



Universal Immunization Programme

(25 August to 8 September 2004)

WRITTEN ON BEHALF OF AGENCIES TAKING PART IN THE UIP REVIEW:

GOVERNMENT OF INDIA AND THE STATE GOVERNMENTS OF BIHAR, JHARKHAND, MADHYA PRADESH,
ORISSA, RAJASTHAN AND UTTAR PRADESH.

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CARE
CENTERS FOR DISEASE CONTROL (ATLANTA, USA)
CHILDREN'S VACCINE PROGRAMME PROGRAMME FOR ALTERNATIVE TECHNOLOGIES IN HEALTH
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GLOSSARY & ACRONYMS

AD	Auto-Disabled syringe
AEFI	Adverse Events Following Immunization
ANM	Auxiliary Nurse Midwife: key health worker delivering UIP and other primary health care
AWW	care
AWC	Anganwadi worker
BDCS	Anganwadi centre
BCG	Border District Cluster Strategy
CDC	Bacille Calmette Guerin; vaccine against tuberculosis
CIP	Centers for Disease Control (Atlanta, USA)
CSSM	Coverage Improvement Plan
CVP PATH	Child Survival Safe Motherhood
DFID	Children's Vaccine Programme – Programme for Alternative Technologies in Health
DIO	UK Department for International Development
DPT	District Immunization Officer
DT	Diphtheria, Pertussis and Tetanus vaccine
EAG	Diphtheria & Tetanus vaccine
EPI	Empowered Action Group of States
EU	Expanded Programme on Immunization: WHO programme adopted by countries.
FI	European Union
Gol	Full immunization or fully immunized
IAP	Government of India
ICC	Indian Academy of Paediatrics
ICDS	Interagency Coordination Committee
IEC	Integrated Child Development Scheme
ILR	Information Education and Communication
IMA	Ice-lined refrigerator: used for storing vaccines.
IMR	Indian Medical Association
INCLIN	Infant Mortality Rate
IPC	Indian National Clinical Epidemiology network
ISP	Inter Personal Communication
LHV	Immunization Strengthening Project (World Bank Supported)
MMR	Lady Health Visitor
MNTE	Measles, mumps and rubella vaccine
MO	Maternal and Neonatal Tetanus Elimination
MYP	Medical Officer
NGO	Multi-year plan. The strategic plan for the UIP covering 2005 to 2010.
NIHFW	Non Governmental Organization
NNT	National Institute of Health and Family Welfare
NPSP	Neonatal Tetanus
NTAGI	National Polio Surveillance Project
OPV	National Technical Advisory Group on Immunization.
PHC	Oral Polio Vaccine
POL	Primary Health Centre
PPC	Petrol, Oil and Lubricants
PPI	Post Partum Centre
PRI	Pulse Polio Immunization
RCH	Panchayati Raj Institute
RED	Reproductive & Child Health
SC	Reach Every District strategy
SITF	Sub-centre (of the PHC)
TI	State Immunization Taskforce
UIP	Tetanus Toxoid vaccine
UHC	Universal Immunization Programme. The Indian National Immunization Programme
UNICEF	Urban Health Centre
USAID	

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1. SUMMARY

Practices vary widely with no standards of supervision and monitoring. Operational Guidelines for Pulse Polio Immunization (PPI) have facilitated uniform implementation. Operational guidelines are similarly needed for routine immunization. The Government of India should develop the guidelines that should cover all aspects of the programme, with a special focus on use of data to manage the programme, and for supervision and monitoring to ensure that coverage data is validated.

Reporting mechanisms for various components of the programme, such as immunization sessions held, number and percent of children vaccinated, supervision visits conducted, from ANMs to the blocks, from blocks to the district, from districts to the States and from States to the Govt. of India, are also not in place. This leads to inadequate monitoring of the program at each level, lack of appropriate supervision, and poor immunization delivery.



THE KEY RECOMMENDATIONS TO STRENGTHEN ROUTINE IMMUNIZATION

1. Establish a state taskforce to review performance, every quarter. Processes and indicators for review to be specified in the operational guidelines (recommended above) and should include field visits to at least two randomly selected districts every quarter.
2. Central level to develop operational guidelines covering all aspects of the immunization programme; ensures that states implement the existing and new guidelines, including for disease reporting.
3. Implement monitoring and supervision at all levels on delivery of sessions and coverage data (including tracking individuals) with a focus on ensuring the accuracy of reports, and on monitoring the percent of planned sessions held.
4. Provide in-service continuous training to ANMs, medical officers, and those involved in the cold chain to improve the quality of services.

2. BACKGROUND

Madhya Pradesh is in North Central India and is one of the largest states in terms of geographic area. The state has a total of 45 districts and 313 blocks. Basic health indicators in Madhya Pradesh have been low putting it among the Empowered Action Group (EAG) states. Some areas are hard-to-reach, including areas cut-off during rainy season leading to areas with poor service delivery.

DEMOGRAPHY (DATA FROM 2001 CENSUS)

Total 2001 population was 60 348 023, making it the 7th most populous state in India. The population growth was 24% since the 1991 census; the 17th highest growth rate of the 35 States and Union Territories; the 6th highest of large States (>2.5 million population).

Madhya Pradesh population is 73% rural (72% for India). The overall gender imbalance is the 13th worst of the 35 States and Union Territories with 919 females for every 1000 males (933 per 1000 for India). Overall literacy rate is 64% (65% for India), with substantial female educational disadvantage as shown by a male to female literacy rate ratio of 1.5 (1.4 for India). Children aged under-five-years comprise 12% of the Madhya Pradesh population (11% for India).

IMMUNIZATION

The Universal Immunization Programme (UIP) is a national programme established in 1985, built upon the Expanded Programme on Immunization (EPI) started in 1978. The UIP is delivered as part of the Reproductive and Child Health (RCH) programme. Private practitioners also deliver the UIP and

offer additional vaccines.

