ASSESSMENT OF ALTERNATE VACCINE DELIVERY SYSTEM IN ORISSA

September 2009

NATIONAL RURAL HEALTH MISSION

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CONTENTS

ABBREVIATIONS

ADMO - FW	Assistant District Medical Officer Family Welfare
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
AYUSH	Ayurveda, Yoga, Unani, Siddha, Homeopathy
BEE	Block Extension Educator
BPL	Below Poverty Line
BPO	Block Program Organizer
CDMO	Chief District Medical Officer
CHC	Community Health Centre
DHFW	Department of Health & Family Welfare
DHH	District Headquarter Hospital
DLHS	District Level Household Survey
DPM	District Program Manager
GOI	Government of India
HW(F)	Health Worker (Female)
HW(M)	Health Worker (Male)
ILR Point	Ice Lined Refrigerator Point
IP	Immunization Point
MCH	Maternal and Child Health
MDG	Millennium Development Goals
MHU	Mobile Health Unit
MO	Medical Officer
NAC	Notified Area Council
NFHS	National Family Health Survey
NGO	Non Governmental Organization
NRHM	National Rural Health Mission
PHC	Primary Health Centre
PHC(N)	Primary Health Centre (New)
RKS	Rogi Kalyan Samiti
RVS	Regional Vaccine Store
SC	Sub Centre
SDH	Sub Divisional Hospital
UIP	Universal Immunization Program
VMAT	Vaccine Management Assessment Tool

ACKNOWLEDGEMENT

Orissa Alternate Vaccine Delivery System Assessment is probably the first AVDS study of India after the launch of NRHM in 2005. This was possible due to the generous hospitality, guidance and support of the Department of Health and FW, Govt of Orissa, NRHM Orissa, active support of Joint Director of Health Services (RH), Deputy Director (MCH), State Cold Chain Officer, State Program Manager (NRHM), State Vaccine Logistic Manager, ADMO-FWs, DPMs, MOs, Supervisors, ANMs, Immunisation Program Assistants, Health Officer (Immunisation) UNICEF, selected NGOs, EPOS and Immunisation Division of MOHFW, New Delhi along with active support from UNICEF Orissa.

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EXECUTIVE SUMMARY

BACKGROUND

Immunization is one of the most effective methods for preventing childhood diseases. Immunization is a key strategy to child survival and is an indicator of a strong primary health care system.

The immunization coverage in Orissa has been consistently increasing over the past 5 years. The percentage of children of 12-23 months who have received Full Immunization (FI) increased from 36% in NFHS 1 (1998) to 51.8 % in NFHS- 3 (2006) compared to national average of 44%[1]. Based on DLHS-3 (2007-08) report ,full immunization coverage in Orissa has increased from 53.5 % (DLHS-2)[2] to 62.4% (DLHS-3)[3], BCG from 90.4% (DLHS-2) to 94.2%, and Measles 67.9%(DLHS-2) to 81.1%. However, 30% area of Orissa is difficult to reach due to geographical barriers, and cold chain and vaccine management has been identified as a big area of improvement for effective implementation of UIP.

Vaccine and logistics should be delivered to health workers at the immunization session sites so that she/he can start the immunization session on time and spend adequate time with antenatal mothers and child. Moreover, after the completion of immunization session vaccine carrier with unused vaccine and report of the vaccination coverage need to be returned to the PHC on the same day. To facilitate this process, NRHM has introduced the alternate vaccine delivery (AVD) system across the country but it's functioning in many states, including Orissa, remains to be assessed.

Since Orissa has reached 62% FI coverage, unless special efforts are taken, increase in immunization coverage and decrease in drop outs cannot be achieved. Hence, in an attempt to strengthen vaccine logistic management at the session site, implementation of better AVDS, this study was conceived.

OBJECTIVES

- To assess the status of the existing alternate vaccine delivery system and document best practices and lessons learnt to guide state policy and plans for improving timely delivery of quality vaccine at the session site enabling the health workers to spend adequate time for vaccination and counselling.
- To identify various options of alternate mechanism of vaccine delivery to the immunization session site with costing.

METHODOLOGY

The study was conducted across 12 districts of Orissa with equal representation from the North, Central and South zones. These districts are Khordha, Kendrapada, Dhenkanal, Jajpur, Sambalpur, Bargarh, Kalahandi, Koraput, Keonjhar, Mayurbhanj, Nuapada and Raygarada. In each district, 3 blocks were chosen and in each block, 2 ILR points and 4 SC session sites were chosen based on access and measles coverage. The study incorporated both quantitative and qualitative methods including key informant interviews with the state district and block level

[1] National Family Health Survey III - 2006
[2] District Level Household Survey 2
[3] District Level Household Survey 3

health officials along with focus group discussions with the HW (F) s and clients. The zone wise classification of districts was done as follows:

S.No.	Zone-1	Zone-2	Zone-3
	North(Mixed)	Central (Coastal & Plain)	South (Tribal & Hilly)
1	Baragarh	Dhenkanal	Kalahandi
2	Keonjhar	Jajpur	Koraput
3	Mayurbhanj	Kendrapada	Nuapada
4	Sambalpur	Khordha	Rayagada

FINDINGS

A. Distance and Duration of Immunization Session

The maximum distance from the ILR points to the Immunization points was found in the Southern zone of Orissa with an average of 9.36 km to maximum 54 km and the ANM was the main person involved in transporting the vaccine state-wide (56%) with a maximum of 65% in the South zone. The time taken, on an average, to reach the immunization site from the ILR point was about 2 hours and 15 minutes .The average duration of a session was found to be 4.5 hours. About 74% of the vaccine carriers were returned in the same day with a minimum of 65% in the North zone. Also, reports from the session to the block were brought back on the same day in only 15% cases and the majority (72%) were sent once in a week. The cost estimate that emerged after discussion with HWs and MOs for delivery of vaccines at the session sites using AVDS was found to be Rs. 99 per session against the existing norm of Rs. 50 per session.

In Koraput district AVDS implementation was piloted in two blocks since August 2009 in the name of Tika Express with a plan for gradual expansion to all blocks. Initial assessment of August and Sept 2009 AVDS revealed 97% of the planned sessions were held against 71% last year during the same period. In addition to this departmental supervision during the same period of 2008 was 0% and in 2009 this has increased to 28% and 43% in the 2 blocks.

B. PROBLEMS FACED BY HEALTH WORKERS (as expressed by them)

Collecting the vaccine from ILR point is very time consuming with no separate person to deliver the vaccine, thus ANM herself has to bring the vaccine from ILR point to the immunization point. This hampers her activities in terms of less available time for immunization and counselling of parents.

- Non-receipt of reimbursement on time for AVDS fund and the amount received presently is Rs. 50/- per session which is not enough as the vaccines are to be carried to far-off distances also, hence the payment norm should be revised looking at the workload.

- Difficult to deliver the vaccines in the interior immunization points on time.

C. SUGGESTIONS FROM HW AND MO FOR AVDS IMPLEMENTATION

- PHC Vehicle arrangement from ILR point to Immunization Point (IP); if Government takes initiative, the system can be improved.
- Payment norm should be revised (Some mentioned Rs. 100/- while large majority suggested Rs. 150/- for hard to reach areas).
- Timely reimbursement of expenses towards transporting vaccines
- Engaging unemployed youth for vaccine delivery or local NGO could be hired for transportation of Vaccine (There was a divided opinion on involvement of NGOs).ANM's husband could be involved for carrying vaccine, even to more than one site.
- Hiring of vehicles like auto rickshaw, car/jeep, can be explored.

D. Cost of AVDS

Based on the findings of the study, the average cost of implementing AVDS comes to be Rs 99, which is nearly double the amount approved of Rs 50 for AVDS in plan areas less than 30 km from the ILR point.

RECOMMENDATIONS

Based on the assessment and interview with key stakeholders following recommendations are made:

1. The various modes of transport that can be used for vaccine delivery are PHC Vehicle (with provision of POL/DOL), Hiring Auto rickshaw, Two Wheelers, Bicycle, Hired Boat and on foot.
2. The persons who could be engaged in this activity after proper orientation on vaccine management may include Husband/relative of ANM, Unemployed Youth, Civil Society Organizatios, Community Based Orhganizations and other agencies having good credentials and acceptability, Auto rickshaw drivers, any volunteers and Porters.
3. The guidelines for engaging individuals or organizations may include engaging individuals/ agencies through a formal contract after proper orientation on vaccine transportation, duration of contract with penalty clause and less number of people to be involved for covering more IPs as this will ensure higher financial benefit, thus providing more drive to work.
4. The remuneration slab for the agencies can be fixed as follows:

For contracting individual immunization point

S.No.	Distance between ILR and IP (in Km.)	Easy-to-Reach Areas	Hard-to-reach Areas (hilly/ Tribal forests/ River without over-bridge/ Non-motorable road
1	0-10	Rs. 50/-	Rs. 100/-
2	11-20	Rs. 100/-	Rs. 150/-
3	21 and above	Rs. 150/-	Rs. 200/-

For contracting more than one immunization points

S.No.	Distance between ILR and IP (in Km.)	Easy-to-Reach Areas	Hard-to-reach Areas (hilly/ Tribal forests/ River without over-bridge/ Non-motorable road
1	0-10	Rs. 50/- per IP	Rs. 100/- for 1st IP; Rs. 50/- per IP subsequently
2	10-20	Rs. 100/- for 1st IP; Rs. 50/- per IP subsequently	per IP subsequently Rs. 150/- for 1st IP; Rs. 50/- per IP subsequently
3	20 and above	Rs. 150/- for 1st IP; Rs. 50/-	Rs. 200/- for 1st IP; Rs. 50/- per IP subsequently

WAY FORWARD

The goal of further enhancing the coverage and quality of immunization services would be fulfilled through the implementation of AVDS across the state. The implementation of AVDS at the district level involves certain steps which are given below:

- Complete and up to date microplans for immunisation to be prepared ILR point wise for each Sub Centre with distance from IP and should be implemented fully to get results.
- Block level supervisors like the BPOs, BEEs and AYUSH should receive sensitization on AVDS planning andv monitoring and they should supervise the activity.
- The planning for AVDS needs to be done according to structured planning formats which are in line with the microplans. The planning should include the required budget and any other additional resources as felt necessary due to local conditions. Block wise AVDS needs to be compiled at the district level to generate the district AVDS plan.

