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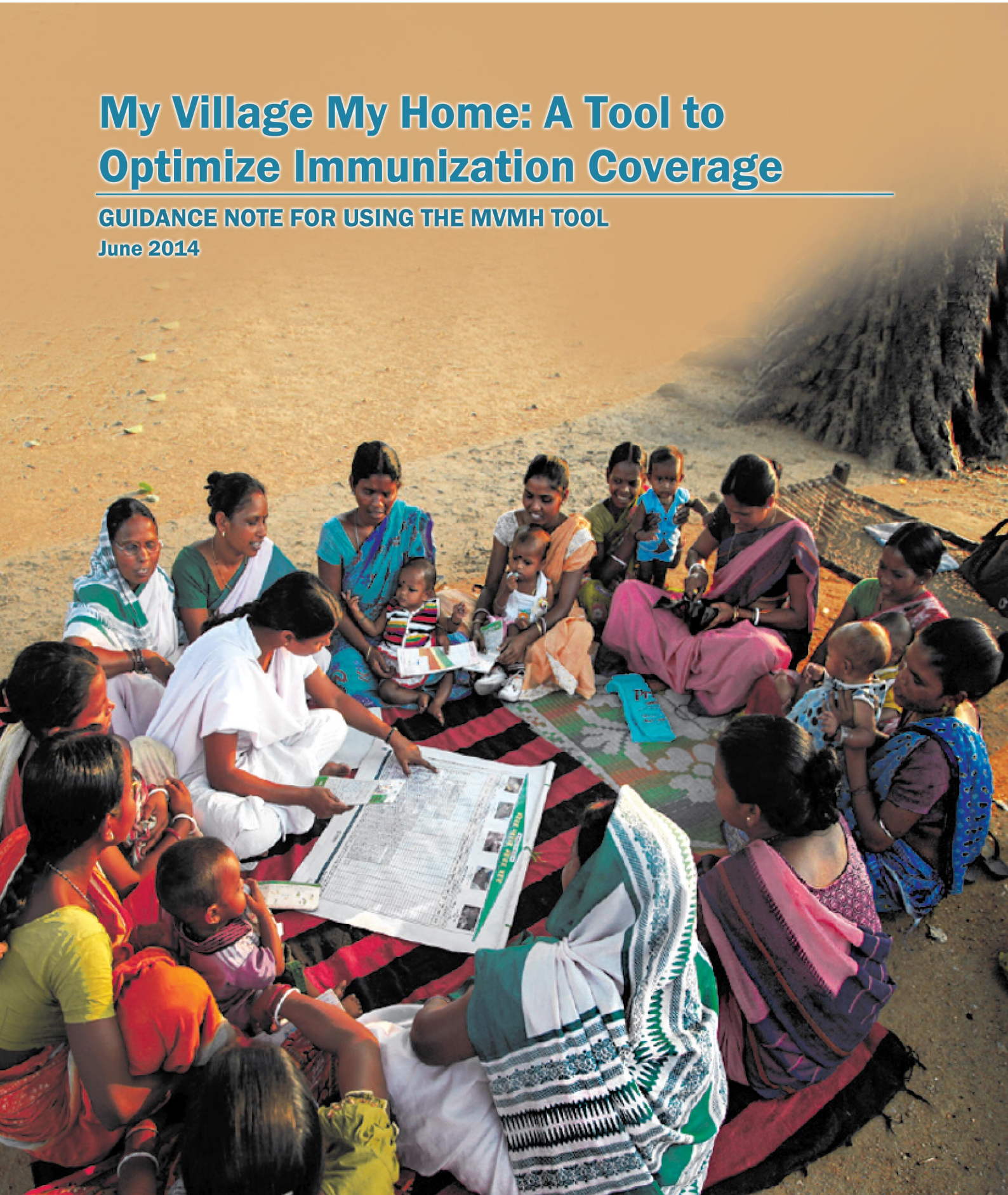
Maternal and Child Health
Integrated Program

