



Nutrition for Pre-school Children in Africa and Asia: A Review Analysis on the Economic Impact of Children’s Malnutrition

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Abstract

Nutrition is known to be the key driver in well-being and fitness generally, and as a driving force behind the growth of capital and child food, it is a source and a product of greater health problems, family income and living conditions. The first 1,000 days of maternal and child care concentrate on healthy physical exercise and cognitive improvement, with long-term health and economic consequences for people and economies. The research reviewed Nutrition for Preschool Children in Africa and Asia and illustrated the economic effect of malnutrition in infants. The review indicated that nutrition for pre-school children in Africa and Asia remains insufficient to ensure enhanced economic and human growth and that each nation needs to consider how money is to be invested through the assistance resources that help the least per cent of the population to fix this gap for children and make it the most efficient investment in society. Citizenship and collective efforts, particularly the voice of youth, are important forces of transformation, which must be encouraged to meet SDGs. Democracy campaigns can play a crucial role in the struggle for justice for children and the family.

Keywords: Nutrition, Preschool children, Africa, Asian, Malnutrition, Economic growth.

JEL Classification: I12; J13; D12; F63

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Contribution of this paper to the literature

This study contributes to the existing literature by investigating nutrition for pre-school children in Africa and Asia and the economic impact of children's malnutrition.

1. Introduction

Nutrition assistance and medical services are one means of tackling food challenges policies. Health is widely known to be one of the key factors of global study in pleasure and life satisfaction (Helliwell, Wang, & Xu, 2013). Interventions that enhance childhood well-being have acute, long-term and intergenerational effects, complementing each other in synergy. To ensure the growth and progress of children, we need timely, accurate population data on health, protection, access to education, quality housing and environmental conservation, among other rights (Clark et al., 2020). The State of the World Child Report 2019 has the following aims: encouraging families, children and youth to seek healthier food, encouraging children to do right with their environment, creating a safe climate for all children and mobilizing assistance systems-hygiene, water and sanitation, nutrition and social welfare. Investing in nutrition for children and teenagers is an important challenge if the world meets its sustainable development commitments by 2030 (UNICEF, 2019).

Pre-school years are a crucial part of the growth and development of the child, and it is important to ensure that the eating routine of the infant during this period is well-formed and developed. The impact of evolving food habits will significantly influence the well-being of children and the entire economy during this period. Malnutrition, the main public health issue for countries, impacts many children and is a primary concern in these areas (Bharti & Sakshi, 2016). Therefore, the problem of children in developing countries is important. Furthermore, enhancing the welfare of women, infants and small children increases the prospects for an infant to provide full opportunities (UNAIDS, 2010).

Nutrition during pre-school years is important for child growth and development and the availability of high levels of energy for service that, in turn, can be used by healthy trained and unskilled employees to contribute to economic growth. A young child's diet program will consist primarily of healthy foods and daily family meals, providing opportunities for good nutrition. However, children are comforted by daily meals, and eating with preschoolers can be noisy and messy. Preschoolers (age 3 to 5) tend to build their eating habits and require motivation to consume nutritious meals and snacks. These kids love to read. Often, they emulate the actions of adult eating. They need dietary support while they also focus on chewing and swallowing skills. For government and development institutions, the promotion of infant safety has long been a priority for public health. However, above and beyond mortality factors, the importance of health and diet to sustain child development and educational success is increasingly recognized (Bundy & Guyatt, 1996; van den Heuvel et al., 2013).

This paper examines the influence of infant schooling in pre-school children and the economic consequences of infant starvation/malnutrition in Africa and Asia. It is becoming apparent that health and diet challenges should be discussed for two reasons in pre-school children (less than five years of age). Firstly, the world's poorer and wealthier quintiles are over 50% death ranges, and, secondly, the overall prevalence of illness for these children reaches 30 per cent in the developing nations (Jukes, 2007; UNESCO & Jukes, 2006). Moreover, the number of preschoolers worldwide is estimated at 600 million and even much higher (US Census Bureau, 2002). Therefore, their risk of mortality is much higher, and they are preserved better in adolescence and adulthood, which is why they have a far greater risk of survival. Thus, at this stage, opportunities like health, welfare, education and child development mainly determine for themselves the child's health and well-being in its lifetime (Six, 2007).

