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# Reaching Underserved Communities through Mobile Health Vans in Uttarakhand, India

The Power of  
Innovations and  
Partnership

**MARCH 2012**

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# Reaching Underserved Communities through Mobile Health Vans In Uttarakhand, India

## END OF PROJECT SYMPOSIUM



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## FOREWORD

The aim of making healthcare accessible to the most vulnerable by addressing crucial barriers at multiple levels provides the foundation for designing innovative approaches to health care delivery. In the hilly state of Uttarakhand, among those not accessing government health facilities, 49 percent attribute the cause to lack of a nearby government health facility (NFHS-3, 2005-06). An important reason for low health indicators in the state has been limited access to fixed health care facilities due to poor transportation infrastructure in the more remote and interior regions. Recognizing the challenges imposed by the difficult terrain and poor transportation to access basic health care services, the Government of Uttarakhand (GoUK) identified the use of Mobile Health VANS (MHVs) as an effective method to improve health care access for rural communities.

The United States Agency for International Development (USAID) and Government of India bilateral Innovations in Family Planning Services (IFPS) Project conducted an evaluation of the three initial MHV models in the state. The findings of this evaluation, along with active stakeholder consultations, generated evidence to design a prototype MHV model which was successfully piloted in Ramnagar, Kotabab and Haldwani blocks of Nainital District. The Ramnagar MHV model showed encouraging results and demonstrated an efficient public-private partnership (PPP) model. The success of the Ramnagar MHV encouraged the GoUK to adapt certain features of the model to scale up operations for statewide coverage.

Today, the MHV operations in the state span across all 13 districts, with 30 MHVs providing diagnostic, curative and counseling services. The IFPS project has been instrumental in supporting GoUK for synchronization of different MHV models to promote coordination. USAID, through the IFPS Project, has worked extensively to support the GoUK to strengthen the MHV program in the state. This document captures the pilot implementation experience along with the best practices, lessons learned and recommendations and will serve as a guide for replicating MHV models to improve access to health care in other states and countries.

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This report documents the Mobile Health Vans (MHVs) experience in the state of Uttarakhand, specifically the pilot model initiated by Government of Uttarakhand (GoUK) and United States Agency for International Development (USAID). This pilot model was designed adopting a public private partnership (PPP) approach. Several PPP initiatives have been undertaken as part of the Innovations in Family Planning Services (IFPS) project in Uttarakhand, Uttar Pradesh and Jharkhand. The IFPS Technical Assistance Project (ITAP), implemented by Futures Group India in partnership with Bearing Point, Sibley International, Johns Hopkins University, and QED, provides technical assistance to the IFPS project. The USAID funded IFPS project is a joint US-India initiative that has worked to promote improved FP/RH for India's poor communities and works in close collaboration with Ministry of Health and Family Welfare, Government of India as well as the

three state societies in Uttarakhand, Uttar Pradesh and Jharkhand.

The IFPS Technical Assistance Project acknowledges the efforts of the GoUK for taking such an innovation forward to scale it up to the entire state, as well as to the staff of Birla Institute for Scientific Research (BISR) for successful implementation and continues support to the MHV program.

Importantly, this report highlights the achievements of numerous state and district partners who played an integral role in the design and implementation of the MHVs program in Uttarakhand. Key partners include the Uttarakhand Health and Family Welfare Society (UKHFWS), Chief Medical Officers (CMOs), and accredited social health activists (ASHAs). Above all, this report acknowledges the efforts of the MHV teams across Uttarakhand, who are working towards making health services available to the most inaccessible areas of Uttarakhand.

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# ABBREVIATIONS

ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWW	<i>Anganwadi</i> Worker
BCC	Behavior Change Communication
BISR	Birla Institute of Social Research
BPL	Below Poverty Line
CHC	Community Health Center
CMO	Chief Medical Officer
DMHFW	Department of Medical Health and Family Welfare
DoHFW	Department of Health and Family Welfare
DPMU	District Program Management Unit
ECG	Electrocardiogram
ENT	Ear, Nose and Throat
EOP	End of Project
FP	Family Planning
Gol	Government of India
GoUK	Government of Uttarakhand
HLFPPT	Hindustan Latex Family Planning Promotion Trust
IEC	Information, Education and Communication
IFA	Iron Folic Acid
IFPS	Innovations in Family Planning Services
IMR	Infant Mortality Rate
IPC	Interpersonal Communication
ITAP	IFPS Technical Assistance Project
IUCD	Intrauterine Contraceptive Device
MHV	Mobile Health Van
MMR	Maternal Mortality Rate
MMU	Mobile Medical Unit
MO	Medical Officer
MPR	Monthly Progress Report