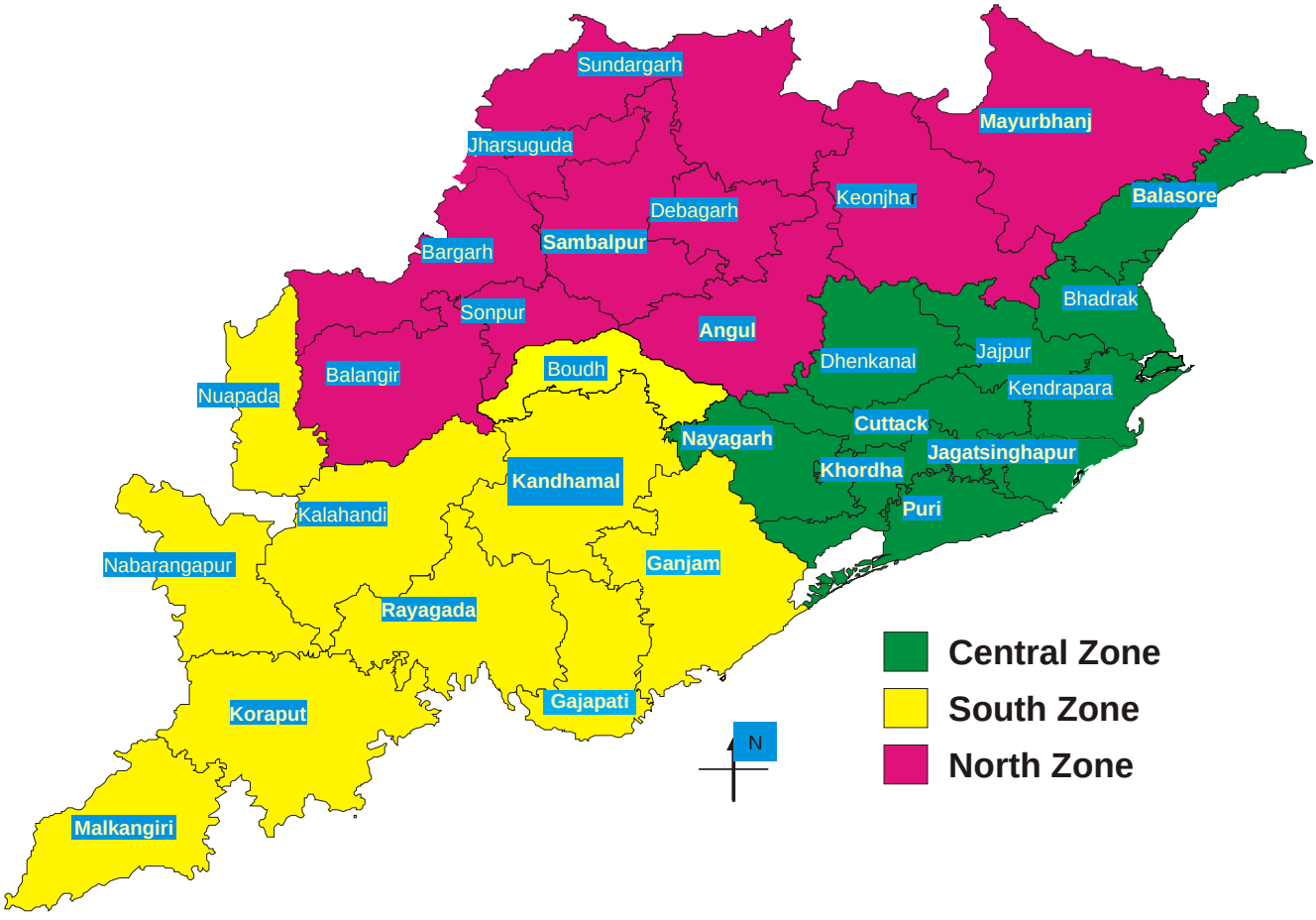
- The initial implementation of the AVDS in a district should be done in 2-3 difficult or hard to access blocks and should be subjected to close monitoring and supervision during the initial stages. Monthly reviews of performance should be done rigorously to identify bottlenecks in implementation. The monitoring and supervision may be done as part of the Routine Immunization monitoring system. The AVDS can then be scaled up to all blocks after identifying the difficulties in the initial blocks and refining the system. The performance of the AVDS can be reviewed at the district level through monthly and quarterly review meetings, as is being done for RI.
- There needs to be a nodal person at the block level like the BPO and at the district level like the DPM/RI Coordinator/MCH Coordinator /RVS Coordinator under the administrative supervision of ADMO-FW/DIO who would be responsible for coordinating and implementing the AVDS for better accountability.

CHAPTER 1 INTRODUCTION

1.1 Orissa: An Overview

1.1.1 Orissa is a medium-size state in the eastern part of India. Approximately 30% of the area is difficult to reach, due to geographical barriers. There are 30 districts, 314 blocks, 2 Municipal Corporations, 30 Municipalities and 68 NACs in Orissa.

Zone wise District of Orissa



1.1.2 The population of Orissa as per Census, 2001 was 36,804,660 making it the 11th most populous state in India. The population growth was 16% since the 1991 census; the 5th lowest growth rate of the 35 States and Union Territories. Orissa population is 85% rural (72% for India). Overall 22% of the population is tribal and 17% belongs to scheduled caste. Further, nearly half of the population of the State is BPL. The overall gender imbalance is the 28th worst of the 35 States and Union Territories with 972 females for every 1000 males (933 per 1000 for India). Overall literacy rate is 63% (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 less than five years comprise 10% of the Orissa population (11% for India).

1.2 Immunization in Orissa: An Overview

1.2.1 Immunization is one of the interventions that will help in achieving the MDG-4 i.e. reducing child mortality by 2/3rd between 1990 and 2015. Moreover, immunization is one of the most cost effective interventions for disease prevention. Traditionally the major thrust of Immunization services has been the reduction of infant and child mortality. However, newer vaccines like the Hepatitis B vaccine which is administered in infancy, gives lifelong protection against cancer liver and other complications of Hepatitis B infection in adults. Immunization is an important vehicle for health promotion and therefore is a true national investment.

1.2.2 Orissa's immunization coverage is consistently increasing since last five years. The percent of children of 12-23 months who have received Full Immunizations (FI) increased from 36% in NFHS 1 (1998) to 51.8 % in NFHS- 3 (2006) compared to national average of 44%. Based on Provisional DLHS-3(2007-08) report ,full immunization coverage in Orissa has increased from 53.5 % (DLHS-2) to 62.4%, BCG from 90.4% (DLHS-2) to 94.2%, and Measles 67.9%(DLHS-2) to 81.1% . Some of the key factors of improving immunization coverage are dedicated female health workers in the field, adopting fixed day - fixed site approach, better cold chain infrastructure, greater emphasis on immunization by the state, micro planning to reach remote areas on routine basis, vaccine delivery system, supportive supervision, data management, and social mobilization by the link workers like ASHA and AWW.

1.2.3 Every year 8,306,690 infants and 987,823 pregnant mothers receive immunization. There are 30 Districts and 314 Blocks in the State. Immunization services are delivered through 32 DHH, 22SDH, 117 other hospitals, 231 CHC, 1219 PHC, 14-MHU and MMU and 6688 Sub-centers and 26752 immunization session sites. Approximately 30% area of Orissa is difficult to reach due to geographical barriers.

1.2.4 However, cold chain and vaccine management has been identified as a big area of improvement for effective implementation of UIP. Immunization is a supply driven programme. Though it is the backbone of immunization programme it has not drawn much attention of the programme managers and policy makers. Unless the vaccine delivered to the child is potent, its effectiveness will be compromised, jeopardizing the entire immunization programme. All the reviews and assessment in the past like: UIP Review (2004), PNA Survey for Immunization (2005), VMAT study of Orissa (2007) and Routine Monitoring of Immunization by UNICEF and Officials from DFW-Orissa has identified repeated severe cold chain & vaccine logistics management gaps. To improve vaccine delivery GOI has provided funds for alternate vaccine delivery. From various monitoring report it is observed that 44-57% ANM collecting vaccine from the PHC and then they visit to the immunization session site and on an average they cover a distance of 2- 54 km depending on the block they belong to and are paid Rs.50/- per session irrespective of the distance and terrain they cover. Hence, they are not able to spend adequate time for counseling, immunization and good quality services.

1.2.5 As per the NRHM alternate vaccine delivery system, vaccine and logistics should be delivered to health workers at the immunization session sites so that she/he can start the immunization session on time and spend adequate time with antenatal mothers and child. Moreover, after the completion of immunization session vaccine carrier with unused vaccine and report of the vaccination coverage need to be returned to the PHC on the same day. For this, there is a funding support of Rs. 50/- per session through NRHM. But, in reality it does not happen and she returns the vaccine carrier herself.

1.2.6 Even in significant portion of cases especially in south zone tribal districts vaccine is being collected by ANM even one day before the immunization session. Four frozen ice packs were not found in the vaccine carriers at almost 16 % of the session sites. Sometimes immunization session has been observed to start too late and children return after waiting for a long period. Majority of the ANMs in tribal districts conduct two immunization sessions in one day but use one vaccine carrier for more than 8-10 hrs (field trip report of UNICEF officers). All these significantly affect the quality of vaccination and affect the potency of the vaccine. Hence to improve the delivery of potent vaccine it should be delivered at the immunization session site closure to the start of immunization session.

1.2.7 Annual report of 2006-07 of NRHM-India also mentioned the implementation problem of delivery of vaccine to immunization sites in spite of support for alternate vaccine delivery. NRHM has introduced the alternate vaccine delivery (AVD) system but its functionality has not yet been assessed in any State (at least UNICEF States). States like MP, Bihar, Rajasthan and one block in Orissa have attempted to have alternate vaccine delivery but no systematic assessment has been done till date. In view of this, UNICEF, in collaboration with NRHM and DFW, initiated this study on current alternative vaccine delivery system in Orissa with the following objectives. The study was conducted by EPOS under the technical supervision of DFW and UNICEF Orissa.

