Status of Outbreak Vulnerable Countries

Hamid Jafari, WHO
Robert Linkins, CDC

Independent Monitoring Board Meeting
7-8 May, 2013
Non-Endemic Vulnerable & At-Risk Countries

• Recently infected countries (Niger, Egypt)
• Vulnerability and risk assessments
• Countries at risk for WPV/cVDPV outbreak
• Examples of regional risk management
• Maintaining support, building on polio
The only new WPV outbreak in 2012
• 1 case, onset 15-Nov in Tahoua;
• ‘Orphan' virus linked to Kaduna;
• 4 SIAs after case onset:
  • NID (23-Nov-2012)
  • SNID 15-Jan, bOPV (map)
  • NID 02-Feb, bOPV
  • NID 02-Mar, tOPV
• NP-AFP rate:
  • 2012: 4.4
  • 2013: 6.4
• No additional cases

Data in HQ as of 02 May 2013
WPV1 detection in Cairo environmental samples

- WPV1 in samples taken 2 and 6 December in 2 districts
- Strains 99.6% similar to recent Pakistan WPV1
- 3 SIAs after detection:
  - SNID 2 Feb, tOPV in 2 districts
  - SNID 10 Mar, mOPV1 all Cairo
  - SNID 14 Apr, mOPV1 all Cairo

Map showing Al Salam and Al Haggana locations.
WPV1 detection in Cairo environmental samples

- H-H case search
- NP-AFP: 3.2, Cairo 2.8 stool adequacy > 90%
- Increased env. sampling
- No further WPV detection

Epid. week | Nov 42 43 44 45 46 47 48 | Dec 49 50 51 52 | Jan 1 2 3 4 5 6 7 8 | Feb 9 10 11 12 | Mar 13 14 15 16 | Apr 17 18 19

CAIRO - AIN SHAMS
CAIRO - ALAMIRIA
CAIRO - ALHAGGANA
CAIRO - ALSALAM
CAIRO - ALTEBEEN

GIZA - AL WASLA
GIZA - ALESHREEN
GIZA - ALHARAM
GIZA - ALMOHEET
GIZA - ALSAFF
GIZA - STATION

QALIOBIA - BANHA
QALIOBIA-SHOBRA ALKHIMA

= wild poliovirus  |  = pending result  |  = negative
Global and Regional Risk Assessments

<table>
<thead>
<tr>
<th>Global Risk Assessment</th>
<th>Regional Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Purpose: to prioritize human, financial and vaccine resources</td>
<td>• Purpose: to assess program gaps, plan mitigation steps</td>
</tr>
<tr>
<td>• Mainly based on:</td>
<td>• Mainly based on:</td>
</tr>
<tr>
<td>– Proximity to current transmission</td>
<td>– Population immunity (RI + SIAs)</td>
</tr>
<tr>
<td>– History of outbreaks</td>
<td>– Surveillance quality</td>
</tr>
<tr>
<td>– Recent SIAs</td>
<td>– Other factors - history of outbreaks, preparedness</td>
</tr>
<tr>
<td>– Emergencies/crises</td>
<td></td>
</tr>
</tbody>
</table>
Assessing and Mitigating Risks in Polio-Free Areas

• Global Risk Assessment
  – Quarterly teleconference on SIA prioritization and allocation of resources
  – Representatives from all GPEI partners participate

• Regional Risk Assessment Working Group
  – Works with regional offices on assessments and follows mitigation actions
Risk Assessments in Polio-Free Areas: Priorities and Actions Taken

• Success in approach over past year:
  – Fewer international outbreaks (Niger & Kenya)
  – Special SIAs financed in risk areas of W Africa
  – Management of short OPV supply in Q3 2012 & Q1 2013

• Maintained global visibility and transparency about risks
  – Regional assessments presented to certification and advisory committees, used for advocacy with governments
2013 OPV supply vs Demand Status as of updated 18 June SIA schedule (PQ suppliers only) (Demand 1,067B doses)

