2nd Quarterly outbreak Response assessment

Kenya

2nd to 11th April'2014

Background

- Kenya has reported 14 cases in 2013 with last case having onset on 14th July 13.
  - Of these, 7 from refugee camps and rest were from host community.

- Response:
  - Fast and aggressive outbreak response activities with 5 campaigns in phase I including expanded age campaigns
  - 4 SIA campaigns in phase II till now including one bOPV/ IPV campaign in outbreak area.

- Outbreak response assessment done in August 2013

- GoK declared polio outbreak as public health emergency in Nov 2013

Objectives

- To assess whether the quality and adequacy of polio outbreak response activities are sufficient to interrupt polio transmission within six months of detection of the first case, as per WHA-established standards, or as quickly as possible if this deadline has been missed, with a focus on status of implementation of previous 3 month assessment recommendations.

- To provide additional technical recommendations to assist the country meet this goal

Subject areas of assessment

- Implementation of recommendation from previous assessment
- Speed and appropriateness of immediate outbreak response activities as per WHA Resolution, 2006 (WHA59.1)
- Effectiveness of partner coordination during outbreak response
- Quality of SIAs – planning, delivery, monitoring , communications, adequacy of vaccine supply and appropriateness of the type of vaccine used
- AFP surveillance sensitivity
- Routine Immunization performance
- Adequacy of human resources to carry out effective response activities

Schedule

Activities	Date	Day	Venue
Arrival of assessment team members	01-Apr	Tuesday	-
Technical Briefing	02-Apr	Wednesday	WHO Kenya Office
Security Brefing	02-Apr	Wednesday	WHO Kenya Office
Travel to Field	03-Apr	Thursday	-
Field assessment	3 to 9 April	Thursday- Tuesday	***Garissa, Turkana, Nairobi***
Feedback to the partners in field	08-Apr	Monday	-
Return from field	09-Apr	Tuesday	-
Desk review and interaction with Government, Lab and Key partners	3 to 9th April	Thursday- Tuesday	WHO Kenya Office, UNICEF, KEMRI Lab and Ministry of Health
Compilation of findings	10th April	Wednesday- Thursday	WHO Kenya office
Debriefing	11-Apr	Friday	WHO Kenya Office
Preparation of POA	12-Apr	Saturday	-
Departure of assessment team members	12-Apr	Saturday	-
First draft of report	19-Apr	Saturday	-
Submission of final report	26-Apr	Saturday	-

Assessment teams

Area for field assessment	S/N	Team Members		Departure date	Return date
		Name	Organization		
Garissa	1	Hemant Shukla	WHO HQ	04-Apr	09-Apr
	2	Endale Beyene	USAID	04-Apr	09-Apr
	3	Zorodzai Macheckanyanga	WHO/IST	07-Apr	09-Apr
Turkana	4	Sue Gerber	WHO/BMGF	03-Apr	09-Apr
	5	Naouri, Boubker	CDC	03-Apr	09-Apr
Nairobi	6	Sam Okiror	WHO	02-Apr	11-Apr
	7	Sara Lowther	CDC	02-Apr	11-Apr
	8	Kaushik Manek	Rotary	02-Apr	11-Apr
	9	Brigitte Toure	UNICEF	02-Apr	06-Apr
	10	Deepa Pokharel	UNICEF	02-Apr	04-Apr

Methodology

- Desk Review of relevant documents
- Field observation/assessment to areas affected and or areas at risk to evaluate the plan, process, implementation of the quality of outbreak response including supporting structures
- Key informant interviews of national, sub national officials, NGOs and other partner organizations involved in polio eradication activities
- Provided feedback to the Government authorities and national and Zonal partner teams

Questions to be answered

- Were recommendations of previous outbreak response assessment fully implemented?
- Did the outbreak response activities meet the outbreak response standards (WHA 59.1 (RC61) particularly in terms of speed and appropriateness ?
- Have national authorities and supporting partners played their role as laid down in WHA and RC resolutions for effective polio outbreak control?
- How likely is it that the currently implemented SIA strategy will interrupt transmission and what are the risks for further spread?
- Is AFP surveillance sensitivity currently adequate to detect all transmission?

Questions to be answered

- Is the communication response plan adequate to ensure the sensitization and mobilization of all targeted populations?
- Does the country have additional unmet financial or resource needs that need to be addressed to further strengthen the implementation of immunization and surveillance activities?
- What are the remaining risks to stopping the outbreak and for further spread ?
- Have the polio outbreak response activities being undertaken in a manner that would strengthen routine immunization performance

Were recommendations of previous outbreak response assessment fully implemented?

