MATERNAL NUTRITION AND PREGNANCY IN BANGLADESH

NATIONAL NUTRITION OVERVIEW

- Despite great progress over the last 20 years, poor nutrition is still hurting Bangladesh, its children and its future
- Poor nutrition impacts on economic outcomes, on health, on education; improving nutrition can bring about positive change in the short and long term and is essential to Bangladesh's Vision 21
- There are smart nutrition interventions, packages and policies, and the 7 research papers provide Bangladeshi contextualized analyses
- Bangladesh can own the problem and its solutions. Bangladesh can exercise control over its own budgets and policy priorities, and draw on international agendas
- Existing nutrition strategies need to spend the budget allocated, and more needs to be spent across all of government
- Substantive progress on nutrition policy can be made with strong leadership and coordination across government departments

NUTRITION DURING PREGNANCY OVERVIEW

- From 2006-2015, Bangladesh witnessed a steep decline in maternal mortality
- The new SDGs emphasize maternal and child health and nutrition
- Under-nutrition even among the wealthy indicates that targeted nutrition interventions are now needed

Bangladesh has made remarkable progress in reducing maternal and infant mortality rates over the last several decades. Maternal mortality rates in particular have seen the most dramatic improvements. Between 2006 and 2015 Bangladesh experience a decline from 303 to 176 per 100,000 live births, a decline of 41.9 percent.

This decline was faster than in regional neighbors India, Pakistan and Sri Lanka. Substantial improvements have also been seen in infant mortality, with a decline of 35.4 percent between 2006 and 2015.

Despite these laudable results, low birth rates, premature births, birth defects and still born births continue to be a cause of concern. The health of mothers and infants has significant implications. Low birth-weight babies can suffer life-long health risks as well as poor physical and cognitive development, leading to stunting and reduced incomes when they enter the labor market.

The persistence of mother and child under nutrition even among wealthy populations provides strong evidence that economic growth alone is not able to address the under nutrition issue in Bangladesh. Targeted nutrition intervention activities are needed. Resolving under nutrition among pregnant women and infants will require the promotion of a host of different nutrition interventions.

RESEARCH FINDINGS ON NUTRITION IN PREGNANCY

TOBACCO CESSATION: COSTS AND BENEFITS OF SMOKELESS TOBACCO CESSATION DURING PREGNANCY IN BANGLADESH

- Bangladesh has the highest prevalence of Smokeless Tobacco (SLT) among women in the world
- SLT is a major risk factor for cancers of the oral cavity, throat, head, and neck
- Every Taka spent would generate a return to society of 7 Taka

Research by Enamul Hoque on the costs and benefits of smokeless tobacco cessation during pregnancy indicates that the scientific community has paid little attention to smokeless tobacco and its effects on pregnancy outcomes. As a result, little is known about the health and economic benefits that would result from programs designed to encourage a cessation of smokeless tobacco during pregnancy. The study proposes an intervention that is designed to change the behavior of pregnant women to stop

consuming SLT during pregnancy. A behavioral intervention would easiest to pursue, as a pharmacological intervention for quitting SLT is not widely available in Bangladesh. The behavioral intervention would include face-to-face counseling by a health care provider, the use of printed materials and would be run by community health workers who would be responsible for home visits and deliver change and communication messages. Messages would outline the adverse pregnancy outcomes associated with SLT consumption including:

- Low birth weight due to preterm birth
- Intrauterine growth restriction
- Congenital anomalies
- Spontaneous abortion
- Stillbirth

Consumption of SLT is also associated with:

- Infertility
- Menstrual problems
- Osteoporosis

OBSTACLES

As no similar intervention programmes exist in Bangladesh it is difficult to determine the real cost of a smoking cessation intervention during pregnancy.
Education on the risks associated with SLT consumption during pregnancy remains a key obstacle, especially given the perceptions of health benefits from using smokeless tobacco around relieving toothache, headaches and stomach aches.

PREGNANCY SUPPLEMENTS: COSTS AND BENEFITS OF PROVIDING THREE NUTRITIONAL SUPPLEMENTS FOR PREGNANT WOMEN IN BANGLADESH

- Calcium supplementation, balanced energy protein supplementation, and iron-folate supplementation offer substantial economic benefits relative to cost and have an opportunity to improve the health and nutrition of pregnant women
- Every Taka spent would generate a return to society of between 12 and 28 Taka (benefit cost ratio for iron-folate supplements is 27.5, for balanced energy protein is 16.7, and for calcium is 12)

Research by Jon Rose and Enamul Hoque focuses on three key nutrition direct interventions during pregnancy – calcium supplementation, balanced energy protein supplementation and iron-folate supplementation. Calcium supplementation reduces the chance of pre-eclampsia during birth, a pregnancy complication characterized by high blood pressure that can cause maternal mortality and pre-term birth. Balanced energy-protein decreases the incidence of a stillbirth and decreases the risk of small for gestational age infants. Lastly, Iron-folate supplementation has been shown to reduce the risk of anemia in mothers by 69 percent.

The analysis of each of these interventions shows substantial economic benefits relative to the costs.

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The effectiveness of these three interventions would greatly increase if targeting of individuals most likely to be of low birth weight took place. For example, if rural low birth rates were significantly higher than in urban settings, then the interventions would be more beneficial if targeted in rural environments.
The costs identified in this study do not take into consideration the costs of building the capacity of local institutions to consistently deliver these interventions to the pregnant women who need them. Addressing the issue of capacity is a large challenge, particularly in difficult-to-reach areas like the Chittagong Hill Tracts.

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