1.2 Objectives of the study

The main objective of the present study was:

- To assess the status of the existing alternate vaccine delivery system and document best practices and lessons learnt to guide state policy and plans for improving timely delivery of quality vaccine at the session site enabling the health workers to spend adequate time for vaccination and counselling.
- To identify various options of alternate mechanism of vaccine delivery with costing.

CHAPTER 2 METHODOLOGY

2.1 Coverage

2.1.1 The study was conducted in 12 districts of Orissa, 4 districts each from central zone, north zone and south zone. Further, in each district 2 blocks, 6 ILR points and 12 SC sessions were covered. Thus, in total 36 blocks, 72 ILR points and 144 SC sessions were covered under the study. The selection of Districts, Blocks, ILR points and SC sessions in each district was made based on access, performance (Measles coverage) and with close discussion with various stake holders.

Sl. no	Category	Coverage
1	Districts	12
2	Blocks	36
3	ILR Points	72
4	Sub-centre Sessions	144

2.2 Methods

2.2.1 In the study, both Qualitative and Quantitative methods were adopted. The methodology involved the following:

- **Discussion with key stakeholders from DH&FW, NRHM and UNICEF**.

  One of the most important components of the study was discussions with various stakeholders like officials of DHFW, NRHM, UNICEF and Medical colleges to understand the guidelines and immunization programme of the State. This facilitated the team in developing methodology and formats for the assessment study.

- **Desk review**

  The study involved desk review of available information to examine issues like:

  - Existing vaccine delivery system;
  - Infrastructure like CHC, PHC, ILR Points, SCs and Immunization points;
  - Alternate vaccine delivery systems in other states like MP and Bihar.

- **Development of Study Tools**

  The tools for the study were prepared on the basis of documents studied during desk review. These included the tools for FGDs of ANMs and Clients and the KIIs with the Government officials/Health officials at various levels, i.e. State, District, Block and Sub-centre level.

- **Key Informant Interview with State & District government officials**

  The study also involved in-depth interviews of the key State and district government officials (CDMO, ADMO-FW, and DPM-NRHM) pertaining to information on alternate vaccine delivery guidelines issued and necessary funds released to the blocks and utilization pattern of this fund, availability of session-wise information, plan for visiting various blocks, ILR points and immunization session sites.

- **Focus group discussions with ANMs and Clients**

  FGDs were held with ANMs using semi structured guidelines to assess their views on improving the quality of immunization and how alternate vaccine delivery helped in this regard. Further, FGDs were also conducted for clients to assess the level of satisfaction and time spent by ANM for immunization and counseling.

2.3 Sample Size

2.3.1 The sample size adopted for the present study was

Sl.No.	Category	Sample Size
1	Key Informant Interviews with state and district government officials	77 (6 per district + 5 state level)
2	In-depth Interviews of MOs and Supervisors at ILR Points	216 (3 per ILR Points)
3	Focus Group Discussions with ANMs	72 (2 FGDs per block)
4	Focus Group Discussions with Clients	144 (1 FGD per SC during immunization session)
Total		**497**

2.4 Field Team

2.4.1 Six field teams were engaged for field work, each having a coordinator and 3 Research Associates.

Team Composition	Number
Field Coordinators (FCs)	6 (1 per team)
Research Associates, Field (RAs)	18 (3 per team one for each block)

2.4.2 Each field team covered 2 districts. The number and composition of teams was arrived in such a manner so as to complete the task as per given time schedule.

2.4.3 The field staff was recruited locally in the State following the stipulated guidelines on qualifications, experience etc. Preference was given to those who have experience of conducting similar studies.

2.4.4 The field teams were given proper orientation & intensive training on the rationale of the survey and method of conducting interviews as well as FGDs using the tools. The training of field teams was organized at the state headquarters. The duration of this training was 2 days. The training also covered use of checklist for in-depth discussions with the officials. Training involved classroom lectures and interactive sessions. Research Associates were subsequently taken into the community for field practice.

2.4.5 In addition, Field Coordinators were given training on their roles and responsibilities in the organization of fieldwork as well as on leading the discussions during FGDs. The Research Associates were imparted training on taking the notes of FGDs including use of cassette recorders for recording the discussions as well as on undertaking the content analysis of the same.

2.5 Field Work

2.5.1 The Field Coordinators were entrusted with the responsibility of coordination and supervision of the fieldwork, apart from conducting interviews with the key district government officials (CDMO, ADMO-FW, and DPM-NRHM) for eliciting relevant information on alternate vaccine delivery. The Field Coordinators were ultimately responsible for monitoring and quality assurance of the fieldwork.

2.5.2 The Research Associates visited the blocks and conducted interviews of MOs and Supervisors on various issues pertaining to ILR points and immunization session sites, distances involved, pattern of vaccine delivery system used, funds received and additional funds needed if an alternate mechanism was to be followed. In addition, they also conducted FGDs with ANMs and Clients. Each Research Associate in a team visited one block in a district for collection of required information.

LIMITATIONS OF THE STUDY: The survey teams visited the immunization sessions of mostly the sub centre villages due to travel difficulties. This may lead to a lower estimate of the distance from the immunization point to the ILR point.

CHAPTER 3 STATE-LEVEL AGGREGATES

3.1 Information on Systems and Procedures for AVDS

3.1.1 Information on systems and procedures pertinent to alternate vaccine delivery system was solicited from the State & District Officials. The list of officials at State and District levels from whom the information was sought is:

(i) Joint Director (RH)

(ii) Deputy Director (MCH)

(iii) SPM NRHM

(iv) State Accounts Manager

(v) Cold Chain Officer

(vi) State Cold Chain Consultant

(vii) Health Officer (Immunization) - UNICEF

3.1.2 A summary note on information received from these officials is presented ahead under following headings -

(a) Collection of Vaccines-

Govt. of India supply vaccine by air in thermocol boxes. Polio and Measles vaccine is supplied in Dry Ice and the other vaccines with ice packs. State collects vaccines from the airport and carries it in vaccine van to the State Vaccine Store.

(b) Distribution of Vaccines

State distributes vaccine to 7 regional vaccine store (RVS) centres and 9 nearest districts in vaccine van with cold boxes and conditioned ice packs.

(c) Plan of Vaccine Distribution

There is a monthly segmented distribution plan as per the requirement/ demand of RVS and district. State supplies the vaccine after deducting the stock balance from the requirement for each RVS and district.

3.1.3 The critical link in the alternate vaccine delivery, as mentioned by them, is ILR point to immunization point. The information presented in the following sections has been analysed keeping this in mind.

3.2 State-level Aggregates: An Overview

3.2.1 The purpose of the Study was to identify the existing vaccine delivery options for immunisation session sites in three different terrains of three zones namely Central (mostly coastal), North & South (predominately tribal areas with forest and hills). The list of zones with its respective districts is given as under

3.2.3 A set of indicators were analysed at zonal-level and further collated and analyzed to arrive at the State-level aggregates. In this chapter, the State-level aggregates are being presented, while the zonal aggregates will be discussed in the next chapter. The list of indicators is as under

- Written immunisation plan available with the Health workers
- Average distance from ILR point to immunisation session site.
- The mode of transfer of vaccine to the immunisation point
- Time taken to reach the sub-centre & immunisation point from the Block
- Time taken to reach the immunisation session by the Health workers
- Average duration of the immunisation sessions
- Protocol followed for bringing vaccine carrier and session report from immunization point to ILR point
- Average number of days taken to compile session wise information from the day of immunisation at the block level

3.3 Plans for Immunization Session Available with Health Workers

3.3.1 This indicator is aimed at assessing whether the immunization day is actually fixed beforehand and the planning for conducting immunization sessions is done or not. Information was sought on this indicator from the ANM & HW (M), for the sessions conducted in their sub-centre area. The findings are presented in the table given below.

Table 3.2 Preparation for Immunization Session

S.No.	Zone	Immunization day fixed		Session prepared in advance	
		Number	Percentage	Number	Percentage
1	North	48	100%	48	100%
2	Central	48	100%	46	96%
3	South	48	100%	43	90%
	TOTAL	**144**	**100%**	**137**	**95%**

3.3.2 All the officials irrespective of the zones mentioned that the immunization days were fixed in advance. As regards the preparations for the immunization session, overall 95% respondents replied in the affirmative. All the officials from the North Zone stated that the session is planned well in advance, while from the Central and South Zone, 96% and 90% respondents respectively shared the viewpoint.

3.3.3 In view of the fact that the immunization session is mostly prepared well in advance, the vaccine management and distribution system could be effectively planned and implemented in timely fashion. In order to ensure this, sufficient stocks of vaccines should be made available for being distributed on the fixed dates and alternate vaccine delivery system in the State needs to be strengthened for making these vaccines available during sessions.

3.4 Distances from ILR Point to Immunization Site

3.4.1 This indicator assesses the distance of immunization site from the ILR point. The available literature reveals that in order to maintain the cold chain of the vaccines, we need to ensure that the distance between ILR and immunization points is optimized. Thus information was sought on this indicator from the officials to analyse whether the distance between immunization and ILR point is optimal for carrying the vaccines to the immunization site on the same day without affecting its quality. The findings are presented in Table 3.3.

Table 3.3 Distance (in Km.) from ILR Point to Immunization Site

S.No.	Zone	Max. Distance*	Avg. Distance*
1	North	26	8.89
2	Central	27	6.15
3	South	40	9.36
	OVERALL	**40**	**8.18**

** Pertains to the Sampled Areas in the Study Districts*

3.4.2 It was revealed that the maximum distance from ILR point to immunization site was 40 Kms in the Study area for South Zone whereas it was slightly over 25 km for other zones. It was found that the average distance was maximum for South Zone (9.36 Km.), while for the North and Central Zone, the average distance was 8.89 Km. and 6.15 Km. respectively. The distance is an issue of concern for North and South Zones, which are predominantly having hilly terrain or tribal area covered with dense forests and lack motorable roads.

3.5 Mode of Transfer of Vaccine to Immunisation point

3.5.1 The various modes of transport that are used in transferring the vaccine to the immunization point is quite important as the availability, good condition and operation of vehicles are prerequisites for ensuring effective transfer of vaccines. The findings are presented ahead, in the tables 3.4 and 3.5 respectively.

