginning to show signs of success. For example the prevalence of child underweight fell from 27% in 1996 to 17% in 2004-5, and the percentage of children aged less than six months who are exclusively breastfed almost doubled from 23% in 1991-2 to 41% in 2004-5 (DHS 1999 to 2004/5).

Figure 4: Improvement in Nutrition indicators since 1996-2004

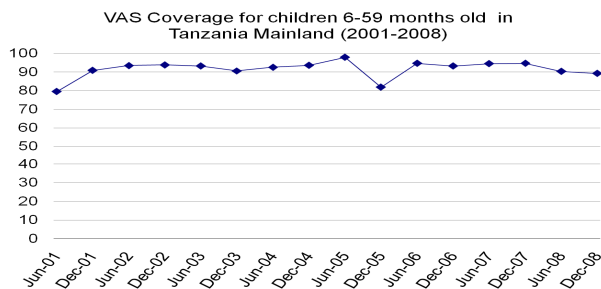


Source: DHS 2004/5

Vitamin A supplementation: An estimated 30,000 child lives are saved every year in Tanzania by ensuring that every child aged 6-59 months takes a vitamin A

supplement twice a year. The vitamin A programme in Tanzania has been very successful. A decade ago, only about half of children received vitamin A twice a year and this low coverage contributed to many unnecessary child deaths. In recent years, the proportion of children

Figure 5: Vitamin A supplementation coverage in Tanzania 2001-2008



Source: Author computation using coverage data of 2001-2008)

that receive vitamin A has risen to over 85% by institutionalizing the delivery of vitamin A through twice yearly events around the Day of the Africa Child in June and World AIDS Day in December. Children aged 1-5 years also receive deworming tablets during these events.

Salt iodization: Iodine is an essential mineral for health, development and well-being. It is particularly important for pregnant women and young children because iodine is needed for healthy brain development of the fetus and young child. One of the more extreme signs of iodine deficiency is a visible goitre, a swelling of the neck’s thyroid gland. A survey conducted by Tanzania Food and Nutrition Centre on the mainland in the 1980s found the prevalence of goitre to be 25%. By 2004, the prevalence of goitre had fallen to 7%, largely due to the increase in the coverage of salt iodization in Tanzania. Everyone needs a small amount of iodine daily and the most affordable and reliable way to obtain it is by ensuring that we only use iodized salt in food. Salt iodization was introduced in Tanzania in the early 1990s and almost three quarters of households (30 million persons) are now consuming iodized salt.

What must be done to reduce malnutrition in Tanzania?

- Advocate for allocation of sufficient and sustainable resources for addressing nutrition challenges globally, within responsible Ministries and from implementing partners.
- Focus on interventions proved to have high impact at minimum running costs such as Vitamin A supplementation, school feeding programmes, food fortification and promotion of exclusive breastfeeding.
- Improve liability, leadership and coordination to make sure that all responsible ministries and organizations push forward nutrition agenda.
- Strengthen partnership and high level support and commitment between the various stakeholders, including a role for the private sector.
- Make use of evidence based information to scale-up nutrition interventions.

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