Status of Past Recommendations: Summary

Recommendation category	Total	Fully Implemented	Partially implemented/ Need strengthening	Not implemented
Dadaab	3	1	2	0
Turkana	4	1	3	0
Nairobi	8	4	3	1
National/ General	17	5	8	0
Total	28	10	17	1

Status of implementation of previous outbreak response assessment recommendations…1

Recommendations (Dadaab)	Status
Implement active surveillance in all functional health facilities through training and supervision.	**Implemented**
Re-train vaccination teams on **proper house marking**	**Needs further improvement**
Expand the involvement of trained community volunteers and community health workers to **vaccinate population groups in security compromised areas and serve as focal points for notification of AFP cases.**	**Implemented for vaccination, needs strengthening for surveillance**

Status of implementation of previous outbreak response assessment recommendations…2

Recommendations (Turkana)	Status
Introduce proper SIA micro-planning well in advance of the September rounds. Standard tools should be used. Ensure plans contain clear strategies for reaching hard to reach populations, including nomads and other mobile populations.	**Partially met**
Implement active AFP surveillance, with designation of priority reporting sites, identification of facility focal points and a supervisory activity plan. In addition, expand the use of community volunteers or **community health workers to serve as community informants for suspected AFP cases.**	**Implementation started. Need to be strengthened**
Review the training plans and frequency of training and orientation for surveillance staff, taking into account high staff turnover.	**Implemented**
Ensure all health facility staffers are **properly trained in surveillance.**	**Implementation started**

Status of implementation of previous outbreak response assessment recommendations…3

Recommendations (Nairobi)	Status
Improve micro-planning with a bottom up approach.	**Partially met**
Increase supervisory accountability for team performance. Ensure supervisors reach out to each team at least once per day.	**Implementation started. Need to be strengthened**
Develop guidelines/agreements on **vaccination of children living on district boundaries** (or who may be visiting from neighboring districts).	**Evidence of efforts seen**
Provide refresher **training on proper handling of vaccine (frozen ice packs, dry vaccine vials), house marking, and finger marking.**	**Implemented**

Status of implementation of previous outbreak response assessment recommendations…4

Recommendations (Nairobi-Communications)	**Status**
Immediately **develop a communication response plan** to ensure the sensitization and mobilization of all targeted populations. Include specific messages that address the concerns of specific population groups (e.g., Somalis, households served by private providers).	**Implemented**
Develop an "outbreak emergency" message to the public and government leaders to create vaccine demand. Immediately engage political and community leaders at every level to share information about the outbreak, the importance of campaigns and routine immunization, and the safety of OPV.	**Implemented**
Immediately identify **social mobilization funds for the next round**, including those to hire all needed volunteers, produce media announcements, and purchase of identification clothes/badges for vaccinators. Consider approaching **local NGOs and/or businesses for funding**.	**Implemented**
Identify long term, **sustainable domestic funding for social mobilization.**	**Not done**

Status of implementation of previous outbreak response assessment recommendations…5

Recommendations	Status
The current **polio outbreak should be declared a public health emergency,** and all necessary **human and material resources should be mobilized** to increase public awareness and improve the quality of SIAs and AFP surveillance	**Done, but domestic financial resources not yet realized**
Social mobilization should be immediately strengthened to create a sense of urgency **in non-outbreak but high risk areas and sustain demand for vaccine delivered in the routine immunization** program as well as in SIAs	**Done for SIA but Not for RI**
Advocacy and resource mobilization strategies must be immediately elucidated to ensure that **government and community leaders are visibly and regularly promoting the urgency of OPV vaccination,** and that all stakeholders are contributing to halting WPV transmission	**Done, but need to be sustained**

Status of implementation of previous outbreak response assessment recommendations…6

Recommendations	Status
Active AFP surveillance should be established or strengthened to comply with national AFP surveillance guidelines. This must go beyond meeting the non-polio AFP detection rate indicators.	**Being done, needs strengthening**
To complement AFP surveillance, **environmental surveillance for polioviruses** must occur as soon as possible in multiple sites in Nairobi and other high risk areas where feasible.	**Implemented**
Training should be conducted to ensure that immunization staff understands the **importance of data in targeting program activities.**	**Initiated**
The immunization workforce should **be trained on micro-planning tools** and held accountable for their use. This **training should include proper house and finger marking, revisiting missed children, and tracking refusals**. SIA vaccination teams must use detailed maps.	**Done but not good quality at subcounty level** **Gaps in quality**

Status of implementation of previous outbreak response assessment recommendations…7

Recommendations	Status
Staff with supervisory responsibilities in SIA, AFP surveillance, and routine immunization should receive regular **training in supervisory techniques** and be held accountable for the performance of their staff.	**Partial**
Vaccinators should be appreciated and publicly acknowledged for their critical role in public health by officials at all levels of the government.	**Done, should be sustained**
Effective strategies for reaching remote, nomadic communities, mobile populations, and persons residing in insecure areas should be identified, reinforced, and replicated. Funds should be made available to support implementation of these strategies by community health workers and volunteers in all high risk districts.	**Partially achieved, need to strengthened**

Status of implementation of previous outbreak response assessment recommendations…8

Recommendations	Status
Adequately staffed and funded fixed immunization sites should be located at high volume transit points. Fixed immunization sites should be re-opened, if possible, at commonly used border points.	**Not done in Dadaab, functional in Turkana**
Consideration should be given to the role of IPV in the current polio eradication program, including its targeted use in high risk areas like the Dadaab refugee camp and host communities.	**Done**
Progress on implementing recommendations should be reviewed before the November 2013 Horn of Africa Technical Advisory Group for Polio Eradication (HOATAG) meeting.	**Done**

Did the outbreak response activities meet the outbreak response standards (WHA 59.1)?

