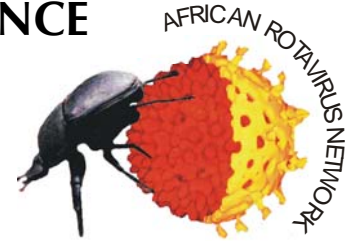


# AFRICAN ROTAVIRUS SURVEILLANCE NEWSLETTER

Volume 1, Issue 1  
January 2008



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## Links to partners:

[www.rotainfrica.co.za](http://www.rotainfrica.co.za)  
MRC Diarrhoeal  
Pathogens Research Unit  
[www.who.int/en/](http://www.who.int/en/)  
World Health  
Organization  
[www.rotavirusvaccine.org](http://www.rotavirusvaccine.org)  
PATH's Rotavirus Vaccine

## *Up date on the AFR rotavirus surveillance network (AFR RSN)*

Rotavirus disease is estimated to cause death of approximately 525,000 young Children annually and approximately 85% of these deaths occur in low resource Countries in South Asia and sub-Saharan Africa. Two new rotavirus vaccines have been licensed in several African countries; Rotarix ® licensed in 21 and RotaTeq® in 14 African countries by January 2008; *Source: RVP PATH.*

These vaccines are currently undergoing clinical trials in five (5) African countries (Rotarix® in Malawi and South Africa; RotaTeq® in Ghana, Mali and Kenya).

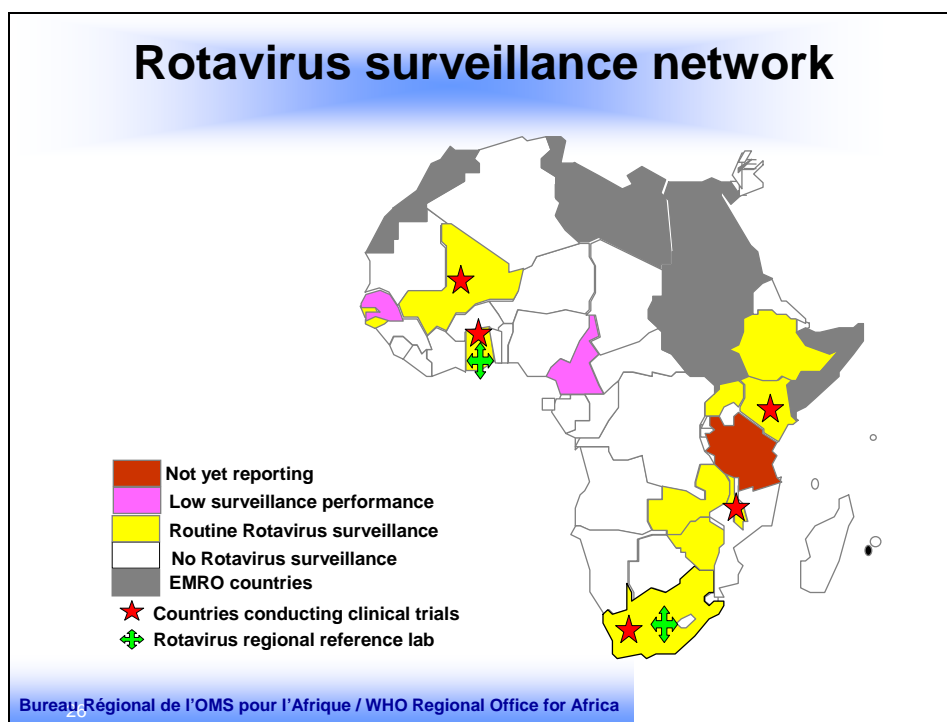
Currently, AFR RSN comprises of ten (10) countries (Cameroon, Ethiopia, Ghana, Kenya, Senegal, Tanzania, South Africa, Uganda, Zambia and Zimbabwe) that are conducting sentinel-hospital based surveillance of rotavirus diarrhea in children under 5 years using standardized WHO protocol and comparable enzyme-linked immunoassay (EIA) rotavirus diagnostic technique. The surveillance is directed by the respective ministries of Health (MoH) with the support from WHO and partners (CDC, RVP-PATH)

## *Workshop reports*

Two regional rotavirus reference laboratories (RRL), funded by RVP-PATH were established to support the AFR RSN. These RRL are based at the Noguchi Memorial Research Institute (NMRI), Accra, Ghana to support the surveillance in West/Central block and Diarrhoeal Pathogens Research Unit (DPRU), University of Limpopo, Medunsa Campus, South Africa to support the South/East Block countries.

