

# Trends of Rotavirus infection in children under 12 months pre and post introduction of Rotarix vaccine in the Kingdom of Eswatini (Swaziland), 2013-2017

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## Background and Aim

In the Kingdom of Eswatini, Rotavirus surveillance was established in 2013 after findings from a study which informed decision making in establishing the sentinel surveillance. There are currently two sentinel sites for this surveillance; Mbabane Government Hospital and Raleigh Fitkin Memorial Hospital. In 2014 the country experienced a diarrheal outbreak which fast tracked the introduction of Rotarix in May 2015. The aim of this retrospective analysis was to see if trends of Rotavirus infection were comparable pre and post introduction of Rotarix.

## Method

A retrospective assessment was done for children under 5 that were hospitalized due to gastroenteritis between 2013 to 2017.

## Results

Between 2013- 2017, 763 samples were collected and tested using the WHO standardized Prospect Enzyme Immunoassay test kit. Rotavirus positivity reduced from 55% (208/379) in 2013 - 2014 pre-vaccine period to 21% (43/206) in 2017 post-vaccine introduction. The peak season for all diarrhea including rotavirus-specific hospitalizations among children under five years of age was July to August in all years with blunting of the peak season in the post-vaccine introduction phase. Rotavirus positivity among children 0 – 12 months reduced from 38% in 2013 - 2014 (145/236) to 15% (31/206) in 2017.

## Conclusion

There has been a rapid reduction of rotavirus related hospitalizations in the Kingdom of Eswatini particularly in young children (0-12 months) after the introduction of Rotarix. Therefore there is need for continuous monitoring of the sentinel surveillance to maintain herd immunity (high vaccine coverage) so as to prevent future outbreaks.

**Key Words:** Trends, Rotavirus, Kingdom of Eswatini