Speed and appropriateness of outbreak response activities as per WHA Resolution, 2006 (WHA59.1)

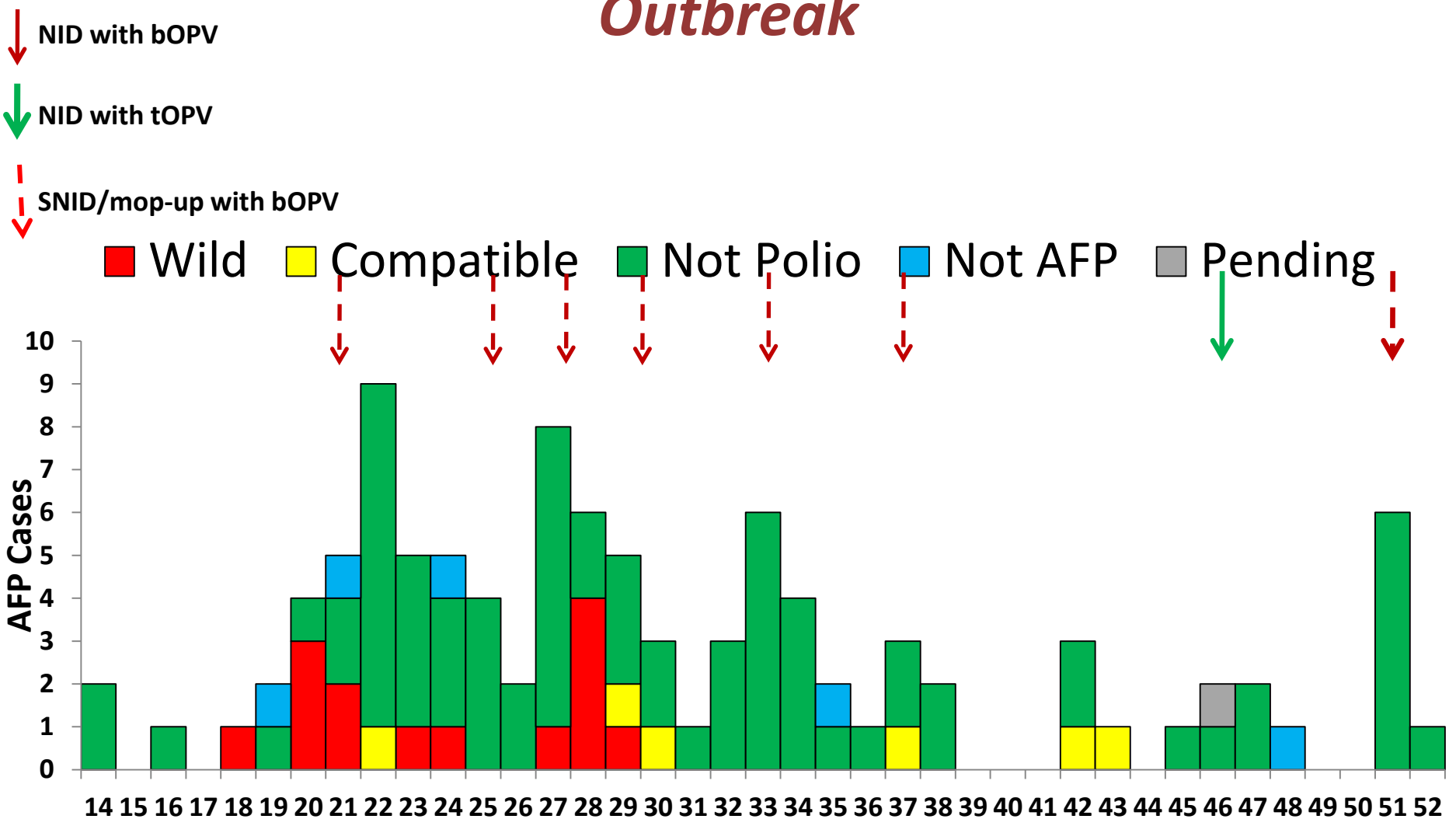
Indicators	Status
Number of SIAs, dates, type of vaccines, target age groups, and areas covered during outbreak immunization response activities were appropriate	**Yes**
At least two full immunization rounds in the target areas after the most recent WPV detected case confirmation	**Yes**
SIA coverage at least 95% as evaluated by IM data	**Not met**
Response plan was followed during outbreak response	**Yes**

SIAs in Phase 2 of Outbreak response

Round	Date	Area	Target Age	Vaccine	Coverage (IM)
5	21-25 Sep 2013	Camps + host county +1 district	All ages	bOPV	93%
6	16-20 Nov 2013	Entire country	< 5 yrs	tOPV	94%
7	14-18 Dec 2013	Garissa, Wajir , Mandera counties Dadaab + Kakuma Refugee camps	< 5 yrs	bOPV +(**IPV Dadaab distt and 2 other divisions**)	IPV Survey
8	18-22 Jan 2014	Entire country except Garissa, Wajir, Mandera counties	<5yrs	bOPV	94%
9	1-5 Feb 2014	Wajir, Garissa Mandera	< 5yrs	bOPV	92%
10	5-9 April	25 counties including Nairobi, Dadaab and Turkana	<5 Yrs	bOPV	Expected

What has been the impact of the response on the outbreak?

