



Canadian Immunization Monitoring Program, ACTive
Programme canadien de surveillance active de l'immunisation

Rotavirus Hospitalizations in Canada: a Decade of Surveillance

IMPACT Rotavirus Group

N. Le Saux, S. Halperin, D. Scheifele,

W. Vaudry, JA Bettinger

On behalf of Immunization Monitoring Program
ACTIVE (IMPACT) investigators.

Disclosure Statement

Disclosure of Relationship	
I am a member of an Advisory Board or equivalent with a commercial organization.	No
I am a member of a Speaker Bureau.	No
I have received payment from a commercial organization (including gifts or other consideration or 'in kind' compensation).	No
I have received a grant(s) or an honorarium from a commercial organization.	No
I hold a patent for a product referred to in the CME/CPD program or that is marketing by a commercial organization	No
I hold investments in a pharmaceutical organization, medical devices company or communications firms.	No
I am currently participating in or have participated in a clinical trial within the past two years.).	No

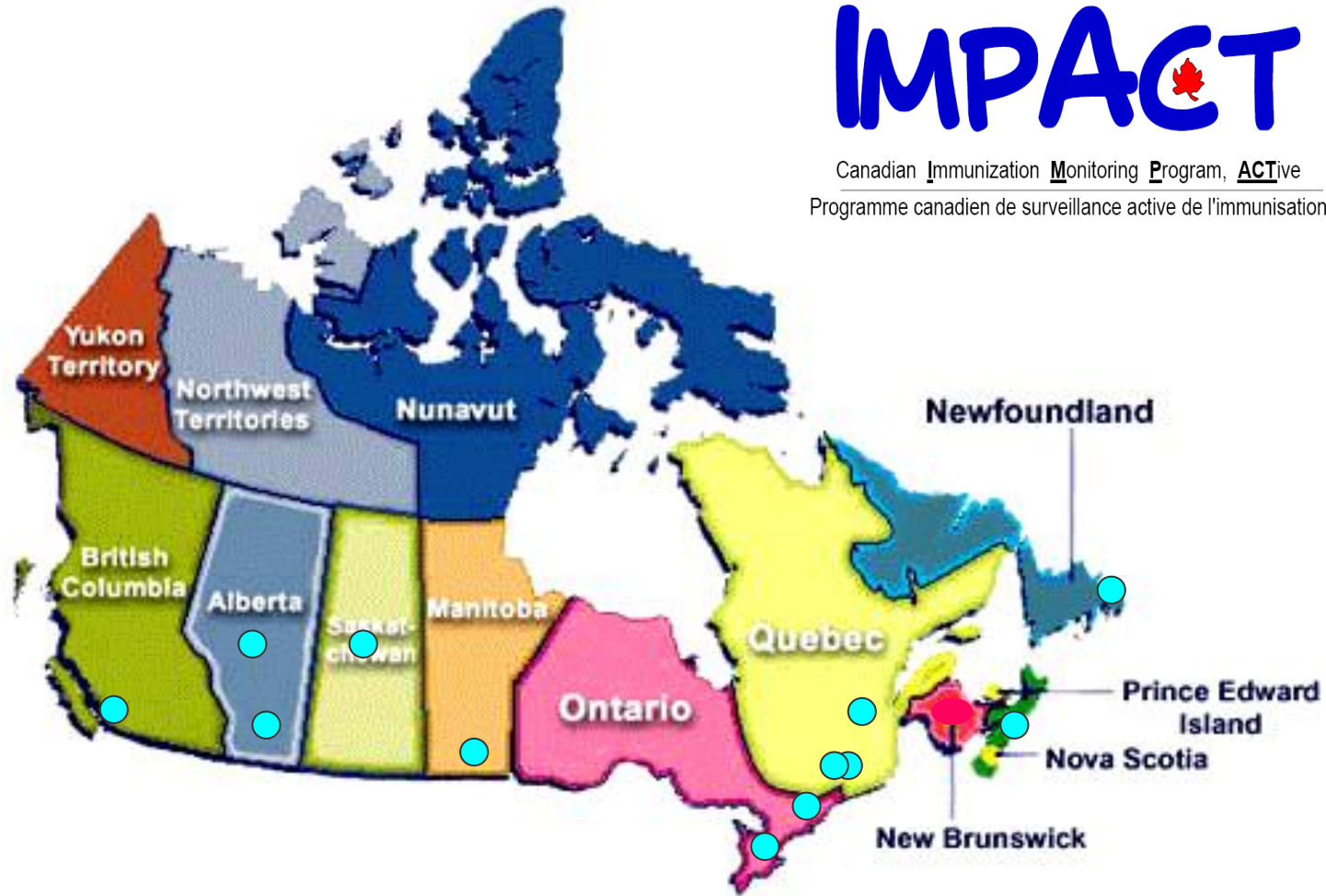
Disclosure Statement

- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.
- The Rotavirus Surveillance Study is funded by GlaxoSmithKline with a grant to the Canadian Pediatric Society who administers the funds to IMPACT hospitals.

