The Economic Consequences of Undernutrition in Pakistan

An Assessment of Losses

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Foreword

Pakistan is steadily undergoing a process of urbanization, with 38% of the population now living in urban areas and 22% living in cities of more than 1 million people. The progress of urbanization is expected to increase. In addition to the critical issue of pervasive and persistent malnutrition in Pakistan, rising urbanization is bringing a new set of developmental concerns.

High prevalence of malnutrition in urban areas requires a different approach to nutrition programming than the one traditionally used in rural areas. In urban areas in Pakistan, access to health services is generally high and socioeconomic status is relatively higher, although clear disparities can be found between non-slum and slum urban areas. In addition, urban households are often reliant on purchased foods for consumption and do not have plots of land available for food production, unlike in rural areas.

The Government of Pakistan, the World Food Programme (WFP) in Pakistan and WFP's regional bureau for Asia and the Pacific have joint the efforts to carry out the analysis 'Nutrition in the Cities: Nutrition status of urban children under 5 years of age in Pakistan'. The objective of this analysis is to produce an evidence-based document that provides key information to better understand the magnitude of malnutrition in urban Pakistan and its influencing variables. Along with the Cost of the Diet and Fill the Nutrient Gap analyses, the findings included in this report pinpoint the major factors that affect the nutrition status of children under five years of age and their mothers, and identify possible avenues for solutions.

The 2011 National Nutrition Survey found very high prevalence of malnutrition in urban children, with acute malnutrition, chronic malnutrition and micronutrient deficiencies all major public health problems. While the prevalence of stunting (chronic malnutrition) is lower than in rural areas, at 36% it is considered to be high and a serious public health concern. Most concerning, the prevalence of wasting (acute malnutrition) and micronutrient deficiencies is critically high for both urban and rural areas, with no significant differences between the two. In addition, the report 'Nutrition in the Cities: Nutrition status of urban children under 5 years of age in Pakistan' identifies that malnutrition (stunting, wasting, micronutrient deficiencies) is high across all urban wealth quintiles and that 99% of urban children are affected by at least one or more forms of malnutrition. This complements the findings from the Minimum Cost of the Diet (CotD) in Pakistan (2016) report, also carried out in coordination between the Government of Pakistan and WFP, which estimated that a large majority of the urban households cannot afford a nutritious diet.

At a time when the Government of Pakistan is set to achieve the Sustainable Development Goals by 2030 as well as the goals identified within Vision 2025, the current levels of undernutrition are unacceptable and need to be addressed urgently. This report raises awareness on the importance of addressing malnutrition in urban areas of Pakistan, since national and regional malnutrition trends are greatly influenced by urban malnutrition trends, given its scope and size. Therefore, the results of the 'Nutrition in the Cities: Nutrition status of urban children under 5 years of age in Pakistan' analysis provides convincing evidence that can be strategically used to influence food and nutrition policy and programmatic work at national and decentralized levels.

We hope you will read this report in conjunction with the Cost of Diet and Fill the Nutrient Gap analysis reports, and will act upon the results of these reports in a coordinated fashion, under guidance from the competent governmental institutions, to ensure the right to adequate food and nutrition by all the Pakistani population, and to pave the way to future success in the drastic reduction of malnutrition in the country. To ensure efforts are effectively coordinated, we look forward to working together across sectors, such as health, agriculture, social protection and education, and across partners, including the private sector, in order to dramatically reduce urban malnutrition in Pakistan in a sustainable manner.

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Federal Minister for Planning, Development and Reform

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Executive Summary

As undernutrition increases morbidity and mortality, it also retards physical and cognitive growth, diminishes learning capacity and school performance, and leads to lower adult productivity. However, the tragic visible conditions that mark undernutrition represent only "the tip of the iceberg."[1] The predominant burden emerges from widespread invisible forms of undernutrition, which are characterized by a handful of biological, anthropometric and other nutrition indicators. A consensus of scientific literature has established concrete risks to survival and health, as well as deficits in child development, school performance and adult earnings:

- Poor nutrition status among pregnant women raises the risk of poor birth outcomes and can double the risk of infant mortality.
- Poor anthropometric indicators, along with vitamin and mineral deficiencies and suboptimal breastfeeding behaviors, can lead to a 15-fold increase in mortality risk.
- Childhood stunting and deficiencies in iron and iodine hamper cognitive development, school achievement and adult productivity by 2.5-19.8 percent.
- Adult anemia reduces work performance in manual labor in the areas of agriculture, industry and construction by 5-17 percent, depending on the physical demands of the job.

When different forms of undernutrition are highly prevalent, individual risks and deficits can aggregate and result in a substantial burden on national economic growth. Two recent national surveys, the National Nutrition Survey (NNS) 2011 and the Pakistan Demographic and Health Survey (PDHS) 2013, found widespread undernutrition throughout Pakistan. A summary of 15 indicators measured through these surveys reveals that there are more than 110 million individual cases of undernutrition in Pakistan, including more than half of adult women and possibly 97 percent of children.[2]

Indicator by indicator, each case of undernutrition brings concrete and quantifiable values for risks and deficits. The "coefficients of risk" are then applied to national prevalence, along with demographic, health, economic and labor statistics, to project the magnitude of reduction of the national economic activity that is associated with the undernutrition status quo.[3]

Computer modeling undertaken for the 15 indicators of undernutrition mentioned above indicates that the economic consequences emerging from the current prevalence and risk factors for poor nutritional status, as documented by the NNS (2011) and PDHS (2013), totals US$ 7.6 billion annually for Pakistan, which corresponds to nearly 3 percent of GDP. The cost of the status quo is measured via four pathways:

- Maternal nutrition and breastfeeding behavior, along with child underweight, wasting and micronutrient deficiencies, are linked to approximately 177,000 deaths annually in Pakistan, which corresponds to more