

Malnutrition Study Findings Published in Prestigious *Nature*

04 June, 2014, Dhaka: Findings of a study published today in the prestigious journal *Nature* reveal that malnutrition has a damaging effect on the presence of friendly bacterial communities in the guts of malnourished children. This novel study may help explain why millions of malnourished children suffer from stunted growth and fail to thrive even after treatment with nutrient-rich therapeutic foods. Certain microbes present in the human gut are essential for extracting and metabolising nutrients from food.

The *Nature* paper titled 'Persistent Gut Microbiota Immaturity in Malnourished Bangladeshi Children' further revealed that childhood malnutrition has a damaging effect on gut health that does not completely recover after nutritional intervention.

Co-author of the paper and Director, Centre for Nutrition and Food Security (CNFS) Dr Tahmeed Ahmed said, "This research has contributed immensely to what we know about the mechanisms operating in acute malnutrition. I believe it will open up new vistas for simplifying treatment of this dreadful condition that affects millions of children globally."

The icddr,b team also included scientists Dr Sayeeda Huq, Dr Md Rashidul Haque, Dr Mustafa Mahfuz and Mr Mohammed A. Alam.

The children enrolled in this study were either admitted in the Nutritional Rehabilitation Unit or were enrolled in the ongoing MAL-ED project located in Mirpur. The study compared malnourished children up to two years of age with healthy children coming from similar socioeconomic background and helped to explain why therapeutic food interventions for malnutrition do not always result in long-term restoration of growth in children.

This study was a collaboration between icddr,b, the Center for Genome Sciences and Systems Biology at Washington University, Department of Anthropology, New School for Social Research in New York and the Departments of Medicine, Microbiology and Pathology, University of Virginia School of Medicine on this project with funding from the Bill & Melinda Gates Foundation, the International Atomic Energy Agency, and the National Institutes of Health. A further study is planned to investigate the effects of the altered microbial community on the metabolism of children with malnutrition, and how the new knowledge can be used to devise new treatment strategies.

For details please visit the below link: <http://news.wustl.edu/news/Pages/26998.aspx>

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