My Village My Home: A Tool to Optimize Immunization Coverage

GUIDANCE NOTE FOR USING THE MVMH TOOL

June 2014



The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

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Abbreviations

AHS	Annual Health Survey
AII	Alliance for Immunization in India
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AVDS	Alternate Vaccine Delivery System
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BCG	Bacillus Calmette-Guerin
CES	Coverage Evaluation Survey
DPT	Diphtheria, Pertussis, Tetanus
GAVI	Global Alliance for Vaccines and Immunization
HMIS	Health Management Information System
LODO	Left-Out and Drop-Out
MCHIP	Maternal and Child Health Integrated Program
MCTS	Maternal and Child Tracking System
MVMH	My Village My Home
NIS	National Immunization Schedule
OPV	Oral Polio Vaccine
VPD	Vaccine-Preventable Disease

Acknowledgments

My Village My Home (MVMH) is a community-level tool designed to provide the community and local health functionaries a visual depiction of immunization status of all infants born in a village.

This document is prepared to help health workers use this tool at community level for effective tracking of beneficiaries.

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Executive Summary

THE TOOL: MY VILLAGE MY HOME

My Village My Home (MVMH) is a community-level tool that provides a visual depiction of immunization status of all infants born in a village, wherein the community as a whole can view and follow up immunization status of every infant in their village.

ADVANTAGES

- It is an offline tool to track beneficiaries.
- A "due list" can be prepared by glancing at the completed tool to see which children are eligible for one or more vaccinations as of the date of the next vaccination session.
- It can lead to increased community ownership and improved demand generation.
- It can improve quality of coverage—especially timeliness.
- It can be an accessory to the Maternal and Child Tracking System.

EXPECTED OUTCOME

Effective tracking of beneficiaries for vaccination, leading to increased full immunization coverage

TO BE USED BY

Field-level health workers like Auxiliary Nurse Midwives, Anganwadi Workers, Accredited Social Health Activists, and the community

Background

Immunization continues to be a cornerstone intervention aimed at reducing infant and under-five childhood mortality and morbidity. The scope of the immunization program in India has grown manifold over the past decade: it is now the largest program in the world with an annual target cohort of 30 million pregnant women and 27 million infants.[1]

Major changes in the program in recent years include: introducing new and underutilized vaccines (Hepatitis B, measles 2nd dose, and pentavalent vaccines), establishing and sustaining the Alternate Vaccine Delivery system [2](AVDS), institutionalizing a cold chain management information system, and establishing the Maternal and Child Tracking System (MCTS).

INITIATIVES BY GOVERNMENT TO IMPROVE IMMUNIZATION COVERAGE

The Government of India has appointed Accredited Social Health Activists (ASHAs) to create awareness of health and its social determinants and to mobilize the community for increased utilization and accountability of the existing health services, and also for local health planning.[3]

To ensure that essential preventive and promotive care is provided to pregnant women and all vaccines are administered to children as per the national immunization schedule (NIS), the Ministry of Health and Family Welfare launched the "MCTS in December 2009. The MCTS is focused on monitoring the delivery of services to ensure that all pregnant women and newborns receive "full" maternal and child health services. The MCTS utilizes information technology and captures details of all the beneficiaries in the country in a centralized database, which consists primarily of: [4]

- All new pregnancies detected and registered from 1 December 2009 at the first point of contact of the pregnant mother with the health facility and/or her health care provider, and
- All births occurring from 1 December 2009.

Despite the benefits of the MCTS innovation, the government has encountered some challenges/limitations in its implementation and utilization. One of the major issues is lack of clarity among health workers about the information to be fed into the software, leading to errors in the information database. Apart from this, discrepancies have been found in MCTS and health management information system (HMIS)[5] data, as the MCTS data that are uploaded are subject to the availability of Internet/data persons, etc., while HMIS contains mandatory data that are collected manually and reported regularly.

