

Rotavirus Vaccinating in Africa Ghana Case Study

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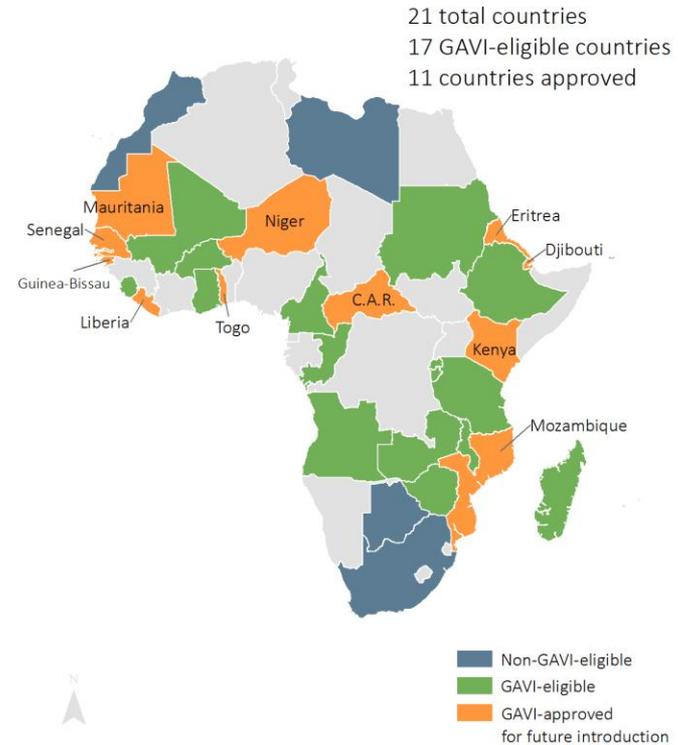
ROTA Council

Rotavirus vaccine introductions in Africa

Eleven African countries approved by Gavi for future rotavirus vaccine introduction support (as of June 1, 2014).

As of **January 2015**, **five** of those countries have introduced. (Mauritania, Senegal, Niger, Kenya, Eritrea)