- Demand as per 18 June full SIA scenario. Total demand 1,067B doses compared to 1,175B doses in tender document (58M doses less due to Pakistan demand met with 2012 supply for Jan, and revised numbers overall, and additional 40M doses less in Q4 under 18 June SIA scenario.
- Supply includes pre-qualified offers only, and include the reduction of 67 mds in offered supply from Novartis.
- Shortfall throughout the year, but positive balance at year end > 90M doses.
- Current supply from registered suppliers: sufficient to meet demand for Nigeria and Pakistan (assuming Sanofi bOPV acceptable in Nigeria)
- Assumes zero balance from 2012
Current demand and supply: before and after mitigation measures

bOPV - Before

bOPV - After
Vulnerable and At-Risk Countries
Global Review
Note: District infected in each outbreaks counted only once. Nigeria excluded.
Risk of Cross-border cVDPV Outbreaks
Circulating Vaccine-derived Poliovirus*, Previous 6 Months**

**01 Nov 2012 – 30 Apr 2013
Data in WHO HQ as of 30 April 2013

cVDPV2 (22 cases)
Only WPV endemic, re-established, and WPV importation belt countries are mapped.

Quality of AFP Surveillance to Detect WPV & cVDPV

**Surveillance Index** = NP-AFP Rate × Stool Adequacy Rate / 100

- <1
- 1 – 1.99
- >=2
- No data
Examples of Regional Vulnerability Assessments and Mitigation Activities

- South-East Asia Region
- Eastern Mediterranean Region
- African Region
South-East Asia Region Risk, May 2013

- High risk
- Medium risk
- Low risk
## South-East Asia: High Risk Countries Mitigation Actions

<table>
<thead>
<tr>
<th>Priority Countries</th>
<th>Immunization</th>
<th>Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepal</td>
<td>NIDs (September/October)</td>
<td>SEA-RCCPE technical and advocacy visit (January)*</td>
</tr>
</tbody>
</table>
| Indonesia          | No NID/SNIDs planned for 2013 | EPI/VPD surveillance review (June) 
SEA-RCCPE technical and advocacy visit (June)* |

*The South-East Asia Region Certification Commission for Polio Eradication (SEA-RCCPE) has planned technical support and advocacy visits to each country in 2013 as part of their polio-free certification activities: Nepal (January) Timor-Leste (February), Bhutan (April), Indonesia (June), Thailand (June), Bangladesh (July), Myanmar (August), and DPRK (September)*
Eastern Mediterranean Region Risk, May 2013

Risk Interpretation (Score)
- High ( <50%)
- Medium (50–74%)
- Low ( ≥75%)
## Eastern Mediterranean Region: High Risk Countries Mitigation Actions

<table>
<thead>
<tr>
<th>Country</th>
<th>Immunization</th>
<th>Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebanon</td>
<td>SNIDs Jan 2013 in border provinces with Syria SNIDs Mar 2013</td>
<td>Planned surveillance review</td>
</tr>
<tr>
<td></td>
<td>SIAs Q1 2013 north and SCZ</td>
<td>Monitoring of reverse cold chain in S &amp; C zones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Somalia surveillance review Mar 2013 Planned follow-up outbreak assessment Jun 2013</td>
</tr>
<tr>
<td>South Sudan</td>
<td>NIDs Nov &amp; NIDs Dec 2012 NIDs Mar &amp; NIDs Apr 2013</td>
<td></td>
</tr>
<tr>
<td>Yemen</td>
<td>SNIDs Nov 2012 NIDs Jan 2013</td>
<td>Planned follow-up outbreak assessment/ surveillance review May 2013</td>
</tr>
<tr>
<td></td>
<td>SIAs in 7 priority governorates in May due to cVDPVs</td>
<td></td>
</tr>
</tbody>
</table>
African Region Risk, May 2013

Source AFRO: Countries’ risk assessment report submitted to AFRO in a quarterly basis
## African Region: Mitigation Actions