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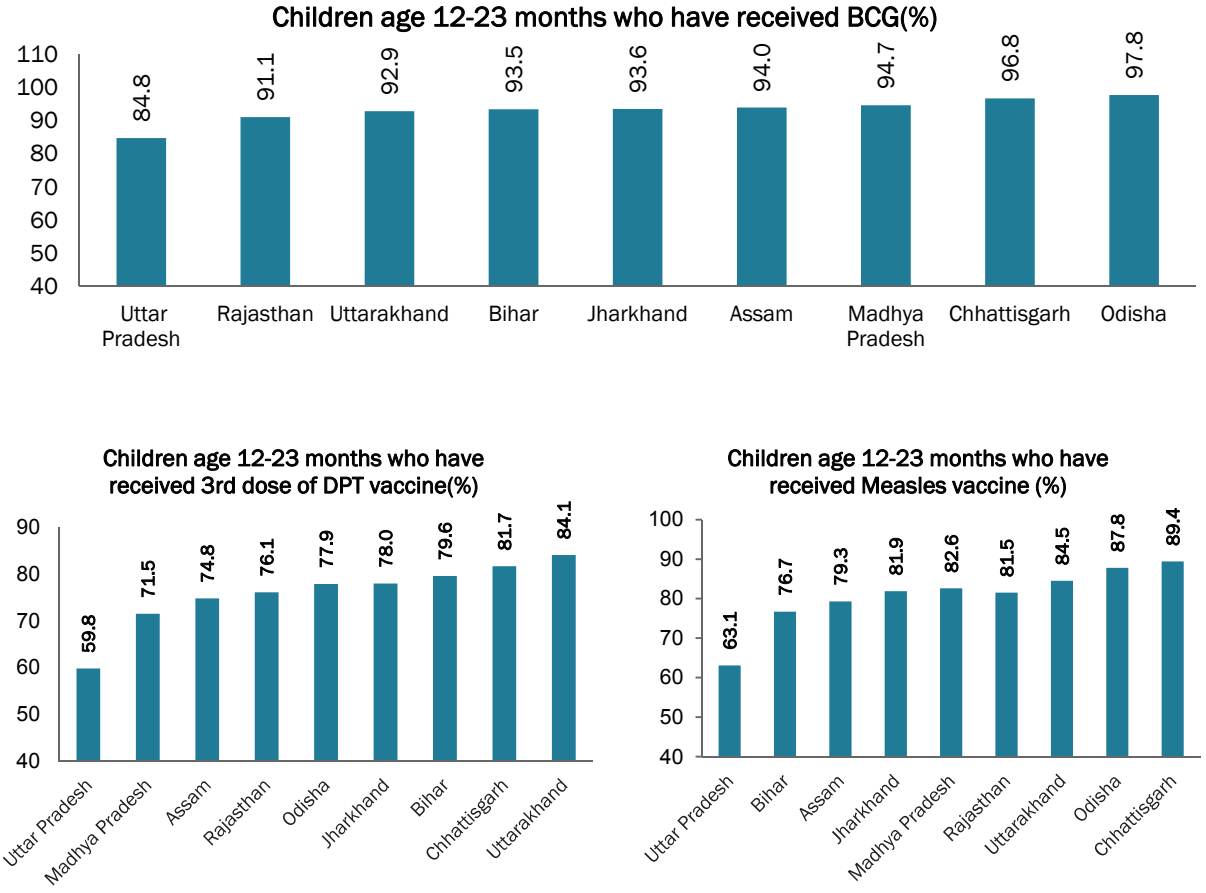
[1] National Vaccine Policy, Government of India, 2011.
[2] As per **AVDS**, vaccine and logistics should be delivered to the health workers at the immunization session sites so that they can start the immunization session on time; vaccines are collected on the same day and unused/opened vials and immunization waste are brought back to the cold chain point on the same day in proper cold chain.
[3] NRHM (National Rural Health Mission).
[4] MCTS-Data to be captured; NRHM.
[5] Health Management Information System is a web-based portal of the Government of India that facilitates the flow of physical and financial performance from implementation units to national level.

CHALLENGES AHEAD: UNDERUTILIZATION OF SERVICES, POOR COVERAGE

A review of evaluated data indicates under-utilization of services. Recent data reflect good access and poor utilization in the country—high BCG coverage rates, better DPT 1 coverage, and poor DPT 3 and measles coverage.[6] The program is plagued by substantially high drop-out rates: DPT 1-DPT 3 drop-out rates stand at 13.44% and BCG–measles at 14.73% as per the Coverage Evaluation Survey (CES) 2009. The recent Annual Health Survey (AHS) 2011–12 conducted across nine high-focus states[7] reveals a similar trend of good BCG coverage and reduced coverage with third dose of DPT and measles.