Rotavirus Vaccine Introductions in African Countries
as of June 1, 2014

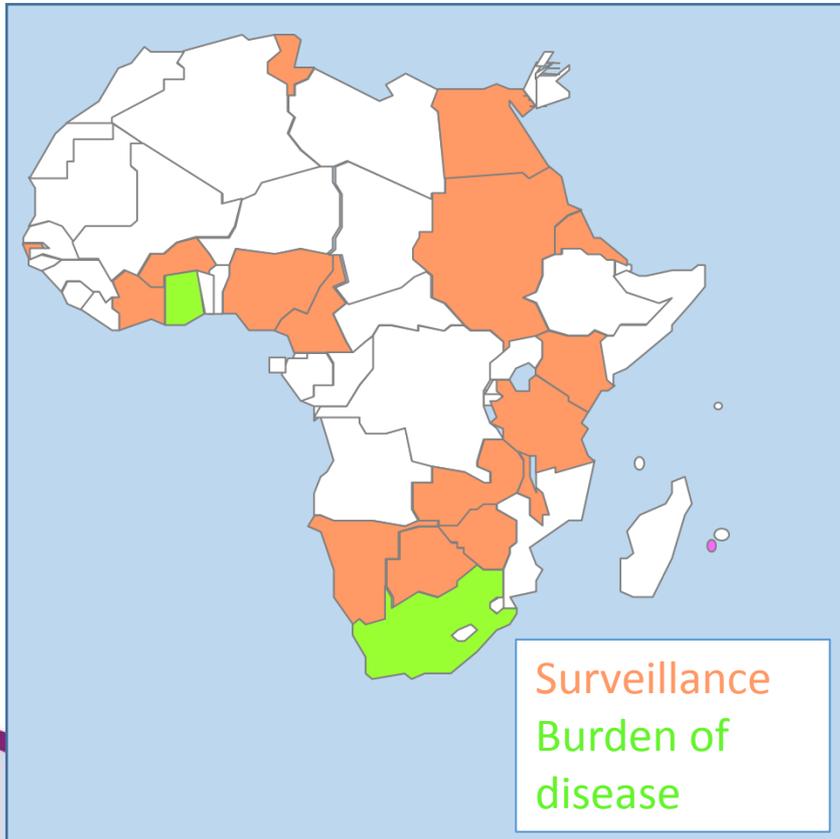


Outline

- Pre-vaccine introduction
- Vaccine introduction
- Outcomes
- Lessons learned

Pre-vaccine introduction

African Rotavirus Network (1998-2007)



Objectives:

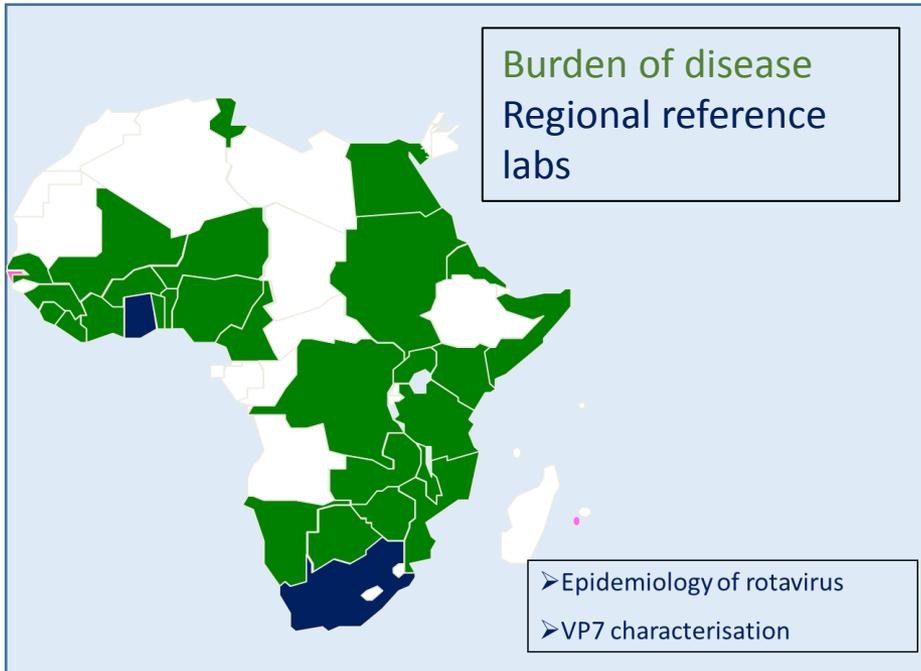
- Generation of epidemiology data on rotavirus infection
- Laboratory based
- Workshops for testing for rotaviruses
- Genotyping of identified strains

First set of rotavirus data from Africa: Infection in Africa

Country	Year	Assay	No	Age (yrs)	% +ve	Site
Cote d'Ivoire	1997-2002	EIA	470	<5	28.3	Hospital
Ghana	1997-2002	EIA	2002	<2	40.5	OPD
Nigeria	1997-1999	EIA	2099	<5	22.1	OPD
Burkina Faso	1998-1999	EIA	166	<5	22.3	OPD
Cameron	1996-2002	EIA	998	<5	21.0	OPD
Kenya	1996-2002	EIA	1226	<5	15.3	Community
Tanzania	1996-1999	EIA	805	<5	10.0	OPD
Zambia	1997-1999	EIA	1635	<2	23.3	HOSP
Botswana	1998-1999	EIA	250	<5	29.2	HOSP
S. Africa	1997-2002	EIA	2600	<2	32.0	HOSP
Tunisia	1997-2002	EIA	116	<5	17.5	HOSP

Pre-vaccine introduction

African Rotavirus Surveillance Network



Objectives:

Burden of Disease

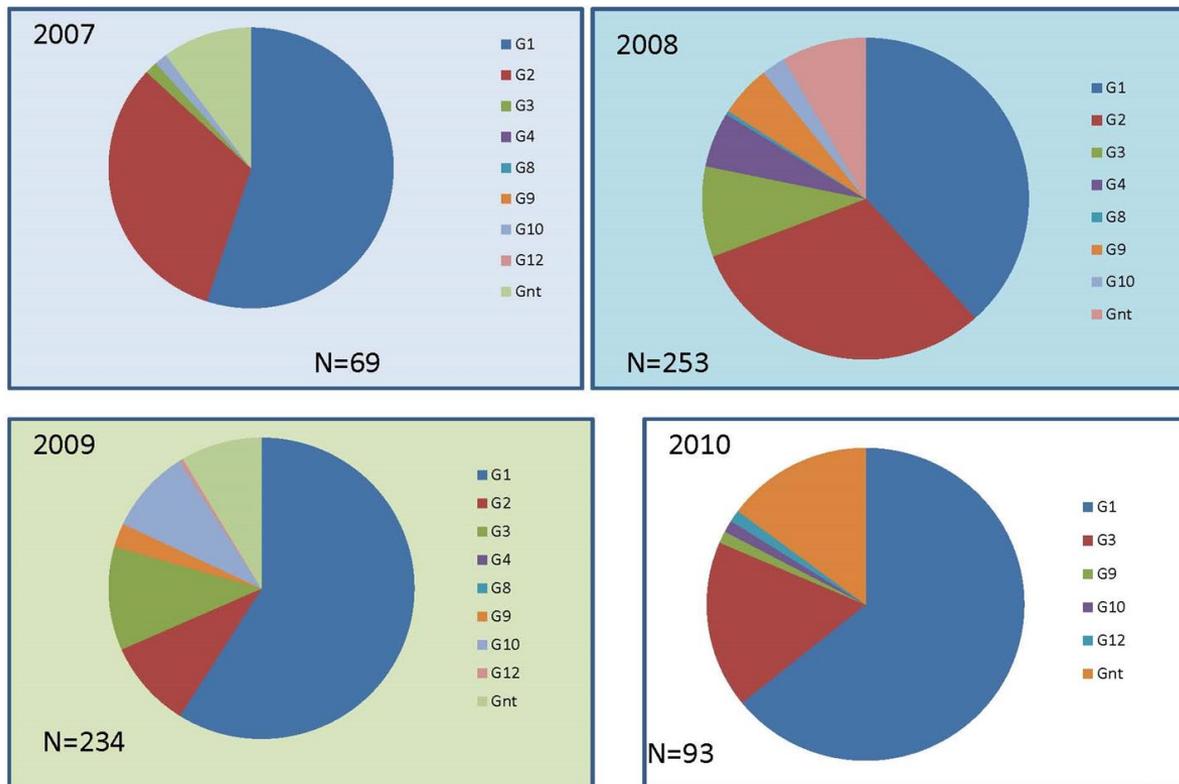
- Number of diarrhoea hospitalizations
- Proportion of diarrhoea hospitalizations attributable to rotavirus
- Age specific diarrhoea hospitalizations attributable to rotaviruses
- Duration of hospitalization for rotavirus associated diarrhoea
- Strain surveillance
 - Circulating strains
 - New reassortant

Distribution of rotavirus G and P genotypes among children <5 years of age in Ghana (2007 to 2010)