The UIP had its last comprehensive review in 1989, with more recent but less comprehensive reviews undertaken in 1999. The 2004 UIP review was undertaken in six states. Madhya Pradesh was selected because it is a large state reflective of EAG characteristics.

STATE IMMUNIZATION PERFORMANCE

There is perceived political pressure for districts to report over 90% coverage, as this is one of the '20 points' for which each district is assessed. As a result reported coverage has become unreliable, especially in states with low coverage. For example, 2001/2 BCG coverage in Madhya Pradesh was reported at 85% compared to evaluated coverage of 78%.

Coverage performance is thus assessed through surveys. UNICEF conducted national cluster surveys covering most or all states every year from 1999 to 2002. Estimated full immunization rate in Madhya Pradesh was 48%, 30%, 50%, and 67% for 1999, 2000, 2001, and 2002, respectively. Dropout is an important contributor to low coverage, as shown by the BCG to measles dropout rate of 23%, 31%, 26%, and 15% for 1999, 2000, 2001, and 2002, respectively. However, access is the major contributor to low coverage as indicated by BCG coverage rate of 71%, 69%, 78%, and 95% for 1999, 2000, 2001, and 2002, respectively. The coverage survey data show moderately poor access and dropout, with marked improvement of both in the 2002 survey.

3. METHOD

The review provides qualitative and selective information on the immunization programme. It is not intended to be either quantitative or statistically representative. The aim was to identify strengths, weaknesses, and bottlenecks to develop practical strategies for improving routine immunization. The review also aimed to help prioritise implementation of the multi-year plan (MYP: the 2005-2010 strategic plan).

The state review was undertaken following a protocol and questionnaires developed by the national UIP review team. Annex 1 details the protocol. Guna and Seoni districts were each visited by one team, with the first team also visiting the State Headquarters. Annex 2 details the team members, their itinerary, and the main persons met.

Some of the key observations made by the teams are detailed in Annex 3. These observations, the completed questionnaires, and discussions between team members generated up to three each of successes, barriers, conclusions, and recommendations for:

- Strengthening routine immunization

at every level (section 4)

- Eight technical areas of protocol, to aid prioritisation for the MYP (section 5)

Further discussion led the team to agree on up to five key recommendations to strengthen routine immunization (presented in the summary); and the priority actions for the MYP (section 5).

The teams prepared a state presentation summarising the findings and initial recommendations (Annex 4).

4. STRENGTHENING ROUTINE IMMUNIZATION

The state review team identified up to three key successes, barriers, conclusions and recommendations for strengthening routine immunization, for each level. (Annex 3 details selected observations upon which these are based.)

	SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
STATE	<ul style="list-style-type: none"> Quarterly bulletin is good initiative but data not analysed. 	<ul style="list-style-type: none"> Cold chain at state lying at headquarters without distribution plan Poor cold chain maintenance at State level (WIC especially) Reporting timeliness and completeness from districts not ensured; no analysis of these reports. 	<ul style="list-style-type: none"> RI operational guidelines are needed. Private sector is not delivering immunization. 	<ul style="list-style-type: none"> Establish State Task Force to review performance. Develop and implement operational guidelines for RI. Improve monitoring and supervision at all levels; implement on-the-job training for ANMs through supportive supervision.
DISTRICT	<ul style="list-style-type: none"> Sufficient cold chain space, but sub-optimal management. Micro plans in place but do not include numbers, sites and some basic details. Sessions planned for every Tuesday and Friday but no monitoring of sessions held 	<ul style="list-style-type: none"> Planned sessions not being held (estimated 25% from vaccine register; but sessions also not held even after vaccines collected). Practically no monitoring and supervision; failure to use regular meetings. Vaccine and logistics stock-outs common. BCG only delivered at district hospital, not outreach sessions (urban areas) 	<ul style="list-style-type: none"> Knowledge, skills and practice need to improve Inappropriate denominators, with failure to use CNA approach to estimate infants. Fear of wastage, especially for BCG, leads to missed opportunities. 	<ul style="list-style-type: none"> Implement monitoring and supervision of sessions held and to validate reported Increase coordination with ICDS and other departments. Improve logistics to ensure adequate supply. Provide in-service continuous training to UIP staff
PHC/SC	<ul style="list-style-type: none"> Adequate staffing, with 	<ul style="list-style-type: none"> Some PHCs do not have cold chain equipment in spite of having sufficient supplies at district / block Poor injection technique and disposal practice. 	<ul style="list-style-type: none"> Vaccine ordering, distribution, and stock-keeping practices can be improved, and need to ensure matched diluents for BCG and measles. Health staff often deputed to other duties on session days by block and health 	<ul style="list-style-type: none"> Monthly meetings should be used as an opportunity for in-service continuous training of all UIP staff. Administration should ensure that UIP staff are not engaged for other activities on session days District / block officials should ensure supervisory visits take place on

5. PRIORITY AREAS FOR IMPLEMENTATION OF THE MULTI YEAR PLAN

The state review team identified up to three key successes, barriers, conclusions and recommendations on eight technical areas, detailed below. From these (and the complete set of observations and recommendations, detailed in Annex 3), the national team identified priority actions from a subset of the recommendations. With many potential priorities, the final list was limited to feasible actions most likely to have an impact in relation to the overall goal protecting children from disease.

Each priority action was linked, if possible, to one of the 20 objective in the MYP. The objectives are numbered and given a short title here, with the full description and associated goal in Annex 5. Implementing the priority action for that objective provides a focus for implementing the MYP.

