

Severity of Malnutrition in Developing Countries like Nepal due to COVID- 19

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ABSTRACT

Malnutrition, at its core, is a dietary deficiency that results in poor health conditions. Malnutrition can occur in children of all ages, but young children are the most vulnerable. The unprecedented health and human crisis caused by the COVID-19 pandemic is weakening the nutritional status of people across the world especially the young children. The Low- and Middle-Income countries (LMICs) are hardest hit by its consequences. Measures adopted to respond to COVID-19, such as physical distancing, lockdown of countries and trade restrictions, have greatly impacted the supply chains of fresh, nutritious and affordable foods; as a result, most of the households are compelled to consume alternatives which are poor in nutrients. This article discusses the severity of malnutrition in developing countries like Nepal due to COVID- 19 and some ways to overcome and prevent it.

Keywords: *COVID-19; Malnutrition; Nepal.*

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INTRODUCTION

Malnutrition is one of the main causes of death in children under 5 years of age. Malnutrition refers to a condition or state resulting from a relative or absolute deficiency or excess of one or more essential nutrients.¹ Malnutrition is a combination of factors: insufficient protein, energy and macronutrients, frequent infections or disease, poor care and feeding practices, inadequate health services and poor water and sanitation. The lack or inadequate breastfeeding practices alone result in almost 12 percent of all death among children under the age five.² The COVID-19 pandemic is under mining nutrition particular in low income countries like Nepal. Due to unavailability of public transport people have been denied access to health facilities further most of the health facilities across Nepal have been converted into quarantine or isolation centre. Some of the nutrition rehabilitation center also had been converted into quarters for health workers serving corona patients.³

CURRENT GLOBAL SCENARIO OF MALNUTRITION

The global burden of malnutrition impacts on developmental, economic, social and medical aspects which lasts long for individuals and their families, for communities and for nations.

Malnutrition is a major health concern as it is the most common cause of morbidity and mortality among children of under five years throughout the world.⁴ In 2014, approximately 462 adults worldwide were underweight. Likewise, 1.9 billion were either overweight or obese. The problems remain persistent as indicated by later reported data of 2013–malnutrition contributed directly or indirectly to more than 33% of all child deaths globally.⁵ Around 45% of deaths among children less than 5 years of age are linked to undernutrition. These mostly occur in low- and middle-income countries.⁶

According to the data of WHO (2016), 99 million (15%) are underweight. In 2016, 86.5 million (56%) stunted children lived in Asia whereas 59 million (38%) in Africa, and 5.9 million (11%) in Latin America and Caribbean.⁷

Of the total under five mortality rate 53% are considered to be due to malnutrition in Nepal which is 8 % higher compared to the global average of 45%.³ About 36% are stunted and 12% are severely stunted, 5% are severely underweight likewise 27 %

are underweight. Nepal demographic and Health survey (NDHS) 2016 revealed that more rural children were stunted (40%) than urban children (32%).⁸ Similarly 41 percent of women aged 15- 49 were anemic, 34 percent were mildly anemic, 7 percent were moderately anemic and less than 1 percent were severely anemic. Survey reports revealed by NDHS 2016 also indicated that 10 percent of children were wasted, 2% were severely wasted and only one percent of children under the age five were overweight. In the meantime, seventeen percent of women were malnourished; this means they had BMI less than 18.5 kg/m².⁸

CAUSES OF MALNUTRITION

Lack of essential nutrients and minerals results in the condition of malnutrition. At the most immediate level malnutrition is caused by inadequate diet intake in terms of quality and quantity. Worm infestation, acute respiratory infection, gastroenteritis may exaggerate the problem. Nutritional deficiency can make an individual more susceptible to disease. The underlying causes of malnutrition are lack of household food security, lack of proper hygiene and sanitation, lack of healthcare facilities. Another basic cause of malnutrition are poverty, lack of information, inadequate resources financially and human resources.¹

In children under age five years the major factors related to malnutrition are: low birth weight, feeding problems, diarrhea, recurrent illness, and measles.¹