Figure 1: Immunization coverage as per AHS 2011–12 (Reference period for the data is 1 January–31 December 2011)



The above data clearly reflect that, although the community has access to immunization services, inadequate utilization persists. High drop-out rates point toward ineffective tracking of beneficiaries, coupled with inadequate community involvement and mobilization. Drop-outs may be caused by poor treatment of mothers at service delivery points and poor communication regarding minor side effects of vaccination and information regarding revisit dates.

[6]NFHS-III (2005-06), DLHS-III (2007-08), CES 2009.
[7]Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand.

A Tool to Strengthen the Immunization Services

To strengthen service delivery and immunization coverage at the ground level, one must understand the issues leading to high drop-out rates and to setting up a credible and efficient system for tracking beneficiaries. While supporting the immunization program in its focus districts, MCHIP adopted a community-level tool—My Village My Home (MVMH)—that can help improve quality coverage. It is designed for use by community-level workers, e.g., ANMs, ASHAs, and AWWs. By providing a visual depiction of the immunization status of all infants born within a year, the tool allows the community as a whole to monitor the immunization coverage of all the target infants in their village. This tool thereby helps mobilize community participation in immunization services.

Picture 1: ANMs analyzing left-outs and drop-outs (for immunization) in community

UNDERLYING CONCEPT OF MVMH TOOL

- The tool shows information on all children less than 2 years of age in a community under the roof of a house. Each row (from bottom to top), composed of boxes (bricks), is indicative of one beneficiary, and each box (brick) indicates an antigen that is to be provided to the beneficiary.
- Information on the oldest infant in a community (or village) is on the bottom row, and younger infants are added in the rows upward.
- Dates of vaccination are written (or colored) in the respective boxes after the names.
- Each layer of bricks (if properly laid) strengthens the house, and each missing brick weakens the house. Thus this tool presents immunization status in the form of properly laid bricks, thereby increasing the strength of the house.

Figure 2: MVMH tool in English language

Picture 2: ANM (health worker) filling in the names of beneficiaries in the MVMH tool

Steps to Use the MVMH Tool

Step 1:

Identify and write down the name of each newborn, the mother's name, and child's date of birth in the last (bottom) row in the first three cells (starting from left).

Step 2:

Weigh the child and write down the weight of the infant at the time of birth in cell number 4.

Step 3:

Write down the dates of vaccinations of the newborn, with birth doses of BCG, OPV-0, and Hep-B vaccines in cells 5, 6, and 7 under the respective headings in the same row.

Step 4:

Explain to the mother and other family attendants about the immunization schedule and give them a date to come back when the baby is 6 weeks old for OPV-1, DPT-1, and Hep-B1 vaccines.

Provide an immunization card to mother.

Step 5:

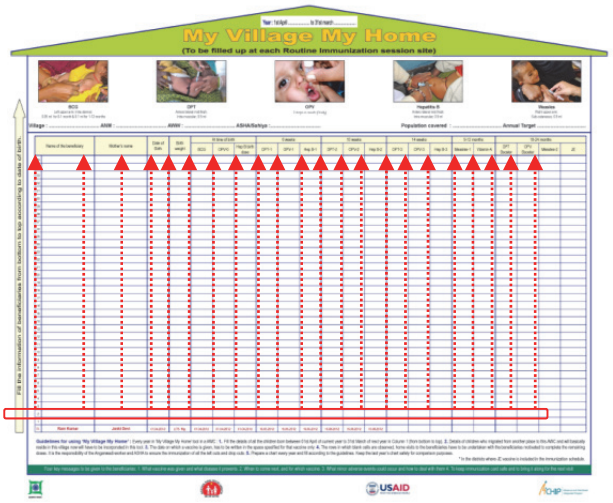
When the mother comes back with the infant for vaccination, administer OPV-1, DPT-1, and Hep B -1 vaccines, and write down the date of vaccination in cell numbers 8, 9, and 10.

Explain the next schedule of vaccines and give the mother a date for next time to come as per the immunization schedule.