Epi Curve of North Eastern Region, Kenya 2013 Polio Outbreak



Have national authorities and supporting partners played their role for effective polio outbreak control?

Effectiveness of Govt. and partner coordination during outbreak response

- **Coordination at National level:**
  - National steering committee met regularly until 2014
  - Regular meetings of technical working groups
  - Regular partner coordination meetings
  - Strong system of post SIA review meetings involving representatives from county level
  - Functional System of National focal persons for closer field support
  - National coordinators for cross border activity

- **County and sub county level:**
  - Good coordination mechanism in place at county and sub county level , CHMT and DHMT
  - Good support from county to sub county

- **Camps:**
  - Strong coordination mechanism in place between implementing partners (MSF Suisse, KRC, IRC, Islamic relief), WHO, CDC, UNICEF with UNHCR leading the coordination.
  - Good coordination between DHMT, UNHCR and County

How likely is it that the currently implemented SIA strategy will interrupt transmission?

Quality of SIAs

- **Implementation:**
  - IM Data for Feb'14 campaign shows coverage of 92%.
  - In the rapid convenient assessments done, reviewers found coverage:
    - Dadaab and Turkana: close to/ above 90%
    - Nairobi: Below 90%
  - Reason of missed children:
    - Child absent from the house was the main reason
    - Team also found missed houses with unimmunized children, due to non use of movement plan
    - Children in transit (No transit strategy in place)
  - Recording of missed children and revisits to reach them is suboptimal
  - New initiative of recording of children vaccinated outside house is good but there is need of intensive training on this component.
  - Instances of no finger marking of children less than 10 months in Dadaab due to refusal by mothers
  - House marking: Finger marker is being used at some places; Instances of incorrect house markings- Needs training and supervision

% Children vaccinated as per finger marking (IM Data)

County	Feb-14	Jan-14	Nov-13	Sep-13
Garissa	91	NA	93	93
Garissa Refugee	91	NA	98	90
Nairobi	NA	95	96	92
Turkana	NA	87	94	96
National Average	92	94	94	93

SIAs: planning, delivery and monitoring

- **Fund:**
  - Fund for the ongoing campaign has not reached to the counties/ Districts till the last day of campaign.
- **Vaccine, cold chain and logistics:**
  - Turkana and Dadaab: arrived to district level on the eve of campaign
  - Inadequate Ice pack freezing capacity, VVM good.
- **Level of engagement of Authorities and other prominent people:**
  - SIA Launch by National Authorities in Sep 13 and Jan 14 campaigns.
  - Involvement of community/ religious leaders was good but need to be strengthened further.
  - The authorities from national level supervise campaign implementations, but were not available for preparatory phase.

SIAs: planning, delivery and monitoring

- **Micro-planning:**
  - Bottom up micro-planning exercise taken up in September is commendable, however the microplans originated from sub county level were weak.
  - Cascade training and supervision below county level was suboptimal.
  - Sub county level area/ team distribution plan were available. However, at most of the places visited had no/ poor team microplan- No movement plans seen.
  - No documented communication microplan
  - It was mostly resource microplan and in many places it was not based on field reality- Not accepted by national authorities and is not implemented
  - insufficient funds due to gaps in micro-planning leading to non deployment of transit and mobile teams and high workload
  - Dadaab Camps did not complete the revised micro-planning exercise

SIAs: planning, delivery and monitoring

- **Supervision:**
  - Supervisory structure and tools are in place. Most of the first level supervisors are from accountable system.
  - The actual supervision, use of supervisory tools was found to be suboptimal.
  - The workload of supervisors at most of the places seen is very high
  - Supervisors in Turkana and Dadaab not carrying vaccine carriers
- **Review mechanisms:**
  - Documented daily evening review meetings
  - Strong system of post campaign review
- **Data:**
  - Data flow is timely and is used for corrective action during evening review and post SIA review.
  - *National team should include recording of missed children, reasons and refusals in the report.*

SIAs: planning, delivery and monitoring

- **Training:**
  - Vaccinators & Supervisors trained before every campaign
  - Quality of training: Delayed, short duration
  - Need to strengthen training of:
    - Supervisors on Supervisory mechanism
    - Vaccinators on tally sheet, house marking and finger marking

- **Efforts to reach high risk groups/ areas:**
  - Innovative strategies and plan for coverage of Nomadic population is existing but not well structured
  - Need for regular survey and deployment of special teams to reach this population group: Need funding for deploying sufficient mobile teams

SIAs: planning, delivery and monitoring

- **Independent Monitoring:**
  - Mechanism is in place, managed by National MoH
  - Most of the IMs from Education/ NGOs
  - Large sample of divisions are being monitored by IMs

- **Cross border issues:**
  - High population movement across border from Somalia, Ethiopia, South Sudan and Uganda during and in between campaigns
  - Program should consider deploying permanent vaccination teams at major transit points around the border across Somalia
  - Cross border meetings for better coordination and synchronization should be continued.

