

Current Health Event

Rotavirus

Rotavirus disease is a diarrheal disease caused by a virus called rotavirus that infects and damages the cells that line the small intestine and causes gastroenteritis. Rotavirus is the most common cause of severe diarrheal disease in infants and young children worldwide. Rotavirus infection is highly contagious and spreads by fecal-oral route.

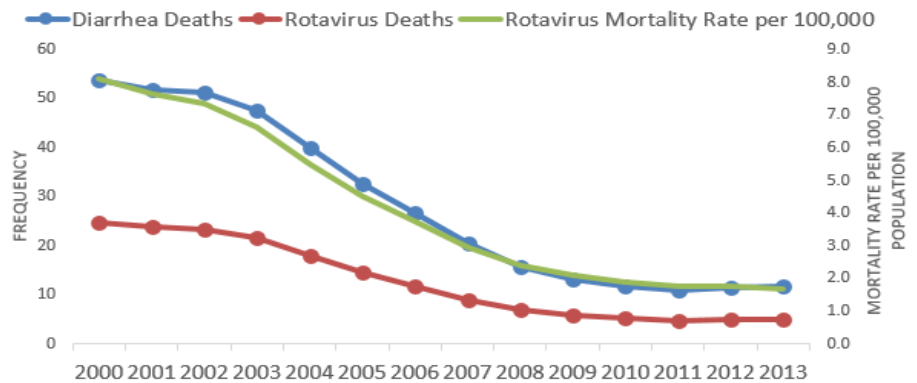
Editorial note:

The World Health Organization estimates that rotavirus was responsible for up to 215 000 (197 000 - 233 000) child deaths worldwide during 2013 as compared to 528 000 (465 000 – 591 000) in 2000. However, The proportion of diarrheal deaths due to rotavirus decreased only slightly from 43% in the year 2000 to 37% in 2013.

Although the incidence of rotavirus is similar in both low and high income countries, most deaths due to rotavirus occur in the developing countries. The most recent WHO/CDC global estimates of rotavirus attributable deaths among children under five years of age showed that deaths due to rotavirus in the year 2013 ranged from 47 100 in India to fewer than 5 deaths in 79 countries. Twenty-two percent of all rotavirus deaths under five years of age occurred in India, and four countries, mainly India, Nigeria, Pakistan and the Democratic Republic of the Congo accounted approximately to half the rotavirus deaths under age five.

WHO states that rotavirus vaccines are an important measure that can be used to reduce severe rotavirus-associated diarrhea and child mortality. WHO recommends that rotavirus vaccine for infants should be included in all national immunization programs. In countries where diarrheal deaths account for ≥10% of mortality among children aged less than 5 years, the introduction of the vaccine is strongly recommended. According to WHO, the first dose of the vaccine should be administered as soon

Figure 1: Diarrhea and rotavirus deaths in under 5 population in Lebanon, 2000-2013 (WHO)



as possible after 6 weeks of age, and the maximum age for administering the last dose should be 32.

WHO recommends the use of rotavirus vaccines as part of a comprehensive strategy to control diarrheal diseases. This strategy should also scale up prevention, such as promotion of early and exclusive breastfeeding for six months, vitamin A supplementation, safe drinking water, hygiene, and sanitation. The strategy should also include treatment packages such as oral rehydrating solutions (ORS), zinc, and continued feeding.

In Lebanon, rotavirus was responsible for 43% of deaths from diarrhea in the under 5 population and 0.8% of total deaths in 2013 (WHO). A hospital based surveillance study conducted between 2007 and 2008 by Dbaibo et al. estimated that gastroenteritis hospitalization attributable to rotavirus was 27.7% and almost 75% of the rotavirus gastroenteritis cases occurred in children less than 2 years of age.

In Lebanon, a slight decrease in diarrheal deaths in children less than five years of age was observed between 2000 (4.4%) and 2013 (1.9%). The Ministry of Public Health in Lebanon lists the rotavirus vaccine as an additional essential vaccine recommended for children under five years of age.

Currently, vaccination is the only way to prevent severe episodes of rotavirus infection.



Notifiable Diseases in Lebanon [cumulative n° of cases among all Residents (among Syrians)] as of 10 November 2018				
Disease	2017	2018	Sept 18	Oct 18
<b>Vaccine Preventable Diseases</b>				
Polio	0	0(0)	0(0)	0(0)
AFP	77	74 (29)	6 (4)	4 (0)
Measles	126	888 (165)	15 (3)	24 (4)
Mumps	235	120 (39)	10 (0)	20 (4)
Pertussis	92	55 (25)	2 (0)	1 (0)
Rabies	1	3 (1)	0 (0)	0 (0)
Rubella	10	7 (1)	1 (0)	0 (0)
Tetanus	0	2 (1)	0 (0)	1 (1)
Viral Hep. B	321	227 (27)	24 (6)	18 (1)
<b>Water/Food Borne Diseases</b>				
Brucellosis	460	216 (25)	16 (0)	14 (1)
Cholera	0	0 (0)	0 (0)	0 (0)
Hydatid eyst	18	4 (1)	1 (0)	1 (0)
Typhoid fever	656	214 (4)	23 (0)	4 (0)
Viral Hep. A	776	786 (142)	106 (12)	65 (11)
<b>Other Diseases</b>				
Leishmaniasis	140	0 (0)	0 (0)	0 (0)
Meningitis	366	368 (71)	34 (5)	20 (6)
Viral Hep. C	130	92 (7)	9 (1)	12 (1)