NGO	Nongovernmental Organization
NRHM	National Rural Health Mission
OB/GYN	Obstetrics/Gynecology
OPD	Outpatient Department
PBD	Performance Based Disbursement
PHC	Primary Health Center
PIL	Project Implementation Letter
PIP	Project Implementation Plan
PNC	Postnatal Care
PNDT	Pre-Conception and Pre-Natal Diagnostic Techniques
PPP	Public-Private Partnership
PSO	Program Support Officer
QPR	Quarterly Progress Report
RCH	Reproductive and Child Health
RH	Reproductive Health
RTI	Reproductive Tract Infection
SIP	Sector Investment Program
SPD	Society for People's Development
SPMU	State Program Management Unit
SHRC	State Health Resource Center
STI	Sexually Transmitted Infection
TAG	Technical Advisory Group
TIFAC	Technology Information Forecasting and Assessment Council
TT	Tetanus Toxoid
UMHRC	Uttarakhand Mobile Hospital and Research Center
USAID	United States Agency for International Development
USG	Ultrasonography
UKHFWS	Uttarakhand Health and Family Welfare Society
UKHSDP	Uttarakhand Health Systems Development Project

# EXECUTIVE SUMMARY

In rural areas of Northern India, geographic and infrastructural challenges present major barriers to the population's access to basic health services. In Uttarakhand, the population is constrained from reaching health facilities due to mountainous terrain, poor transportation infrastructure and geographic distance. With these challenges in mind, over the past decade the Government of Uttarakhand (GoUK) has worked to improve the health indicators of the local communities through innovative approaches that expand the reach of quality health services. Mobile health vans (MHVs) were introduced as one of the key approaches to supplement the services provided through public health facilities in Uttarakhand.

## DESIGN OF A PILOT MODEL

In 2002, the GoUK committed itself to introduce mobile services as well as other innovative approaches in primary healthcare delivery. Following this, GoUK began to deploy MHVs, which are now operational across the 13 districts of the state. In 2006, the United States Agency for International Development (USAID) supported the Innovations in Family Planning Services (IFPS) project, in association with the GoUK and conducted an evaluation of three early MHV approaches in the state. After analyzing the advantages and limitations of each model, the IFPS

Technical Assistance Project (ITAP) team conducted a workshop to discuss the findings of the evaluation and to foster the design of a prototype model through active consultation with key stakeholders. Following the GoUK's decision to pilot an MHV model in 2006, USAID supported the operationalization of this pilot, based on the prototype designed in consultation with stakeholders. Birla Institute of Social Research (BISR) managed the operations of the vans with ITAP providing technical and managerial assistance. The van operationalized its activities in Nainital district covering Ramnagar, Kotababh and Haldwani blocks.

## HEALTH SERVICES

The health services provided through the van intended to meet the clients' preventive, diagnostic and curative needs. A comprehensive complement of medical staff travel with the van, including a project coordinator, medical officer (MO), lady medical officer, radiologist, X-ray/electrocardiogram (ECG) technician, pharmacist, laboratory technician, health coordinator, lady health worker, utility worker and two drivers. Importantly, the van has established linkages with different levels of the health system, ranging from community health workers who provide direct outreach to clients to higher-level facilities that can treat more complex healthcare needs.

## PPP APPROACH

The Ramnagar MHV model was distinctive in its public private partnership (PPP) approach, which utilized the existing capacity of the private sector to expand the service delivery network to the poor. This approach leveraged the management capacity of the private sector, thus, bringing in additional capacity into the health system, and facilitated strong relationships with the government. The van adopted a three pronged comprehensive approach of providing diagnosis, treatment and follow-up.

## FIXED DATE-FIXED ROUTE SCHEDULE

The project was implemented through a regular series of camps rotating among eight established locations around the district, on a fixed date-fixed route schedule. The fixed date-fixed route approach allows for simple scheduling for clients, better follow up of family planning (FP) and reproductive health (RH) care needs, efficiency in community mobilization, better referrals and more effective monitoring.

A Technical Advisory Group (TAG), with members from State Program Management Unit (SPMU), National Rural Health Mission (NRHM), USAID and program partners provided expert guidance for van operations.

## **ACHIEVEMENTS**

The Ramnagar van efficiently conducted all the scheduled camps without missing a single camp. Between November 2007 and March 2009, it held a total of 464 camps, including five special medical camps and approximately 8,000 below poverty line (BPL) clients availed services from the van.

## **SCALE-UP**

The GoUK adapted the positive elements from the Ramnagar MHV to inform the scale up of the MHV program to the entire state, supported through the NRHM program, Government of India (GoI) and GoUK.

The scale up started in 2009 and currently, a total of 30 MHVs having 140 qualified staff members are operating in four model schemes in Uttarakhand, with at least two vans in each of the 13 districts. Taking from the Ramnagar van concept, the MHV program staff has developed strong relationships with the local communities through comprehensive project implementation and also through behavior change communication (BCC) initiatives. Accredited social health activists (ASHAs) along the MHV routes have been trained on interpersonal communication (IPC) and have been provided job aids.

Further, these outreach efforts have both strengthened the overall health system and promoted increased

awareness, trust and utilization among target communities of the MHVs.