Different aspects of child welfare are greatly influenced by food practices and proper diet, contributing to the children's potential health (Ahmad, Daw, & Isa, 1996). In sub-Saharan Africa, infant mortality averages 173 deaths per 1,000 live births and 98 deaths per 1,000 in South Asia – several times the rate of 7 deaths per 1,000 in a developed world. Children's leading killers are incredibly treating and preventable infections such as flu, diarrhea, HIV, measles and malnutrition. Surveys have shown that malnutrition can cause stunting and wasting in pre-school children (Black et al., 2008). Stunting is a result of chronic or recurrent undernutrition in utero and early infancy. Child stunting will never reach full height or cognitive abilities. Not only do stunted children reap less from their interests in classrooms and schooling as adults, they often are more likely than middle-aged children to become overweight and obese. Wasting is a life-threatening condition attributed to inappropriate feeding and nutrient loss. Characterized by rapid nutritional depletion within the short term, children who suffer from waste compromised their immunity, increasing their mortality risk, particularly if they are serious, due to the higher prevalence of chronic infections.

2. Review of Literature

Based on their socio-economic situation, population size and the urbanization in China, India, Nepal and Pakistan (Gao et al., 2020) have investigated the nutritional status of pre-school children and children's caregivers based on nationally significant data from the China Annual Diet and health inspection report, the Indian National Health Survey and Nepal demography. The nutritional situation of children and women on four continents has been vastly different. They found the prevalence of underneath nutrition and the higher prevalence of overweight/obesity in countries with higher economic status in children, especially in China, where the prevalence of overweight/obesity was substantially higher than underweight. Health trends have been mixed in childbearing women, and among the four countries in this group, Pakistan has a high rate of overweight/obesity, although it has the second-lowest income level.

Using a cross-sectional survey conducted in a semi-urban population of 220 pre-school children, Mary, Jerffson, and Abiodun (2019) evaluated the nutritional status of pre-school children and their eating habits in southwestern Nigeria and analyzed the data produced using the software Social Sciences Statistical Package (SPSS) and found that the overall prevalence of malnutrition was high. A significant proportion (78.2%) of children ate more than three times a day, while 96.4% of children routinely defined everyday meals and advised that parents encourage their children's healthier eating habits. Chakravarty, Tatwadi, and Ravi (2019) examined the intrinsic relation between stunting and its intergenerational impact on human capital from 1986 to 2017 in South Asian and

Sub-Saharan countries. The study found that the formation of human capital starts in the early stages of childhood. In the long term, a healthy childhood has a positive relation to the production of human capital. Improved diet, which affects underweight, obesity and stunting, is largely attributed to a balanced childhood.

Hurley, Yousafzai, and Lopez-Boo (2016) reviewed the benefits and challenges of implementing integrated interventions on early childhood development and benefit-based nutrition-cost analysis. He found that poor nutrition and lack of early learning opportunities contribute to the loss of development potential and lifelong health and economic disparities among millions of children < 5 years of age. Due to their positive impact, they advocated for the development and testing of integrated interventions. Similarly, the 2007 Lancet series on child development in developing countries reported that multi-component programs, including health, nutrition, and psychosocial stimulation, are likely to be the most successful in promoting and growth and development in early childhood, therefore, advocated for the development and testing of integrated nutrition and early child development interventions (Black et al., 2008). Black et al. (2013) analyzed the undernutrition and overweight of mother and child in low and middle-income countries. They observed that undernutrition leads to a fetal growth cap, which raises the likelihood of neonatal deaths and stunts by two survivors. They added that overweight children easily lead to obesity, diabetes and non-communicable diseases in adults.

