

## Awareness about Vaccine Vial Monitor at Pulse Polio Booths

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*All members present on booth, working on National Immunization Day during January and February, 2007 were interviewed by using predesigned and pretested questionnaires to assess their awareness regarding type of OPV and VVM in urban areas of Valsad district. Correct identification of trivalent OPV was highest (54.8%) among health staff members working at booths, but for monovalent OPV it was poor (38.7%). More than half (51.6%) of staff members interviewed had not heard of VVM. Awareness was very poor for VVM among those who have heard regarding its function, how to read VVM and when OPV should be discarded.*

**Key words:** *Pulse polio, Vaccine vial monitor.*

In country like India, maintenance of cold chain is of paramount importance. An important improvement made in Intensive Pulse Polio Immunization (IPPI) during 1998 was use of Vaccine Vial Monitor (VVM)(1). This helps the booth staff to identify cold chain breakdown and heat exposure of vaccine vial over a period of time. Vapi Nagarpalika suffers from shortage of health manpower. Such institutions rely upon volunteers to run all types of activities for IPPI. It necessitates mandatory training for these volunteers in all aspects of pulse polio immunization. Also, all members at booth need to know everything in relation to VVM. This study was done to assess the awareness of polio booth staff about vaccine vial monitor and type of oral polio vaccine used.

### Material and Methods

The study was conducted during National Immunization Day in January and February, 2007, in 30 booths in Valsad and 51 booths in Vapi. All staff members were interviewed by predesigned and pretested questionnaire. Questions were asked about type of oral polio vaccine available, VVM, its functions, how to read and interpret it. The staff members were grouped in four categories, namely (a) Auxiliary Nurse Midwife (ANM) / Female Health Worker (FHW) / Lady Health Visitor (LHV) / Pharmacists, (b) Nursing students, (c) Nagarpalika staff, and (d) Volunteers.

### Results

Awareness regarding type of oral polio vaccine used was checked in 277 staff members of 81 booths of Valsad and Vapi. Correct identification of trivalent OPV (tOPV) was highest among health workers (group A) (54.8%), followed by nursing students (29.9%), Nagarpalika staff (3.4%) and volunteers (3.3%) respectively. Collectively, only 18.4% staff members identified tOPV correctly. Similarly, only 10.8% staff members have identified monovalent OPV (mOPV). Awareness pattern regarding VVM is summarized in *Table I*.

More than half (51.6%) of staff members interviewed had not heard of VVM. Similar findings were observed by Puri, *et al.*(2) in their study of awareness of oral polio VVM among polio booth staff in New Delhi. Awareness was very poor for VVM among those who have heard regarding its function, how to read VVM and when OPV should be discarded. Thakur, *et al.*(3) observed similar findings in their study. It is a common feature that a good number of booths were run exclusively by volunteers and Nagarpalika staff (groups C & D) in Vapi city. In absence of trained health workers, it becomes necessary for volunteers to look after vaccines. Hence, not having knowledge about VVM can badly affect the IPPI.

We conclude that there is a need for effective

### What this Study Adds

- Most health workers posted at pulse polio booths are not aware of vaccine vial monitor.

**TABLE I**—Awareness Pattern Among Various Staff Categories About VVM in Valsad District

Staff group	Heard about VVM	Site/location of VVM on vial	Correct description of VVM	Correct function/How is VVM read	When to discard OPV
A (n = 31)	30 (96.7)	28 (93.3)	21 (70)	28 (93.3)	25 (83.3)
B (n = 97)	83 (85.6)	76 (91.6)	68 (81.9)	67 (80.7)	61 (73.5)
C (n = 58)	9 (15.5)	2 (22.2)	1 (11.1)	3 (33.3)	2 (22.2)
D (n = 91)	12 (13.2)	3 (25)	2 (16.7)	3 (25)	2 (16.7)
Total (n = 277)	134 (48.4)	109 (81.3)	92 (68.7)	101 (75.4)	90 (67.2)

$P < 0.01$

\*Figure in pareses indicates percentages.

training of all booth members regarding type of vaccine used for that round and for VVM in urban areas of Valsad district.

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