Table 3.4 Person involved in Transporting Vaccine from ILR to IP

S.No.	Zone	ANM	Husband/ Relative of ANM	HW(M)	NGO	Volunteer
1	North	52%	2%	21%	0%	25%
2	Central	52%	0%	29%	2%	17%
3	South	65%	4%	10%*	10%	10%
	TOTAL	**56%**	**2%**	**20%**	**4%**	**17%**

3.5.2 In a majority of cases across the State, it was revealed that the ANM herself was involved in transporting the vaccines to the sub-centre and immunization point. This finding of the study supports a large quantum of data available in the literature, which states that ANMs have been unable to devote more time in conducting immunization sessions because of her involvement in transportation. Further, in some cases, the HW (Male) and village volunteers were also found to be associated in transportation, while the husband/relative of ANM and NGO workers were found to be involved in very few instances.

3.5.3 As regards the mode of transport for carrying vaccine, the study reveals that no official vehicle had been allocated to the block-level facilities and below, per se. However, the government vehicle (CHC/PHC jeep) available in these facilities for performing general tasks was being used for carrying vaccines as well. Further, a few respondents even mentioned that there had been such occasions in the past when no vehicle was available for carrying vaccines on the desired day.

Table 3.5 Mode of Transport for Carrying Vaccine from ILR to IP

S.No.	Zone	Public Transport	Two Wheeler	Bicycle	On-foot
1	North	0%	50%	40%	10%
2	Central	4%	61%	29%	6%
3	South	4%	71%	12%	13%
	TOTAL	**3%**	**60%**	**27%**	**10%**

3.5.4 The two-wheeler or bicycle owned by the HW (M), ANM or her spouse, emerged as the main modes of transport for carrying vaccines. A few odd cases were also reported where the ANM had either been walking down to the immunization point carrying the vaccines on foot or was using a public transport.

3.6. Time taken to reach the Immunisation Point from the ILR point

3.6.1 This indicator assesses the overall time spent in travel while transporting the vaccines from the ILR Point to each Immunization point. The analysis of this indicator is important and relevant because of the following reasons -

- Firstly, the available literature reveals that the ANMs are involved in bringing the vaccines from the ILR point to the Sub-centre or Immunization site on the immunization day. Consequently they have to spend a greater amount of their time in travelling which leaves less time for conducting the session;
- Secondly, in order to maintain the cold chain, we need to ensure that the vaccines are brought to the sub-centre or the immunization site from ILR Point on the immunization day itself, for conducting the session. Further, even the unopened and opened/used vials should be returned on the same day.

3.6.2 In view of the aforementioned reasons, there was a felt need to know the actual time spent in travel while transporting the vaccines. Thus information was sought on this indicator from the officials to see whether is it feasible for the ANM herself to bring the vaccines and return them on the same day, and also conduct the session for substantial time. The findings for time taken to reach the immunization points are presented ahead in table 3.6.

Table 3.6 Time taken (in min) to reach the Immunization Site from the ILR

S.No.	Zone	Maximum Time*	Average Time*
1	North	300	130
2	Central	360	120
3	South	480	155
	OVERALL	**480**	**135**

** Pertains to the Sampled Areas in the Study Districts*

3.6.3 All the zones taken together, it was revealed that the time taken to reach the Immunization site from the ILR point ranges between 30 mins to 6 hrs, while the average time was 2 hr 15 mins. Zone wise, it was found that the average time was comparatively high for South Zone (approximately 2 hrs 30 mins), while for the North and Central Zone; the average time required was slightly over 2 hrs.

3.6.4 Thus, in view of the time taken for transporting the vaccines, it is advisable to avail services of an individual who can transport the vaccines on the same day, thus enabling the ANM to spend more time on conducting the session and also ensuring that the cold chain is maintained with reduced vaccine wastage.

3.7 Time taken to reach Immunisation Session by Health Workers

3.7.1 This indicator assesses the time taken by the ANM to reach the immunization point from her Sub-centre or home. The findings are tabulated and presented in the table below:

Table 3.7 Time taken (in min) by ANM to reach IP from her Home/SC

S.No.	Zone	Time for farthest IP*	Average Time*
1	North	210	38
2	Central	210	33
3	South	270	39
	OVERALL	**270**	**36**

** Pertains to the Sampled Areas in the Study Districts*

3.7.2 On a state level, it was seen that the maximum time taken to reach the Immunization site from the Block was 4 hrs 30 mins, while the average time for all the immunization sites was 36 mins. On segregating the results for each of the zones, it was found that the average time was comparatively high for North and South Zone (approximately 38-39 mins), while for the Central Zone, the average time lapsed was 33 mins. Time taken for

reaching the session site was taken as nil in those instances where the immunization point was located in a place where ANM was residing.

3.7.3 Thus it is clearly evident that if the ANM goes to the immunization site directly, rather than collecting the vaccines from ILR point and subsequently reaching the session, she would be able to provide quality time to immunization activity by reducing the time due to transportation. In addition, the cold chain could be better maintained by utilizing the service of some other individual.

3.8 Average Duration of Immunization Sessions

3.8.1 This indicator assesses the overall time spent by the ANM at the immunization point in conducting the session. As discussed earlier, the actual time spent by a health worker in the field while carrying out immunization activity is important in ensuring a good quality immunization program. Thus information was sought on this indicator from the ANMs and the findings are presented ahead (Table 3.8).

3.8.2 The table given below clearly reveals that the ANMs have been spending substantial time for conducting the session. The State aggregates show the duration for this activity is ranging between 2 to 8 hrs, with 4.53 hrs being the State average. Further, out of all the zones, the ANMs of South Zone were utilizing comparatively maximum time for this session (5.01 hrs), while those of Central and North zones were engaged in this activity for less than 4.5 hrs duration, on an average.

Table 3.8 Duration (in hrs) of Immunization Sessions

S.No.	Zone	Minimum Duration*	Maximum Duration*	Average Duration*
1	North	2.5	6	4.19
2	Central	2	7.5	4.39
3	South	2.5	8	5.01
	OVERALL	**2**	**8**	**4.53**

** Pertains to the Sampled Areas in the Study Districts*

3.9 Protocol followed for bringing vaccine carrier and session report from immunization point to ILR point

3.9.1 This indicator assesses the protocol followed by the ANMs for bringing vaccine carrier, tally sheets and session report from immunization point to ILR point. As a norm, the ANMs are supposed to return the vaccine carrier with unopened and opened/used vials and the tally sheets to ILR point on the immunization day itself, after conducting the session. However, it is mostly observed that instead of returning the vaccine carrier the same day, it is returned on the next day, thus affecting the quality of remaining vaccines as the cold chain might get disrupted. Further, it is required to submit the session reports to the Block on the same day, for being collated at the block-level. However, even the reports have

been found to be delayed, more often than not. In view of these facts, information was sought on this indicator from the ANMs and the findings are presented in the tables 3.9 and 3.10 given ahead.

Table 3.9 Vaccine Carrier Returned on the Same Day

S.No.	Zone	Reported Cases where Vaccine Carrier Returned to ILR Point on the Same Day	Percentage
1	North	31 (N=48)	65%
2	Central	39 (N=48)	81%
3	South	37 (N=48)	77%
	TOTAL	**107 (N=144)**	**74%**

** Pertains to the Sampled Areas in the Study Districts*

3.9.2 Table 3.9 reveals that overall three-fourths of the ANMs had been returning the unused vaccine and the tally sheets for used vaccine on the same day itself. On segregating the State aggregate into Zonal aggregates, this proportion of ANMs was found to be the highest for Central Zone (81%) and the lowest for North Zone (65%).

3.9.3 Information was also sought on frequency of sending the session reports to the Block for being collated at Block-level. Analysis of the indicator reveals that the protocol of sending the reports to the Block on the same day was not being strictly followed across the State. Overall only one-fifth of the respondents were submitting these reports, either on the same or the next day. In little under three-fourth of the cases, the reports were being submitted on weekly basis. However in around 8% of the cases, these were reported to be submitted once in a month. It was found that the Zonal-level aggregates are reflective of the State-level aggregates.

Table 3.10 Frequency of Sending Session Reports to the Block

S.No.	Zone	Same Day	Next Day	Once a Week	Once a Month
1	North	23%	4%	69%	4%
2	Central	13%	8%	69%	10%
3	South	10%	2%	77%	10%
	TOTAL	**15%**	**5%**	**72%**	**8%**

** Pertains to the Sampled Areas in the Study Districts*

3.10 Cost estimate (in Rs.) of AVDS based on the Immunisation sessions covered under the Study

Distance (in Km.)	North	Central	South	TOTAL
0-10	13200/-	8350/-	12000/-	33550/-
10-20	8550/-	2000/-	8250/-	18800/-
21 & above	600/-	750/-	3400/-	4750/-
TOTAL	**22350/-**	**11100/-**	**23650/-**	**57100/-**

The cost estimate per unit comes out to be Rs. 99/- per immunization session.

CHAPTER 4 ZONAL AGGREGATES

4.1 Zonal Aggregates: An Overview

4.1.1 Purpose of the Study, as discussed earlier, was to identify the existing vaccine delivery options for immunisation session sites in three zones namely Central (mostly coastal), North & South (predominately tribal areas with forest and hills).

4.1.2 The analysis of indicators at Zonal level is presented in the sections given ahead.

A. ZONE 1 NORTH

4A.1 Plans for Immunization Session Available with Health Workers

4A.1.1. As already mentioned, information was sought on this indicator from the officials working at grassroots level, i.e. ANM & HW (M), for the sessions conducted in their sub-centre area. The findings for North Zone are presented in the table given below.

Table 4.1 Preparation for Immunization Session-North Zone

S.No.	Districts	Immunization day fixed		IPC for Session done in advance	
		Number	Percentage	Number	Percentage
1	Baragarh	12	100%	12	100%
2	Keonjhar	12	100%	12	100%
3	Mayurbhanj	12	100%	12	100%
4	Sambalpur	12	100%	12	100%
	TOTAL	**48**	**100%**	**48**	**100%**

4A.1.2 It was heartening to note that all the officials irrespective of the districts pointed out that not only the immunization days were fixed in advance, even the preparations for the immunization session were made before hand.