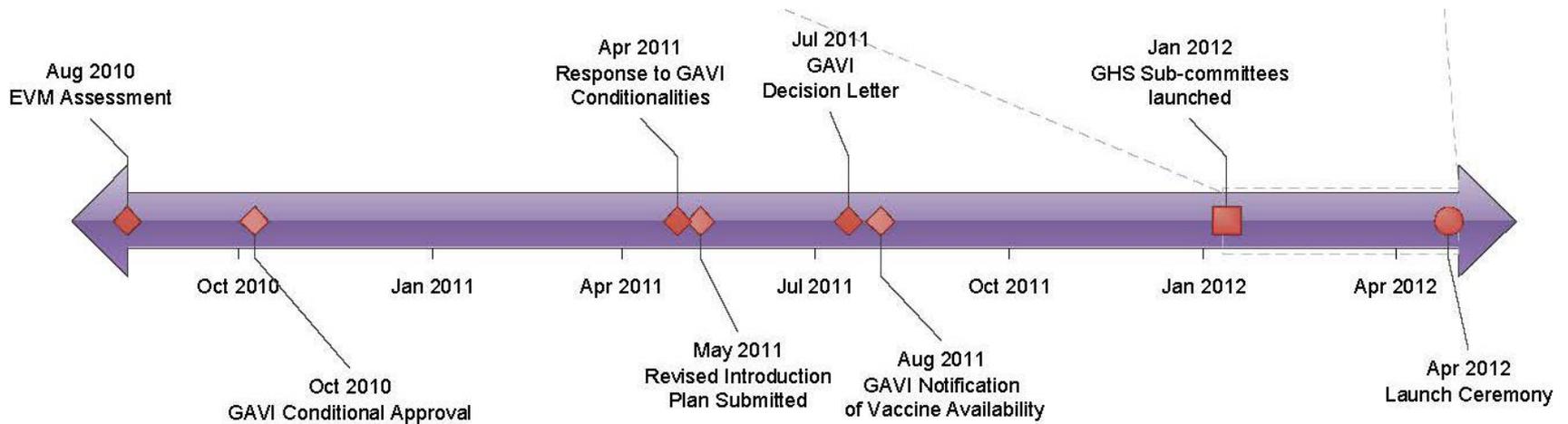
P- Type	G1	G2	G3	G4	G8	G9	G10	G12	Gnt
P[4]	23	71	2	7	1	0	1	0	8
P[6]	67	57	61	7	0	16	26	1	16
P[8]	247	21	5	2	0	4	1	1	12
P[nt]	33	3	2	0	0	0	1	0	10
All	370	152	70	16	1	20	29	2	46

Distribution of rotavirus G and P genotypes among children <5 years of age in Ghana (2007 to 2010)