Step 6:

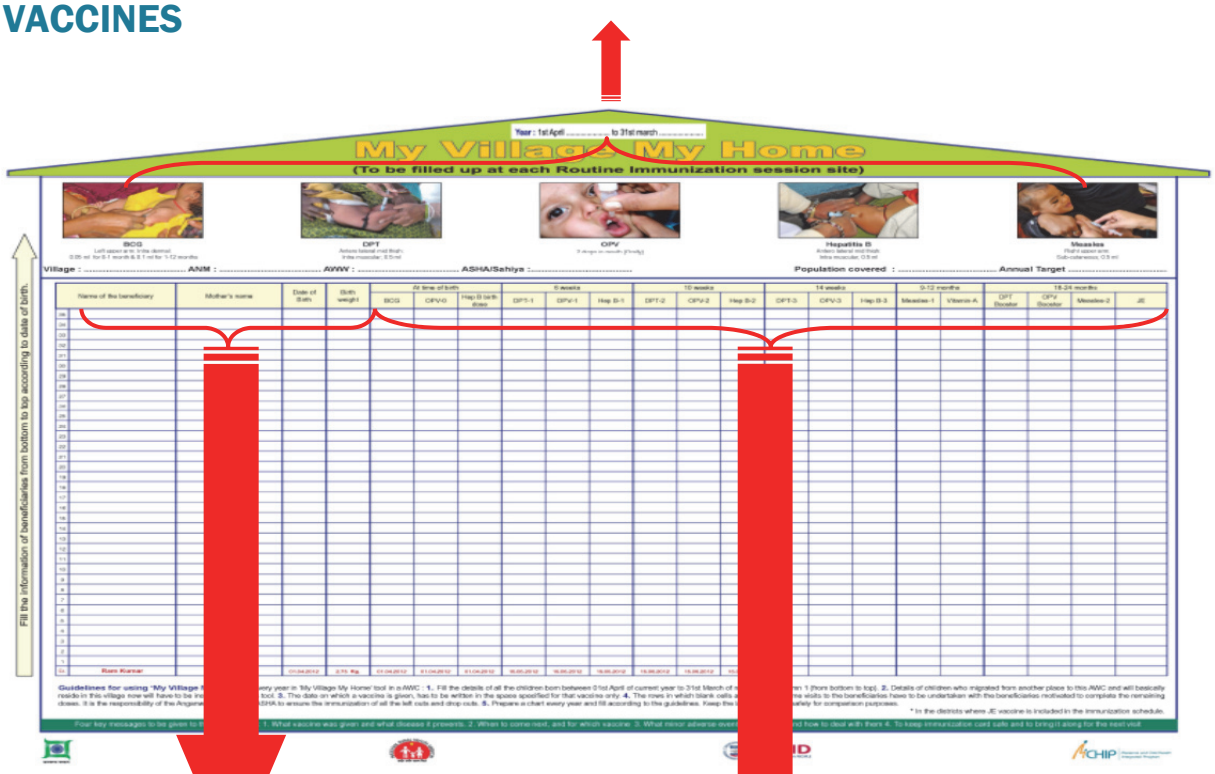
As the child is vaccinated, fill in all cells through number 22, indicating all the vaccines that the child received up to the age of 2 years.

All the remaining rows (in upward direction) should be filled in, following these steps, for other newborns in the village. Simultaneously, keep checking on the children already on the tool and those who are not registered in the tool (if any) and follow them up to reduce left-outs/drop-outs.



Interpretation—MVMH Tool Elements

CORRECT METHODS FOR VACCINE ADMINISTRATION FOR SPECIFIC VACCINES



Name of beneficiary	Mother's name	Date of Birth	Birth weight

Representation: Particulars of the beneficiary i.e., name, date of birth, name of mother, weight at birth.
Relevance:

- Effective name-based tracking of children/newborns for vaccination
- Easy for mothers to identify their children's immunization status

At the time of birth			6 weeks			10 weeks			14 weeks			9-12 months		18-24 months			
BCG	OPV-0	Hep B birth dose	DPT-1	OPV-1	Hep B-1	DPT-2	OPV-2	Hep B-2	DPT-3	OPV-3	Hep B-3	Measles-1	Vitamin A	DPT booster	OPV booster	Measles-2	JE

Representation: These cells represent the immunization schedule of all doses that need to be given to every single child up to the age of 24 months.
Relevance: This reminds the health workers and community about all vaccines that have to be administered to a particular child and after what duration, and also if the child missed any vaccines. (Vaccines missed by the child will be reflected as the empty boxes after the infant's name.)