MULTI-YEAR PLAN PRIORITY ACTIONS	MYP OBJECTIVE
1. Train staff through supportive supervision and use of regular meetings	1.1: regular sessions
2. Provide adequate supply of Ads;	1.5: safe injection
3. Improve accuracy of reported data through regular monitoring and analysis; remove pressure to over-report	6.3: coverage monitoring
4. Improve logistics with close monitoring at all levels	1.4: logistics

SERVICE DELIVERY & INJECTION SAFETY

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Infrastructure for delivery exists Few staff vacancies Microplans available at PHC/SC, but incomplete 	<ul style="list-style-type: none"> Poor service quality Inadequate social mobilisation 	<ul style="list-style-type: none"> Training, monitoring, and supervision needed at all levels Weak distribution logistics 	<ul style="list-style-type: none"> Establish supportive supervision to provide monitoring and on-the-job training Immunization sessions should be monitored with random selection of 10% of sessions. UIP progress should be monitored by joint ICDS and health administrations

SURVEILLANCE & MONITORING

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Data available Registers filled 	<ul style="list-style-type: none"> Over-reporting coverage Not reporting disease No reporting of AEFI Poor timeliness of reports 	<ul style="list-style-type: none"> Data not used for action Priorities not identified Neglect of hard to reach 	<ul style="list-style-type: none"> Validate coverage is validated through regular monitoring and analysis Implement simple monitoring tools Ensure reporting of VPD and AEFI as

VACCINE DISTRIBUTION LOGISTICS

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Adequate plan for vaccine distribution 	<ul style="list-style-type: none"> Erratic supply of vaccines and injection supplies Wastage concerns interfering with coverage Vaccines not supplied with adequate / proper diluents 		<ul style="list-style-type: none"> Improve logistics with close monitoring at all levels Consider 5-dose vial for BCG

PROGRAMME MANAGEMENT

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Few staff vacancies People aware of UIP policies Health workers committed to UIP 	<ul style="list-style-type: none"> Fund flow distribution from district to block for supervision/POL problematic. Supervision and programme 	<ul style="list-style-type: none"> Supervision and monitoring practices need improved Fund flow mechanism need streamlined 	<ul style="list-style-type: none"> Set up UIP taskforce at state level Set up immunization core group in each of districts to regularly monitor program and make field visits.

COLD CHAIN MANAGEMENT

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Available power supply with back up gens Generally adequate 	<ul style="list-style-type: none"> Sub-optimal management (eg. Temperature monitoring weak in some places) Cold chain stuck at block 	<ul style="list-style-type: none"> Overall satisfactory 	<ul style="list-style-type: none"> Improve management as part of overall training efforts Improve cold chain maintenance response time

HUMAN RESOURCES

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Generally adequate 	<ul style="list-style-type: none"> Promotion opportunities few for ANMs ANMs and Mos not staying in place of posting 		

TRAINING

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> MLM trainings taken place for district level officials 	<ul style="list-style-type: none"> No recent in-service continuous training at all levels Cold chain handlers not received training 	<ul style="list-style-type: none"> Need high quality training that can be performed at meetings or supervisory visits 	<ul style="list-style-type: none"> Implement supportive supervision to provide on-the-job training

IEC AND SOCIAL MOBILIZATION

SUCCESSSES	BARRIERS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Interpersonal communication effectively used by ANMs and AWWs 	<ul style="list-style-type: none"> Limited use of IEC materials; limited social mobilisation 	<ul style="list-style-type: none"> Other programmes using IEC materials should use immunization materials 	<ul style="list-style-type: none"> Engage community and develop IEC resources

ANNEX 1 : METHOD USED FOR THE UIP REVIEW OF SIX STATES

The national UIP review team developed the methodology, and recruited 56 national and international experts (in a range of areas) to participate in the review in 13 teams reviewing six states (two in each State and three in UP). The 56 experts represented the GOI (4); CARE (6); CVP PATH (2); DFID (1); USAID (3); EU (1); CDC (2); UNICEF (13); WHO (13); STATES / ACADEMICS (10); and SHRISTI (1).

Questionnaire modules for each level (including for urban and rural health facilities and for private physicians) provided a framework to elicit information and guide observations in a standardised way. The national team developed and pre-tested questionnaires to cover eight technical areas relevant to the multi-year plan.

The teams' primary information source was through observation and questioning (as per the questionnaires). Immunization sessions were observed including at outreach sessions, wherever possible. However, the opportunity to observe sessions was limited, so most observations were based on records and the overall situation of each facility, and from discussions with the health workers. Observations included review of immunization records and reports, vaccine stocks and storage, injection supplies and disposal. Records were used to provide additional insights and validate information given to the teams,

and to cross check data (eg, coverage and vaccine utilisation data).

In addition, where possible, teams sought information from the community (mothers) and local representatives (e.g. Gram Panchayats) to understand their perception of the immunization services and their perceived needs

Each team was designed to include four (and in some cases five) individuals with a range of knowledge and skills to provide a comprehensive review of immunization in each district, and at the state level for one of the teams. Within each district, the team split into two to assess two blocks per district. The national team pre-selected the two districts to be reviewed in each State (three for UP): one with high coverage and one with low coverage (from those districts included in the 2002-3 coverage survey data).

Each team randomly selected two blocks to review. The selection was not from all the blocks, but from four blocks pre-selected by the national team. (However, Jaisalmer district only has three blocks). After reviewing the block Primary Health Centre (PHC), one randomly selected PHC in that block, and two subcentres (SCs) of the PHC were to be reviewed by each half of the team.

Each team had a briefing and debriefing at State and District levels, as well as giving feedback to all sites visited. The two (three for UP) teams consolidated their findings in their feedback to the state at the end of the visit. All teams shared their findings in Delhi to come to a consensus on the key recommendations for national level.

ANNEX 2 : TEAM MEMBERS, ITINERARY, AND PERSONS MET

BHOPAL: 27.8.04 to 30.8.04

GUNA: 30.8.04 to 3.9.04

Dr. Pradeep Haldar, Asstt.