Concerning initiatives for children under six, Six (2007) has shown that the pre-school age group has received a low priority in developing country's policies, services and budgets, despite all measures showing that more support is urgently needed at that time. However, the effect of the weaning period on the nutritional status of children has been observed by Shamim, Naz, Jamalvi, and Ali (2006). It has shown that various strategies are currently in place to continually implement policies aimed at investing in early childhood. Still, these policies are not being fully implemented at the moment.

3. Nutrition for Preschool Children

In a 2017 survey, the costs of not growing child development in the form of mandatory pre-school and home visits are substantial and may minimize stunting to more than 10 per cent of GDP (Richter et al., 2017). The Lancet Commission, promising to place children's health and well-being at the forefront of the sustainable development goals (SDGs), was founded at the end of the Millennium Development Goal and stressed child survival. From 2015 to 2020 alone, about 44 per cent of children aged 0–6 months in the world breastfed (UNICEF & WHO, 2021). While the lack of nutrition and malnutrition impacts all ages, the long-term effects of the development and well-being of small children are very important because much undernutrition takes place in the womb or the first two years of existence. The brunt of early damage lasts for both body and brain development.

Changes in diet and lifestyle made early by children and parents will affect their children for the rest of the lifespan. As most people achieve their optimum bone mass at 20, early childhood needs to build muscle and bone mass. Children with overweight problems appear to feel exhausted and irritable, which may cause depression. Overweight infants have health issues and are often unable to compete with their friends in physical exercise. This will lead to the alienation of relationships that can form poor social ties and low self-respect. In general, it is important to develop children with a healthy and nutritious diet. A child wants to be driven by opportunities to grow a well-equilibrated and balanced nutritious life. A child may have trouble ensuring they are well fed and protected without support, motivation, guidance and schedule. When young children grow up, they tend to learn about what they like and don't want. On many occasions, this does not meet the dietary needs of the best of them. The challenge is this, as children are extremely attentive individuals, it is helpful to create safe and productive relationships. Children may also be an important learning aid in food preparedness and choosing.

Health status is an indicator of human well-being since consuming calories and applying nutrients are the main determinants. Wellness is not only a lack of illness; it is an essential condition of mental and physical well-being, as indicated by the International Health Organisation (WHO). In 1992, the Rome Conference on Nutrition, which claimed in its World Nutrition Declaration and Plan of Action that nutritional health of all people is an essential prerequisite to population growth and a central goal for human advancement, was the relationship between the production of human nutrition resources. A healthy, well-nourished child is a necessity for healthy development. The nutritional well-being of the populace is at the same time a reflection of the achievements of both the social and economic spheres and, to a large extent, of the efficiency of the national income distribution. Much of the people should be prepared to partake in this effort to ensure a permanent and effective national program for social and economic growth. The rest of the population should also be in good health and have good nourishment. Nutrition plays a crucial role in human capital development. The lack of essential nutrients leads to malnutrition, affecting people's mental and physical well-being and poor health and poor work results.

Furthermore, a young undernourished baby may suffer moderate to severe impairment leading to poor schooling; a frail, malnourished person may not respond well to treatment, may be permitted to spend several hours working and can continue to drain away national to family capital. Investment in education, health care and other growth sectors is undermined by malnutrition, but healthy nutrition is an investment in human and social resources; the high development of human capital that ultimately forms the basis of change is the primary determinant of household and public well-being. Therefore, acts that are central to the operation of the food markets boost food supply and demand, improve the quality of children, and enhance the main support systems' role.