4A.1.3 In view of this fact, the vaccine management and distribution system could be effectively planned and actions taken, to ensure that sufficient stocks of vaccines are made available for being distributed on the fixed dates.

4A.2 Distance from ILR Point to Immunization Site

4A.2.1 In order to assess the distance of immunization site from the ILR point information was sought from the officials to analyse whether the distance between immunization and ILR point is optimal for carrying the vaccines to the immunization site on the same day without affecting its quality. The findings are presented in Table 4.2.

Table 4.2 Distance (in Km.) from ILR Point to Immunization Site- North Zone

S.No.	Districts	Max. Distance	Avg. Distance
1	Baragarh	22	8.88
2	Keonjhar	26	10.33
3	Mayurbhanj	16	7.03
4	Sambalpur	20	9.32
	OVERALL	**26**	**8.89**

4A.2.2 It was revealed that the maximum distance from ILR point to immunization site ranges between 16 to 26 Km. across the study districts, while the average distance was 8.89 Km. Taking all the districts separately, it was found that the average distance was maximum for Keonjhar (10.33 Km.), while for Sambalpur, Baragarh and Mayurbhanj districts, the average distance was 9.32 Km and 8.88 Km and 7.03 Km respectively.

4A.3 Mode of Transfer of Vaccine to Immunisation point

4A.3.1 As discussed in the previous chapter, the officials at District, Block and Sub-Centre levels were enquired about the person(s) involved and modes of transport available for carrying the vaccines.

4A.3.2 In an overwhelming majority of cases across the Zone, it was revealed that the ANM herself was involved in transporting the vaccines to the sub-centre and immunization point. Further, in a few cases the HW (Male), spouse of the ANM, or NGO workers were found to be associated in transportation. The results were reflective of the State-level aggregates, at large.

4A.3.3 As regards the mode of transport for carrying vaccine, the study reveals that no official vehicle had been allocated to the block-level facilities and below, in the north zone as well, and the government vehicle available in these facilities was being used for carrying vaccines. Further, a number of respondents mentioned of such occasions in the past when no vehicle was available for carrying vaccines on the desired day.

4A.3.4 The bicycle and motor vehicle owned by the HW (M), ANM or her spouse, and government/ private bus emerged as the other modes of transport for carrying vaccines. In some instances it was reported that the ANM had been walking down to the immunization point carrying the vaccines on foot.

4A.4 Time taken to reach the Immunisation Point from the ILR point

4A.4.1 As discussed in the previous chapter, there was a felt need to know the actual time spent in travel while transporting the vaccines. The findings for time taken to reach the immunization points are presented ahead in table 4.3.

Table 4.3 Time taken (in min.) to reach the Imm. Site from the ILR-North Zone

S.No.	Districts	Maximum Time	Average Time
1	Baragarh	180	85
2	Keonjhar	180	130
3	Mayurbhanj	300	160
4	Sambalpur	180	145
	OVERALL	**300**	**130**

4A.4.2 All the districts taken together, it was revealed that the time taken to reach the Immunization site from the ILR point ranges between 30 mins to 5 hrs, while the average time was 2 hr 10 mins. Taking all the districts separately, it was again indicated that with the exception of Baragarh District, the average time was comparatively high for the other three districts. Further, the time range (1-3 hrs) and the average time (2 hrs 40 mins) were found to be the maximum for Mayurbhanj district.

4A.5 Time taken to reach Immunisation Session by Health Workers

4A.5.1 Information was also sought from the ANMs on the time taken by them to reach the immunization session. The findings are tabulated and presented in the table hereunder.

Table 4.4 Time taken (in min) by ANM to reach IP from her home/SC-North Zone

S.No.	Districts	Time for farthest IP	Average Time
1	Baragarh	60	17
2	Keonjhar	210	57
3	Mayurbhanj	90	31
4	Sambalpur	150	48
	OVERALL	**210**	**38**

4A.5.2 All the districts taken together, it was revealed that the maximum time taken to reach the Immunization site from the Block was 3 hrs 30 mins, while the average time was 38 mins. On segregating the results for each of the districts, it was found that the average time was comparatively high for Keonjhar and Sambalpur districts (57 mins and 48 mins respectively), while for Baragarh, the average time lapsed was only 17 mins.

4A.6 Average Duration of Immunization Sessions

4A.6.1 This indicator assesses the overall time spent by the ANM at the immunization point in conducting the session. Information was sought on this indicator from the ANMs and the findings are presented in the table ahead.

Table 4.5 Duration (in hrs.) of Immunization Sessions-North Zone

S.No.	Districts	Minimum Duration	Maximum Duration	Average Duration
1	Baragarh	2.5	6	4.00
2	Keonjhar	3	5.5	4.04
3	Mayurbhanj	3	5	3.92
4	Sambalpur	3	6	4.79
	OVERALL	**2.5**	**6**	**4.19**

4A.6.2 The table clearly reveals that the ANMs have been spending substantial time for conducting the session. The Zonal aggregates show the duration for this activity is ranging between 2.5 to 6 hrs, with 4.19 hrs being the Zonal average. Further, out of all the districts, the ANMs of Sambalpur seemed to be utilizing comparatively maximum time for this session (4.79 hrs). The reported instances where the ANM was spending in excess of 4-5 hrs per session were the ones where she was waiting for a vehicle at the session site for returning to her sub centre, ILR point or home.

4A.7 Protocol followed for bringing vaccine carrier and session report from immunization point to ILR point

4A.7.1 As already mentioned, this indicator assesses the protocol followed by ANMs for bringing vaccine carrier, tally sheets and session report from immunization point to ILR point. The findings are presented in tables 4.6 and 4.7.

Table 4.6 Vaccine Carrier Returned on the Same Day-North Zone

S.No.	Districts	Reported Cases where Vaccine Carrier Returned to ILR Point on the Same Day	Percentage
1	Baragarh	9	75%
2	Keonjhar	10	83%
3	Mayurbhanj	9	75%
4	Sambalpur	3	25%
	TOTAL	**31**	**65%**

4A.7.2 Table 4.6 reveals that overall two-thirds of the ANMs had been returning the unused vaccine and the tally sheets for used vaccine on the same day itself. On segregating the Zonal aggregate into district-wise aggregates, this proportion of ANMs was found to be the highest for Keonjhar district (83%) and the lowest for Sambalpur district (25%).

Table 4.7 Frequency of Sending Session Reports to the Block-North Zone

S.No.	Districts	Same Day	Next Day	Once a Week	Once a Month
1	Baragarh	50%		50%	
2	Keonjhar	8%	8%	83%	
3	Mayurbhanj	17%		67%	17%
4	Sambalpur	17%	8%	75%	
	TOTAL	**23%**	**4%**	**69%**	**4%**

4A.7.3 Information was also sought on frequency of sending the session reports to the Block for being collated at Block-level (Table 4.7). Analysis of the indicator reveals that the protocol of sending the reports to the Block on the same day when session is conducted was not being strictly followed across the State. Overall almost one-fourth of the respondents were submitting these reports on the same day. In slightly over two-third of the cases, the reports were being submitted on weekly basis. However in around 4% of the cases, these were reported being submitted once in a month. It was found that the Zonal-level aggregates are purely reflective of the State-level aggregates.

B. ZONE 2 CENTRAL

4B.1 Plans for Immunization Session Available with Health Workers

4B.1.1 As already mentioned, information was sought from the officials working at grassroots level, i.e. ANM & HW (M), for the sessions conducted in their sub-centre area. The findings are presented in the table given below.

Table 4.8 Preparation for Immunization Session-Central Zone

S.No.	Districts	Immunization day fixed		Session prepared in advance	
		Number	Percentage	Number	Percentage
1	Dhenkanal	12	100%	12	100%
2	Jajpur	12	100%	11	92%
3	Kendrapada	12	100%	12	100%
4	Khordha	12	100%	11	92%
	TOTAL	**48**	**100%**	**46**	**96%**

4B.1.2 All the officials irrespective of the districts mentioned that the immunization days were fixed in advance. As regards preparations for the session, overall 96% respondents replied in the affirmative. The officials from Dhenkanal and Kendrapada districts stated that the session is planned well in advance, while from Jajpur and Khordha, 92% respondents shared the viewpoint.

4B.2 Distance from ILR Point to Immunization Site

4B.2.1 As discussed earlier, information was sought from the officials to analyse the distance between immunization and ILR point. The findings are presented in Table 4.9.

Table 4.9 Distance (in Km.) from ILR Point to Immunization Site-Central Zone

S.No.	Districts	Max. Distance	Avg. Distance
1	Dhenkanal	18	6.72
2	Jajpur	13	5.18
3	Kendrapada	27	9.30
4	Khordha	7	3.39
	OVERALL	**27**	**6.15**

4B.2.2 It was revealed that the maximum distance from ILR point and immunization site was 27 Km. across the study districts, while the average distance was 6.15 Km. Taking all the districts separately, it was found that the average distance was maximum for Kendrapada (9.3 Km), while for Dhenkanal, Jajpur and Khordha districts, the average distance was 6.72 Km and 5.18 Km and 3.39 Km respectively. The distance is perceived to be an issue of concern for most of these districts, which are predominantly having rivers with no over-

bridge. Hence, either the vaccine carriers take a motorable road route with distance becoming more or hire a boat to cross the river.

4B.3 Mode of Transfer of Vaccine to Immunisation point

4B.3.1 The officials at District, Block and Sub-Centre levels were enquired about the person involved and modes of transport available for carrying the vaccines. The results for most of the indicators reflected the State-level aggregates.

4B.3.2 In a majority of cases across the Zone, ANM herself, was found to be involved in transporting the vaccines to the immunization point. Apart from her, there were instances where the HW (Male), spouse of the ANM, or NGO workers were also reported to be associated in transportation.

4B.3.3 As regards the mode of transport for carrying vaccine, the study reveals that the government vehicle available in the bock-level facilities was being used for carrying vaccines, as no separate vehicle was allocated to these facilities for the purpose. It was also mentioned that there were such occasions in the past when no vehicle was available for carrying vaccines on the desired day.

4B.3.4 The bicycle and motor vehicle owned by the HW (M), ANM or her spouse, and government/ private bus were reported to be the other modes of transport for carrying vaccines. Some ANMs also mentioned that they had been walking down to the immunization point carrying the vaccines on foot.

