Interruption of Poliovirus Transmission Progress and Risk Management

SAGE 9 April, 2013
Department of Polio Operations & Research, WHO
Outline

• Status of wild and vaccine derived poliovirus transmission

• Poliovirus transmission and security threats

• Strategies to manage security risks and social acceptance
Questions for SAGE

strategic approach to manage security threats in Pakistan, Nigeria, Afghanistan and Somalia?

• How should the program ensure that stopping cVDPVs is pursued with the same urgency as interrupting WPV?
WPV cases last 6 months

WPV cases to date
2012 vs. 2013

Cases

Nigeria  Pakistan  Afghanistan  Chad

2012 - YTD  2013 - YTD

Nigeria  Pakistan  Afghanistan  Chad
Polio, WPV type 3 cases

All type 3 cases in last 11 months were in Nigeria

* 2012: Nigeria = 19 cases (most recent 10 Nov); Pakistan = 3 cases (most recent 18 Apr)
WPV Re-established & Re-infected Countries

- Angola: ‘off the list’ – last case July, 2011
- DRC: ‘off the list’ – last case December, 2011
- Chad: most recent case June 2012

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- Niger: Single WPV1 importation related case – November 2012
- Egypt: WPV1 (Pak) detected in Env. samples in December 2012 – subsequent samples negative
Circulating Vaccine-Derived Poliovirus (cVDPV)
Circulating Vaccine-derived Poliovirus, Previous 6 Months*

*03 Oct 2012 – 02 Apr 2013
Stopping cVDPV

• All cVDPV in previous 6 months are type 2

• Chad:
  – lingering cVDPV of concern
  – TAG: Additional SIAs, improve RI & quality of SIAs

• Somalia: Access improving, challenges remain

• Afghanistan, Pakistan and Nigeria:
  – WPV interruption given priority in low season
  – More aggressive tOPV campaigns in Q3 & Q4, 2013
Interrupting Poliovirus Transmission in Insecure Areas
Attacks on health workers

Nigeria polio vaccinators shot dead in Kano

Nine female polio vaccinators have been killed in two shootings at health centres in northern Nigeria, police have told the BBC.

In the first attack in Kano the polio vaccinators were shot dead by gunmen who drove up on a motor bicycle.

Thirty minutes later gunmen targeted a clinic outside Kano city as the vaccinators prepared to start work.

The New York Times

Gunmen in Pakistan Kill Women Who Were Giving Children Polio Vaccines
Adverse Impact of Insecurity on SIAs

• Security and motivation of health workers
• Coverage and quality
• Loss of ability to monitor and conduct LQAS
• Fluid implementation
• Inaccessible areas
Understanding and Managing Security Threats

• Each country and each area has unique political and social determinants of insecurity

• Three major types of insecurity:
  – Armed conflict between warring parties
  – Attacks by militant insurgents
  – Criminal violence

• Contributing factors:
  – Specific political issues - drone attacks, intel ruse
  – Misinformation around polio vaccine
  – Local disputes
### Specific Determinants of Insecurity for Polio

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Nigeria</th>
<th>Pakistan</th>
<th>Afghanistan</th>
<th>Somalia</th>
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</thead>
<tbody>
<tr>
<td>Warring parties</td>
<td>±</td>
<td>++</td>
<td>+++</td>
<td>+++++</td>
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<tr>
<td>Targeted Attacks</td>
<td>+++</td>
<td>++++</td>
<td>+</td>
<td>±</td>
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<tr>
<td>Criminal Violence</td>
<td>++</td>
<td>+</td>
<td>++</td>
<td>+</td>
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<tr>
<td>Political Issues</td>
<td>+</td>
<td>++++</td>
<td>+</td>
<td>+</td>
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<tr>
<td>OPV concerns</td>
<td>++++</td>
<td>++</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Local Disputes</td>
<td>-</td>
<td>+</td>
<td>++++</td>
<td>++</td>
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</table>
Security Management Principles

• Security management is largely local
• Government commitment essential
• Local authorities key to ensuring security
• Support of local community is crucial
• Program neutrality important
• Review and update strategies every 6 months
Strategic Framework for Managing Security

• Security coordination committees
  – Ongoing analysis and local threat assessment
  – Disaggregation and mapping of epidemiologic and security risks
  – Integrated security and Ops planning

• Operational adjustments in SIAs
  – Speed, phasing
  – fixed vs H-H
  – low profile, tailored communications, local staff
  – Short interval dosing
Strategic Framework for Managing Security - 2

• Community engagement
  – Soc mob, community leaders, local imams
  – PolioPlus, Routine Immunization, fast track services

