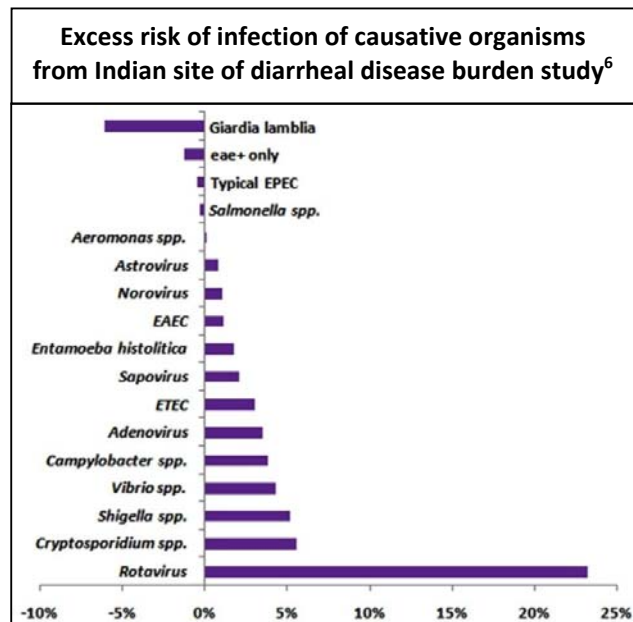




Rotavirus disease burden in India

Rotavirus is the most common and deadly cause of severe diarrhea with dehydration in infants and young children. Every child everywhere in the world is at risk of infection. However, in places where access to urgent medical care is limited, the severe diarrhea and vomiting caused by rotavirus can lead to lethal dehydration.

- Worldwide, more than half a million children under the age of five years die each year due to diarrhea. In 2013, an estimated 215,000 of these deaths were due to rotavirus, with more than 90 percent occurring in developing countries.¹
- In 2013, an estimated 47,100 rotavirus deaths occurred in India, 22 percent of all rotavirus deaths that occurred globally.¹
- According to the United Nations Children's Fund India statistics from 2011, about half of all children in India experienced an episode of rotavirus (for a total of more than 11 million episodes). In addition, 1 in every 31 children was hospitalized due to rotavirus (for a total of more than 872,000 hospitalizations).²
- The first year of life is the period of highest risk for death due to rotavirus infection among children in India.³
- The Global Enterics Multi-Center Study (GEMS) looked at acute diarrhea in children 0 to 59 months of age. It was conducted at seven sites in Africa and Asia, including the National Institute of Cholera and Enteric Diseases in Kolkata, India. Results from GEMS showed that rotavirus was responsible for the highest number of cases of diarrhea at the India study site for children up to 23 months of age. For children ages 24 to 59 months, rotavirus remained responsible for more than 13 percent of cases of diarrhea at the India site.^{4,5}
- In January 2016, the Indian Government began a phased introduction of rotavirus vaccine into the publicly funded Universal Immunization Programme.



¹Tate JE, Burton AH, Boschi-Pinto C, Parashar UD. Global, regional, and national estimates of rotavirus mortality in children <5 years of age, 2000–2013. *Clinical Infectious Diseases*. 2016;62(Suppl 2):S96-S105.

²Halder P. Introduction of rotavirus vaccine (RVV) in India. Presented at: 12th International Rotavirus Symposium, September 2016; Melbourne, Australia.

³Morris SK, Awasthi S, Khera A, et al. Rotavirus mortality in India: Estimates based on a nationally representative survey of diarrhoeal deaths. *Bulletin of the World Health Organization*. 2012;90:720-727.

⁴Kotloff KL, Nataro JP, Blackwelder WC, et al. Burden and aetiology of diarrhoeal disease in infants and young children in developing countries (the Global Enteric Multicenter Study, GEMS): A prospective, case-control study. *The Lancet*. 2013;382(9888):209-222.

⁵Liu J, Platts-Mills JA, Juma J, et al. Use of quantitative molecular diagnostic methods to identify causes of diarrhoea in children: A reanalysis of the GEMS case-control study. *The Lancet*. 2016;388(10051):1291-1301.

⁶Sur D. Global Enteric Multicentric Study (GEMS): Kolkata site. Presented at: 57th All India Conference of the Indian Public Health Association, February 2013; Kolkata, India.