Circulating genotypes: 2007-2010



Key milestones in Ghana's vaccine introduction planning process, 2010–2012

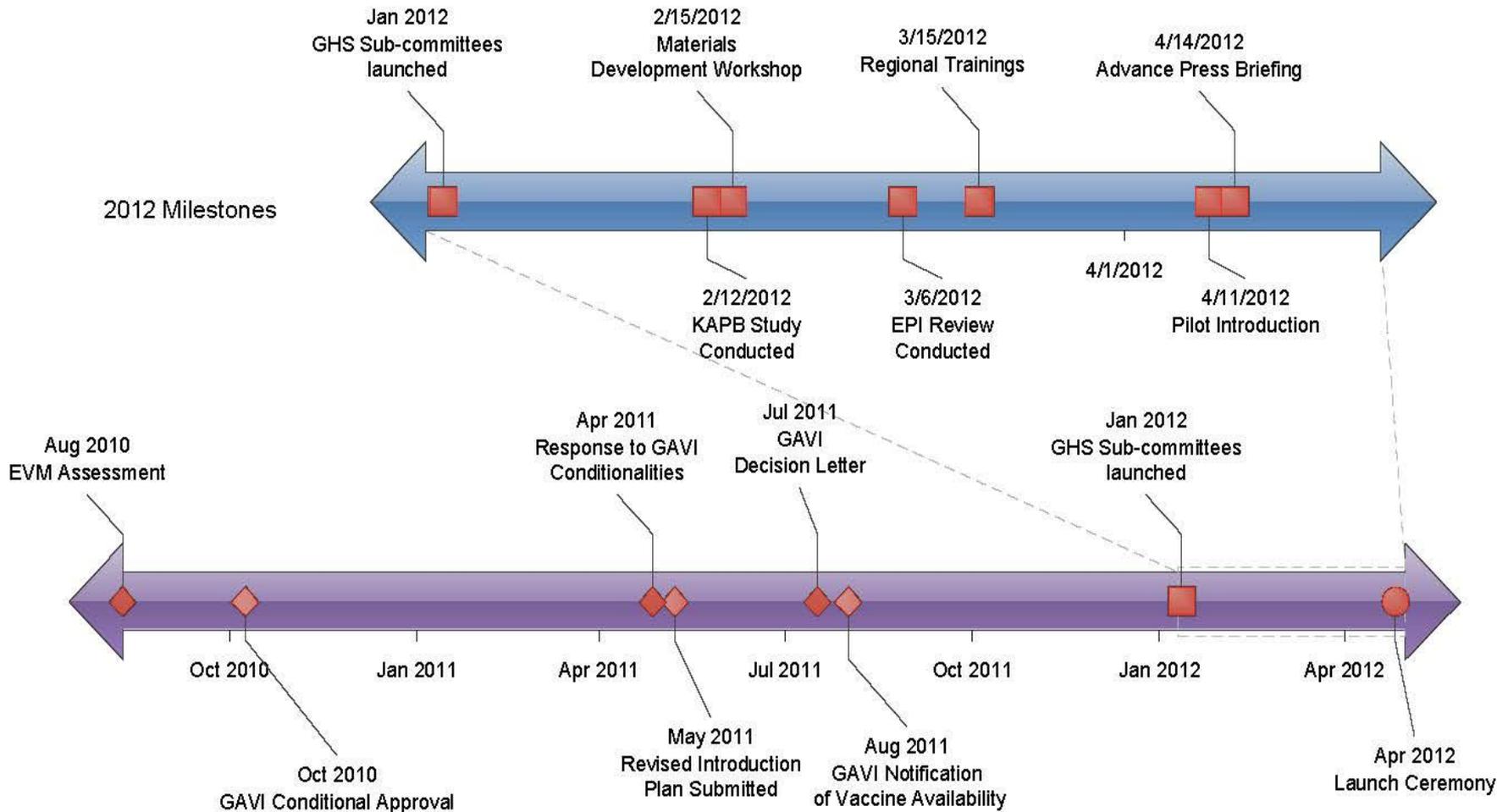


National decision making

- **Key information**

- Information about the disease
- Disease burden
- WHO recommendations about the vaccine
- Characteristics of the current available vaccines
- Vaccine efficacy
- Vaccine safety
- Vaccine supply
- Cost effectiveness
- Vaccine cost and financial sustainability
- Other interventions for the disease

Key milestones in Ghana's vaccine introduction planning process, 2010–2012



Planning process

- Setting up and launching of planning communities:
 - Cold chain and logistics
 - **Training**
 - Preparation of manuals and training materials
 - Training of pediatricians, nurses, community health workers
 - Nurses
 - Data management
 - **Advocacy and communication**
 - Policymaker
 - Parliament
 - Budget office
 - Public
 - Vaccine and waste management
 - **Monitoring**
 - Implementation/operational issues
 - Adverse events
 - Vaccine effectiveness

