

# IMMUNISATION AWARENESS CAMPAIGN 2001

EPI(SA) & AVENTIS PASTEUR PARTNERSHIP



## EPI(SA) FACT SHEET POLIO ERADICATION



### 1. GOALS AND OBJECTIVES

Following the success of the eradication of smallpox, poliomyelitis was resolved to be the next disease to be eradicated at the 41<sup>st</sup> World Health Assembly in 1988. The goal was set for the *global eradication of polio by the year 2000*. South Africa set the goal to eradicate polio by the year 1998.

A global Certification Commission has been established. Criteria used by the Commission for the Certification of the Eradication of Poliomyelitis in determining if polio eradication has been reached will be as follows:

- there will be no cases of clinical poliomyelitis associated with wild polio viruses;
- there will be no wild polio virus identified anywhere in the Southern African region, as determined by virological examination of AFP cases and environmental sampling; and
- the process of independent certification of polio-free status may be initiated at national and sub-regional levels, leading eventually (approximately three years after the last polio cases are confirmed) to full regional certification.

To date, progress made in attaining these goals in South Africa are as follows:

- Last virologically confirmed case of polio was in 1989
- AFP notifiable since 1994
- Case investigation surveillance instituted in 1995
- The coverage reached in the polio mass immunisation campaigns are shown in table 1.

### 2. RATIONALE FOR POLIO ERADICATION

Polio can be eradicated for the following reasons:

- Polio affects only humans, no animal reservoir
- Effective and inexpensive OPV available
- No long term carriers
- Immunity is life long
- Polio virus survives for a short time in the environment

### 3. STRATEGIES

Polio eradication is based on four strategies:

#### High routine coverage with oral polio vaccine (OPV):

Routine immunisation coverage for OPV-3 is sub-optimal and must be increased to 90%. Available information indicate OPV-3 coverage to be 71.5% (1994 vitamin A coverage survey) and 72.1% (1998 district health survey).

#### Mass immunisation campaigns:

Catch-up campaigns were initially conducted to facilitate implementation of the polio eradication strategy. The campaigns in 1995-1997 were one-time initial "catch-up" immunisations conducted to rapidly interrupt chains of polio transmission. All children 0-59 months of age, irrespective of immunisation history, were immunised with two doses of oral polio vaccine (OPV) during two rounds.

#### "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.

**Table 1: Doses given (in millions) and Coverage (% of target group), mass campaigns 1995-2000**

YEAR	ORAL POLIO VACCINE (OPV)			
	FIRST ROUND		SECOND ROUND	
	DOSES	COVERAGE %	DOSES	COVERAGE %
1995	3.8	89.6	3.3	78.0
1996	4.8	90.0	4.1	77.2
1997	4.1	81.1	3.9	76.2
2000	3.2	94.0	2.4	70.0

*Note: Western Cape did not participate in 2000 polio campaign.*

#### Quality AFP surveillance

The primary purpose of AFP surveillance is to -

- find wild poliovirus circulation where it is most likely to occur;
- show that if wild polioviruses existed, it would be found; and
- achieve the gold standard for polio-free certification.

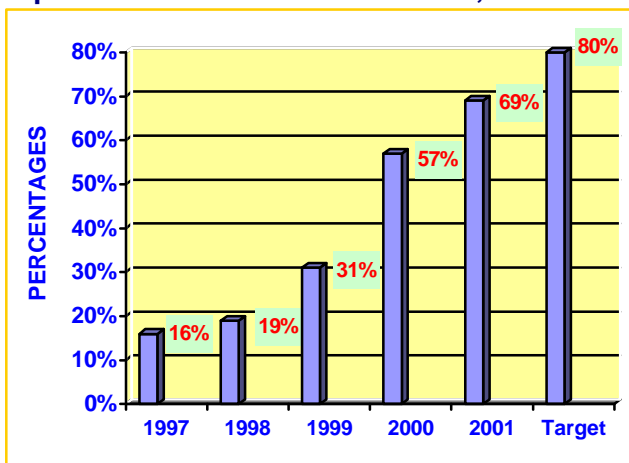
#### 4. CRITERIA FOR ACHIEVING POLIO-FREE CERTIFICATION

- 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 with 2 stool specimens taken within 14 days after onset of paralysis
- At least 80% of AFP cases with follow-up clinical examination (at 60days)
- At least 80% of routine reports (including zero-reports) received
- At least 80% of stool specimens arrive at the laboratory in "good" condition
- At least 80% of specimens arriving at a WHO accredited laboratory within 3 days of collection and laboratory results are sent back within 28 days of receipt

#### 5. PROGRESS WITH AFP SURVEILLANCE

Performance with AFP surveillance in South Africa during 1997-2001 are illustrated below.

Graph 1 . AFP Stool Collection: SA, 1997-2000



#### 6. DISEASE

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

The virus causes paralysis, which is almost irreversible. The disease follows infection with any of three related entero-virus, which are poliovirus type 1, type 2 and type 3.

The virus enters through the mouth and multiplies inside the throat and intestines.

Polio virus is shed intermittently in faeces for several weeks. Person-to-person transmission of polio virus is high especially in areas with poor hygiene and sanitation, or at any environment where children are not yet toilet trained. It can

also be spread when food or drinks is contaminated by faeces containing the virus.

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

In most severe cases, poliovirus attacks the motor neurons of the brain stem, reducing breathing capacity and causing difficulty in swallowing and speaking. Without adequate respiratory support, 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.

#### 7. ROLE OF CLINICIANS & COMMUNITIES

Health workers and communities can assist:

- By reporting every case of Acute Flaccid Paralysis even if he/she is so convinced that the paralysis is not caused by a poliovirus
- By collecting 2 stool specimens 24-48hours apart from each case, and send them to the National Institute of Virology (NIV) within 14 days of onset of paralysis

The media is the most influential advocacy vehicle and play key roles in mobilising public support. Issues around immunisation reach the public widely through radio, television and newspapers.

Parents and the community can assist by reporting any child with sudden weakness or paralysis in the le(s) and /or arm (s), not caused by injury in a child less than 15 years of age.

**AFP toll-free Help Line - 0800 111 408.**

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