National Surveillance: Children Hospitalized with Rotavirus Illness

IMPACT

Canadian Immunization Monitoring Program, ACTive
Programme canadien de surveillance active de l'immunisation



IMPACT MEMBERS

Vaccine Evaluation Center, Vancouver:

D. Scheifele, J. Bettinger, K. Marty,
E. Grove, S. McCann

Co-Principal Investigators:

S. Halperin, W. Vaudry

St. John's: N. Bridger, *D. Harnum

Halifax: K. Top, A. Hudgin,
K. Branscombe, T. Smith, H. Samson

Québec City: R. Thibeault, L. Poirier,
L. Gosselin, *M-France Nolin

Toronto: D. Tran, *J. Stapleton, S. Lee,
K. Simpson

Montreal (MCH): M-A Lefebvre, D.
Moore, A. Audet, T-M. Johns, L. Moisan

Montreal (Ste. J): M. Lebel, S. Bouchard

Ottawa: N. Le Saux, C. Bergeron,
J. Bowes

Winnipeg: J. Embree, D. Coté, M. Breton

Saskatoon: B. Tan, A. McConnell,
C. Cadman, B. Andreychuk

Edmonton: W. Vaudry, B. Neufeld, *C.
Bon

Calgary: T. Jadavji, *R. Chawla, S. Pyra,
E. Pyra

Vancouver: L. Sauvé, K. Kroeker, I. Chee

Canadian Paediatric Society

(Ottawa) M.A. Davis

M. Laffin-Thibodeau

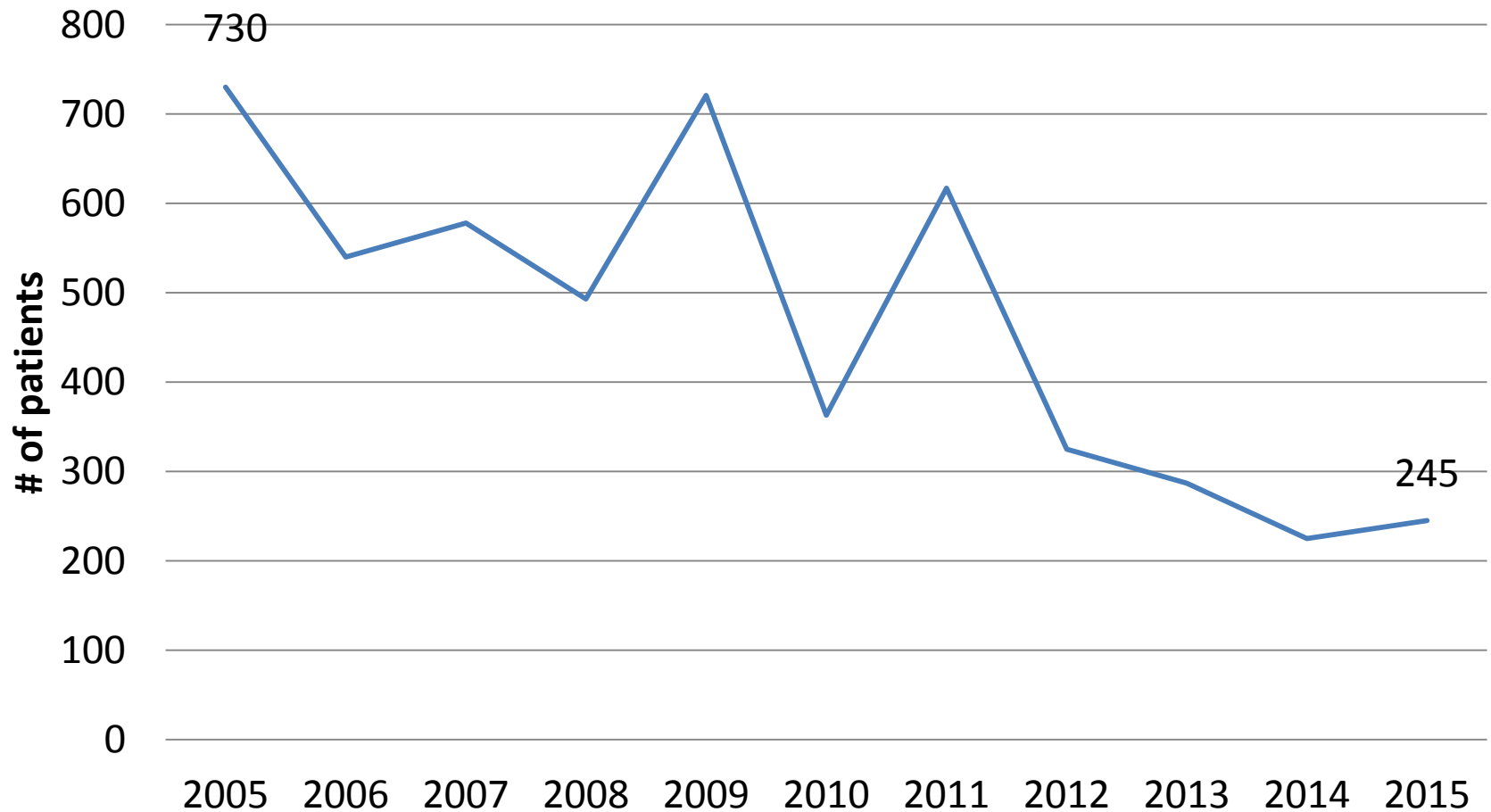
Surveillance of Hospitalizations for Rotavirus