Is AFP surveillance sensitivity currently adequate to detect all transmission?

AFP surveillance sensitivity

- **Reporting Network:**
  - Good reporting network involving Government facilities, NGO facilities and some of private facilities.
  - Hospitals, Health centers, Dispensaries and Community Health Workers part of network.
  - Some of the health facilities particularly at border are not functional due to lack of staff, new people being taken on board.
- **Prioritization:**
  - Prioritization of Reporting sites was variable, seen in Turkana and Dadaab (Not in Nairobi).
- **Sensitization:**
  - Active case search (ACS) being done by County and District Surveillance coordinators and WHO Surveillance Officer.
  - Frequency and quality of ACS needs to be improved- As per guideline, insufficient fund for surveillance at county level.
  - IDSR training ongoing, need to sensitize frequently in view of high turnover.

AFP surveillance sensitivity

- **Weekly Zero reporting:**
  - Well functional through IDSR

- **Community surveillance:**
  - All CHWs have been trained on AFP surveillance
  - Community Health Units have been trained on Community Based Surveillance

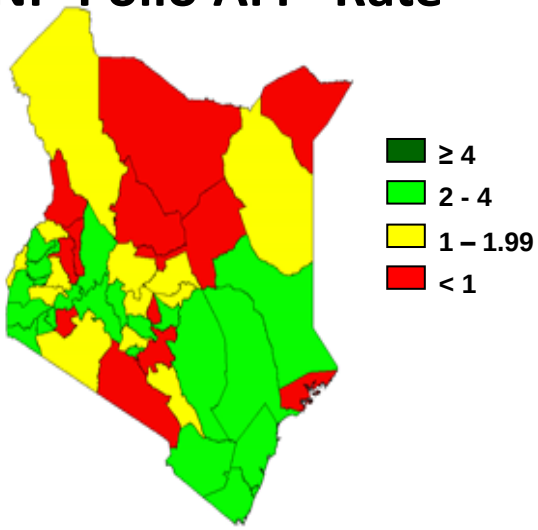
- **Cross border activities/ issues**
  - Felt need of improving cross border coordination of surveillance

AFP Surveillance Performance by Province 2013 & 2014

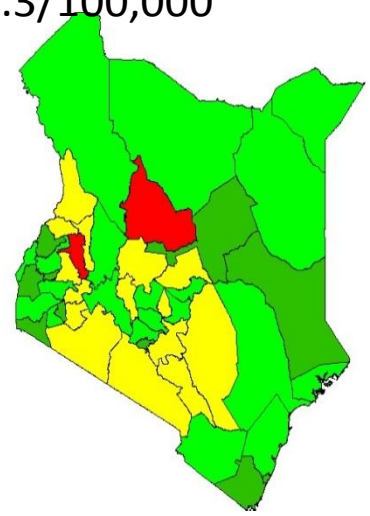
	01 Jan – 31 Dec 2013			Jan – Mar 2014		
Province	Non Polio AFP rate	Stool Adequacy (%)	NPENT (%)	Non Polio AFP rate	Stool Adequacy (%)	NPENT (%)
Central	2.23	78	17.1	1.79	100	0.0
Coast	5.15	86	17.9	2.54	100	20.0
Eastern	2.14	78	12.7	1.33	93	0.0
Nairobi	5.25	83	13.3	2.01	86	16.7
North Eastern	7.92	63	10.5	2.47	90	16.7
Nyanza	4.33	78	10.7	2.79	95	0.0
Rift Valley	1.76	83	16.7	2.03	89	4.0
Western	4.18	93	12.2	3.53	88	15.8
National	3.36	80	13.4	2.26	92	8.1