**The Government of India advocates will administer JE vaccine as two doses, the first given at 9–12 months and the second at 18–24 months.*

"The completeness of each row represents the immunization status of each young child."

"The strength of the home depends on the number of bricks filled."

Advantages of the MVMH Tool

The scope of the tool is vast; it can fulfill all of the following functions:

- **Herd-immunity:** A single sheet depicts the vaccination status of the children of the community or village. As the tool depicts the vaccination coverage of the entire target group at one glance, it is a visual indicator for herd immunity.
- **Left-out and drop-out (LODO) status:** Used retrospectively, the tool is utilized to identify and target left-outs and drop-outs. It can measure specific child drop-outs between various antigens and subsequent doses. Thus it can measure the magnitude of left-outs and drop-outs.
- **Addressing the issues of LODO:** Once the left-outs and drop-outs are known, area-specific interventions can be initiated to reduce both.
- **Tracking of LODOs:** MVMH works well as a due list that is easy to record and identifies and tracks due children for the next visit.
- **Inter-sectoral coordination**: The tool promotes inter-sectoral coordination by serving as a common reference sheet for all the three grass-root level workers (ANMs, AWWs, and ASHAs).
- **As an offline tool for MCTS:** In supporting MCTS, MVMH does not depend on electricity or a data entry operator at the facility.
- **Community linkage tool:** As it is displayed in the session site such as an Anganwadi Centre (AWC), the parents/caretakers visiting the center can have a look at the filled out tool and feel proud looking at the display of their child's name. If they do not see the name of their "eligible" child, they can alert the concerned ANM/AWW/ASHA so that needed vaccines will be given and the child will be enrolled.
- **As a communication tool:** The tool functions as effective communication material that can be used by an ANM addressing a group, for counseling one or two caregivers, and to help motivate caregivers who are not very keen to get their child vaccinated.
- **As a monitoring tool:** It can be used as a monitoring tool to inculcate change in work culture.
- **As a research tool:** It can be used as an effective research tool because it provides indicators of the program such as:
  - Left-outs
  - Child-specific drop-outs—BCG/measles, DPT1/DPT3, HepB1/HepB3, BCG/DPT3
  - The timeliness of vaccination
  - Other indicators such as the gap between subsequent doses of the same antigen

The tool has been prepared in the local language with a set of self-explanatory instructions on how to use it.

Figure 3: MVMH tool in Hindi language

Picture 3: Filled in MVMH tool

Evolution of MVMH Tool in Jharkhand—A Success Story

THE PILOT PROJECT

The Maternal and Child Health Integrated Program (MCHIP) provided technical assistance to the focus districts of Deoghar and Jamtara in the state of Jharkhand from 2009 to 2014. The project piloted evidence-based interventions and worked at the field level to strengthen tracking of beneficiaries. MCHIP adapted and modified the intervention of MVMH from the original tool developed by Robert Steinglass, a well-known international immunization champion.

Figure 4: Original (initial) MVMH format

	DOB	Birth Wt. (in kgs)	BCG	OPV			DPT			Hepatitis B			Measles	Vit A
				1	2	3	1	2	3	1	2	3		
26														
25														
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Eg: Rina Kumari, D/o: Bheem Kr	21/1	2.6 kg	27/1	05/3	22/4	07/6	05/3	22/4	07/6	05/3	22/4	07/6		

RETROSPECTIVE TRACKING OF BENEFICIARIES

Picture 4: A sample MVMH format in Jharkhand

The Government of India declared 2012–13 as the "Year of Intensification of Routine Immunization." As a part of the activities to improve the coverage, "immunization weeks" were conducted for 4 consecutive months with the purpose of enhancing immunization coverage by identifying and immunizing left-outs and drop-outs.