Objectives

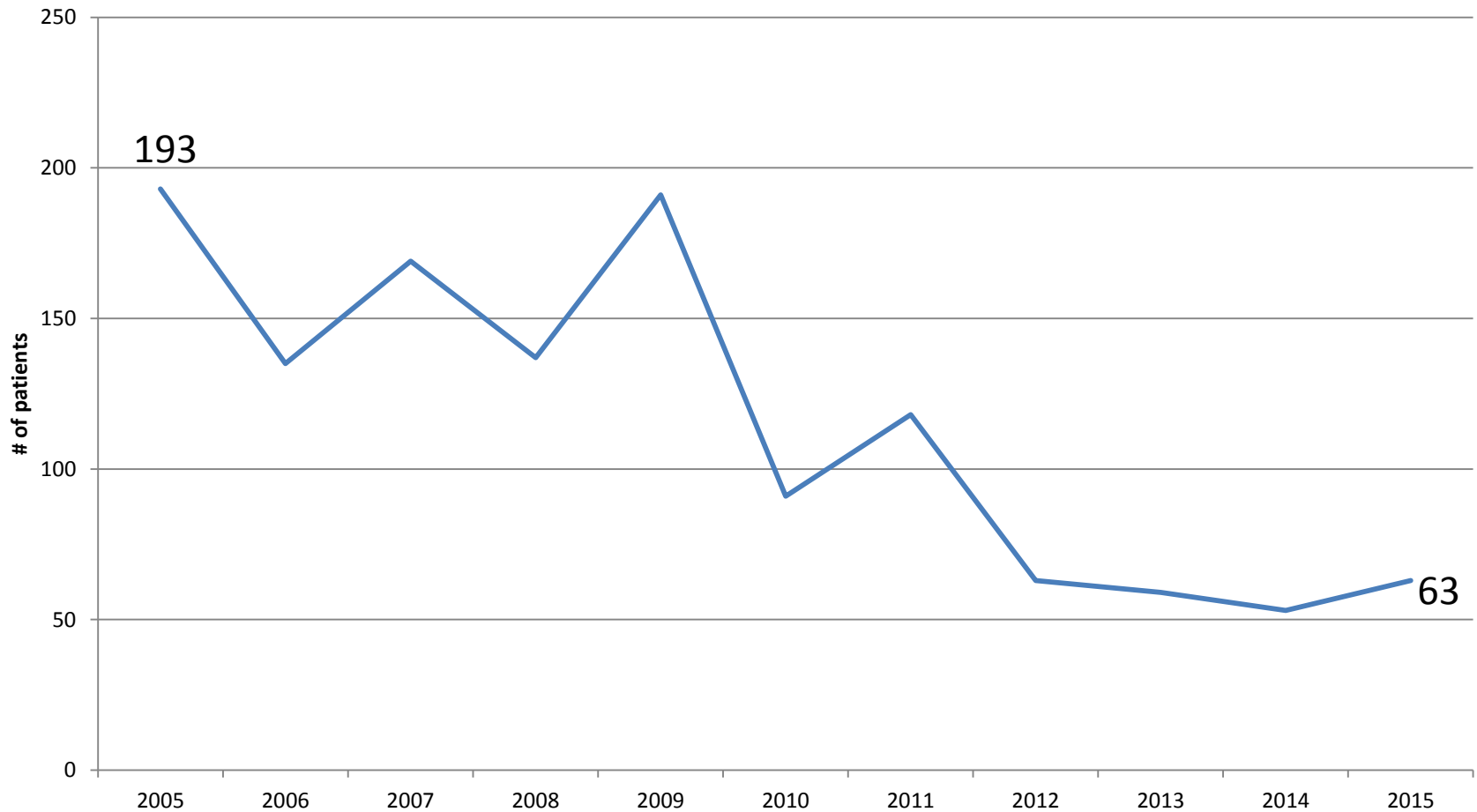
1. To describe the effect of vaccine on overall rotavirus hospitalization rates at IMPACT sites.
2. To illustrate the differences in number of hospitalizations and seasonality between sites that had early versus later publically funded rotavirus immunization programs at IMPACT sites.

