

Leveraging Early Reproductive Age in Women to Improve Child Health Outcomes

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EDITORIAL

Introduction

A country's development is determined not only by its economic growth but also by the growth quality of its human resources. In some ways, what distinguishes a developed economy from an underdeveloped economy is the holistic growth of human capital at all levels, namely social, physiological, and professional. Physiologically less developed or/and malnourished workforce will not be able to perform to their full potential, which will undermine productivity, raise healthcare expenditures, and reduce the country's economic benefits. Hence investment in the determinants of health at the right time especially focusing on starting early with optimal nourishment will make a significant impact not only on a child's physical growth but also on their mental growth [1].

Reducing child mortality rates is one of the Sustainable Development Goals (SDG 3.2). To accomplish this goal, a commendable initiative by the Indian government has been launched under the umbrella program POSHAN Abhiyaan with the goal of reducing child fatalities and increasing child survival during the 'first 1000 days'. As per public health experts, nourishment in the 'first 1000 days' (from conception to 2 years) is a critical window of opportunity that promises optimum growth, brain development, and health for the lifetime. These years are crucial for an individual's future physical and mental development. Malnutrition (undernutrition, over-nutrition, and/or vitamin-mineral deficiencies) in the 'first 1000 days' can cause long-term, adverse health effects such as short stature for age, low weight for height, reduced muscle mass, etc. which can lead to non-communicable diseases, co-morbidities, and premature deaths.

Even though the 'first 1,000 days' can help in reducing morbidity and mortality rates in children, the development of most foetal organs begins shortly after conception and well before the mother gets her first prenatal check-up. We are therefore missing out on the vital window of opportunity known as the preconception phase, which is often considered three months before conception. Research suggests that addressing any nutrient deficiencies (particularly iron, folic acid, protein, energy, and calcium needs) before a woman conceives ensures the health and wellbeing of the woman during pregnancy as well as better childbirth outcomes. Additionally, the body's demands for nutrient intake substantially increase during childhood and adolescence because those are the years when pubertal development and optimal growth take place. Sexual development and maturity necessitate a sufficient supply of a balanced and nutritious

diet throughout all of life's early developmental stages, namely infancy, childhood, and puberty. Initiating nutrition care once a woman has already conceived can therefore cause a delay in addressing the body's nutritional demands during crucial growth phases of life.

To break the intergenerational cycle of poor nutritional status, the emphasis should shift from initiating nutritional care during conception to the beginning of reproductive age in girls. Owing to this, recent scientific evidence reveals that children of the mothers, who received 'hot cooked meals' as part of the Mid Day Meal (MDM) programme in schools, have better height as evidenced by a 20-30% reduction in low height for age (stunting), as well as better nutritional status. The findings also imply, hypothetically, that the future generation would produce off springs that would be taller and have improved adult health outcomes [2].

Multiple micronutrient supplementation has also shown positive effects on child health outcomes in women who are trying to conceive, such as fewer preterm births and fewer cases of Small for Gestational Age (SGA) compared to women who receive supplements during early or late pregnancy [3].

POLICY IMPLICATIONS

Early growing years are critical for physical and sexual development. Good nourishment and facilitating healthy food choices at this stage will lay the foundation for a healthy pregnancy and better child health outcomes. Integrating nutrition support during preconception and pregnancy in the form of essential nutrient supplementation (SNP), Take-Home

Rations (THR), hot cooked meals, and nutrition awareness programs, regular screening for nutritional risks and appropriate actions in the form of counselling or timely treatment, food diversity, etc., could break the intergenerational cycle of malnutrition. Effective integration of the existing programs to help with nutrition and reproductive health; will help in filling the gaps to ensure that all crucial stages of life are equally focused upon. To ensure better intergenerational effects for the future of the nation, policymakers should not only focus on the 'first 1000 days' but also the period before conceiving. A policy-driven reduction in health morbidities is predominant if India is to attain the benefits of its potential economic growth and aims for a productive workforce.

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