Key Surveillance Indicators, 2013-2014

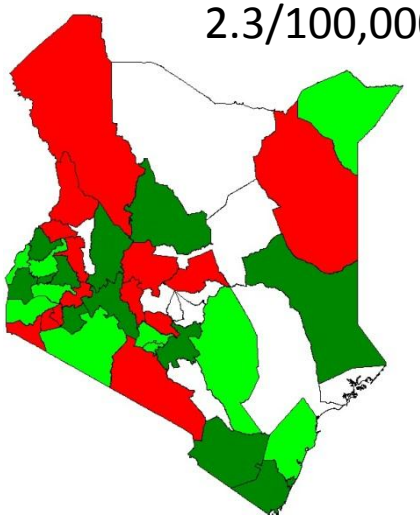
NP-Polio AFP Rate



3.3/100,000

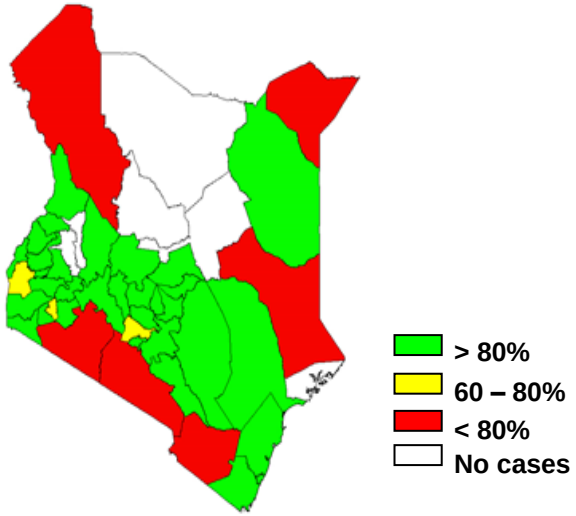


2.3/100,000

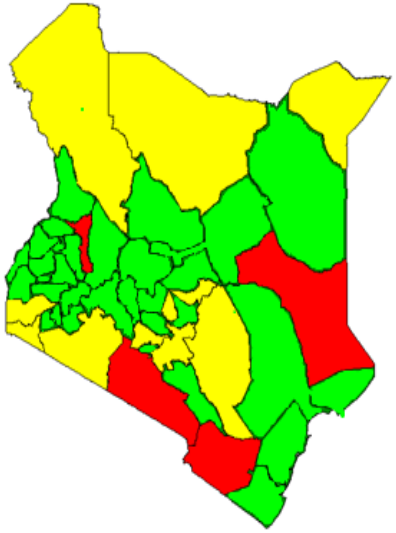


Jan-May 2013

Stool Adequacy

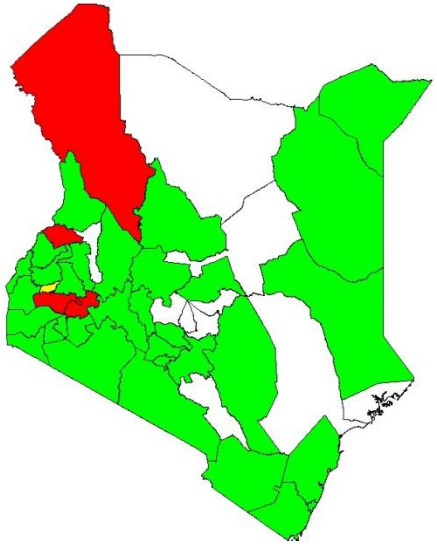


Jan- Dec 2013



2013=83%

2014* * 1st Jan-25th Mar

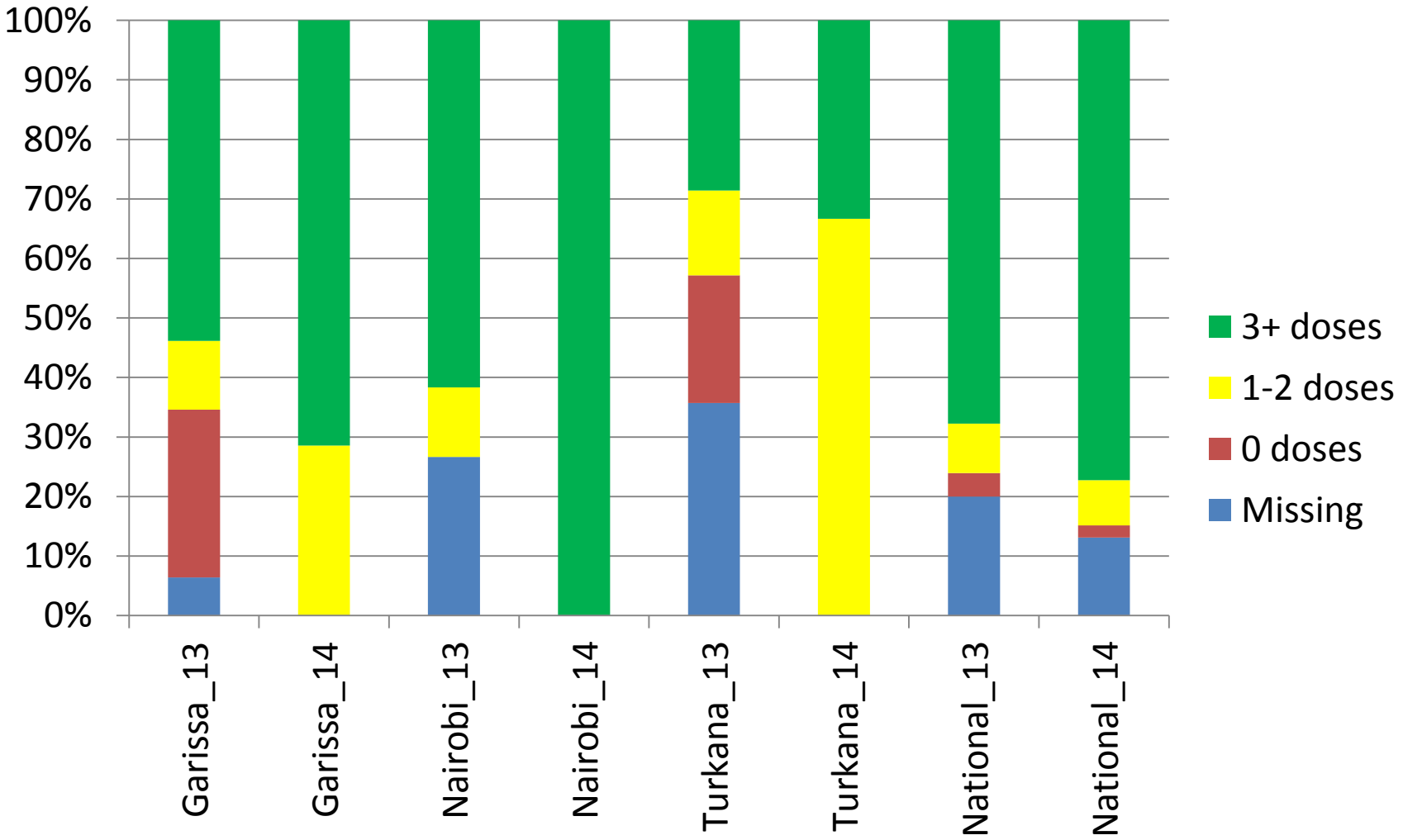


2014=92%

Key Surveillance Indicators, 2013-2014

County	Non Polio AFPrate		% Stool Adequacy		% timely Investigation		% NPENT Isolation	
Year	2013	2014	2013	2014	2013	2014	2013	2014
Garissa County	19.2	4.3	60	86	86	100	38.9	14.1
Nairobi County	5.7	2.8	83	88	85	88	12.5	11.7
Turkana County	3.2	0.0	68	33	86	100	0	11.6
National	3.4	2.3	80	89	85	92	7.0	14.3

OPV Doses in NPAFP Cases, 2013-2014



Is the communication response plan adequate to ensure the sensitization and mobilization of all targeted populations?

Communications

- Communication outbreak plan revised but not finalized yet. Documented Social Mobilization plan not available in some areas (Dadaab and Turkana)

- TV (Nairobi), Radio, Megaphone and health workers were major source of information on campaign. School strategy effective in Nairobi.