Commissioner (UIP), Govt. of India,
Ministry of Health & Family Welfare

Mr. A.L. Makhijani, Deputy Secretary,
Govt. of India, Ministry of Health &
Family Welfare

Dr. Hussain Yusuf, Immunization Officer,
UNICEF

Dr. Vinod Bura, Routine Immunization
Coordinator, WHO

The Team held discussions with Pr.
Secretary (H&FW), Director (FW) and
other senior officers of the State Govt. at
Bhopal from 27th to 30th August, 2004
on the routine immunization scenario
prevailing in the State.

The Team visited Guna district from
30.8.04 to 5.9.04, visiting Aron and
Chachoda blocks. In these two blocks
Aron CHC & Panwarihat PHC; and
Beenaganj CHC & Mrigwas PHC were
visited, respectively. The Team also
observed the conduct of immunization

outreach sessions in villages under
Panwarihat PHC.

SEONI: 28.8.04 TO 4.9.04

Dr. Pradhan, Professor, Lady Harding
Medical College, New Delhi

Dr. A. Varma, Consultant, NPSP, WHO

Dr. Pravin Khobragade, Asstt. Project
Officer (Imm.), UNICEF

Mr. J.K. Kantimalla, Regional Manager,
CARE

BLOCKS COVERED: Kurai & Lakhnadon

ANNEX 3: SELECTED OBSERVATIONS AND RECOMMENDATIONS

BHOPAL

Cold chain maintenance at state headquarters needs corrective actions. As regards WIC and WIF installed at Joint Director's office, location of installation of these equipments is not proper as they are under the tin shed due to which they can get heated, thereby adversely affecting the maintenance of cold chain equipments. The surrounding space of these equipments is also used as a store with the result that the heat generated by the equipment does not get dissipated and this could be a fire hazard. The inside compressors of WIC were leaking, with the result that the stored vaccines were wet with water and there was about 3" layer of water inside the WIC. As regards the WIF, there was leakage at the door, with the result that considerable amount of ice was blocking the entrance of WIF. There was also leakage at the compressor site with the result that there is a big chunk of ice below the compressor. One of the backup generators for WIC/WIF failed to start automatically on switching off power. These facts point to unsatisfactory maintenance of WIC/WIF which could in turn lead to breakdown of these equipments and may spoil the vaccines with consequential losses.

As regards the issue of adequacy of supplies of cold chain equipments, the Team observed one ILR of 144 ltrs found in packed condition which was supplied about two years back. As against this, the GOI received a request from the state government for supply of 55 ILRs of 144 liters. These facts necessitate objective reconsideration for cold chain equipment requirements.

Timeliness and completeness of the district-wise reports was not being ensured. No analysis of these reports was also being undertaken. The quarterly bulletin issued by the state government is a good initiative. The data included in this bulletin is only collated and not analyzed.

The monitoring at the state level should include aspects of immunization sessions held versus planned, analysis of coverage vis-à-vis vaccine utilized antigen-wise, vaccine utilization and wastage, supervisory visits.

GUNA

For outreach sessions in Khangwari Pura and Nathu Pura villages under Kumbraj CHC, the Team visited the session sites and the villages along with the concerned supervisor but could not find the immunization teams. It was reported that the concerned ANMs had collected the vaccines for these sessions. The Team also visited Sanai sub-centre under Kumbraj CHC but found it locked. The ANM for this sub-centre had not come and the male worker was not available.

PULSE POLIO INITIATIVE

False P cases are abnormally high in the blocks of Raghogarh, Aaron, Chachoda, Guna Rural, Ashok Nagar Rural and Bamori. These blocks constitute more than 50% of the district. False P cases are one of the important indicators of the quality of the PPI rounds. Thus, the quality of the PPI rounds in Guna district is sub-optimal. Appropriate steps need to be taken to ensure proper conduct of the PPI

rounds. The next round is on 10th October, 2004.

MONITORING OF SESSIONS HELD/DEFERRED VERSUS SESSIONS PLANNED

Sessions are usually planned for every Tuesdays and Fridays. The Team could not find any data about the sessions actually held. The data reported by ANMs in the monthly meetings only indicate the antigen-wise cumulative number of children vaccinated. It does not indicate the session-wise number of children vaccinated.

The Team analysed on sample basis the number of sessions for which vaccines have been issued, as extracted from the Vaccine Issue Registers and it was observed that about 25% of the sessions were not held. A number of sessions were also not held as per schedule due to various reasons such as leave, meetings, posting to panchayats. The Team visited some areas where sessions were planned to be held but found that ANMs had not come to the area though they had collected the vaccines a day before.

SUPERVISION AND MONITORING

Based on detailed discussions with MOs and supervisors and visits to CHCs/PHCs and Sub-centres, the Team has come to the conclusion that the MOs and Supervisors are not monitoring and supervising the holding of sessions. There is also no data about supervisory visits paid for immunization activities and feedback in relation thereto. The MOs and supervisors also do not analyse the vaccine issued for sessions in order to find out whether or not and how many sessions were held. The

monthly meetings held with ANMs and supervisors are used only for collecting the coverage data and not for monitoring and supervision. Involvement of medical officers in the conduct of immunization programme leaves much to be desired. The Team found that medical officers even did not possess the basic information about critical components of the programme.

SKETCHY MICRO-PLANS

The micro-plans developed at the facilities over a period of time are very sketchy. The plans only indicate the days i.e. Tuesdays and Fridays and the villages to be covered. The plans do not indicate the number of children, the immunization sites and other basic details of a proper micro-plan.