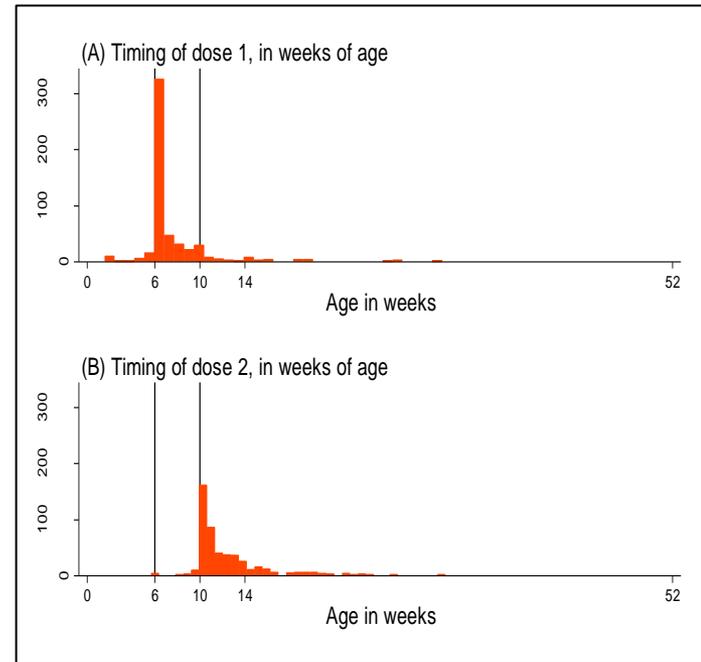
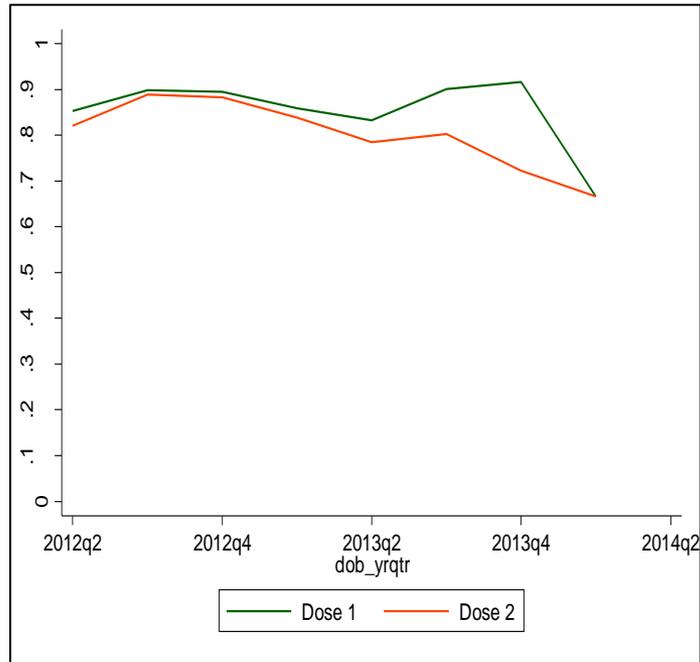
Training

- Study on Knowledge, Attitudes Practices and Beliefs (KAPB) amongst health care workers and the general population
- Results from this study used to guide the development of:
 - Communication materials
 - Training manual and materials
- Results guided the conduction of a national materials development workshop to:
 - Develop key training and communication materials
- Conduct of regional training workshop for training of trainers. The press were also invited to these workshops.