- Overall good acceptance of the vaccine; very few isolated incidences of refusals were reported/ seen by the assessment team. System of tackling refusals is in place

- Social Mobilizer structure in place, one SM for every team in camps and approximately one SM per supervisor in host community.

Communications

- Social data from IM is being used for improving communication planning. No system of collecting information on refusals in reporting format.
- Megaphones/PAS being used for messaging
- Religious leaders involved for announcements from places of worship.
- Community leaders (both in host and refugee community) engaged for mobilization
- Posters in English and Swahili language, felt need for posters to be in local language at least in refugee community.

Does the country have additional unmet financial or resource needs that need to be addressed to further strengthen the implementation of immunization and surveillance activities?

Adequacy of resources to carry out effective response activities

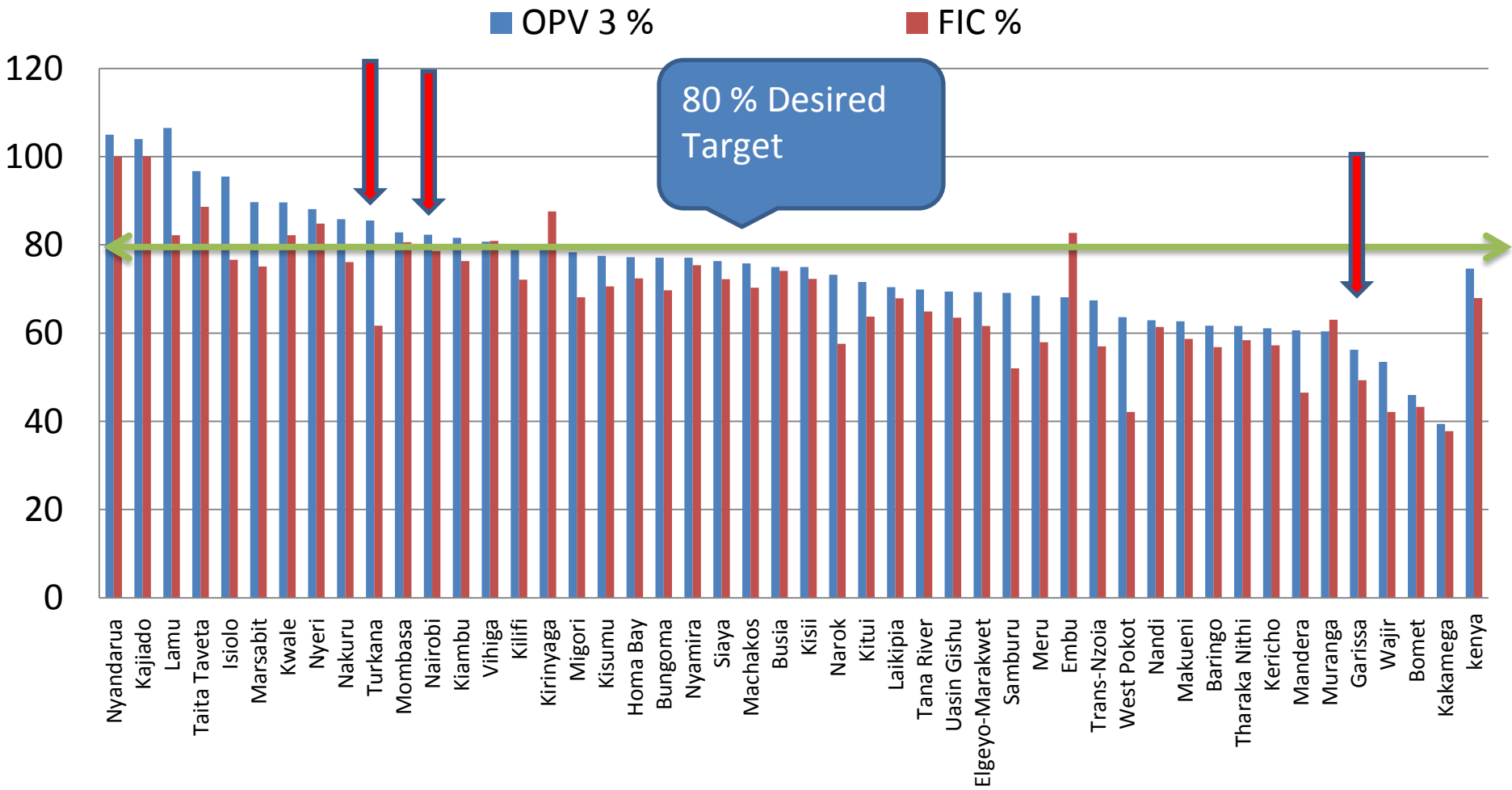
- Funding:
  - Need of increased resources for vaccination teams/ Supervisors:
    - High workload in camps
    - Missed opportunity for children in transit/ nomads
  - Timely availability of funds