PLANNING OF SESSIONS

The Team observed a number of cases where BCG vaccine was not issued for the sessions along with other vaccines, with the result that all antigens were not available at the session site. The programme envisages that all antigens should be available at the session sites. At the Urban Centres, the practice is that the teams ask the beneficiaries to bring the child to the hospital for BCG vaccine. The reason for not taking BCG vaccine to the session site is reported to be the fact that BCG vial contains 20 doses and the vial is to be used within 3 hours of the reconstitution and teams are reluctant to open the vial if they estimate less number of children for the session for fear of high wastage of the vaccine.

As regards measles vaccine, it was observed by the Team in one of the outreach session that there were two

children for measles vaccination but the 5-dose measles vial was not opened by the team, due to the fear that there would be wastage of the remaining three doses.

The above facts point to the faulty planning of sessions. The sessions should be planned in such a way that they are effective, adequate children are available and all antigens are available at the sites.

Block	BCG	OPV (3rd dose)	DPT (3rd dose)	Measles
Aaron	36.28%	37.38%	29.01%	24.61%
Chachod	26.60%	37.38%	29.01%	26.32%

The above finds are also broadly consistent with the findings of the District Household Survey conducted in 2003, for Guna District of Madhya Pradesh, as

	Evaluated Coverage under District Household		Reported
	1998	2002	
BCG	51.1%	52	105.9
DPT3	52.5	19.5	105.5
OPV 3	64.6	36.4	105.5
Measles	37.9	33.5	107
Fully Immunized	30.7		

The above data clearly establishes the fact that there has been gross over-reporting of coverage data.

DELIBERATE OVER-REPORTING OF COVERAGE

The Team held detailed analysis, on a sample basis, of the vaccine issued and coverage reported by some ANMs and came to the clear conclusion that there was over-reporting of coverage. When confronted with documentary evidences, the officials admitted the over-reporting. The officials and the medical officers cited administrative pressure as the reason for deliberate over-reporting. The deliberate over-reporting is counter-productive to the programme as it shrouds the actual state of the programme and disables the initiation of corrective measures.

In support of the impression of the Team about over-reporting, attention is invited to the Madhya Pradesh Family Welfare Programme Evaluation Survey, 2003, conducted by RCVP Noronha Academy of Administration and Management, as per which evaluated immunization coverage in the two blocks of Aaron and Chachoda covered by the Team's review was as under as against the reported coverage of more than 100%:-

The above data clearly establishes the fact that there has been gross over-reporting of coverage data.

ABSENCE OF DROP-OUTS RATE

The existing coverage reporting does not enable identification of drop-outs. The antigen-wise analysis of data conducted by the Team led to the conclusion that there are significant levels of drop-outs for certain antigens but the same are not reported and analysed.

VACCINE SUPPLY

Vaccine supply, by and large, was found to be satisfactory. It was, however, found as under:-

- (i) The indenting practices followed by the user CHCs/PHCs were not uniform. The periodicity followed by monthly, bi-monthly or as and when felt necessary. The stocks indented also were found at times not based on stock in hand and vaccines needed for a particular period.
- (ii) The vaccine records did not show the batch numbers and expiry dates. The First Come First out principle has not been followed.
- (iii) At some PHCs, the diluent for preparation of BCG and measles had not been supplied for about one year with the result that BCG and measles vaccines were being administered with distilled water. This is a very dangerous situation and must be prevented through strict monitoring and supervision by medical officers.

VACCINE DISTRIBUTION AND STORAGE POINTS

At Sector PHC (Panwarihat) , there are no cold chain equipments with the result that all the sub-centres of the block collect vaccine from Aaron CHC as a result that some of the teams had to travel about 40 kms for collecting vaccine. The storage and distribution points should be as close to the sub-centres as possible keeping in mind that the last storage point should be PHC.

NON-REPORTING OF VPD/AEFI

There is no practice of reporting of

vaccine preventable diseases (VPDs) and adverse effects following immunization (AEFI) at any levels.

ACCOUNTING OF VACCINES (RECEIPT AND ISSUE)

The Team observed that accounting of vaccines in CHCs/PHCs was highly unsatisfactory. No proper uniform registers were being used for accounting for vaccines. It was also found that medical officers were not taking any interest in this matter and no audit had ever been held for the usage of vaccines.

RECORDING AND MONITORING OF VACCINE WASTAGE

The Team observed that the recording and monitoring of vaccine wastage is not in place at all levels. The Team could not get any data of the vaccine consumed antigen-wise and wastage. The MOs, supervisors and cold chain handlers were even not aware of the permissible levels of vaccine wastage antigen-wise. Nobody appeared to have analyzed in the past the prevailing levels of vaccine wastage. On the one hand, the vaccine wastage is not analysed, on the other, BCG vaccine is often not taken to the site for fear of high wastage in the event of less number of children. .

Non-involvement of Private Sector
The private sector is not being involved in the implementation of immunization programme.

COORDINATION WITH ICDS

Although AWWs play a crucial role in the implementation of the immunization programme, the Team could not observe any effective coordination with

ICDS. The information about coverage village-wise has not been shared with ICDS.

COORDINATION WITH OTHER DEPARTMENTS/AGENCIES

The Team was informed that Jan Swasthya Rakshak had been appointed but there was no specific available information about coordination with this agency. There was also no evidence of any coordination with other departments.

HUMAN RESOURCES

No serious problem of manpower shortage for the immunization programme was reported to the team. There were not many vacancies of the posts for this programme.

COLD CHAIN AVAILABILITY AND MAINTENANCE

No shortage of cold chain equipments was reported. The break-down rate is also low. It was, however, observed that the vaccine storage room at the district level did not have a back-up generator connected to the storage room which poses a grave risk to the vaccines in case of power failure. The Team also found that the cold chain handlers at CHCs/PHCs did not have elementary knowledge of the maintenance practices. For example, it was found that temperature charts were not being maintained at certain places.