MCHIP undertook a study to demonstrate the effectiveness of the immunization weeks in improving coverage, using the MVMH tool. This study was conducted across five Health Sub Center areas with 28 immunization session sites. Although the tool is used in a prospective manner to track a new birth cohort, for the study purpose, it was used retrospectively to enlist all births that occurred in the last 2 years with the immunization status of the children. This helped in identifying and vaccinating all remaining left-outs and drop-outs in the area for all antigens.

Use of MVMH Tool Continued for the Prospective Cohort of Newborns

MCHIP continued with the MVMH initiative across the same 28 AWCs (in Jamtara and Deoghar) to capture all births occurring in the administrative year of April 2012–March 2013 and studied the data for prospective results. MVMH flex prints were provided to the AWCs where the community is actively linked up with the immunization program.

During this prospective study, the tool was modified in some aspects to increase its efficiency.

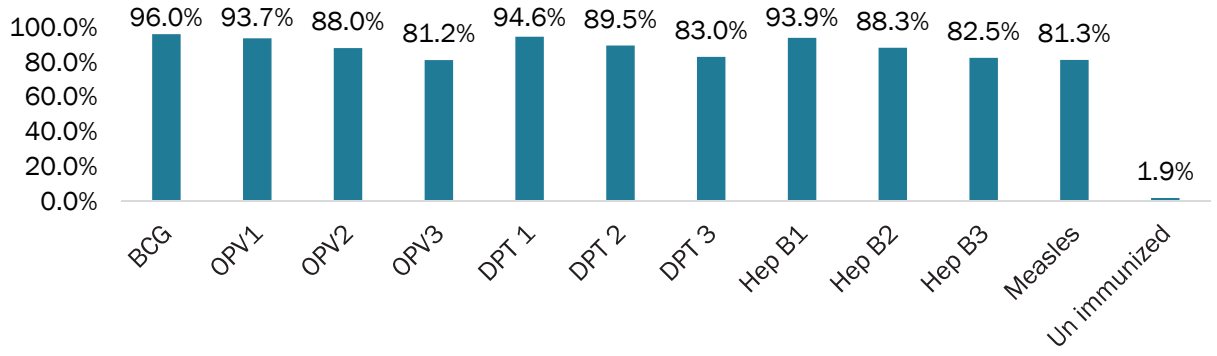
Modifications in the MVMH tool

- The scope of the MVMH tool was enhanced by preparing it in the local language.
- The format of the tool was revised and the order of the antigens kept as per the national immunization schedule of India instead of keeping the same antigen in adjacent columns.
- The scope of the tool expanded to include birth doses and booster doses of the antigens.
- To ensure timely vaccination, due dates are to be entered with pencil (so that they can be erased) on the tool and the dates of vaccination received are entered, instead of filling the blocks with color. Thus the tool functions as a "due list."
- To make it function as a job aid for vaccinators, the site, dose, and route of administration of antigens were added, along with the four key messages to deliver to the target beneficiaries.

Results

The study found improved coverage and timeliness for all antigens during the prospective study.

Figure 5: Consistently high coverage rates in Jharkhand study area during (April 2012–March 2013)



The districts of Deoghar and Jamtara have traditionally performed poorly, with surveyed full immunization coverage during 2011–12 at 48.6% in Deoghar and 68.6% in Jamtara.[8] After the introduction of MVMH, coverage rates for all the vaccines were more than 80%, and the unimmunized rates were just 1.9%.

Following the results achieved in the field and sustained advocacy at the state level, the Government of Jharkhand decided to implement the tool across all immunization session sites in the state.

In Uttar Pradesh, increased coverage rates were noted for all other vaccines except for measles, and the rate of unimmunized children also came down from 12.6% to 6.7% (Table 1). The following percentages of children were immunized before recommended age for the antigens: 9.6% for DPT-1, 5.0% for DPT-3, and 9.6% for measles vaccination.