IMPACT

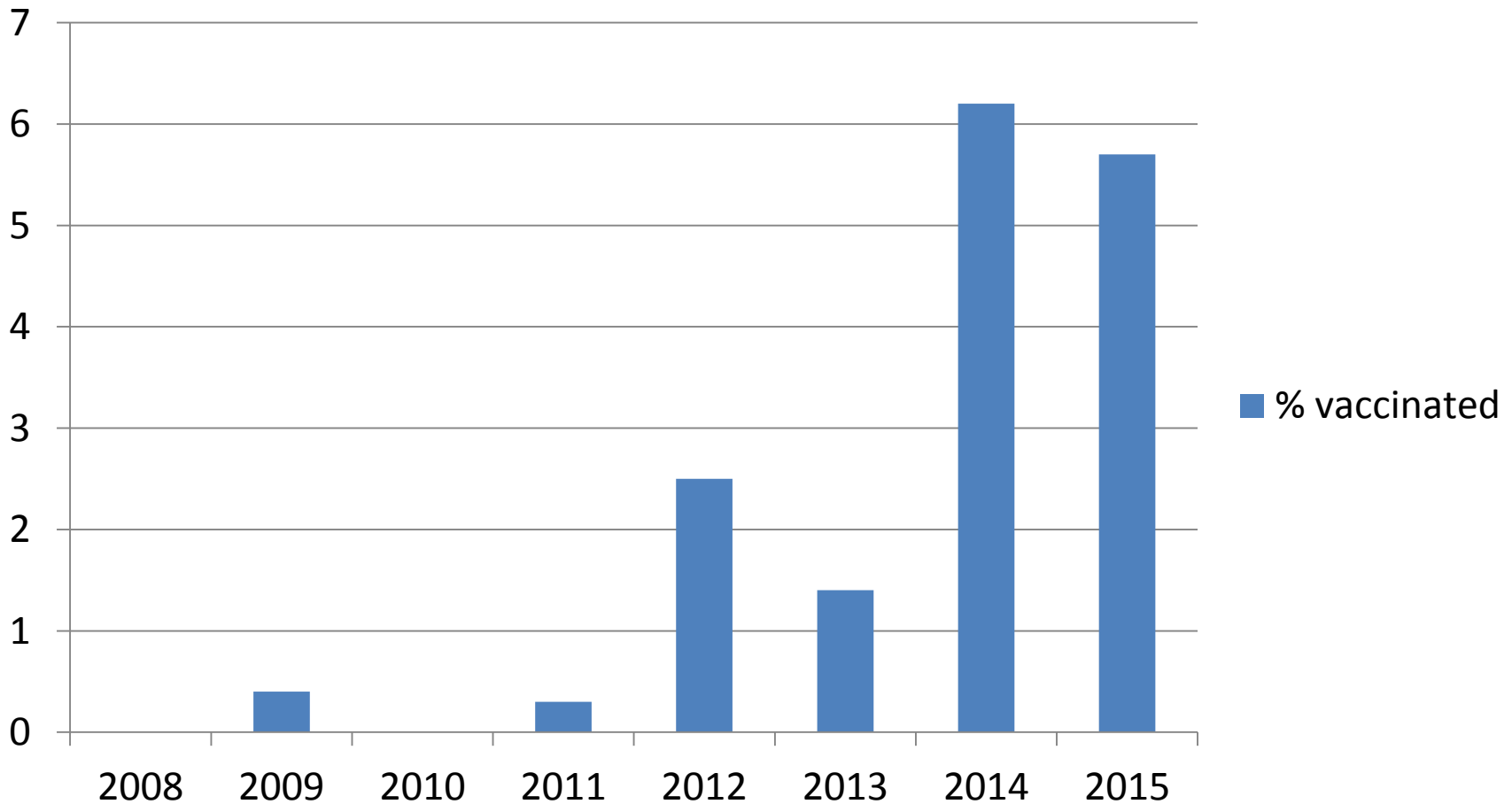
Overall Number of Rotavirus Hospitalizations 2005-2015 – all sites