### West Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Immunization</th>
<th>Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niger</td>
<td></td>
<td>3 month outbreak assessment</td>
</tr>
<tr>
<td>Ghana, Cape Verde, Guinea Bissau</td>
<td></td>
<td>Surveillance reviews (planned)</td>
</tr>
<tr>
<td>Cote d’Ivoire, Mali</td>
<td></td>
<td>External reviews</td>
</tr>
<tr>
<td>Benin, Burkina Faso, Cote D’Ivoire, Guinea, Mali, Sierra Leone, Liberia</td>
<td>Synchronized SIAs in April and May</td>
<td></td>
</tr>
<tr>
<td>Ghana, Senegal, Gambia, Togo, Guinea Bissau, Mauritania</td>
<td>Synchronized SIAs in May</td>
<td></td>
</tr>
</tbody>
</table>
### African Region: Mitigation Actions
**Central Africa**

<table>
<thead>
<tr>
<th>Country</th>
<th>Immunization</th>
<th>Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRC</td>
<td>SIAs in June, July</td>
<td>Training in Orientale, Bandundu, Bas Congo, K. Orientale, Nord Kivu, Sud Kivu in May 2013</td>
</tr>
<tr>
<td>CAR</td>
<td>SIAs delayed since Dec 2012 due to insecurity</td>
<td>EPI review 2012, evaluation Q3 2013</td>
</tr>
<tr>
<td>Cameroon</td>
<td>SIAs in Far North, North, and Adamaoua in April, May 2013</td>
<td></td>
</tr>
<tr>
<td>Angola</td>
<td>SIAs in April and May</td>
<td></td>
</tr>
<tr>
<td>Chad</td>
<td>SIAs in April, May, June</td>
<td>Post 12-month WPV and 6-month cVDPV assessments Q3</td>
</tr>
</tbody>
</table>
## African Region: Mitigation Actions
### Horn of Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Immunization</th>
<th>Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>SIAs postponed to Q4</td>
<td>EPI review May 2013</td>
</tr>
<tr>
<td>Eritrea</td>
<td>SIAs April and May in high risk districts</td>
<td>Cross border coordination meeting with Sudan in Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPI review 2012, evaluation Q3 2013</td>
</tr>
<tr>
<td>Uganda</td>
<td>SIAs postponed to Q3 2013</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>SIA in Q3 2013</td>
<td></td>
</tr>
</tbody>
</table>
Maintaining Support & Building on Polio in Outbreak Vulnerable Countries
Maintaining Support

- Ongoing SIAs and program support by risk
- No reduction in staff
- No reduction in planned financing, 2013-14
- Increasing support for immunization systems
Building on Polio – Strategic Plan 2013-18

• 10 focus countries for immunization support
  – 50% of polio staff time
  – Management, micro-planning, mobilizing, monitoring
  – 10% year-on-year coverage increase in HR districts

• Support tOPV withdrawal and IPV introduction

• Cross-agency Immunization Management Grp
Africa

• Integrated communicable disease surveillance
• Outbreak detection
• Measles, YF and meningitis campaigns
• Routine immunization
• Bed nets, deworming
Inclusion of ~400,000 migratory and settled high risk areas in RI micro-plans

- Immunization Weeks 2012: ~5 million
- 4 Immunization Weeks planned for 2013
Measles/Rubella Surveillance Built on AFP Surveillance, India

Serologically confirmed# measles, rubella and mixed outbreaks

- Measles outbreaks confirmed
- Rubella outbreaks confirmed
- Mixed outbreaks confirmed

Outbreak confirmation for Measles: ≥ 2 cases IgM positive for measles, Similarly for Rubella

Surveillance started from June, 2011 in Bihar and July 2011 in Assam and Jharkhand

2011

- 232 outbreaks
- 199 Measles outbreaks confirmed
- 20 Rubella outbreaks confirmed
- 13 Mixed outbreaks confirmed

2013*

- 18 outbreaks
- 13 Measles outbreaks confirmed
- 4 Rubella outbreaks confirmed
- 1 Mixed outbreaks confirmed

105m children vaccinated in high burden states
Routine DPT3/OPV3 Coverage, Somalia

Contribution of Child Health Days
Summary

- No further virus spread in Egypt and Niger
- Global risk assessments
- Resources prioritized for countries at risk
- Regional vulnerability assessment
- Support and advocacy for vulnerable countries
- No scaling back in risk countries
- Countries building on polio