- Human Resources:
  - High level of vacancies in some of hard to reach health centers and dispensaries
  - New recruitment in process

- Increased technical support to outbreak and high risk area:
  - Deployment of regular staff from partners
  - Frequent technical support visit of UNICEF, WHO and MoH national level

Have the polio outbreak response activities being undertaken in a manner that would strengthen routine immunization performance

2013 County RI performance on specific antigens



Routine Immunization performance

- Good system and coverage in Dadaab and Kakuma camps
- OPV3 coverage of Garissa <60% and of Turkana >80%
- Outbreak response is an opportunity to strengthen routine immunization
  - Has not been well capitalized

What are the remaining risks to stopping the outbreak and for further spread ?

Risks

- Unreached nomads and children in transit
- Population movement across borders
- Operational gaps particularly micro-planning (resources and planning) and suboptimal revisit strategy for missed children.
- Low OPV3 coverage in high risk areas.
- Security compromised areas around border.
- Suboptimal surveillance at sub national level in critical area

Conclusions

Conclusions (1)

The assessment team commends the strong outbreak response, including use of IPV and believes that with present level of commitment outbreak can be stopped.

However, there is strong risk of re-importation and program should strengthen strategies to mitigate this risk.

Many of the recommendations from 1st outbreak response assessment have been implemented. The recommendations related to micro-planning, training, nomadic population, permanent vaccination points and surveillance need to be fully implemented.

Conclusions (2)

- Appropriate, well coordinated outbreak response activities were conducted.
- Coverage in SIAs has been above 90% but there are operational gaps (including micro-planning & supervision) and children outside house & in transit are being missed.
- Nomadic, transit and cross border strategies need to be implemented/ strengthen further; adequate resources to be allocated.
- Good surveillance network in place with strong ownership from Government, need to strengthen Active Case search
- Good social mobilization structure in place with overall high acceptance of vaccine; need to improve communication planning.
- Low RI coverage in high risk areas is a risk; outbreak response could be used as opportunity.

Recommendations

Recommendations…1

Assessment team encourages to continue and strengthen outbreak response activities including risk mitigation measures for re-importation and sustain good coordination among stakeholders

1. As recommended in previous assessment, deploy/ strengthen permanent vaccination points around border/ refugee camps to vaccinate incoming population
2. Complete micro-planning exercise to include team movement plan and adequate resources assessment/ allocation before the next SIA.
3. In commensurate with declaration of polio outbreak as public health emergency, domestic resources should be mobilized to ensure sufficient funding for SIA, surveillance and other important programmatic activities.
4. Strengthen Nomadic population coverage and transit strategies.

Recommendations…2

5. Focussed training of vaccinators and supervisors particularly on missed children and supervision technique.

6. Strengthen field level communication planning

7. Strengthen active case search in health facilities and community based surveillance.

8. Urgent and strong steps to improve routine immunization in high risk areas, including demand generation.

9. Ensure timely availability of funds from National to sub county level.

10. Sustain motivation of all involved in the outbreak response activities, particularly field level workers.

6 Months after last WPV1 in HOA, 6 Month Outbreak Response assessment will be done in Kenya, Somalia and Ethiopia to declare closure of outbreak.

Thank you