

Putting Nutrition First Yields Healthy People and Economies

By Isaac Akinyele

Sub-Saharan African countries that seek to develop economically and socially first must ensure that their people are healthy. Yet the governments and institutions seeking such change continue to ignore the erosive force of hunger and poverty, which robs countless people of promise and opportunity.

Today one in three Africans is malnourished, and about half of the continent's 700 million people live on less than \$1 a day. Moreover, the Food and Agriculture Organization of the United Nations (FAO) reports that the depth of hunger is greatest in sub-Saharan Africa, where 16 of the region's 40 countries are experiencing undernourishment rates of 35 percent or higher.

Chronic hunger not only increases people's susceptibility to disease, it leaves children listless and unable to concentrate in school, mothers more likely to give birth to underweight babies and adults lacking the energy to think and work productively. These costs are high. In 1990 per capita gross domestic product (GDP) in sub-Saharan Africa was \$800. If the region had eradicated undernourishment by that point, the FAO calculates that its GDP could have reached up to \$3,000.

Unfortunately, most sub-Saharan African governments have failed to recognize the link between socioeconomic development and proper nutrition. The result: untold suffering, death and economic loss related to hunger and malnutrition.

Good Nutrition for Life

Adequate nutrition is needed throughout a person's life, but especially during critical development periods such as pregnancy, early childhood (birth through age 5), children's school age years, and early adolescence through young adulthood.

Hunger and malnutrition during any life stage can lead to serious development and health problems, ranging from intrauterine brain damage and growth failure to an increased risk of developing diet-related diseases later in life. But proper maternal nutrition during pregnancy and while breastfeeding is especially important because irreversible malnutrition-related development problems can occur during this time.

Research shows that malnourished mothers tend to give birth to malnourished babies, promoting intergenerational problems. Half of all underweight babies are born to mothers who were malnourished at conception and have low-weight gain during pregnancy. Low birth-weight babies are at greater risk of morbidity and mortality, stunting, and poor neurological development. As adults, they experience lower work capacity and are at higher risk of chronic disease.

Costs of Hidden Hunger

While proper caloric intake is necessary to guard against hunger, proper nutrition also is needed to guard against "hidden hunger" or micronutrient deficiencies, such as a lack of vitamin A, iron or iodine. While such deficiencies can cause irreversible damage like blindness, they also cause overall physical weakness and greater susceptibility to illness, creating a vicious cycle of malnutrition and infection. In 2002 more than 90 percent of deaths from infectious diseases worldwide



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Poor people often are not able to buy enough of the most nutritious foods, putting them at risk for poor nutrition. In this way, pursuing policies that help reduce poverty also can help fight hunger.

were caused by only a handful of diseases: diarrhea, HIV/AIDS, lower respiratory infections, malaria, measles and tuberculosis. In sub-Saharan Africa, infectious diseases are the leading cause of death.

Vitamin A Deficiencies

Vitamin A deficiency (VAD) often is associated with protein-energy malnutrition, which principally affects preschool children. VAD is the leading cause of preventable visual impairment and blindness. Between 250,000 children and 500,000 children with VAD become blind every year, and about half of them die within a year of becoming blind.

VAD also significantly increases the risk of severe illness and death from common childhood infections, particularly diarrhea and measles. In communities where VAD exists, children are 23 percent more likely to die and 50 percent more likely to suffer acute measles. Among women, VAD not only causes ocular lesions, but also may contribute to maternal mortality and problems during pregnancy and with lactation.

Iron Deficiencies

Iron deficiencies profoundly impact human health and development. In infants and young children, iron deficiencies can lead to impaired psychomotor development, coordination and scholastic achievement as well as decreased physical activity. In pregnant women, iron deficiency

increases the risk of maternal and fetal mortality and morbidity, as well as intrauterine growth retardation. In all adults, iron deficiency can cause fatigue, which diminishes productivity.

It is estimated that half of all anemia is caused by dietary iron deficiency, although in many cases blood loss from malaria and parasites such as hookworm and schistosoma also are contributing factors. The groups most affected by anaemia are adolescent girls, women of childbearing age and preschool children.

Iodine Deficiency

Iodine deficiency disorder (IDD) most often occurs among people living in flood-prone areas, where heavy rains wash away iodine in the soil. This deficiency may lead not only to a visible goiter, but also impaired physical and mental development. The more severe IDD consequences include cretinism, mental retardation, deaf-mutism, squint, spastic diplegia (spastic paralysis of the lower limbs), coordination abnormalities, impaired learning capacity and dwarfism. A 1990 World Health Organization report estimated that some 26 million people suffered from brain damage associated with IDD.

Iodine deficiency also affects reproductive functions, leading to increased rates of stillbirths, congenital anomalies, low birth weights, and infant and young child mortality.

Helping Fight Poverty

Most people suffer micronutrient malnutrition because they do not have enough vitamin- and mineral-rich foods in their diets, a situation often aggravated by the body's impaired absorption or use of food nutrients because of an infection and/or parasitic infestation. Food fortification – adding nutrients to staple foods – is a tried-and-true way of battling nutrient deficiencies as seen with salt iodization. Adding vitamin and mineral supplements to people's diets is another successful – though expensive – means for improving nutrition. However, the ultimate long-term solution to hunger and malnutrition is dietary diversification. Because poor diets most often stem from poverty itself – inability to purchase enough of the most nutritious foods – poverty reduction efforts must be tied to any nutrition intervention in poor countries.

Conversely, by addressing hunger and malnutrition, poor countries are best able to tackle poverty. By integrating food security and proper nutrition in economic and social policy, countries benefit from healthier, more intelligent, better educated and more productive citizens, who in turn help create sustainable economic progress in their countries.

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