

## High burden of rotavirus in Bangladesh

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Findings from hospital-based surveillance conducted by The International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh, (icddr,b), between July 2012 - January 2014 show that 67 percent of children below five years of age hospitalised for diarrhoea in seven hospitals in Bangladesh had rotavirus.

These surveillance data provide invaluable evidence to the Government of Bangladesh on the prevalence of rotavirus in the country and can help contribute to its plans to include a rotavirus vaccine in the country's immunization programme to reduce hospitalizations and deaths due to the virus.

The World Health Organization (WHO) has recommended that a rotavirus vaccine be included in all national immunization programmes, but many countries especially low and middle-income countries have not done so.

In order to collect relevant data on mortality and morbidity due to rotavirus diarrhoea in the country, icddr,b's Centre for Communicable Diseases (CCD) in collaboration with Institute of Epidemiology, Disease Control and Research (IEDCR), the US Centres for Disease Control & Prevention and USAID, started the Hospital Based Rotavirus & Intussusception Surveillance (HIBRIS) in seven hospitals (3 government and 4 private tertiary hospitals) in seven divisions of Bangladesh.

The results of the two year surveillance also revealed that 77 percent of children infected with rotavirus were between 6 and 17 months of age, and the peaks of infection were between the months of November and February.

Genotypes of isolates consisted of four G types (G1, G2, G9, G12) and three P (P4, P6, P8) types. The most prevalent G and P type combinations were G12P[8] (33 percent) and G1P[8] (25 percent).

Over 52 percent of the isolated strains of the virus were found to be preventable by introducing two currently licensed rotavirus vaccines.

Thirty nine children below two years were identified with confirmed intussusceptions - two of the children died.

Most of the children with intussusception were between 6 and 11 months of age (62 percent) and most were male (77 percent).

Based on the HIBRIS findings, Dr Emily Gurley, acting director, CCD and principal investigator of the surveillance project, urged the government to prioritize the introduction of the rotavirus vaccine in the national Expanded Program for Immunization.

The findings were shared at a seminar organised by icddr,b with IEDCR on 6th March.

At the seminar, the Secretary of the Ministry of Health and Family Welfare Mr M Neazuddin emphasized the importance of collaboration with non-governmental organizations (NGOs) saying that, "It is the government and NGO collaborative actions that have led to different successes in our health sector and has aided in disseminating knowledge of diseases such as those caused by rotavirus."