The 2<sup>nd</sup> rotavirus training workshop was held at the Noguchi Memorial Research Institute (NMRI), Accra, Ghana from 17<sup>th</sup> September to 6<sup>th</sup> October 2007 for members of the AFR RSN in the West block countries. The following 5 countries were represented (Togo, Benin, Nigeria, Cote D'Ivoire and Ghana). There were a total of 11 participants comprising of 5 Pediatricians and 6 laboratory scientists. Training included lectures on the global rotavirus epidemiology, update on the AFRO rotavirus surveillance network and rotavirus vaccines. Participants also received hands on training on the techniques for rotavirus diagnosis using stool samples from their countries. A total of 39 samples from Togo collected during a diarrhea out break (Jan – February 2007) in children under 5 years were tested and 29 (74%) were confirmed rotavirus positive. The common VP7 genotype detected were G2 (14/20; 70.0%) and G3 (6/20; 30%). The VP4 types P[4], P[6] and P[8] were detected in similar proportions. 55 fecal samples from Cote D'Ivoire were tested and 20 (36%) were positive for rotavirus and the G types detected were G1 (8/18, 44.4%); G2 (7/18, 39%); G3 2/18, 11.1%) and a single mixed infection of G2/3. The common VP4 types detected were P[6] and P[8]. (*Source: Prof. George Armah*)

The 8<sup>th</sup> training workshop in molecular typing methods for rotavirus strain characterization is scheduled to be held at the Diarrhoeal Pathogens Research Unit (DPRU), University of Limpopo, MEDUNSA Campus, South Africa (5<sup>th</sup> – 30<sup>th</sup> May 2008).



African rotavirus surveillance network (AFR RSN) was initiated in 2006 and is directed by the respective ministries of Health (MoH) with the support from WHO and partners (CDC, GAVI PATH).

*Table 1: AFR Rotavirus Surveillance in children under 5 years*

*(a) Countries conducting surveillance for more than 12 months*

Country/site	Duration of Surveillance	# <5 acute diarrhea hospitalizations	# (%) with stool specimen collected	# (%) EIA Rotavirus confirmed cases
<b>Ghana</b> Site 1: KBTH Site 2 : NHRC	Aug 06 – Jan 08	991	404 ( <b>41</b> )	254 ( <b>63</b> )
	Apr 07 - Mar 08	411	399 ( <b>97</b> )	186 ( <b>47</b> )
<b>Kenya</b> (KNH)	Aug 06 – Jan 08	1198	1198 ( <b>100</b> )	576 ( <b>49</b> )
<b>South Africa</b> (Dr George Mukhari Hospital)	Jan 06-Dec 07	2321	1361 ( <b>59%</b> )	374 ( <b>27</b> )
<b>Uganda</b> /MNH-ACU	June 06 – Jan 08	1277	990 ( <b>78</b> )	428 ( <b>43</b> )
<b>Zambia</b> /UTH	Aug 06 – Feb 08	529	505 ( <b>95</b> )	172 ( <b>34</b> )
<b>Zimbabwe</b> / Parirenyatwa Hosp	Jan 07 – Feb 08	225	225 ( <b>100</b> )	44 ( <b>20</b> )

*(b) Countries conducting surveillance for less than 12 months*

Country/site	Duration of Surveillance	# <5 acute diarrhea hospitalizations	# (%) with stool specimen collected	# (%) EIA Rotavirus confirmed cases
<b>Cameroon</b> /Chantal BIYA Hospital, Centre Mère et Enfant.	Sept 07 – Jan 08	484	108 (22)	33 (31)
<b>Ethiopia</b> / AAU-MF	Sept 07 – Feb 08	102	102 (100)	46 (45)
<b>Senegal</b> (CHNEAR)	July 07 – Jan 08	369	369 (100)	76 (21)
<b>Tanzania</b> /MNH	Sept 07 – Feb 08	143	143 (100)	ND

**ND:** EIA assays not done

**Acknowledgement:**

The up date on AFR RSN is a summary of the reports submitted to WHO/AFRO by the following;

1. Dr. Christabel Enwerou-Laryea Korle Bu Teaching Hospital & Prof. George Armah, NMRI & MoH, Ghana
2. Dr. Rose Kamenwa, Mr. Munyi Bakari (KNH), James Nyangao, KEMRI & MoH, Kenya
3. Dr. Mwaka Monze and Ms. Julia Namwaka, UTH & MoH, Zambia
4. Dr. Eric Wobudeya, Mr. Augustine Mulindwa, Mulago Teaching Hospital & MoH, Uganda
5. Ms. Mapaseka Seheri, Diarrhea Pathogens Research Unit, MEDUNSA, SA
6. Dr. I. Pazvakavambwa, Ms. Chipo Berejena, Parirenyatwa Hospital, & MoH, Zimbabwe
7. Dr. O. Diop, Dr. K. Ndiaye, Institut Pasteur de, Prof. Moussa Fafa Cissé, Dakar & MoH, Sénégal
8. Dr Enyonam TSOLENYANU, Togo
9. Dr. Nicola Page, DPRU, South Africa
10. Dr. Nigel Cunliffe, University of Liverpool, UK & University of Malawi, Lilongwe & MoH, Malawi
11. Dr. Cristiana Toscano, WHO Geneva
12. Prof. Duncan Steele, PATH

We acknowledge support from all our partners including CDC, CVP, PATH, WHO & Ministries of Health (MoH) of the countries participating in the WHO/AFRO supported rotavirus surveillance.

**Report compiled by –**

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