4B.4 Time taken to reach the Immunisation Point from the ILR point

4B.4.1 As discussed earlier, information was sought on this indicator from the officials, to see whether is it feasible for the ANM herself to bring the vaccines and return them on the same day, and also conduct the session. The findings for time taken to reach the immunization points are presented ahead.

Table 4.10 Time taken (in min.) to reach Imm. Site from ILR-Central Zone

S.No.	Districts	Maximum Time	Average Time
1	Dhenkanal	210	135
2	Jajpur	360	135
3	Kendrapada	240	165
4	Khordha	90	50
	OVERALL	**360**	**120**

4B.4.3 The time taken to reach the Immunization site from the ILR point followed a similar trend as that for time taken from the ILR point to the Sub-centre. For the entire Central Zone, the time range was revealed to be 30 mins to 6 hrs, while the average time was 2 hrs. Taking all the districts separately, it was again indicated that with the exception of Khordha District, the average time was comparatively high for the other three districts.

4B.5 Time taken to reach Immunisation Session by Health Workers

4B.5.1 This indicator assesses the time taken by the ANM to reach the immunization point from her Sub-centre or home. The findings are tabulated and presented in table 4.11 given ahead.

Table 4.11 Time taken (in min.) to reach Imm. Session by ANM-Central Zone

S.No.	Districts	Time for farthest IP	Average Time
1	Dhenkanal	210	42
2	Jajpur	90	28
3	Kendrapada	90	31
4	Khordha	60	30
	OVERALL	**210**	**33**

4B.5.2 All the districts taken together, itt was revealed that the maximum time taken to reach the Immunization site from the Block was 3 hrs 30 mins, while the average time was 33 mins. On segregating the results for each district, it was found that the average time was comparatively high for Dhenkanal district (41 mins), while for the remaining districts, the average time lapsed was only around 30 mins.

4B.6 Average Duration of Immunization Sessions

4B.6.1 This indicator assesses the overall time spent by the ANM at the immunization point in conducting the session. Thus information was sought on this indicator from the ANMs and the findings are presented in table 4.12.

Table 4.12 Duration (in hrs.) of Immunization Sessions-Central Zone

S.No.	Districts	Minimum Duration	Maximum Duration	Average Duration
1	Dhenkanal	2	6	4.46
2	Jajpur	3	6	4.17
3	Kendrapada	3	7.5	5.08
4	Khordha	2	5	3.83
	OVERALL	**2**	**7.5**	**4.39**

4B.6.2 The table clearly reveals that the ANMs have been spending substantial time for conducting the session. The Zonal aggregates show the duration for this activity is ranging between 2 to 7.5 hrs, with 4.39 hrs being the Zonal average. Further, out of all the districts, the ANMs of Kendrapada seemed to be utilizing comparatively maximum time for this session (5.08 hrs). The reported instances where the ANM was spending in excess of 4-5 hrs per session were the ones where she was waiting for a vehicle at the session site for returning to her sub centre, ILR point or home.

4B.7 Protocol followed for bringing vaccine carrier and session report from immunization point to ILR point

4B.7.1 As mentioned earlier, this indicator assesses the protocol followed by ANMs for bringing vaccine carrier, tally sheets and session report from immunization to ILR point. The findings are presented in tables 4.13 and 4.14 given ahead.

Table 4.13 Vaccine Carrier Returned on the Same Day-Central Zone

S.No.	Districts	Reported Cases where Vaccine Carrier & Tally Sheets Returned to ILR Point on the Same Day	Percentage
1	Dhenkanal	7	58%
2	Jajpur	8	67%
3	Kendrapada	12	100%
4	Khordha	12	100%
	TOTAL	**39**	**81%**

4B.7.2 Table 4.13 reveals that overall four-fifths of the ANMs had been returning the unused vaccine and the tally sheets for used vaccine on the same day itself. On segregating the Zonal aggregate into district-wise aggregates, this proportion of ANMs was found to be the highest for Kendrapada and Khordha districts (100%) and the lowest for Dhenkanal district (58%).

Table 4.14 Frequency of Sending Session Reports to the Block- Central Zone

S.No.	Districts	Same Day	Next Day	Once a Week	Once a Month
1	Dhenkanal	17%	0	83%	0
2	Jajpur	0	33%	50%	17%
3	Kendrapada	33%	0	67%	0
4	Khordha	0	0	75%	25%
	TOTAL	**13%**	**8%**	**69%**	**10%**

4B.7.3 Overall almost one-eighth of the respondents were submitting these reports on the same day. In slightly over two-third of the cases, the reports were being submitted on weekly basis. However in around 10% of the cases, these were reported being submitted once in a month. It was found that the Zonal-level aggregates are purely reflective of the State-level aggregates.

C. ZONE 3 SOUTH

4C.1 Plans for Immunization Session Available with Health Workers

4C.1.1 As mentioned in previous sections, information was sought from the officials working at grassroots level, i.e. ANM & HW (M), for the sessions conducted in their sub-centre area. The findings are presented in the table given below.

Table 4.15 Preparation for Immunization Session-South Zone

Sl.No.	Districts	Immunization day fixed		Session prepared in advance	
		Number	Percentage	Number	Percentage
1	Kalahandi	12	100%	11	92%
2	Koraput	12	100%	9	75%
3	Nuapada	12	100%	12	100%
4	Rayagada	12	100%	11	92%
	TOTAL	**48**	**100%**	**43**	**90%**

4C.1.2 All the officials irrespective of the districts mentioned that the immunization days were fixed in advance. As regards preparations for the session, overall 90% respondents replied in the affirmative. All the officials from Nuapada district stated that the session is planned well in advance, while from Koraput, only 75% respondents shared the viewpoint.

4C.2 Distance from ILR Point to Immunization Site

4C.2.1 As mentioned earlier, this indicator assesses the distance of immunization site from the ILR point. The information was sought on this indicator from the health and the findings are presented in Table 4.16.

Table 4.16 Distance (in Km.) from ILR Point to Immunization Site-South Zone

S.No.	Districts	Max. Distance	Avg. Distance
1	Kalahandi	19	5.59
2	Koraput	40	18.79
3	Nuapada	30	6.24
4	Rayagada	15	5.80
	OVERALL	**30**	**9.36**

4C.2.2 It was revealed that the maximum distance from ILR point and immunization site was found to be 30 Km across the study districts of this zone, while the average distance was 9.36 Km. Taking all the districts separately, it was found that the average distance was maximum for Koraput (18.79 Km), while for Nuapada, Rayagada and Kalahandi districts,

the average distance was 6.24 Km and 5.8 Km and 5.59 Km respectively. The distance is perceived to be an issue of concern for most of these districts, which are having hilly terrain or tribal area covered with dense forests and lack motorable roads.

4C.3 Mode of Transfer of Vaccine to Immunisation point

4C.3.1 As discussed in the previous sections, the officials at District, Block and Sub-Centre levels were enquired about the person involved and modes of transport available for carrying the vaccines. It may be apt to mention that the findings for these indicators are reflective of the State-level findings.

4C.3.2 In an overwhelming majority of cases across the Zone, it was revealed that the ANM herself was involved in transporting the vaccines to the sub-centre and immunization point. Further, in some cases the HW (Male), spouse of the ANM, or NGO volunteers were also found to be associated in transportation.

4C.3.3 As regards the mode of transport for carrying vaccine, the study reveals that no official vehicle had been allocated to the block-level facilities and below and the government vehicle available in these facilities was being used for carrying vaccines as well. A few of them indicated such occasions in the past when no vehicle was available for carrying vaccines on the desired day.

4C.3.4 The bicycle and motor vehicle owned by the HW (M), ANM or her spouse, and government bus emerged as the other modes of transport for carrying vaccines. Apart from the aforementioned modes, some of the ANMs also mentioned that they had been walking down to the immunization point carrying the vaccines on foot.

4C.4 Time taken to reach the Immunisation Point from the ILR point

4C.4.1 As mentioned earlier, this indicator assesses the overall time spent in travel while transporting the vaccines from the ILR Point to each Immunization point. The findings are presented ahead in table 4.17.

Table 4.17 Time taken (in min.) to reach the Imm. Site from the ILR-South Zone

S.No.	Districts	Maximum Time	Average Time
1	Kalahandi	180	120
2	Koraput	210	115
3	Nuapada	240	110
4	Rayagada	480	270
	OVERALL	**480**	**155**

4C.4.2 The time taken to reach the Immunization site from the ILR point followed a similar trend as that for time taken from the ILR point to the Sub-centre. For the entire South Zone, the time range was revealed to be 30 mins to 6 hrs, while the average time was 2 hrs 35 mins. Similarly, a comparison of district-wise findings indicated that the average time was high for Rayagada (i.e. 4 hrs 30 mins), where even the minimum time was indicated to be 3hrs.

4C.5 Time taken to reach Immunisation Session by Health Workers

4C.5.1 As already discussed in the previous sections, this indicator assesses the time taken by the ANM to reach the immunization point from her Sub-centre or home. The findings are presented in table 4.18.

Table 4.18 Time taken (in min.) to reach Imm. Session by ANM-South Zone

S.No.	Districts	Time for farthest IP	Average Time
1	Kalahandi	270	49
2	Koraput	180	44
3	Nuapada	90	24
4	Rayagada	150	39
	OVERALL	**270**	**39**

4C.5.2 All the districts taken together, itt was revealed that the time taken to reach the Immunization site ranges between 0 to 4 hrs 30 mins, while the average time was 39 mins. On segregating the results for each district, it was found that the average time was comparatively low for Nuapada district (24 mins), while for the remaining three, the average time lapsed was around 40-50 mins.

4C.6 Average Duration of Immunization Sessions

4C.6.1 Information was sought on this indicator from the ANMs and the findings are presented in the table as under.

