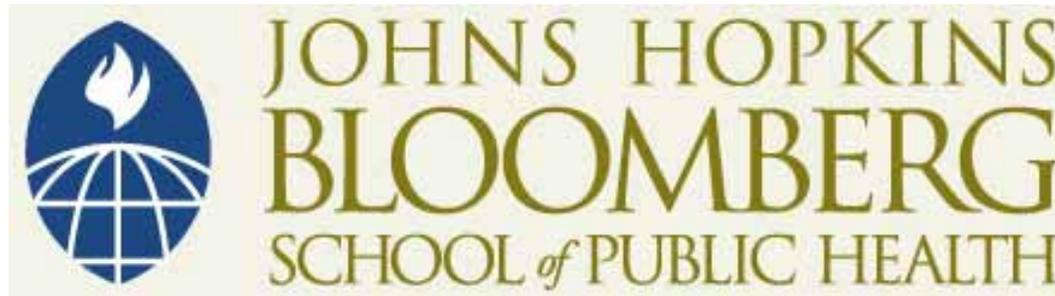


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Eradication, Part 1: Polio

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Section D

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

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

Source: Nsubuga et al 2002

Continued

- 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)

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

* 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