SUPPLY OF SYRINGES/SAFETY BOXES

This district is covered by BDCS scheme under which AD syringes for all antigens (except BCG) are supplied by UNICEF. It was found that at most of the places,

AD syringes had not been supplied for one to one and a half years. This points to short supply coupled with faulty planning and distribution. It was reported by DIO that AD syringes had not been supplied by UNICEF since April, 2004. DIO also informed that the State had once supplied disposable syringes. The BDCS scheme had been in operation for the last four years and thus AD syringes are being used for the last four years. In the absence of AD syringes and disposable syringes, glass syringes and needles are now being used by certain CHCs/PHCs. This leads to the situation where ANMs were accustomed to using AD and disposable syringes and now suddenly they are expected to use glass syringes and needles. This situation poses serious problems in the implementation of the programme. This also points to lack of monitoring of the AD syringes supply.

SEONI

Routine immunization

District plan for immunization contains calendar for various sessions at all sites and has no other inputs such as the estimated number of children, names of vaccinators etc. This is primarily because of **lack of initiative and no felt need from district level for preparing a complete microplan.**

The CNA approach is not followed. The district multiplies the previous year's population by 2.5% (annual GR) for arriving at the current year population. Then, the district allots calculated targets for RI to the blocks. However, targets are not allotted further from the blocks to the PHCs and SCs who are continuing to use

last year targets.

Sufficient cold chain space is available at the district and block level. Some PHCs do not have electrical cold chain equipments. Although the breakdown rate is very low for existing cold chain equipments, **cold chain management is not followed as per prescribed guidelines.**

Vaccine procurement from the WIC Jabalpur is ad hoc. Many a times it is done twice a month. There are no plans in place for procurement of vaccines and its further distribution to the Blocks. One mission hospital provides RI services and is supplied with vaccines (except BCG) on demand by the Government. However, the coverage is very low and they do not have facilities for cold chain maintenance. The existing vaccines had signs of cold chain failure.

Adequate number of disposable syringes and needles (except BCG syringe) are available till the block level. As microplans are not available, shortages are frequently encountered at the sessions and hence these syringes are reused. **AD syringes were supplied more than a year ago and are used for immunizations at some places.**

There are 24% vacancies of MOs in the district. This has resulted in lack of leadership at various Block CHCs and PHCs.

Injection safety practices are not being followed at many places. E.g injections are given in gluteal region, needle is touched during injection etc. Also guidelines are not followed in disposing used syringes and needles.

ANNEX 4: STATE PRESENTATION

The team presented comments and recommendations to the state at the end of the review. This presentation is highlighted below.

Immunization Review of Uttar Pradesh, Bihar, Rajasthan, Jarkhand, Orissa, and Madhya Pradesh states, India, 25 Aug – 9 Sep, 2004

RESULTS OF THE REVIEW IN MADHYA PRADESH

The review in Madhya Pradesh



Review team participants

TEAM 1

- Dr. Pradeep Haldar - Gol
- Dr. Hussain Yusuf - UNICEF
- Dr. Vinod Bura - WHO
- Mr. Makhijani - Gol

TEAM 2

- Dr. S K Pradhan - Gol
- Dr. Pravin Khobragade – UNICEF
- Mr. J. K. Kandimala – CARE

Review methods

- Meetings and interviews, data review, and Observations
 1. State
 2. District
 3. Urban issues at district level
 4. Private practitioners
 5. Block PHC / CHC
 6. PHC
 7. Sub Centre
 8. RI Session site
- Analysis and discussion of basic findings
- Identify problems, conclusions and practical

Madhya Pradesh



Where was review conducted

- States level
- Districts – Guna and Seoni
 - Guna** – Aron block and Chachoda block
 - Aron CHC,**
 - Panwadi Haat PHC
 - Chachoda block**
 - Beenaganj CHC, Mrigwas PHC
 - Sub centres and outreach sessions**
 - Urban health centre, private practitioner**
 - Seoni** – Kurai and Lakhnadon blocks
 - Kurai Block CHC**
 - Khavasa PHC, Riddi SC and Turiya SC
 - Lakhnadon Block CHC**
 - Adegaoon PHC, Madhi SC and Joba SC.
 - Urban Health Centre at the district level.**

Health officials and other individuals met with as part of the review

STATE

Principal Secretary, Director of Public Health, SEPIO, Cold chain Officer, statistics dept

DISTRICT

Chief Medical Officer, District Immunization Officer, Other Programme Officers, Cold chain technician, Assistant Statistical Officer, Civil Surgeon, LHV / ANM / nurses, private practitioners

PHC

MO, LHV, ANMs, MPW (male), beneficiaries

SC

LHV, ANM, AWW, AW helper, beneficiaries

Madhya Pradesh - Background demographics and data

Population 2004: 6,47,96,000 (estimated)

Children < 12 months: 19,92,255

children 0-5 years:

Pregnant women:

- No. of districts - 45
- No. of blocks
- No. PHCs - 1192
- No. CHCs - 229
- No. urban health posts - 80
- No SCs - 8874
- District and Civil hospitals - 93
- Medical colleges - 5

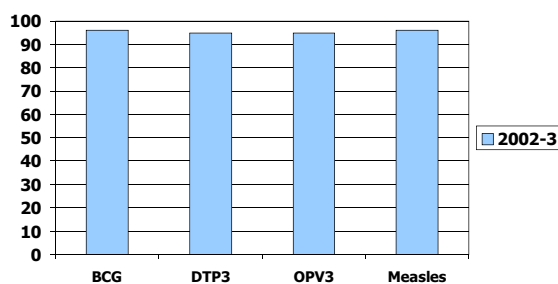
Madhya Pradesh - Background demographics and data

