Malnutrition and poverty both contribute to a situation that fuels an increase in the affected population burden of disease, stunted growth failure, and mental retardation [4]. PEM in urban or rural areas is associated with high poverty rates. In some regions it is found concurrent with waste water contamination [5]. In other circumstances there is a lack of dietary animal protein from milk at birth into the first months of life. Still later there may well be lack of milk, eggs, chicken, fish, or meat intake [6].

Malnutrition is a major worldwide health problem, especially in developing countries. Water supply, sanitation and hygiene are critically important for preventing malnutrition, and these also have a direct impact on infectious disease, especially diarrhea. Poverty, inadequate water supply, poor sanitation, and war are all related to malnutrition [5,7]. However, in the Indian Hindu population along the Ganges, there is also a practice of outdoor defecation without sanitation [5,8]. This is a factor in a better health of the poorer Moslem co inhabitants. There is also an impact of repeated or persistent diarrhea on the impoverished population with an associated malnutrition. The effect of malnutrition on susceptibility to infectious diarrhea [7] reinforces the same elements of a vicious circle among children in developing countries.

Malnutrition increases the risk of disease and early death. Protein-energy malnutrition plays a major role in half of all under-five deaths each year in developing countries [9-12]. The severe forms of malnutrition include marasmus (chronic wasting of fat); kwashiorkor (severe wasting of muscle and lean body mass); cretinism and irreversible brain damage due to iodine deficiency; and blindness and increased risk of infection and death from vitamin A deficiency. When people are exposed to high levels of infection due to unsafe and insufficient water supply and inadequate sanitation, they also develop compromised nutritional status. In secondary malnutrition, In addition, individuals who develop insidious diarrhea don’t benefit from food because of a consequent inadequate absorption of nutrients. In addition, those individuals who are experiencing Protein-Energy Malnutrition (PEM) are more susceptible to, and less able to recover from, infectious diseases.

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Children and Hunger

Children are victims of under nutrition in highly populated and living in developing countries, but also in poor highly populated and nonurban populations in developed countries. Under nutrition in the aggregate, which includes fetal growth restriction, stunting, wasting, and deficiencies of vitamin A and zinc along with suboptimum breastfeeding, is a cause of 3.1 million child deaths annually or 45% of all child deaths in 2011 [9]. The deaths from diarrhea (61%), malaria (57%), pneumonia (52%), and measles (45%) are very similar to the estimated death a rate in which under nutrition is an underlying cause [14]. The diseases that cause diarrhea the body’s ability to convert food into usable nutrients subsequently leads to malnutrition. Moreover, 161 million under-five year olds globally were estimated to be stunted, 51 million under-five year olds were wasted, and 17 million were severely wasted in 2013 [15]. Two thirds of all wasted children lived in Asia, almost one third in Africa, and similar proportions for severely wasted children in 2013.

Malnutrition in India

Stunting contributes to the deaths of a million children under the age of 5 each year [15,16]. Those children who suffer cognitive deficits. They are poorer and sicker than children not affected by stunting. India’s stunting problem affects 20 times more people in India alone than H.I.V./AIDS does around the world. Sanitation and air quality are among the worst in the world. Parasitic diseases and infections like tuberculosis, often linked with poor sanitation, are common in India [16]. More than one in four newborn deaths occurs in India. Open defecation has been an issue that Ghandi tried to address in India [17]. Even though widespread housing discrimination confines many Muslims to separate slums, nevertheless, their children are less exposed to the higher levels of waste in Hindu communities. This may save thousands of Indian Muslim babies from death each year. Moreover, few rural households have the latrines that have almost eliminated outdoor waste in neighboring Bangladesh.

Malnutrition in Nigeria

In a Nigerian study most of the admissions and case fatality were noted in those infants being weeded aged 6 to 24 months. This period of infancy is associated with a higher case fatality rate than other forms of PEM [18]. The problem of nursing infant feeding practices is that breastfeeding should be exclusive for the first six months of life, and then the following months there would be breast feeding with appropriate weaning. The main prerequisite for the reduction of high infant and under five mortalities is improvement of nutrition. This measure would assure physical growth, the social and mental development of children, and academic achievement. Moreover, at least 25 to 35% of under-five mortality has been attributed to PEM in Nigeria and sub-Saharan Africa.

The WHO defined Severe Acute Malnutrition (SAM) by a very low weight for height, visible severe wasting or the presence of nutrition related edema. The overall reported mortality in one study was 40.1%. This was lower than the WHO estimated 60%, but it was still very high. In addition, other studies conducted in various parts of Africa have documented high mortality rates among children admitted for PEM. In Oshogbo, South West Nigeria, the average mortality rate was 22% over a five-year period among 803 children admitted for PEM in a Nutritional Rehabilitation Center [19]. Similarly, in a hospital based study in north-eastern Zambia, the overall mortality rate was 25.8% for children below the age of five years among 288 children admitted for various types of severe/complicated malnutrition. Approximately 50% of the 10 million deaths each year in developing countries occur because of malnutrition in children younger than 5 years [20]. Nearly 870 million people of the 7.1 billion people in the world, one in eight, suffered from chronic undernourishment in 2010-2012 according to the UN estimates. The main and principal cause of malnutrition is poverty, but malnutrition is also associated with war and conflict, and climate change.

Malnutrition of Children of Rural China

Chinese children in rural villages have a very high rate of poverty. The challenges that these children of rural China face are nonexistent in the cities. The struggle against malnutrition is most notable. It was reported that the prevalence of under nutrition in children less than 5 years of age was highest in poor rural areas in a study of nutrition in children under age 5 in China [21]. The overall prevalence of under nutrition has declined by 74% for underweight and 70% for stunting. There were significant downward trends in the prevalence of both underweight and stunting was observed for all areas (P < 0.001). However, in poor rural areas the prevalence
of underweight and stunting was still high in 2010, at 8.0% and 20.3% [22]. UNICEF estimates that in China there are 12.7 million stunted children [22,23]. In addition to malnutrition, the rate of anemia is high on rural Chinese children [24]. Stanford University conducted at least on 1824 babies in China’s Shaanxi Province [25]. While forty nine percent of the babies tested were anemic and another 28 percent were near anemic, forty percent of these children also displayed cognitive or motor problems. This is because of inadequate intake of many micronutrients, such as iron, as well as fresh fruits and vegetables. In 2006, prevalence of overweight children was as high as 16.8%, while that of stunting was 57.6% among the children in the poor areas of China’s mid-western provinces [22,23]. The coexistence of stunting and overweight in the same child is a result of protein and energy malnutrition, which retards height despite increased body weight, and Chinese rural children have a lower daily protein intake than urban children.

**Malnutrition in United States**

A study of low-income areas of the United States found that 22-35% of children aged 2-6 years were below the 15th percentile for weight [26]. Another survey found that 11% of children in low-income areas had height-for-age measurements below the 5th percentile. It has been noted that 10% of children in rural populations experience poor growth. On the other end of the age spectrum, up to 55% of hospitalized elderly people are undernourished and up to 85% of institutionalized elderly people are undernourished.

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