Table 4.19 Duration (in hrs.) of Immunization Sessions-South Zone

S.No.	Districts	Minimum Duration	Maximum Duration	Average Duration
1	Kalahandi	3.5	6.5	5.17
2	Koraput	2.5	8	4.79
3	Nuapada	3.5	6	4.83
4	Rayagada	3	7	5.25
	OVERALL	**2.5**	**8**	**5.01**

4C.6.2 The table clearly reveals that the ANMs have been spending substantial time for conducting the session. The Zonal aggregates show the duration for this activity is ranging between 2.5 to 8 hrs, with 5.0 hrs being the Zonal average. Further, out of all the districts, the ANMs of Kalahandi and Rayagada seemed to be utilizing comparatively maximum time for this session (5.2 hrs). The reported instances where the ANM was spending in excess of 4-5 hrs per session were the ones where she was waiting for a vehicle at the session site for returning to her sub centre, ILR point or home.

4C.7 Protocol followed for bringing vaccine carrier and session report from immunization point to ILR point

4C.7.1 As mentioned earlier, this indicator assesses the protocol followed by the ANMs for bringing vaccine carrier, tally sheets and session report from immunization point to ILR point. Information was sought on this indicator from the ANMs and the findings are presented in tables 4.20 and 4.21 given ahead.

Table 4.20 Vaccine Carrier Returned on the Same Day-South Zone

S.No.	Districts	Reported Cases where Vaccine Carrier Returned to ILR Point on the Same Day	Percentage
1	Kalahandi	10	83%
2	Koraput	11	92%
3	Nuapada	6	50%
4	Rayagada	10	83%
	TOTAL	**37**	**77%**

4C.7.3 Table 4.20 reveals that overall three-fourths of the ANMs had been returning the unused vaccine and the tally sheets for used vaccine on the same day itself. On segregating the Zonal aggregate into district-wise aggregates, this proportion of ANMs was found to be the highest for Koraput (92%) and the lowest for Nuapada (50%).

Table 4.21 Frequency of Sending Session Reports to the Block-South Zone

S.No.	Districts	Same Day	Next Day	Once a Week	Once a Month
1	Kalahandi			100%	
2	Koraput	8%	8%	58%	25%
3	Nuapada			100%	
4	Rayagada	33%		50%	17%
	TOTAL	**10%**	**2%**	**77%**	**10%**

4C.7.4 Information was also sought on frequency of sending the session reports to the Block for being collated at Block-level (Table 4.21). Analysis of the indicator reveals that the protocol of sending the reports to the Block on the same day when session is conducted was not being strictly followed across the State. Overall one-tenth of the respondents were submitting these reports on the same day and an equal number was submitting the reports once a month. In slightly over three-fourths of the cases, the reports were being submitted on weekly basis. It was found that the Zonal-level aggregates are purely reflective of the State-level aggregates.

4.2 Best Practice in AVDS in Orissa

The piloting of AVDS implementation in 2 blocks of Koraput district (***TIKA EXPRESS***), Nandapur and Pottangi, for 2 months (August and September 2009) has revealed the following:

4.2.1 NGO agency volunteers are delivering the vaccines and logistics to the session sites before 8 am and collecting the unused and unopened vaccines, immunization waste and tally sheet after 12:30-1:00 pm. These are then being returned to the ILR points. As a result, sessions are continuing for 4.5 to 5 hours which is much more as compared to previous years.

4.2.2 The session planned vs. sessions held for the period August and September 2009 is 97.5% as compared to the same period last year when it was 71%.

4.2.3 The immunization coverage in the 2 blocks is given below:

	Achievement during August and September 2008-09				**Achievement during August and September 2009-10**			
	BCG	**OPV-3**	**DPT-3****	**Measles****	**BCG***	**OPV-3**	**DPT-3**	**Measles**
Nandapur	389 (89.63%)	46 (13%)	0 0	0 0	491 (113%)	360 (82%)	385 (88%)	342 (79%)
Pottangi	264 (85%)	211 (68%)	0 0	0 0	313 (101%)	165 (53%)	165 (53%)	213 (69%)

* *The reported coverage above 100% was due to the incorrect calculation of target population using a birth rate of 22/1000 live births instead of 25/1000 live births (SRS 2005)*

** *The reported figures are nil due to lack of vaccine supply during those corresponding periods.*

4.2.4 Supervision in the 2 blocks has increased dramatically. In Nandapur block, the supervision team visited 28.6% of all IPs while in Pottangi, the supervision team visited 43.7% of all IPs during August and September 2009. **This is in contrast to the same period last year when there was no recorded visit by any supervisor to those areas.**

4.2.5 The conducting of immunization sessions, issue of vaccines and logistics and their delivery to the immunization sessions is being done as per the microplan and pass book.

4.3 Conclusion

4.2.1 The Zonal Aggregates presented in this chapter have been used to arrive at the State-level Aggregated which have already been presented in the previous chapter. The aim of presenting Zonal aggregates was to highlight the peculiarities within each zone. On the basis of analysis of the set of indicators at State level presented and discussed in the previous chapter, some suggestions and recommendations have been made for a thorough review by the State. It is suggested that the State may devise a zone-specific strategy taking into account the peculiarities and specificities if each zone.

CHAPTER 5 GAPS OBSERVED & SUGGESTIONS

FOR IMPROVING CURRENT AVDS

5.1 Gaps/ Problems faced in Current Alternate Vaccine Delivery System

5.1.1 In previous chapters, we have presented Zonal and State-level aggregates for a set of indicators which influence the vaccine delivery to a greater extent. In addition to the information on those indicators, the respondents functioning at all levels of healthcare delivery within the State were also asked to express their views and concern pertaining to the alternate vaccine delivery system, being implemented in the State in its current form. Various issues emerged across the State and at all levels of health care officials. The same has been analysed for all levels and presented in the following sections.

A. Views and Concern of State-Level Officials

(i) Supply of vaccine from Government of India is not in timely manner as per the demand of the State

(ii) Districts do not supply the vaccine to CHCs, PHCs and ILR in vaccine van. Instead it is collected by CHCs, PHCs and ILR vehicle or personal vehicle of the staff

B. Views and Concern of District and Block-Level Officials

(i) The current number of ILR points are unable to effectively cover all the immunization points, especially in hard to reach areas

(ii) Requirement of some more Vehicles in the CHC/PHC and for ILR point

(iii) The current amount being given for delivery of vaccines is insufficient

C. Views and Concern of ANMs

(i) Collecting the vaccine from ILR point is very time consuming

(ii) There is no separate person to deliver the vaccine, thus ANM herself has to bring the vaccine from ILR point to the immunization point. This hampers her activities in terms of reducing her time for immunization

(iii) Difficult to deliver the vaccines in interior immunization points

(iv) The amount received presently is Rs. 50/- per session which is not enough as the vaccines are to be carried to far-off distances also, hence the payment norm should be revised

(v) The payment is not enough looking at the workload

(vi) Non-receipt of reimbursement on time

5.2 Suggestions for improving Alternate Vaccine Delivery System

5.2.1 In view of the above-mentioned concerns, the officials at the State, District and Block levels as well as ANMs, were asked for their suggestions to address these issues/concerns. These are presented as under.

A. Suggestions from State-Level Officials

(i) Vaccines should be supplied in timely manner by districts to CHCs, PHCs and ILR points in vaccine van with conditioned ice packs.

(ii) Close monitoring of vaccine management system.

(iii) Need for computerized database for planning and management with provision of telephone facility, fax machine and internet connectivity to all linked facilities in the vaccine delivery system.

(iv) For each session and for each ILR point, need for micro-planning for vaccine distribution using locally appropriate alternate vaccine delivery method.

(v) For distribution of vaccine in alternate way to Immunization Site clear micro-plan should be prepared taking into account the route, manpower deployed and mode of transport.

(vi) Consider all options for alternate vaccine delivery system based on

a. Topography of different regions in the State;

b. Distance of vaccination point from the ILR point;

c. Road infrastructure in terms of motorable/ non-motorable road.

(vii) The norm for payment should be arrived at based on accessibility taking into account all the above-mentioned factors through slab-criteria.

B. Suggestions from District and Block-Level Officials

(i) Requirement of some more Vehicles, more Male Health Workers and increase the money (Rs.50/-) for delivery of vaccine.

(ii) HQ or PHC vehicle is the best option to supply the vaccine to IPs and collecting the report and reporting on same day.

(iii) By hiring Autos.

(iv) Addition of some new ILR Points in PHC (n), even at Sub-centres in special cases.

(v) As per the procedure followed in Pulse Polio, an agency is to be entrusted for this work, being decided by the RKS in this case.

(vi) Engage some NGO for entire Block/District or Health Supervisors of the Sector, if it is Sector wise to workout the supply system.

(vii) Engaging unemployed youth.

(viii) By using husband or relatives of ANM.

C. Suggestions from ANMs

(i) PHC Vehicle arrangement from ILR point to IP; if Government takes initiative, the system can be improved.

(ii) Payment norm should be revised (Some mentioned Rs. 100/- while large majority suggested Rs. 150/- for hard to reach areas).

(iii) Timely reimbursement of expenses borne towards the transportation of vaccines.

(iv) Engaging unemployed youth for vaccine delivery.

(v) Local NGO could be hired for transportation of Vaccine (There was a divided opinion on involvement of NGOs).

(vi) ANM's husband could be involved for carrying vaccine, even to more than one site.

(vii) Hiring of vehicles like auto rickshaw, car/jeep, etc.

5.3 Names of NGOs suggested by the Officials for Districts covered under the Study

S.No.	Zone	Districts	NGOs Operating in the District
1	North	Baragarh	1. WUAC 2. SYS 3. My Heart
		Keonjhar	1. Tribal Rural Development of Social Service Organization(TRDSSO) 2. Forum for Economic & Cultural Advancement(FECA) 3. Biswa Gyana Chetana Samaj(BGCS)
		Sambalpur	1. Jeevan Vikash Kendra (JVK) 2. Adarsh Sishu Mandir (ASM)
2	Central	Jajpur	1. Lokbikash 2. NISW 3. Nari Abhudya Sangha
		Kendrapada	1. VARRAT 2. CULI 3. GRAMUTTHAN
3	South	Kalahandi	1. Society for Eye Care & Voluntary Activities (SEVA) 2. Community Rural Area Development Agency (CARADA) 3. Brundaban Sanskrutik Anusthan(BSA) 4. RGMP 5. Sanjog
		Koraput	1. WORD 2. IDS 3. ANKURAN 4. GITA
		Nuapada	1. AYAUSKAM 2. Youth for Action and Research
		Rayagada	1. ASHA 2. JAGARANA

5.4 Review of AVDS in Other States

5.4.1 Purpose of AVDS, as envisaged by the States of Bihar and Madhya Pradesh

- Reaching vaccines at the outreach sites on specified day and time.
- Providing quality time to immunization activity by reducing the time due to transportation.
- Closer follow up and monitoring of the vaccines sessions by MOs and sector supervisors.