Hospital Acquired Rotavirus Infections 2005-2015 – All sites



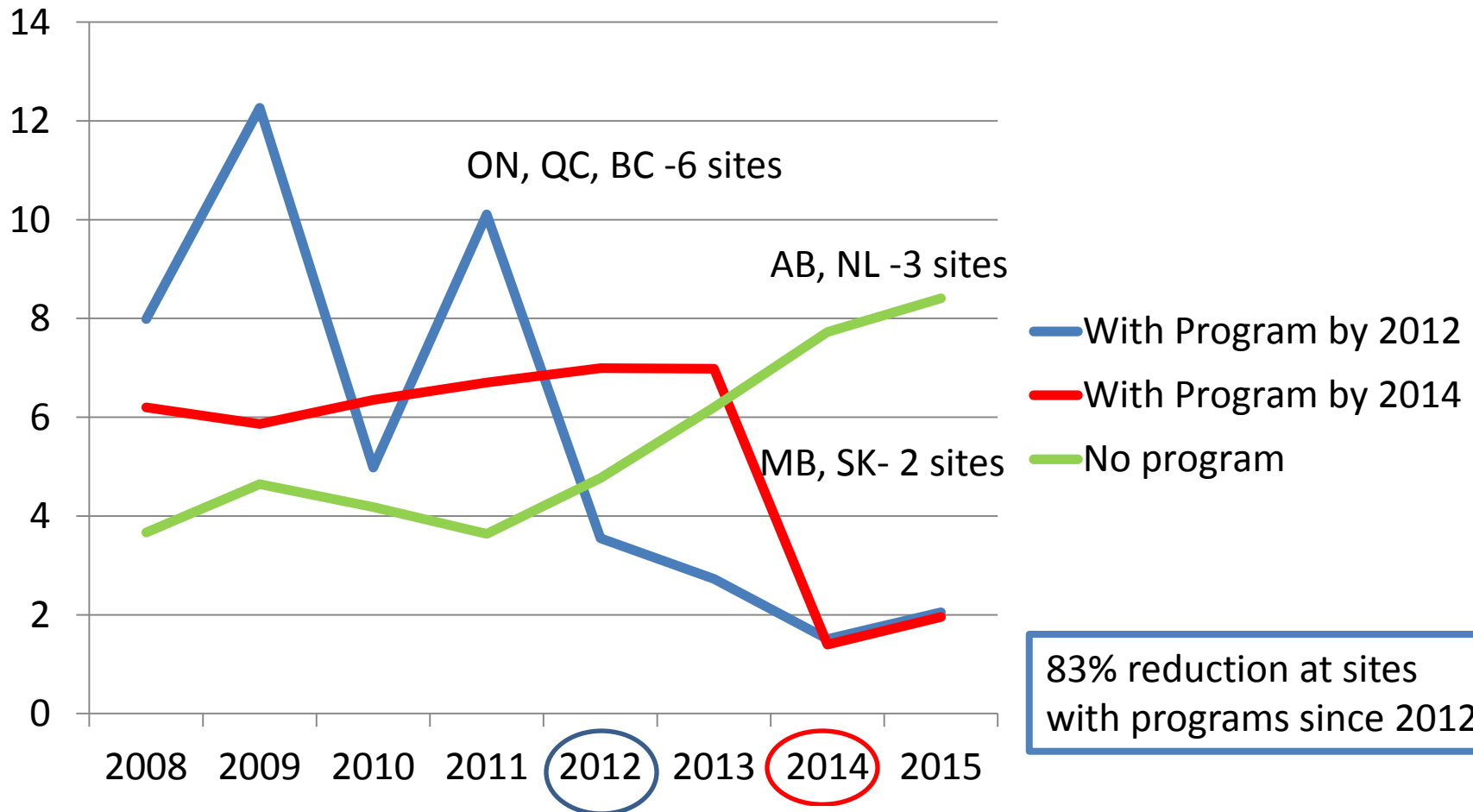
Percent of children who were vaccinated (at least one dose of vaccine) prior to hospitalization