Again, healthy food is important for the health of children and for achieving the Sustainable Development Goals. It must be at the heart of the government's plan and backed by key actors, including civil society and the private sector. In all continents except Africa, the number of children who have suffered from disorder has declined, while in all continents, the number of overweight children, including Africa, has increased (UNICEF, 2019). Young adults' cultural and social needs, young parents, and families will be focused on creative, engaging, positive and stimulatory interaction approaches that facilitate nutritious foods. The return on nutrition investment is high. For example, in high-burden countries, every dollar that is invested in mitigating stunting yields economic returns equivalent to about US\$ 18. Investment in children's nutrition is critical for the production of capital because children's nutrition in Africa and Asia is necessary for growth, cognitive development, academic achievement and potential competitiveness (UNICEF, 2019). Global figures reveal that the hunger rate appears to be alarming. The

number of kids under 5 (overweight) shocked, and waste (million) is declining too slowly. In contrast, unsustainable levels damage the lives of too many young children worldwide, 2000-2019 (UNICEF & WHO, 2021).

The key objective is to free all kids from some form of malnutrition. Analyses of child hunger trends in the World Bank Organization show that in 2019 stunting affected an estimated 21.3% or 144.0 million children under the age of 5 worldwide, and in 2019 it appears that wasting endangers estimated lives of 6.9% or 47.0 million children under five worldwide. In 2019, the world's highest number of children under 5.6% or 38.3 million, was unparalleled. Kid rush never reaches the maximum height, and the brain never grows to peak growth potential. They face behavioural challenges in school, obtain limited support as adults, and are hindered by social inclusion, which is a big downside. Children with waste are less resistant and susceptible to long-term delays and have an increased risk of mortality, especially in cases of extreme waste. While malnutrition takes various forms, it ultimately has the same preventive route: proper nutrition of the mother before and during pregnancy or lactation; successful breastfeeding in the first two years; balanced, varied and nutritious early childhood food; a safe climate, including basic health, water, hygiene, sanitation and opportunities. These main components are supported by a community in which children are free of all forms of hunger. Global and international statistics on infant hunger by UNICEF, WHO and the World Bank show that we are still far from the world of hunger. The joint forecasts published in March 2020 include indices of dramatic and obesity in children under 5 years of age, extreme obesity and overweight, which indicate a lack of progress in achieving 2025 goals for the 2030 World Health Assembly.

Main dietary strategies that have been proven to be successful in reducing underweight, stunting, and low birth weight are: pre-natal; better maternal diet and well-being to eliminate low birth weight and stunt later in life before and after infancy increase maternal longevity. Post-natal; safety, encouragement and advancement of optimal breastfeeding; avoidance and effective clinical care of infections (including diarrhea, HIV, measles, tuberculosis); management of extreme and mild acute malnutrition; avoidance and control of selected micronutrient deficiencies: vitamin A, iodine, iron-folic acid, zinc; psychosocial stimulation; healthy lifestyle;

4. Nutrition for Pre-school Children in Africa and Asian

In 2012, the Sixty-fifth World Health Assembly (WHA) approved the Maternal, Infant, and Young Child Nutrition (MIYCN) systematic implementation strategy (WHO, 2017). As a result, there has been some progress in achieving global nutrition targets in the African region. For example, the global targets for under-five overweight and exclusive breastfeeding for infants each have 20 countries to meet them, while under-five waste has 12 countries on course, while under-five stunting has eight countries on the course (WHO, UNICEF, & UNFPA, 2015).

Despite being reasonably well off against other countries, Africa continues to face the burden of malnutrition among its under-five population. The estimated overweight incidence of the five-under-age population is 4.9%, the second-lowest in all countries. The breathtakingly low amount in Europe is 30%, double the world average of 21.9%. On the other hand, pollution in the African region is 7.1% lower than the global average of 7.3%. In Africa, 43.4% of children under six months old breastfeed, while the country's overall low weight incidence is 13.7% lower than the total global average of 14.6% (Organization, 2015). African governments should take measures to mitigate and eliminate under-nutrition, among other things, by ensuring optimum conditions for safe infancy and children, improving water and sanitation supplies, and delivering adequate food in classrooms.

