

1115. Impact of a Publicly Funded Rotavirus Vaccine in Quebec, Canada
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Background. Rotavirus (RV) is the leading cause of severe gastroenteritis (GE) in young children. In November 2011, the province of Quebec, Canada implemented a publicly funded RV vaccination program. To assess its impact, trends in passive RV laboratory detection from 2006-2013 and Emergency Department (ED) visits for GE at two pediatric centres were evaluated.

Methods. We used the virology laboratory databases from Montreal Children's Hospital (MCH) and Centre hospitalier universitaire de Sherbrooke (CHUS) for RV ELISAs and ED data of GE visits between July 2006 and June 2013. For virology laboratory data from July 2012 to June 2013 only MCH data were evaluated because of changes in diagnostic algorithm at CHUS. The % positive RV ELISAs over time and season duration was assessed using a 5-week moving average. We defined season start

and end as the first 2 and the last 2 consecutive weeks where the % positive RV tests were $\geq 10\%$, respectively. GE burden was determined by review of ED visits for GE from July 2006 – June 2013. A year was defined from July – June. We stratified the % of ED visits for GE per total ED visits by age.

Results. MCH and CHUS combined have >90,000 annual ED visits; >3,000 of which are for GE. From July 2006 to June 2012, 784 of 6140 non-duplicate RV ELISAs were positive: post-vaccination program, 5.1% were positive (2011-12), compared to 15.9% (2006-09) ($p < 0.001$). At MCH, 3.05% were positive in 2012-13. Compared to 2006-09, 2012-13 saw a greater decrease in the proportion of positive tests (80.1%) compared to the decrease in number of tests ordered (43.6%) ($p < 0.001$) at MCH. Prior to the vaccine program, RV seasons started between December and February, peaked in March or April and ended in May. In 2011-12, the season started in March, peaked in April, and ended in May. At MCH in 2012-13, the season lasted 3 weeks in May. In children <5 years old, ED GE visits decreased from 6.2% in 2006-09 to 5.3% in 2012-13 ($p < 0.001$).

Conclusion. Implementation of a publicly funded RV vaccination program had a major impact on the epidemiology of RV infections in Quebec. The RV season started later and was shorter than usual, peak positives were fewer, and ED visits for GE decreased.

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