Table 1: Coverage rates in Uttar Pradesh study area

VACCINE	PRE INTERVENTION COHORT (TOTAL CHILDREN 565)			TOTAL CHILDREN (I.E. PRE INTERVENTION + ADDED LATER) = 868		
	Eligible children	Children received	% coverage	Eligible children	Children received	% coverage
BCG	565	465	82.3%	868	768	88.5%
OPV 0	565	306	54.2%	868	510	58.8%
DPT 1	506	423	83.6%	868	747	86.1%
DPT 3	444	306	68.9%	848	611	72.1%
Measles	280	200	71.4%	642	430	67.0%
Un immunized	565	71	12.6%	630	42	6.7%

The tool has been well-appreciated at the field level by the community and health workers:

[8] Annual Health Survey 2011–12 data.

"Mothers and other villagers themselves ask: 'what is this and why are the boxes depicting my child empty?'"

"This is an extremely effective mechanism to ensure timely vaccination of children," says a health worker at AWC- Dewalwadi.

Effectively used, the MVMH tool can ensure full immunization coverage until 2 years of age and will definitely improve the overall coverage within any geographical area. The success of the pilot initiative led to the Government of Jharkhand adopting it for implementation across all 38,000 AWCs in the state. Subsequently the tool has also been approved for use by the State Governments of Uttar Pradesh and Punjab. The Alliance for Immunization in India (AII) a recently launched Global Alliance for Vaccines and Immunization (GAVI)/ civil society organization alliance for increasing civil society engagement within the Universal Immunization Program has also adopted the tool for use in its intervention areas in the States of Bihar, Jharkhand, Rajasthan, and Uttar Pradesh.

Use of MVMH in Field

Pictures 5–8: Use of the MVMH tool by health workers in the field

Annexure 1: MVMH Tool in English

Year : 1st April ..... to 31st march .....

My Village My Home

(To be filled up at each Routine Immunization session site)

BCG — Left upper arm; Intra dermal; 0.05 ml for 0-1 month & 0.1 ml for 1-12 months

DPT — Antero lateral mid thigh; Intra muscular; 0.5 ml

OPV — 2 drops in mouth (Orally)

Hepatitis B — Antero lateral mid thigh; Intra muscular; 0.5 ml

Measles — Right upper arm; Sub-cutaneous; 0.5 ml

Village : ..... ANM : ..... AWW : ..... ASHA/Sahiya : .....

Population covered : ..... Annual Target .....

Fill the information of beneficiaries from bottom to top according to date of birth.

Name of the beneficiary	Mother's name	Date of Birth	Birth weight	At time of birth			6 weeks			10 weeks			14 weeks			9-12 months		18-24 months			
				BCG	OPV-0	Hep B birth dose	DPT-1	OPV-1	Hep B-1	DPT-2	OPV-2	Hep B-2	DPT-3	OPV-3	Hep B-3	Measles-1	Vitamin-A	DPT Booster	OPV Booster	Measles-2	JE
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2																					
1																					
Ex	Ram Kumar	Janki Devi	01.04.2012	2.75 Kg	01.04.2012	01.04.2012	01.04.2012	15.05.2012	15.05.2012	15.05.2012	15.06.2012	15.06.2012	15.06.2012	15.07.2012	15.07.2012	15.07.2012						

Guidelines for using 'My Village My Home' : Every year in 'My Village My Home' tool in a AWC : **1.** Fill the details of all the children born between 01st April of current year to 31st March of next year in Column 1 (from bottom to top). **2.** Details of children who migrated from another place to this AWC and will basically reside in this village now will have to be incorporated in this tool. **3.** The date on which a vaccine is given, has to be written in the space specified for that vaccine only. **4.** The rows in which blank cells are observed, home visits to the beneficiaries have to be undertaken with the beneficiaries motivated to complete the remaining doses. It is the responsibility of the Anganwadi worker and ASHA to ensure the immunization of all the left outs and drop outs. **5.** Prepare a chart every year and fill according to the guidelines. Keep the last year's chart safely for comparison purposes.

* In the districts where JE vaccine is included in the immunization schedule.

Four key messages to be given to the beneficiaries: 1. What vaccine was given and what disease it prevents. 2. When to come next, and for which vaccine. 3. What minor adverse events could occur and how to deal with them 4. To keep immunization card safe and to bring it along for the next visit

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Annexure 2: MVMH Tool in Hindi