Dates of Publically Funded Rotavirus Immunization Programs

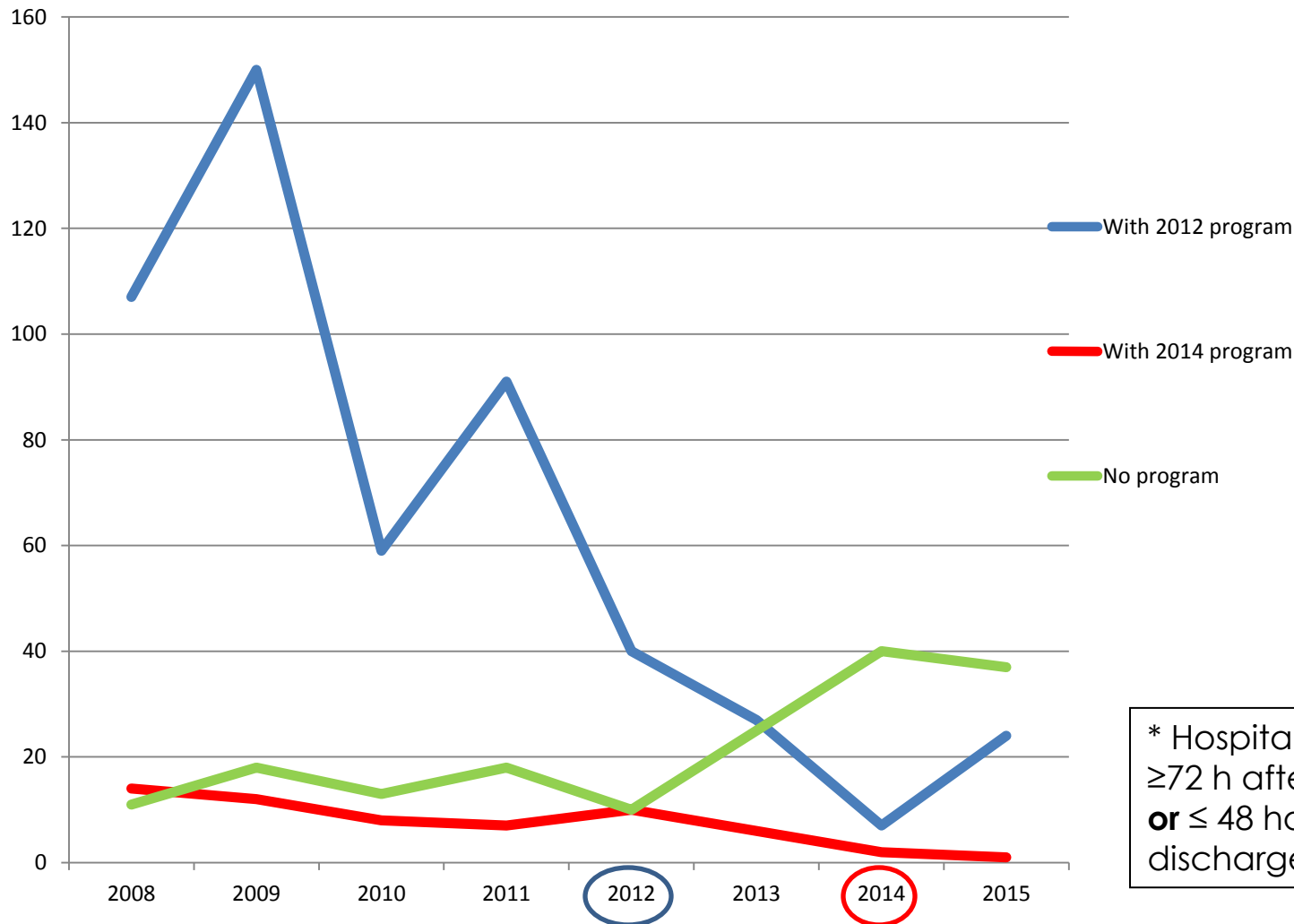
- Ontario (2 sites) – August 8, 2011
 - Québec (3 sites) – November 1, 2011
 - British Clolumbia (1 site) – January 1, 2012
-
- Saskatchewan (1 site) – November 1, 2012
 - Manitoba (1 site) – April 1, 2014
-
- Alberta (2 sites) - June 1, 2015
 - Newfoundland (1 site) – September 1, 2015
-
- Halifax had demonstration project - Oct 1,2010 to Sept 30, 2012 (data included except in sections comparing early versus late programs)

Rotavirus admissions 2008-2015 per 1000 hospital admissions



Excludes Halifax site

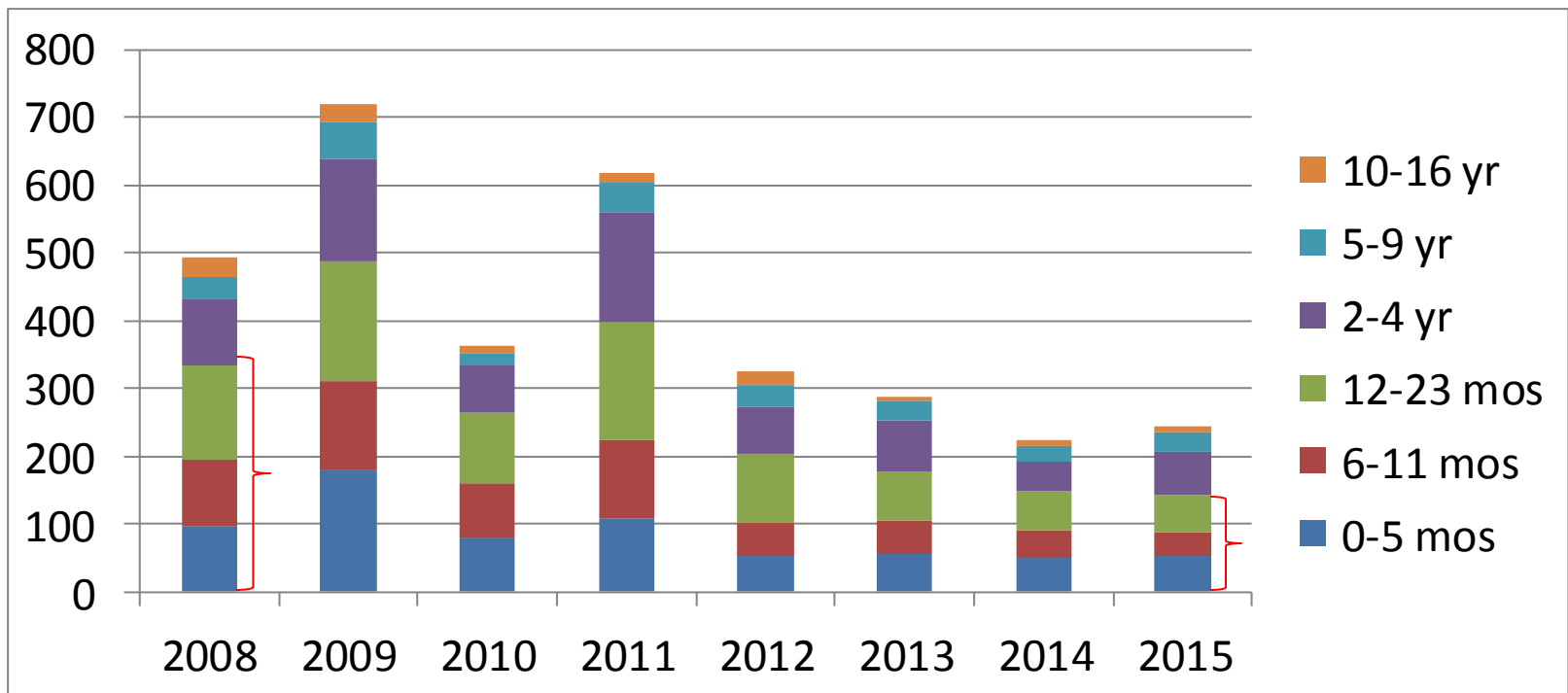
Reduction in Hospital Acquired* Rotavirus with Programs