• Engagement of Islamic religious leadership
  – Islamic Advisory Group initiative
  – leadership of Al Azhar and Islamic Fiqh Academy

• Containment measures for inaccessible areas
  – Vaccination of children in transit, firewallsing
  – Permanent polio teams
  – Civil-Military cooperation
Pakistan: WPV Cases in the last 6 mos

- Militant ban on vaccination
  - ~240,000 children not accessed since June 2012
- Attacks on polio workers
- Attacks on polio workers
Highest Risk and Insecure Areas
Khyber Pakhtunkhwa (KP) Province

• 4 districts
• 145 of 286 Union Councils high threat
• Population <5: 870,000

Pakistan <5 pop: 33m
Polio High Risk Areas - Karachi

- 30 of 188 Union Councils
- Population <5: 500,000

High threat:
- UC 4 Gadap
- 60,000 children

18 Karachi Towns
Total <5 pop: 2.2 m
No. of SIAs conducted in 2013 – Priority 1 areas
Pakistan (1\textsuperscript{st} Jan to 31\textsuperscript{st} Mar)

3-5 SIA rounds conducted after the attacks

Note: Analysis includes the districts covered during case responses
Trend of lots not rejected in LQAS, Pakistan

Jan 2011 to Mar 2013 *

Note: LQAS not conducted in Karachi since Dec 2012

Note: No LQAS conducted all over Pakistan in Dec 2012

- Cross-border transmission and insecurity (15-25,000 children inaccessible)
- Endemic transmission
  11 Low Performing Districts

Infected districts
Inaccessible Children in 11 Low Performing Districts
Kandahar & Helmand June 12 – March 13

Inaccessibility and poor performance in three districts related to disagreement on staff selection between AGE and government plus gaps in management.
### Mapping Inaccessibility in Southern Region Afghanistan
**Sept 2012-Mar 2013**

#### Campaigns and Total Inaccessible Children

<table>
<thead>
<tr>
<th>Campaigns</th>
<th>Total Inaccessible children</th>
<th>On going fight</th>
<th>AGE not supportive</th>
<th>Perception of fear</th>
<th>Management issues</th>
</tr>
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<tbody>
<tr>
<td>NIDs Sep 2012</td>
<td>59,372</td>
<td>15,059</td>
<td>16,500</td>
<td>8,038</td>
<td>19,775</td>
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<td>NIDs Oct 2012</td>
<td>44,198</td>
<td>6,364</td>
<td>20,139</td>
<td>11,203</td>
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<td>SNIDs Jan 2013</td>
<td>37,267</td>
<td>356</td>
<td>8,132</td>
<td>1,702</td>
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<td>SNIDs Feb 2013</td>
<td>51,850</td>
<td>194</td>
<td>2,970</td>
<td>581</td>
<td>48,105</td>
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<td>NIDs Mar 10-12, 2013</td>
<td>17,138</td>
<td>708</td>
<td>7,606</td>
<td>1,800</td>
<td>7,024</td>
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</table>
LGAs in High Risk States with inaccessible children during SIAs due to insecurity, Q4 2012-Q1 2013

4-8 of 107 VHR LGAs with inaccessible pops during SIAs from Oct 2012 to Feb 2013
Number of children (0-59 mo) inaccessible in High Risk States during SIAs due to insecurity, Q4 2012-Q1 2013

- Sharp increase in March 2013 was due to state-wide cancellation of the March SIAs in Borno and Kano following killing of polio vaccinators in the 2 states in Feb 2013
- SIAs will resume in Kano and Borno next week – 13 April

Total Target Pop Nigeria: >50 M
NID Coverage and Inaccessible Areas, Somalia
January 2013

380,000 of 1M target children accessible in South-Central Zone
Summary

• Recent security incidents a new reality and risk
• Strong responses from governments (PAK, NIE)
• SIAs conducted in areas of attack in Pakistan and will resume in all targeted areas of Nigeria in April
• GPEI priorities:
  – health worker and staff safety
  – minimize impact on SIA quality
  – restore ability to monitor
  – tailored application of strategic framework
• Somalia – inaccessibility is a continuing risk
Extra-ordinary contingencies beyond 2014

• IHR travel recommendations

• Extraordinary investments in negotiations and to incentivize days of tranquility

• Mass vaccination of expanded age groups with IPV using jet injectors

• Militarization of final campaigns
Questions for SAGE

• Are there any significant gaps in the program’s strategic approach to manage security threats in Pakistan, Nigeria, Afghanistan and Somalia?

• How should the program ensure that stopping cVDPVs is pursued with the same urgency as interrupting WPV?