- Immunizations mostly provided thru fixed sessions in health centers and out-reach Clinics
 - conducted by ANMs, with help of ICDS system
- Recent surveys show low coverage levels
 - high drop outs
- Areas of low coverage
 - hard to reach areas - cut-off during

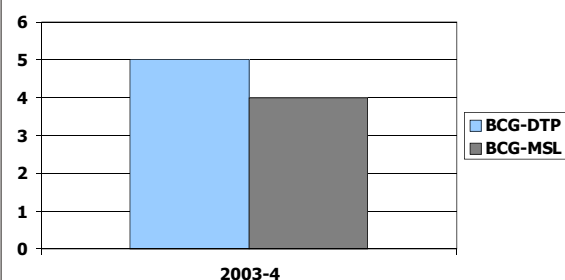
Reported no.s of VPDs in 2003

- Polio - 21
- Diphtheria - 30
- Measles - 2409
- NNT - 172
- Pertussis - 17
- Tuberculosis - 966
- No.s unknown for Guna and Seoni

Reported immunization coverage levels among children in Madhya Pradesh



Drop-out rates among children

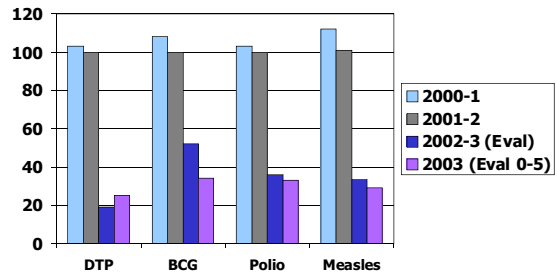


Guna district

Population 2004: 18,04,082
 - Children <12 months: 61,000
 - children 0-5 years: 2,52,571
 - Pregnant women

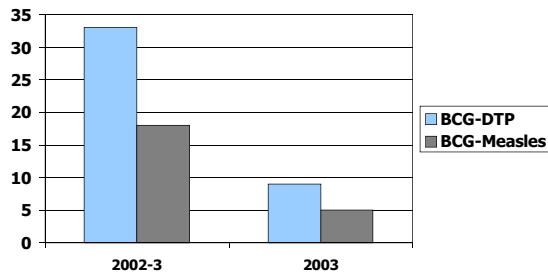
- No. of blocks - 9
- No. PHCs – 24
- No. CHCs - 6
- No. urban health posts - 11
- No SHCs – 216
- No. villages - 2059
- District and Civil hospitals – 2

Reported and evaluated coverage levels among children in Guna district



Source: Rapid House Hold Surveys; Family Welfare Program Evaluation

Immunization drop-out rates among children in Guna district



Source: Rapid House Hold Surveys; Family Welfare Program Evaluation

Polio surveillance in Guna district

	2000	2001	2002	2003	2004
Non-polio AFP rate	1.3	1.2	2.7	1.9	1.5
% adequate stool collection	89	100	84	92	70

Immunization service delivery and safe injections

Present status and achievements

- Sessions usually conducted tuesdays & fridays
- Some ANMs working hard to vaccinate children in villages covered
- Outreach session was observed to have conducted

Weaknesses

- Team could not find data on sessions held
 - Available information suggests sessions often missed
 - Session record and vaccine issues register – 25% session missed
 - Observed that AMN did not go to some planned sessions
 - Reasons – leaves, meetings, postings to panchayat
- Data reported by ANMs in monthly

Supervision and monitoring

Present status and achievements

- Supervisors & LHVs conduct supervision visits
- Monthly meetings held at block PHC
- Verbal feedback given

Weaknesses

- No records of supervision activities
 - Based on discussions with supervisors, MOs, staff – poor regular supervision and monitoring
- No analysis of data by MOs or supervisors of vaccine issued for finding out if sessions held

Planning of sessions and programme management

Present status and achievements

- ANM collects vaccine based on estimated number of children to be vaccinated

Weaknesses

- Team observed that BCG not issued with other vaccines due to wastage concern
- At urban health center parents asked to bring children to hospital - BCG and not taken to sessions
- One session measles vial not opened because only 2 children

Surveillance, monitoring and AEFI

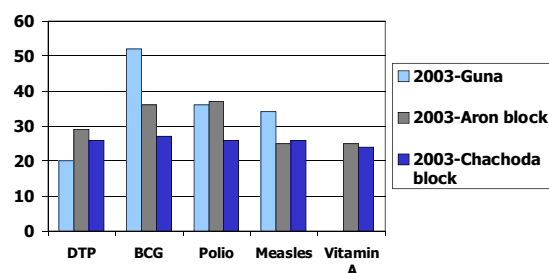
Present status and achievements

- Number of children vaccinated reported by ANM to block PHC which coiles and sends to district

Weaknesses

- Deliberate overreporting of coverage
Reports of number of children vaccinated greater than vaccine issued
- Little reporting of vaccine preventable diseases
- No VPDs recorded in VPD register in one CHC past one year
- No reporting of AEFIs at any level
- Inaccurate reporting misses identification

Evaluated coverage levels among children in Aron and Chachoda blocks



Source: Rapid House Hold Surveys; Family Welfare Program Evaluation

Vaccine logistics

Present status and achievements

- Vaccine supply by and large satisfactory

Weaknesses

- Indenting practices not uniform
Periodicity – monthly/bimonthly/when necessary not based on stocks in hand
- Vaccine records did not show stock numbers and expiry dates
- Dilutents for BCG and measles not available for 1 year at some PHCs

Cold chain

Present status and achievements

- No shortage of cold chain equipment reported
- Existing ILRs and Deep Freezers in good condition
- Regularly maintained

Weaknesses

- At one Sector PHC no cold chain equipment – some vaccination teams had to travel 40 km to collect vaccine for sessions
- District vaccine store did not have backup generator
- Cold chain handlers have limited knowledge of maintenance practices

