Polio Update
2000
- 82% of infants worldwide received three doses of oral polio vaccine (OPV)

2001 and 2002
- The figure declined to 75%

2003
- 55 countries conducted Supplementary Immunization Activities (SIAs), reaching 415 million children
All countries presently and previously endemic for polio have active Acute Flaccid Paralysis (AFP) surveillance systems. Globally, the AFP rate was 1.9 per 100,000 persons ages <15 years at the end of 2003. This compares to an expected background rate of 1 per 100,000. Proportion of suspected cases with adequate stool specimens was 86%.
Case Study: AFP Surveillance in Africa

- African Region countries introduced active AFP surveillance in 1995
- By 1999, 38 countries were regularly reporting AFP and other polio surveillance data to WHO
- Countries adopted an Integrated Disease Surveillance and Response strategy, centralizing and coordinating core surveillance activities for polio, AFP, and other communicable diseases
Case Study: AFP Surveillance in Africa

- Core surveillance activities
  - Case detection, registration, confirmation
  - Reporting, analysis, use, and feedback of data
  - Epidemic preparedness and response
- Other diseases included measles, neonatal tetanus, yellow fever, meningitis, cholera
Nsubuga et al (2002) surveyed key informants in 32/38 participating countries to assess the integrated system

Findings

- 31/32 countries had designated AFP surveillance officers (median 10/country)
- 27/32 countries reported median annual AFP surveillance budget of $US 125,000
- 26/32 countries had at least one vehicle designated for AFP surveillance
### Surveillance Integration Indicators, 32 African Countries 2000

<table>
<thead>
<tr>
<th>Attribute</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use AFP resources for surveillance of other diseases</td>
<td>26</td>
<td>(81)</td>
</tr>
<tr>
<td>Combine detection of other diseases with AFP</td>
<td>28</td>
<td>(90)</td>
</tr>
<tr>
<td>Inform clinicians about other diseases when informing about AFP</td>
<td>27</td>
<td>(87)</td>
</tr>
<tr>
<td>Use AFP lab transport system for other diseases</td>
<td>14</td>
<td>(44)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

Source: Nsubuga et al 2002
Case Study: Findings

- Findings
  - 15/32 countries had attained AFP surveillance system sensitivity above the benchmark (non-polio AFP rate=1/100,000 children aged <15 yrs)
  - 11/15 adequate performing countries had added 2–5 other diseases to their AFP surveillance programs

- Conclusion
  - Integration is feasible without adversely affecting AFP surveillance
At the end of 2003, there were 682 polio cases reported from six countries:

- Afghanistan
- Egypt
- India (220 cases)
- Niger
- Nigeria (305 cases)
- Pakistan (99 cases)
Recrudescence

- Rumors and resistance led to cessation of polio vaccination in Northern Nigeria in mid 2003
- Result: poliovirus spread to 31/37 Nigerian states and to 12 other previously polio-free African countries
- Coverage in those countries was not high enough to prevent transmission
- 355 new polio cases in Nigeria in 2003
Additional cost of control activities in the 10 affected African countries: $25 million

Current goal: interrupt wild poliovirus transmission worldwide by the end of 2004

Risks
- Surveillance and house-to-house “mop-up” vaccination efforts will lapse
- The two remaining endemic countries (Niger, Nigeria) will not reach 90% coverage
## Polio Progress Report

### Virus-Confirmed Polio Cases

<table>
<thead>
<tr>
<th>Region</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>446</td>
<td>162</td>
</tr>
<tr>
<td>Nigeria</td>
<td>355</td>
<td>133</td>
</tr>
<tr>
<td>Nigeria</td>
<td>41</td>
<td>12</td>
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<tr>
<td>East Mediterranean</td>
<td>113</td>
<td>15</td>
</tr>
<tr>
<td>Pakistan</td>
<td>103</td>
<td>12</td>
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<tr>
<td>Afghanistan</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Egypt</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>225</td>
<td>8</td>
</tr>
<tr>
<td>India</td>
<td>225</td>
<td>8</td>
</tr>
<tr>
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<td>European</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>West Pacific</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Worldwide</td>
<td>784</td>
<td>185</td>
</tr>
</tbody>
</table>

* as of May 8, 2004
23 Western and Central African countries will hold synchronized national immunization days in Fall, 2004, and early 2005 in a bid to end polio transmission on the continent.

Once transmission is interrupted, experts will decide on the best strategy to stop the use of OPV so that no vaccine-derived polioviruses will be circulating.