Outcomes

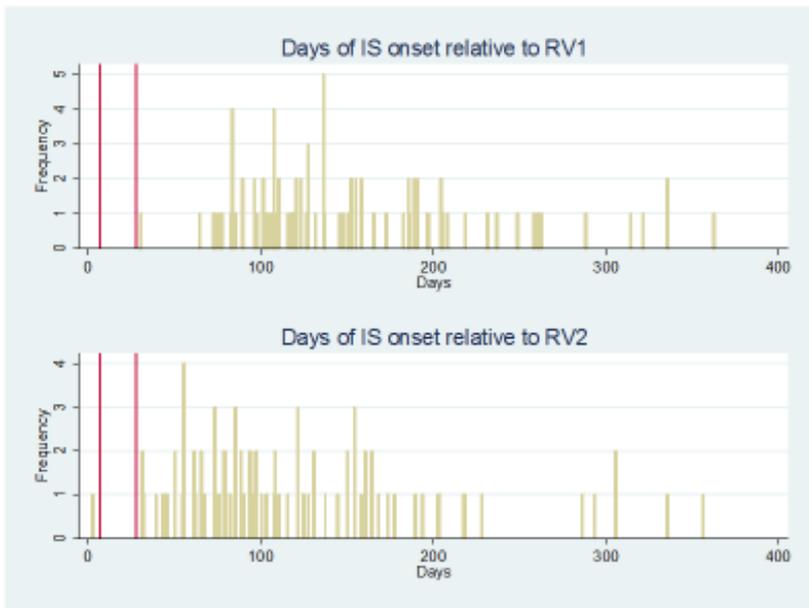


Outcomes

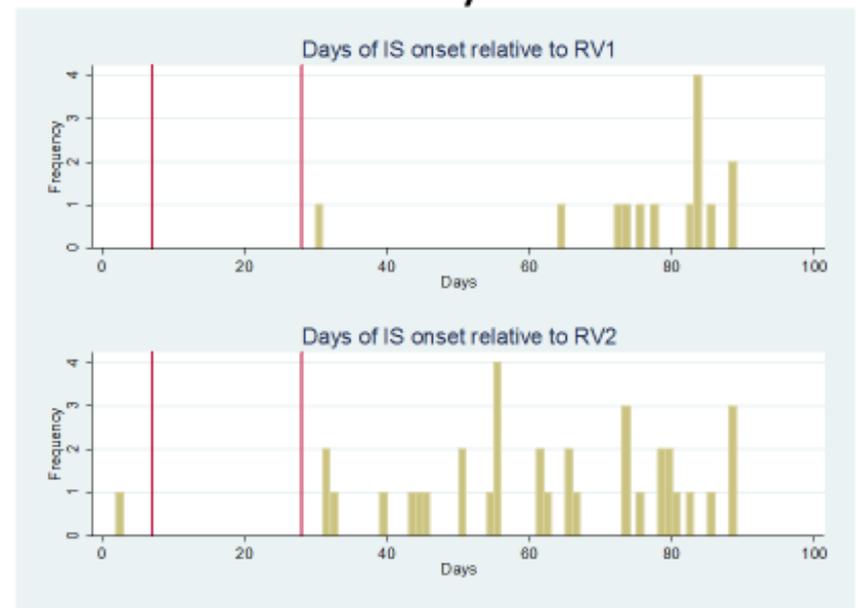


Safety monitoring: Intussusception surveillance

All cases



Cases within 90 days of vaccination



Lessons Learned (1): New vaccine and perceptions

- Linking of the introduction of rotavirus vaccine as a tool to help country achieve the MDGs goals facilitated the broad acceptance by both health care workers and the general public.
- The widespread understanding of the impact of diarrhea on children appeared to have played an important role in allaying concerns among parents about the administration of the additional vaccines to their children.
- The avoidable burden of disease among children from vaccination was perceived by health care providers as a worthwhile trade-off for the additional workload associated with administering a new vaccine.

Lessons Learned (2): Political and institutional will

- Establishing the planning sub-committees and the marshaling of intersectoral resources, made possible by political and institutional will, through the GHS and the Interagency Coordinating Committee (ICC) facilitated the successful introduction of the new vaccines.
- The intersectoral collaboration and planning that was instituted through the eight planning sub-committees within GHS provided both the EPI and GHS with a far broader base of technical support and resources than they would have been able to marshal from directly within the ranks of GHS employees.
- The institutional will established by GHS and the ICC, additionally enhanced the establishment of effective structures and roles within the introduction planning process and immunization program bolstering the ability of the EPI programme to manage the planning and introduction processes.

Lessons Learned (3): Link between communication activities and introduction

- The essential link between research, knowledge, attitudes, and practices, especially at the community level, early in the process, and the tailoring of messages that were relevant and appropriate to the audience was an essential element of Ghana's success.
- Parents responded positively to accepting the vaccines as long as they understood the value and importance the diseases they were being invited to be partners in its prevention and their efforts and roles were recognized.
- Formally including partners at all levels—national and local government; international organizations such as Gavi, UNICEF, and WHO; civil society organizations; and community leaders in the team—strengthened the planning process and introduction plans and helped generate a broad coalition of champions for the successful introduction of the rotavirus vaccine in Ghana.