In search for a solution for stunting - the most common childhood nutritional disorder

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Stunting or linear growth retardation is the most common manifestation of childhood malnutrition. Defined as length for age less than 2 standard deviations from the WHO growth standard, stunting is due to chronic malnutrition. Asia has seen a reduction in stunting rates but still accounts for more than 60% of the global burden of stunting, while in Africa the prevalence is in fact increasing. Stunting not only blunts cognitive potentials of children, 14.5% of all under-five deaths in developing countries can be attributed to this condition. The World Health Assembly has declared a target to reduce stunting globally by 40% by 2025. Given the pace at which reduction is taking place, it is unlikely that the target will be met. The causes of stunting are multi-factorial. These include prenatal causes (maternal malnutrition, anemia, hypertensive disease of pregnancy), low birth weight, postnatal causes (inappropriate feeding, repeated infections, zinc deficiency, environmental enteric dysfunction (EED) or enteropathy etc), and environmental toxins such as aflatoxin. The importance of each factor is context-specific. Although food insecurity is a major underlying factor, lack of awareness regarding infant feeding is important. These determinants of stunting should therefore be the focus of programs for preventing stunting. Given the huge burden of stunting, it is imperative also to implement programs that reverse stunting in young children.

EED, caused by repeated exposure to bacterial pathogens which colonize the small gut and disrupt its mucosal architecture, is believed to be the cause of stunting in almost 40% of stunted children. The discovery of a simple, robust test for EED will greatly improve our understanding of the condition and the development of an intervention(s) that prevents/treats it.

Scaling up both nutrition-specific (for example, infant and young child feeding) and nutrition-sensitive interventions (food security, water, sanitation and hygiene etc) appear to be effective in reducing stunting in developing countries. Strong political commitment, budgetary allocation to support implementation of the above mentioned interventions, multi sectoral collaboration and community-based service delivery platforms are essential.

Ahmed T, Hossain M, Mahfuz M, Choudhury N, Ahmed S. Imperatives for reducing child stunting in Bangladesh. Maternal & Child Nutrition 2016, 12 (Suppl. 1), pp. 242–245

Hossain M, Choudhury N, Abdullah K, Mondal P, Jackson A, Walson J, Ahmed T. Evidence-based approaches to childhood stunting in low and middle income countries: a systematic review. Arch Dis Child 2017;1-7. doi: 10.1136/archdischild-2016-311050