Training

Present status and achievements

Weaknesses

- Basic training on immunization practices not conducted in quite long time

- Vaccinators were found using inappropriate methods in administering vaccine

Knowledge level of medical officers and supervisors not optimum – did not know about critical components of program

Human resources

Present status and achievements

- Few vacancies in medical officer and ANM positions

Weaknesses

Injection safety

Present status and achievements

- Vaccinations mostly using disposable syringes
- Few sites have some ADS previously supplied
 - AD syringes being used since last four years

Weaknesses

- Used syringes usually discarded in open buckets
 - Used syringes and needles scattered around
- One ANM found bending needles by hand

Recommendations

Develop Operational Guidelines

There is lack of standards of supervision and monitoring. Reporting mechanisms from ANM-blocks-districts are not in place. However operational guidelines for PPI have facilitated uniform program implementation throughout the country

Routine immunizations operational guidelines should be devised by GOI in the interest of uniform and standardized procedures and practices. These should cover all aspects of program including vaccine, cold chain, wastage, session planning, supervision and monitoring, reporting, etc.

Ensure Monitoring and Supervision

Monitoring and supervision is absolutely necessary for successful implementation

Seoni district

- Population 2004: 12,40,895
- Children < 12 months: 30,150
- Children 0-5 years: 174,563
- Pregnant women: 33,500
- No. of blocks - 8
- No. PHCs - 29
- No. CHCs - 8
- No. urban health centre- 1
- No SHCs - 269
- No. villages - 1585; Revenue villages where

Recommendations

Present status and achievements

- Sessions usually conducted on Tuesdays & sometimes on Fridays
- Good coordination of the ANMs and AWWs at the session level
- Outreach session was observed to have conducted

Weaknesses

- Team could not find data on sessions held
 - Available information suggests sessions often missed
 - Session record and vaccine issues register - 25% session missed
 - Observed that AMN did not go to some planned sessions
 - Reasons - leaves, meetings, postings to panchayat
- Data reported by ANMs in monthly meetings states antigenwise cumulative number of children and not session specific

ANNEX 5: GOALS AND OBJECTIVES OF THE 2005-2010 MULTI-YEAR PLAN FOR THE UIP

GOAL 1 - DISTRICTS WILL PROVIDE EFFICIENT AND SAFE IMMUNIZATION SERVICE TO ALL INFANTS AND PREGNANT WOMEN

Objective 1.1: [regular sessions]	To ensure regular quality immunization sessions are planned and held.
Objective 1.2: [adequate staffing]	To ensure adequate trained staff are empowered to provide essential quality immunization services.
Objective 1.3: [cold chain]	To keep an annually upgraded inventory of cold chain according to the levels of the network, allowing for new equipment, substitution, replacement, spare parts, fuel and others in order to maintain a functional status of 90%.
Objective 1.4: [logistics]	To ensure an efficient vaccine and injection equipment management and logistics system to forecast and deliver adequate supplies of vaccines in a timely manner.
	To ensure the implementation of safe injection practices and

GOAL 2 - CONTRIBUTE TO GLOBAL POLIO ERADICATION, MEASLES MORTALITY REDUCTION AND NEONATAL TETANUS ELIMINATION

Objective 2.1: [polio eradication]	To achieve polio eradication certification by 2007
	To eliminate neonatal tetanus (NNT) by 2009
Objective 2.2: [MNTE]	
Objective 2.3: [measles]	To reduce measles mortality by two-thirds by 2010, compared to 2000 estimates.
Objective 2.4: [Vitamin A]	To achieve and maintain a level of 70% coverage with two doses of vitamin a supplementation to children under three.

GOAL 3 - THE UIP WILL HAVE SUFFICIENT AND SUSTAINABLE FUNDING WITH ESTABLISHED ADEQUATE, ACCOUNTABLE AND EFFICIENT FUND

Objective 3.1: [adequate finance]	To ensure adequate and reliable financial resources at national, state and local levels for the UIP to achieve goals and objectives.
Objective 3.2: [political]	To ensure political commitment for adequate annual funding

GOAL 4 - THERE IS SUSTAINED DEMAND AND REDUCED SOCIAL BARRIERS TO ACCESS IMMUNIZATION SERVICES

Objective 4.1: [social mobilisation]	To ensure widespread support by all families and communities and to ensure that all eligible children and pregnant women are immunized.
Objective 4.2: [advocacy]	To ensure high level political and administrative support for immunization as the key public good.

GOAL 5 - ACCELERATED INTRODUCTION OF LICENSED NEW AND UNDER UTILIZED VACCINES AGAINST DISEASES WITH SIGNIFICANT MORTALITY AND MORBIDITY IN INDIA

Objective 5.1: [new vaccine]	To ensure institutional mechanisms are in place to adequately obtain, review and utilize information for deciding on introduction of new and under utilized vaccines.
Objective 5.2: [consider MMR]	To review need for MMR or MR vaccine in India's immunization programme.
Objective 5.3: [consider JE]	To review need for introduction of Japanese encephalitis (JE) vaccine in selected states.
Objective 5.4: [implement]	To implement a phased introduction of Hepatitis B vaccine.

GOAL 6 - TO MONITOR AND USE ACCURATE, COMPLETE AND TIMELY DATA ON VACCINE PREVENTABLE DISEASES, AEFIS AND ANTIGEN COVERAGE AND DROP OUT RATES BY DISTRICT

Objective 6.1: [disease surveillance]	To institutionalize surveillance for vaccine-preventable diseases and early detection of any outbreaks.
Objective 6.2: [AEFI surveillance]	To strengthen vaccine quality and injection safety by developing a monitoring system for reporting and responding to adverse events following immunization (AEFI) by 2009.
Objective 6.3: [coverage monitoring]	To establish an effective, efficient, complete and timely immunization recording and local area monitoring system by 2009.