5.4.2 Salient features of AVDS model in Bihar

- The AVDS model in Bihar is popularly known as "Courier" service.
- Rs. 50/- per session site has been provided to every sub-centre area on every Wednesday AWC on the Friday.
- Same courier to be used for 2-3 AWC allotted to the ANM as per microplan, as plan for Friday.
- The individual is identified by the MOIC who has mobility support for delivering vaccines to the session sites on the session days.
- Bicycles and Motorcycles are used for this purpose by Courier.
- Other permissible modes of transport boats, horses, etc.
- Payment is made only if courier delivers vaccine in the morning and brings back the used AD Syringes, remaining vaccines and reports from the concerned sites on the same day.

5.4.3 Salient features of AVDS model in Madhya Pradesh

- Village level route maps are drawn from Block HQ to the outreach site.
- Village level session-wise indent and action plan are prepared. The micro-plan includes the names of the vaccinator and the supervisor.
- On the Village Health and Nutrition Day, the vehicles are hired as per the route charts to carry the vaccines up to the IP.
- Each vehicle has supervisors to take the responsibility of dropping the vaccine carrier at the immunization sites and monitor the progress. The ANM is supposed to reach the immunization site as per the micro-plan and the vaccine is sent to the site.
- Earlier, Rs.50/- was budgeted for every village per session (under Immunization head of NRHM). Rates were revised to Rs.120/- (Rs. 50/- by State Govt. & Rs. 70/- under DFID) per village per session given the remoteness and low-density habitations of the villages.

CHAPTER 6 STUDY RECOMMENDATIONS

The recommendations based on the findings and field experiences are:

1. The various modes of transport that can be used for vaccine delivery are:

- PHC Vehicle (with provision of POL/DOL) or hired jeep, especially for hard to reach/ inaccessible areas in hilly terrains
- Hiring Auto rickshaw for providing vaccines to immunization points attached to an ILR following a circuitous route.
- Two Wheeler for ILR to a distant immunization point
- Bicycle for nearby immunization point, or where there is no motorable road
- Hired Boat where there is no river bridge
- On Foot (Head Load) where there is no motorable road, especially in hilly terrain

2. The persons who could be engaged in this activity after proper orientation on vaccine management may include:

- Husband/relative of ANM
- Unemployed Youth
- NGO having good credentials and acceptability
- Auto rickshaw drivers
- Any volunteer
- Porters

3. The guidelines for engaging individuals or organizations may include:

- The individuals/ organizations are to be engaged through a formal contract after proper orientation on vaccine management.
- Duration of contract with penalty clause.
- Less number of people to be involved for covering more IPs as this will ensure higher financial benefit, thus providing more drive to work.

4. The remuneration slab for the agencies can be fixed as follows:

For contracting individual immunization point

S.No.	Distance between ILR and IP (in Km.)	Easy-to-Reach Areas	Hard-to-reach Areas (hilly/ Tribal forests/ River without over- bridge/ Non-motorable road
1	0-10	Rs. 50/-	Rs. 100/-
2	11-20	Rs. 100/-	Rs. 150/-
3	21 and above	Rs. 150/-	Rs. 200/-

For contracting more than one immunization point

S.No.	Distance between ILR and IP (in Km.)	Easy-to- Reach Areas	Hard-to-reach Areas (hilly/ Tribal forests/ River without over-bridge/ Non-motorable road
1	0-10	Rs. 50/- per IP	Rs. 100/- for 1st IP; Rs. 50/- per IP subsequently
2	10-20	Rs. 100/- for 1st IP; Rs. 50/- per IP subsequently	Rs. 150/- for 1st IP; Rs. 50/- per IP subsequently
3	20 and above	Rs. 150/- for 1st IP; subsequently	Rs. 200/- for 1st IP; Rs. 50/- per IP

The recommended steps for implementing AVDS at the district level may include the following:

- Proper microplan preparation is at the heart of implementing a successful AVDS. Thus, complete and up to date microplans should be prepared ILR point wise for each Sub Centre and these should be rigorously implemented.
- Block level supervisors like the BPOs, BEEs should receive sensitization on AVDS and planning of AVDS on a block level is to be done these supervisors.
- The planning for AVDS needs to be done according to structured planning formats which are in line with the microplans. The planning should include the required budget and any other additional resources as felt necessary due to local conditions. Block wise AVDS needs to be compiled at the district level to generate the district AVDS plan.
- Expressions of interest should be sought for selection of agencies who would undertake AVDS implementation on a block level. The selection of such agencies and their agreement for providing such services should be done by the CDMO based on relevant terms of reference. The hiring of agencies should be for specific duration with penalty clause and less number of agencies should be engaged which would make it easier to maintain coordination with all agencies and monitor them properly.

- The initial implementation of the AVDS in a district should be done in 2-3 difficult or hard to access blocks and should be subjected to close monitoring and supervision during the initial stages. Monthly reviews of performance should be done rigorously to identify bottlenecks in implementation. The monitoring and supervision may be done as part of the Routine Immunization monitoring system.
- The AVDS can then be scaled up to all blocks after identifying the difficulties in the initial blocks and refining the system. The performance of the AVDS can be reviewed at the district level through monthly and quarterly review meetings, as is being done for RI.
- There needs to be a nodal person at the block level like the BPO and at the district level like the DPM who would be responsible for coordinating and implementing the AVDS for better accountability.

ANNEXURE

Annexure 1

SAMPLE AVDS PLAN OF PHC POTTANGI IN KORAPUT DISTRICT

ALTERNATIVE VACCINE DELIVERY SYSTEM OF PHC, POTTANGI											
District:-Koraput					Block:-Pottangi				Health Facility :- CHC-II, Pottangi		
ILR Point:-Pottangi					Day :- 1st Wednesday				Total session on the day :- 12		
Route No	Sl.No	Session site	Name of the ANM	Distance from ILR point	App.Time from ILR point	Time Departure from ILR point	Time of Delivery vaccine carrier	Time when vaccine carrier will be collected back	Mode of Transport (Vehicle Number)	Name of Courier/Driver	Amount
Route- 1	1	Badaliguda, AWC	Sarada Nayak	4km	10min	7.00am	7.10am	3.10pm	Hired vehicle+ DOL		1000
	2	Sargiguda, AWC	Pratima Girem	6km	12min		7.25am	2.55pm			
	3	Kapatiguda, AWC	Geetanjali Behera	11km	20min		7.40am	1.40pm			
	4	Nuaguda, AWC	Chabilal Behera (Sup)	14km	30min		7.55am	1.25pm			
	5	Pondei, AWC	Ratanamani Khillo	20km	1 hrs		8.20am	1pm			
Route- 2	1	Podalguda, AWC	Kamini Mallick	4km	10min	6.30am	6.40am	2.50pm	Bike	Niranjan Mallick	225
	2	Jodimadeli, AWC	Binapani Mohanto	18km	45min		7.25am	2.45pm			
	3	Chandaka S/C	Utkal Ranjita Lenka	17km	30min		7.55am	2pm			
Route- 3	1	Thuria S/C	Snehalata Mishra	27km	1.30min	6.30am	8.00am	2.30pm	Bike+head load	Raju Hantal+ mali kundu	200
	2	Kotia S/C	Babita Turuk	36km	2hrs		8.30am	2.00pm			
Route- 4	1	Nuagaon AWC	Sanjulata Mallick	6km	20min	7.15am	7.35am	2.00pm	Bike	Bhagirathi Mallick	75
Route- 5	1	Gangarajpur, AWC	Tanuja Behera	5km	15min	7.30am	7.45am	1.30pm	Bike	Babu	75
	TOTAL										1575

TERMS OF REFERENCE FOR THE ORGANIZATION INVOLVED IN AVDS

OFFICE OF THE CHIEF DISTRICT MEDICAL OFFICER,KORAPUT

Letter No 1849 **Date** 31.07.07.

To
The Block Medical Officer I/C
Nandapur and Pottangi
Sub: Regarding TOR of AVDS Agency

Sir,

This is to inform you that the agency should hire according to this Term of Reference.

TOR OF NGO/AGENCY FOR AVDS

1. Agency will provide personnel for delivery of vaccine, passbooks and other consumables from ILR point to Immunization points as per AVD micro plan.
2. The personnel will deliver the vaccines to IPs with such timing that, the vaccine will reach the last IP by 8 am.
3. The personnel will also collect the remaining vaccines, Vaccine carrier, red bag and black bag with immunisation waste, Tally sheets and submit at the ILR point same day after the immunisation session is over at 1 pm.
4. The vaccine delivery personnel will deliver the vaccine carrier with vaccine to the ANM/AWW/ASHA at the immunisation point.
5. The personnel will inform to the ILR point in charge about non availability of vaccinator or about cancellation of the session.
6. The personnel will ensure proper maintenance of the cold chain during vaccine transportation.
7. The vaccine transportation should not be deviated at any cost; in case the scheduled personnel is not available, the agency will ensure alternative arrangements.
8. The contact no of all vaccine transporters shall be provided to the ILR In charge as well as to the IP in charge.
9. The agency will submit the weekly report on AVD as well as the financial statement at the end of every week to the concerned MO I/Cs.
10. The Agency will be paid weekly @Rs 75.00 per IP per session and Rs 2000.00 flat per month by cheque or online A/C transfer on submission of the documents.
11. The agency will provide uniform (florescent blue coloured half jacket with message 'VACCINE EXPRESS' front side 'VACCINE DELIVERY URGENT' back side with clear logo of Orissa Government, NRHM, Unicef with UIP logo along with that of agency.'
12. The nodal person for the AVD will be ILR in charge at ILR level and BPO at block level under the overall supervision of MO I/C.
13. the security and other claims of the transporters will be sole responsibility of the agency.
14. The agency should not violate any labour act, transport act etc.while executing the job.

Yours Faithfully

Chief District Medical Officer Koraput

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