

# Polio



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Polio

## 10. Polio

### 10.1 Surveillance of Acute Flaccid Paralysis (AFP) cases from Karnataka

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#### Introduction

Laboratory Surveillance work for Global Eradication of Poliomyelitis programme was initiated by the Govt. of India in collaboration with the WHO/WHO-SEARO/WHO-NPSP in India since June 1997. NIV Field Station, Bangalore is responsible for processing all the stool specimens from Karnataka State.

#### Objectives

- To isolate and identify wild poliovirus from AFP cases from Karnataka
- To send all polio virus isolates to ERC, Mumbai for intratypic differentiation tests.
- To fulfil 7 criteria of WHO for annual laboratory accreditation by the WHO

#### Work done

During the period from April 2005 to March 2006, a total of 1459 stool specimens were received from 729 AFP cases were processed for virus isolation. No wild poliovirus was isolated during the period. Virological results of AFP cases are, Polio vaccine-30, NPEV only-246 and Negative-453. Break up of polio vaccine isolates are P1-11, P2-5, P3-4, P1+P2-1, P1+P3-7, P2+P3-1 and P1+P2+P3-1.

**Table 1: Virological results of AFP cases from Karnataka, Apr-2005 to Mar-2006**

District	No. of AFP Cases tested	Polio Vaccine virus	NPEV only	Negative
Bagalkot	27	2	10	15
Bangalore Rural	12	-	3	9
Bangalore Urban	75	2	24	49
Belgaum	37	3	7	27
Bellary	25	5	10	10
Bidar	29	1	16	12
Bijapur	35	-	16	19
Chamarajnar	22	1	6	15
Chikmagalur	13	-	2	11
Chitradurga	13	1	5	7
Dakshina Kannada	21	1	2	18
Davanagere	14	1	4	9
Dharwad	22	1	8	13
Gadag	17	-	5	12
Gulbarga	59	2	26	31
Hassan	25	1	6	18
Haveri	22	2	6	14
Kodagu	6	-	1	5
Kolar	31	1	9	21
Koppal	29	-	10	19
Mandya	16	-	5	11
Mysore	27	1	7	19
Raichur	54	2	29	23
Shimoga	10	1	3	6
Tumkur	22	-	9	13
Udupi	12	-	3	9
Uttara Kannada	13	-	4	9
<b>Total</b>	<b>688</b>	<b>28</b>	<b>236</b>	<b>424</b>

**Table 2: Virological results of AFP cases from other States investigated and tested in Karnataka, Apr-2005 to Mar-2006.**

State	No. of AFP cases tested	Polio Vaccine virus	NPEV Only	Negative
Andhra Pradesh	16	-	5	11
Kerala	4	-	0	4
Tamil Nadu	10	-	3	7
Maharashtra	9	2	2	5
Orissa	1	-	-	1
Jharkhand	1	-	-	1
Total Other States	41	2	10	29

The AFP cases were reported in all the months and apparently there is no seasonal pattern in isolations.

During the period 36 contact stool specimens from 6 index cases of 5 districts were also tested and no wild poliovirus was isolated from any of the 36 contacts specimens. Virological results were Polio vaccine-6 (P1-4, P2-1 & P3-1), NPEV only-15 and Negative-15. AFP surveillance indicator targets were fully achieved for the year.

### 10.2 WHO Accreditation for NIV Field Station, Bangalore in the WHO-SEAR Polio Laboratory Network

Polio Laboratory was fully accredited by the WHO for the year 2005-06. Criteria and targets achieved during 2005 and are presented as following:

Target	Achievement
Tests are performed on atleast 150 Stool specimens annually	1484 AFP cases stool specimen tested.
Score on annual onsite review is atleast 80%	Onsite review Score is 99%.
Test results on 80% of all AFP specimens are reported within 28 days	100% - 1484/1484 reported $\leq$ 28 days.
Accuracy of poliovirus typing is atleast 90%	100% - 58/58 polio isolated confirmed.
Atleast 80% of poliovirus isolates from AFP cases are forwarded for intratypic differentiation within 7 days	100% - 58/58 Polio isolates sent within $\leq$ 7 days
Results on most recent Proficiency Test Panel is atleast 80%	100% for Feb 2005 & March 2006
Internal Quality Control procedures are implemented atleast Quarterly	Implemented internal quality control procedures quarterly

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