* Hospital acquired -
≥72 h after admission
or ≤ 48 hours after
discharge

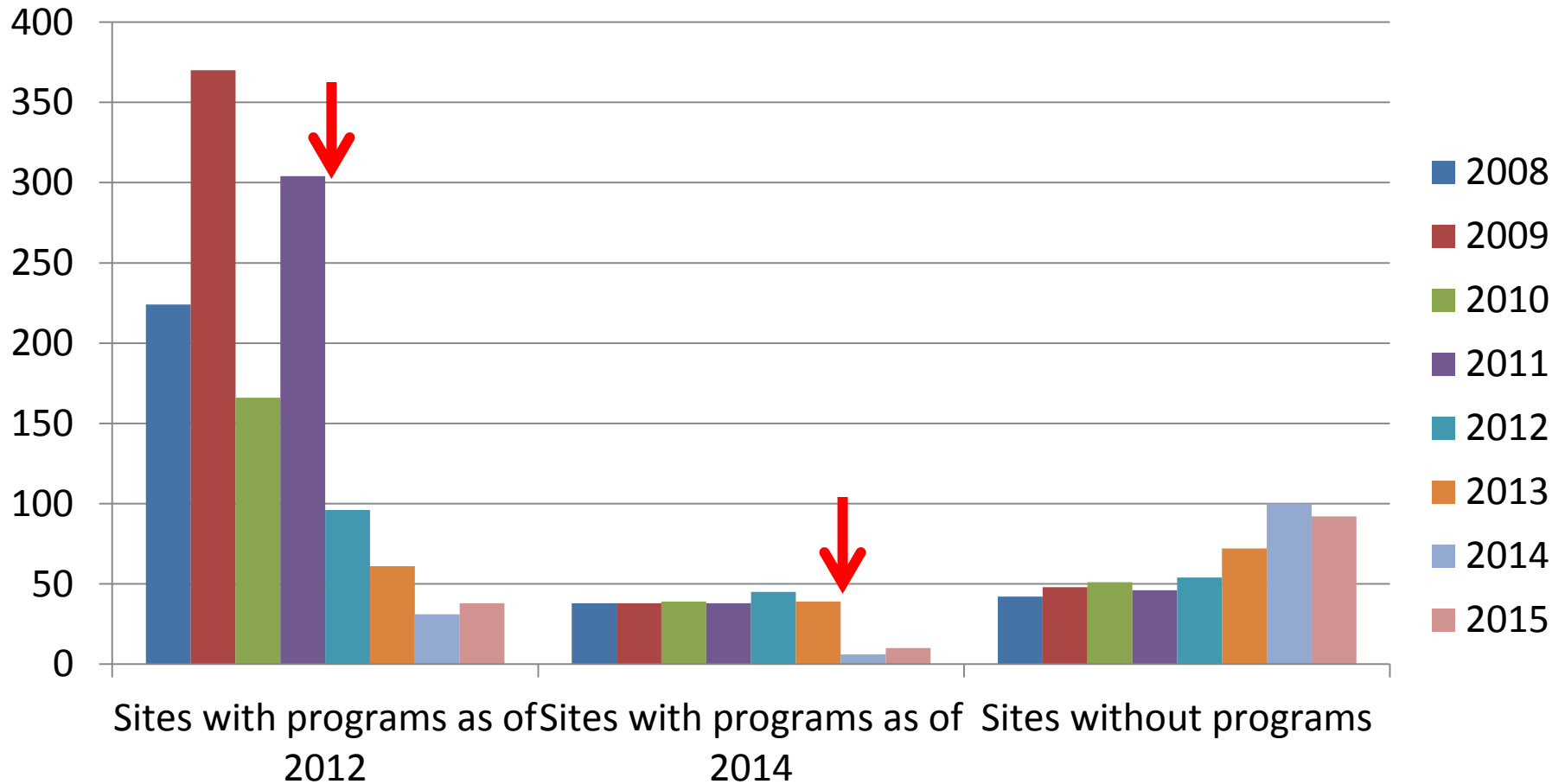
Excludes Halifax site

All Rotavirus Cases by Age Group Over Time

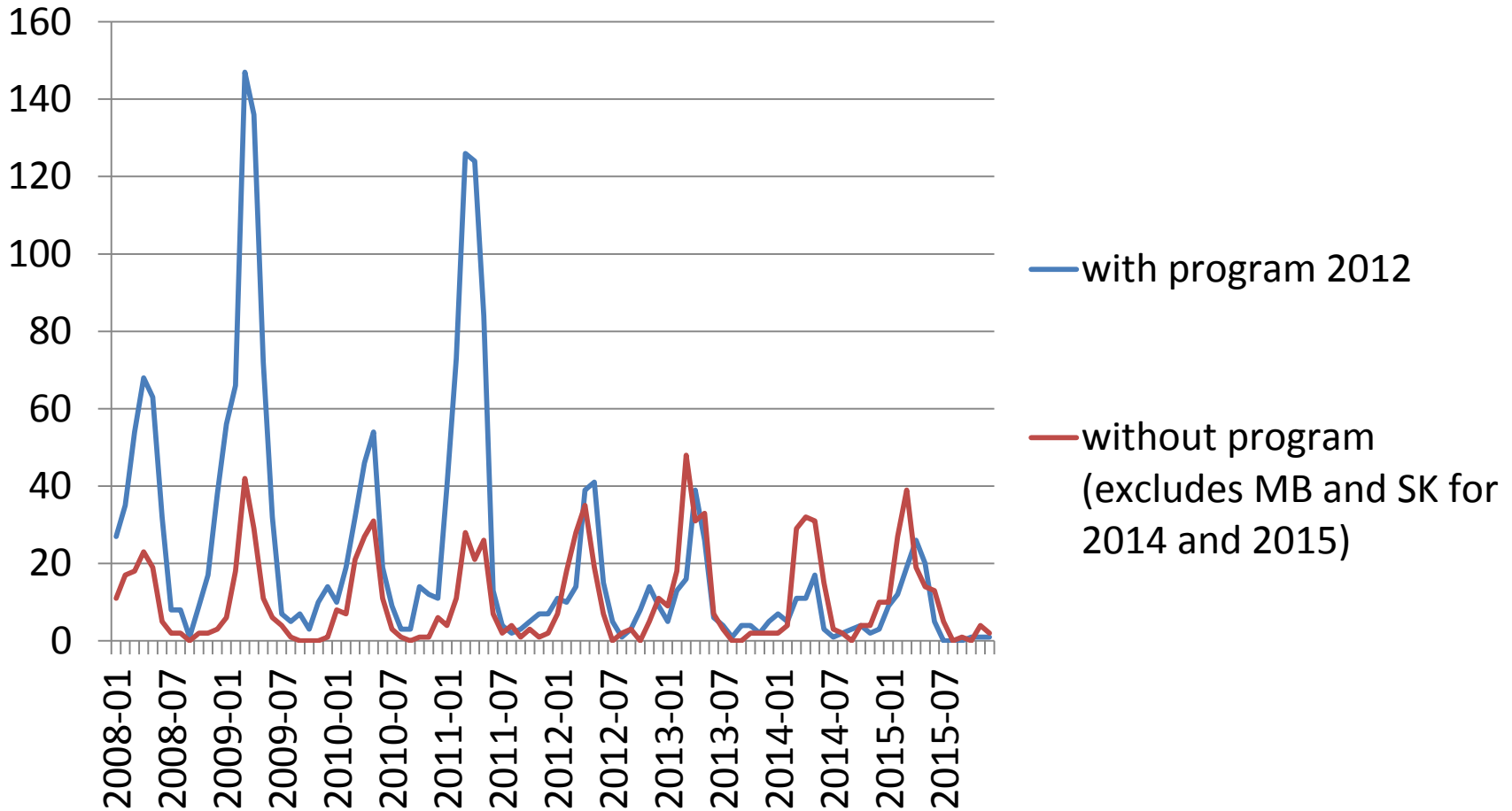


Children <23 months of age

All rotavirus admissions



Seasonality 2008-2015



Conclusions

1. There has been a 66% reduction in overall hospitalized rotavirus at IMPACT hospitals in the last 10 years reaching rates as low as 2 per 1000 admissions at sites with programs since 2012. Similar reductions are seen for hospital acquired rotavirus infections.
2. Sustained decreases have been seen at IMPACT sites that have had rotavirus immunization programs since 2012 compared to sites that had no or later programs.
3. Children under the age of 2 years have had the greatest decrease in number of admissions.
4. The seasonal peaks have been attenuated in sites with rotavirus immunization programs in existence for the prior 3 years.