Progress has been made in the Asian field to the attainment of global nutrition targets. For example, global expectations for under-five overweight and under-five stunting each of the 12 countries on track to meet them, under-five obesity has 11 countries on track, infant-only breastfeeding has seven countries on track, female diabetes has six countries on track, while low birth weight and male diabetes each have one country on their way. However, in women of reproductive age, male obesity and female obesity, not one country in the world is on target to meet the targets of anaemia. 38 Countries worldwide do not have adequate evidence to measure their success toward these global targets reliably.

Asia faces a challenge of hunger in its population of under-five. The reported prevalence of overweight is less than 5.2 per cent lower than the worldwide average of 5.9 per cent. The prevalence of stunting in the under-five is 22.7%, higher than the global average of 21.9%. The prevalence of waste in Asia is also 9.4% higher than the global average of 7.3%. About 42.3 per cent of children under six months of age are breastfed in the Asian world, while the world's total low birth weight rate of 17.3 per cent is higher than the global average of 14.6 per cent.

5. Economic Impact of Children's Malnutrition

Malnutrition Von Grebmer et al. (2009) is a general term for several factors that influence health due to inadequate or unbalanced food consumption or insufficient food intake. It applies to under-nutrition (calorie deprivation) and over-nutrition (excessive food consumption due to energy requirements). One of the key threads of malnutrition is the continuing scourge of undernourishment. Despite declines in certain parts of the world, undernutrition deprives many children of the energy and nutrients they need to grow well. It is associated with just under half of all deaths of children under five years of age each year (Black et al., 2013). Malnutrition in conflict areas is not limited to extreme hunger. Worldwide, children face various kinds of malnutrition that go beyond undernutrition.

Many nations are grappling with the double burden of famine. Undernutrition in small children and later-life obesity contribute to an increased risk of chronic diseases such as hypertension and diabetes. In one world, both sides of the same malnutrition coin will be on a debilitating view and most likely in the same houses, classrooms and playgrounds. Malnutrition does not only lead to malnutrition and disease. It also challenges the fundamental right to a healthy life and negatively affects economic prosperity by growing health care costs and incurring reductions in productivity. Productivity losses are due to decreased physical and academic capacity in undernourishment, while obesity, missing labour days, diminished productivity at work, mortality, and permanent disability come into play. The effect of these costs can be tremendous on the country's gross domestic product (GDP). The estimated annual GDP losses due to low weight, slow childhood growth, and micronutrient

deficiencies are 11% in Asia. The overall economic burden of obesity is estimated to be USD 2 trillion or 2.8% of global GDP – about the same economic effects as smoking or wars. At the same time, the projected effect of multiple causes of malnutrition on the global economy may be as high as US\$ 3.5 trillion per year or US\$ 500 per person.

The most convincing connection between food and the economic growth of a nation is human resources. The World Bank published the Human Capital Index in 2018, underlining that this new age needs countries to invest urgently in their population to succeed in future economies. The Human Capital Index is a cumulative metric, a factor in children's growth, years of schooling and stunting. It also made it possible to accept that malnutrition is often directly responsible for human capital shortages. At the microeconomic point, a 1% decrease in adult height due to childhood stunting is estimated to equal a 1.4% decline in a person's productivity. Undernutrition impacts pupil success at school due to disease-related disabilities, which result in diminished intellectual ability and inadequate cognitive growth. This means a higher chance of going to school at a later age, rehearsing, leaving school and ultimately reaching a lower standard of education (Currie & Vogl, 2013).

Governments are the main source of our mutual responsibility for these problems of child malnutrition. They play a crucial role in funding children's projects, ensuring efficient implementation of care and maintaining sufficient social security for families. Both sectors play a part in fostering children's welfare and well-being, and there is strong evidence of the need for multi-sectoral intervention for children (Kuruvilla et al., 2014). There are several aspects in which malnutrition may affect the child's economic opportunities and, finally, broader socio-economic growth. Stunting has been related to impaired cognitive performance and lower educational outcomes in the first 1000 days. Data from a host of countries shows that undernourished children spend less time at school, generally attributable to impaired brain growth and learning, injury or injury later in life, and are more likely to repeat stages.