COVID-19 AND MALNUTRITION

Reports from UNICEF show that the coverage of essential nutrition services in LMICs had reduced by 30% during the early months of COVID-19 pandemic and by 75-100% during the lockdown circumstances.⁹ Food insecurity and poor-quality diets, reduced income and limited financial resources, restricted access to health services, interrupted education and unhealthy household environment are the major risk factors for childhood malnutrition in the context of COVID-19.¹⁰

The Lancet analysis suggests that the impacts of COVID-19 could lead to the increase in prevalence of wasting among children under the age five by 14.3% in LMICs this year. COVID-19 is also making its way to

increase other forms of malnutrition in children including stunting, micronutrient deficiencies, overweight and obesity signifying that increase in child wasting is only the tip of the iceberg.¹¹

The health implications of the COVID-19 crisis are severe among Nepalese citizens who are already dealing with the adverse effects of poverty, hunger, and natural disasters. The most disadvantaged elderly and children living in impoverished families have no choice but to miss their meals and face chronic health problems due to the lack of income.¹² In Nepal among all the corona virus positive cases there were more than 5,400 cases with children under age of 10. As of November 20, among 216,965 cases 5,565 are children among them 2,274 are female child and 3,291 are male child.¹³ The most affected province is the Bagmati Pradesh with 2,758 children under the age of 10 are being affected.³ Approximately 3 million Nepalese children between the ages of 9 months and 5 years have skipped their routine immunization schedules due to lockdown.¹²

MEASURES OF PREVENTION

Malnutrition consists of a vicious cycle and it could transfer from one generation to another. In Nepal, malnutrition is still high but is in an improving state. Children are the most vulnerable population; children who suffer from malnutrition are less productive than normal healthy children. The attention should be given to accurate implementation of breastfeeding programs, supplementary nutrition, fortification and integrated packages of nutrition intervention for children and mothers as well as utilization of health facilities in marginalized and each region of the country. Appropriate government policies and good coordination is also needed to support intervention programs related to nutrition.

In the face of COVID-19 pandemic, the UN agencies have recommended five urgent actions to protect children's right to nutrition:¹¹

1. Firstly, access to nutritious, safe and affordable foods needs to be safeguarded and promoted as the foundation of the response to COVID-19. This can be done by protecting food producers, processors and retailers; discouraging trade bans and designating food markets as essential services.
2. Investments are needed to be made decisively for the improvement in maternal and child nutrition throughout the pregnancy, infancy

and early childhood period. This requires protecting breastfeeding, discouraging the inappropriate marketing of infants, securing children and women's access to nutritious foods and providing accurate information on infant feeding to caregivers.

3. Services for the early detection and treatment of child malnutrition, especially wasting, need to be re-activated and scaled up while maintaining and expanding other life-protecting nutrition services.
4. Provision of nutritious and safe school meals should be maintained for vulnerable children through home delivery, take-home rations and cash or vouchers when schools are closed. While doing so, nutritional value of school meals or food packages need to be ensured to avoid the provision of unhealthy foods and drinks.
5. Finally, social protection needs to be expanded in order to safeguard access to nutritious diets and essential services among the most affected families, including access to fortified foods.

The governments, public, donors and private sector must come forward together with continuous action and investments to combat the COVID-19 crisis and its implications on nutrition.

WAYS FORWARD

The impact on nutrition brought by the pandemic COVID-19 and ongoing nationwide lockdown is a major unvoiced issue. Considering this, the measures and protocol should be followed to adjust with the new normal. The difficult time demands the joint effect of the government, public, private sectors and donors. There is a need of public awareness on the misconception regarding breastfeeding and complementary feeding. Avoiding junk foods is essential for the betterment of the child's health. Mass awareness through the use of social media, electronic messages and internet can be effective in this regard. Regulation of government's nutrition program along with other organizations policies is also the need of the hour. Separation of COVID hospital and general hospital so that people will have easy access to health services as before. For the nutrition part issues of food security such as market inspection of food quality, quantity and price are to be carried out. Along with that proper functioning of nutrition rehabilitation center is another issue to be considered.

CONFLICT OF INTEREST

None

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