



POLIO ERADICATION

EPI-SA FACT SHEET

(February 2004 update)



Following the success of smallpox eradication, polio was resolved to be the next disease to be eradicated. In 1988 the World Health Assembly set a goal for the global eradication of polio by 2000 and later changed it to 2005.

1. POLIO DISEASE

Polio is a highly infectious disease caused by the poliovirus. The virus mostly affects children below the age of five years, however any person who does not have immunity to polio, may be affected.

The initial signs and symptoms of polio include fever, fatigue, headache, vomiting, constipation or less commonly diarrhoea, neck stiffness and pain in the limbs. Sudden flaccid paralysis.

In most severe cases, the poliovirus attacks the motor neurons of the brain stem, reducing breathing capacity and causing difficulty in swallowing and speaking. Without adequate respiratory support, this form of polio, called bulbar polio, can result in death.

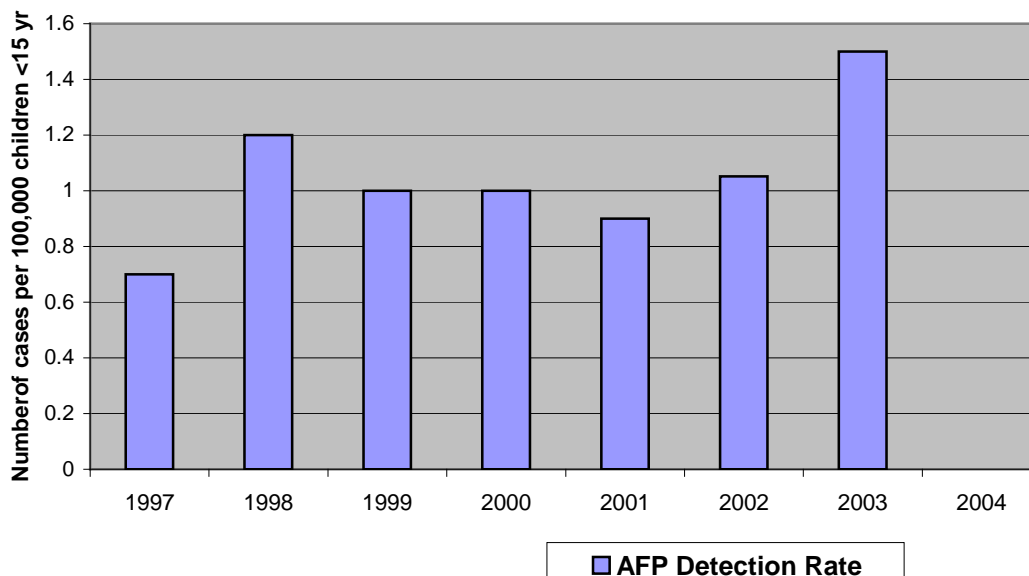
Polio cannot be cured but it can be prevented. Five doses of Oral Polio Vaccine (OPV) will protect a child for life.

2. POLIO STATUS IN SOUTH AFRICA

Progress made in South Africa is as follows:

- The last laboratory confirmed case of polio was in 1989
- Acute Flaccid Paralysis (AFP) has been notifiable since 1994
- Case investigation surveillance was instituted in 1995
- National polio immunisation campaigns were conducted in 1995, 1996, 1997 and 2000. In 2002 a provincial polio campaign was conducted in Western Cape because the province did not participate in the 2000 campaign.

AFP Detection Rate from 1997 - 2003
(TARGET= 1 case for every 100,000 of the <15 population)



3. RATIONALE FOR POLIO ERADICATION

Polio can be eradicated for the following reasons:

- Polio affects only humans, there is no animal reservoir
- Effective, safe and inexpensive vaccine is available
- No long term carrier state exists
- Immunity is life long
- The poliovirus survives only for a short time in the environment outside the human body.

4. STRATEGIES

Polio eradication is based on four strategies:

- a) High routine coverage with oral polio vaccine (OPV):
The World Health Organisation (WHO) target is >80% of OPV3 and South Africa set a target of 90%
- b) Mass immunisation campaigns:
Mass polio immunisation campaigns are conducted to rapidly interrupt possible chains of polio transmission. All children 0-59 months of age, irrespective of their immunisation history are immunised with two doses of OPV during two rounds
- c) “Mopping-up” campaigns
Mopping-up is the house-to-house vaccination of all children 0-59 months within a high-risk geographic area or population with two doses of OPV, regardless of previous immunisation history.
- d) High Quality AFP surveillance
The primary purpose of AFP surveillance is to -
 - Find / detect cases of polio due to wild poliovirus if they were to occur and
 - Show that if cases with wild polioviruses existed, they would be detected.

5. CRITERIA FOR ACHIEVING POLIO-FREE CERTIFICATION

- A minimum AFP detection rate of 1 per 100,000 children under 15 years of age (with good geographical distribution of cases)
- At least 80% of AFP cases have 2 X 5 gram stool specimens taken 24 to 48 hours apart within 14 days after onset of paralysis, AND reach the National Institute of Communicable Disease (NICD) laboratory on ice within 3 days.
- At least 80% of AFP cases without adequate stool collected should have a follow up examination after 60 days.

6. ROLE OF HEALTH WORKERS

Health workers and communities can assist:

- By reporting every case of Acute Flaccid Paralysis even if he/she is convinced that the paralysis is not caused by the poliovirus
- By ensuring that 2 X 5 gram stool specimens are collected from each case a minimum of 24 hours apart, within 14 days of onset of paralysis, and sent on ice to the National Institute for Communicable Diseases (NICD) laboratory.

7. ROLE OF MEDIA & COMMUNITIES

- The media is the most influential advocacy vehicle and plays key roles in mobilising public support. Issues around immunisation reaching the public widely through radio, television and newspapers
- Parents and the community can assist by reporting any child younger than 15 years, with sudden weakness or paralysis in the leg(s) and /or arm (s) that was not caused by injury
- All parents and caregivers must take their children for oral polio vaccine at the correct ages.

**FOR FURTHER INFORMATION CONTACT:
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