There are growing awareness and evidence that action to reduce malnutrition pays off and is much needed. In the interests of our well-being and our societies, both now and in the future, countries need to take on many-sided hydrates that are malnutrition. However, malnutrition and its negative impacts on health, education, and development contribute to social and economic losses for individuals and society. The overall burden of malnutrition is often due to higher expenditure on health services, inefficiencies in schooling and reduced efficiency. In summary, the cost of undernutrition-related production is proportional to the lack of human resources suffered by a nation due to a lower level of schooling among undernourished inhabitants, a lower output of manual labour faced by people suffering from stunting, and a reduction in economic ability due to a higher number of malnourished deaths.

6. Conclusion

Early investments in children's health, schooling and development have accrued gains for their potential children and community as a whole over a child's lifetime. Effective nations invest in their children to protect their rights, as can be seen by countries that have done better over the last few decades on health and economic issues. Good quality diet and a balanced lifestyle would affect young children for the remainder of their lives. Children are highly good at early development and continue to adopt the behaviours and techniques they carry into adulthood. Apart from the habits and patterns that have been developed, children who do not get the right nutrition when they develop can often suffer from physical illness. Obesity, osteoporosis, reduced muscle density, hair thickness and texture improvements, fatigue, irritability, and type 2 diabetes are among the most common concerns for malnourished children.

Preschool 3-5 years is a critical opportunity to build safe lifestyle patterns that can last a lifetime. Preschoolers appear to grow in spurts, and their appetites can be unpredictable. This is possible because if parents give a healthy choice, they will make a realistic decision for their children. Unique breakdowns of foods, meats, vegetables, fruit and dairy products are like babies, differing in height, age and sex. Calcium consumption is a crucial component that is essential for young pre-school children to develop. Calcium is required to keep the bones and teeth solid, stable and successful. The World Health Organisation and UNICEF advocate breastfeeding babies within 1 hour of birth, breastfeeding exclusively during the first 6 months of development, and breastfeeding children up to 2 years of age and beyond. Beginning at 6 months, breastfeeding should be paired with a healthy, age-appropriate supply of solid, semi-solid and soft foods (Killen, 2005).

There are widely accepted guidelines to target children for sustainable growth (SDG). State policymakers can set up a high-level structure or choose a particular agency to coordinate work with and children through sectors, build an environment of child-friendly services and determine how these services affect children. Heads of State and Government should set up a surveillance mechanism to track child care expenditure by using this instrument to raise domestic resources from the poorest segments of society to optimize engagement through fiscal instruments. Public agencies at the right level, national academics and research bodies should adopt policies to enhance the processing of SDG data via country-based information systems and citizens' data and openness to determine children's health, equity and carbon emissions.

Local authorities should set up a multi-sectoral commission to combine health and social care programs for children and other stakeholders where appropriate. UNICEF Child Development Ambassadors and those worldwide should draw together nations and societies to adopt child-friendly care and sustainability policies, promoting ambitious carbon reductions to secure the environment for the next millennium. Children's health, rights and sustainable development leaders should represent their perception of the SDGs as children and their potential risks of greenhouse gas emissions, especially in high-income countries. Forums on sharing ideas and feedback should be coordinated to highlight children's right to a safe future and the environment.

Global authorities on children's well-being and children's welfare should endorse implementing new recommendations to the UN Convention on the Protection of the Child to shield children from abusive market practices. Country leaders at the UN should work together to create a coordinated, essentially multi-sectoral UN system to remove division and silo and place child participation at the core of the SDGs. The WHO and UNICEF leaders should consult with the heads of other UN agencies to prepare concerted action to assist countries in

adopting focused, aggressive SDG policies and collaborate with international agencies to help countries exchange momentum and best practice.

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