## **SYNCHRONIZATION OF MHVs**

Post scale up, the lack of coordination among different stakeholders was identified as a challenge that hindered efficient decisionmaking to address operational issues. To address this, a synchronization plan was developed in 2011 by IFPS. It devised a three-step process to evaluate the vans, develop strategies to address their limitations and promote coordination. Further, the development of a Strategic Implementation Plan informed through in-depth stakeholder consultation with regional workshops and the input of the Technical Advisory Group (TAG) was a critical step to harmonizing the MHV approach across Uttarakhand. The synchronization strategy fostered more equitable and standard coverage of localities in the remote areas of the state and also allowed for flexibility in adding campsites, when district officials identified an unmet need. The careful design, with stakeholder input solicited and incorporated throughout, has focused on factors such as the ability to implement, sustainability and scalability. Synchronization has also enhanced the program's design for scale up opportunities. The MHV model in Uttarakhand can be readily adapted to other contexts where expanding the reach of health services beyond fixed facilities is a priority for governments and their partners.

MHVs in Uttarakhand have addressed context-specific barriers to accessing critical basic healthcare, including FP and RH. The support provided by the state government and seven years of IFPS and ITAP's technical assistance has led to delivery mechanisms that have improved the effectiveness, expansion, reach and impact of the existing program. From 2010 to 2011, the MHVs held about 5,000 camps in which they were able to provide health services to approximately 300,000 people in hard to reach areas of Uttarakhand.

## **MMUs IN JHARKHAND**

ITAP has also provided support for Jharkhand's Mobile Medical Units (MMUs) program, started in 2007. The MMU is currently operating 103 vehicles in difficult to reach and insurgency hit areas of all 24 districts. In 2011, ITAP conducted a comprehensive assessment of the management, operation, demand generation and beneficiary satisfaction of Jharkhand's MMUs. Assessment findings will guide effective provision of quality healthcare services across the state.

Building on the success of the MHV programs in Uttarakhand, the GoUK continues its commitment to sustain these programs and is therefore including the MHVs as a major component in the yearly state Program Implementation Plans (PIPs).

# INTRODUCTION

The Indian subcontinent is characterized by large diversities in geographical regions, sociocultural groups and health needs. The rural health services infrastructure is widespread, starting with community workers, sub-centers, primary health centers (PHCs), community health centers (CHCs), secondary level district hospitals, up to medical colleges and their tertiary facilities (Bulletin on Rural Health Statistics in India, 2007). Although community-based counseling and distribution of basic health services have helped to some extent in expanding the reach of healthcare to remote areas, difficulties in reaching physical facilities continue to be a major impediment to improving health indicators and individual well-being.

For nearly a decade, the Government of Uttarakhand (GoUK), a mountainous state with largely inhospitable terrain and poor transportation infrastructure, has been striving to improve access to health services by meeting people where they are. The mobile health van (MHV) program adopted in one district has spread to achieve state wide coverage. The program provides a range of basic health services, with a focus on family planning (FP) and reproductive health (RH). The

program was supported by the Innovations in Family Planning Services (IFPS) Project, a bilateral effort of the Government of India (GoI) and United States Agency for International Development (USAID) India, along with its technical assistance partner, IFPS Technical Assistance Project (ITAP). The IFPS Project has contributed to the MHV programs through design of operations, in-depth evaluations and assessments, multi-sectoral stakeholder dialogues, strategic planning, local partner capacity building, demand generation through behavior change communication (BCC) and other technical assistance.

### 1.1 PURPOSE AND ORGANIZATION OF THE REPORT

This end of project report intends to capture the best practices, lessons learned and recommendations developed over the course of seven years of work by GoUK and IFPS including ITAP on MHVs in Uttarakhand. It is hoped that these experiences will offer guidelines for future initiatives related to public-private partnerships (PPPs) for mobile health services in India and elsewhere.

Section 2 contains a summary of the demographic and health profile

of Uttarakhand and the barriers to health service access and use. Section 3 presents the rationale why MHVs were seen as an effective strategy for countering the problems presented by the state. Section 4 outlines the initial period of MHV activities in Uttarakhand, including the evaluation of pilot models and design of a prototype. Section 5 focuses on ITAP's operations research design and implementation of the Ramnagar van, including the innovative elements of its operation and service delivery. Section 6 describes the scaling up of the project between 2009 and 2011 with the introduction of new models that have expanded upon the successes of the Ramnagar van and also details recent efforts to enhance synchronization of the different MHVs. The main achievements of the MHV programs and the lessons learned over the course of the project are discussed in Section 7 and a section on the way forward for MHVs are included in Section 8. Quotes from stakeholders interviewed during the various project evaluations have been included throughout the report.

This report is a compilation and summary of numerous published and unpublished materials from the MHV program in Uttarakhand, including

proposals, evaluations, assessments, strategic plans, presentations and state policies which are listed in the References section. Being an end of

project report summarizing seven years of work across multiple partner agencies and geographic areas, in-depth analysis and presentation of

the full details of all implementation experiences are beyond its scope. These details may be obtained from the Reference section materials.

## Chapter 2

# UNDERSTANDING THE PROBLEM

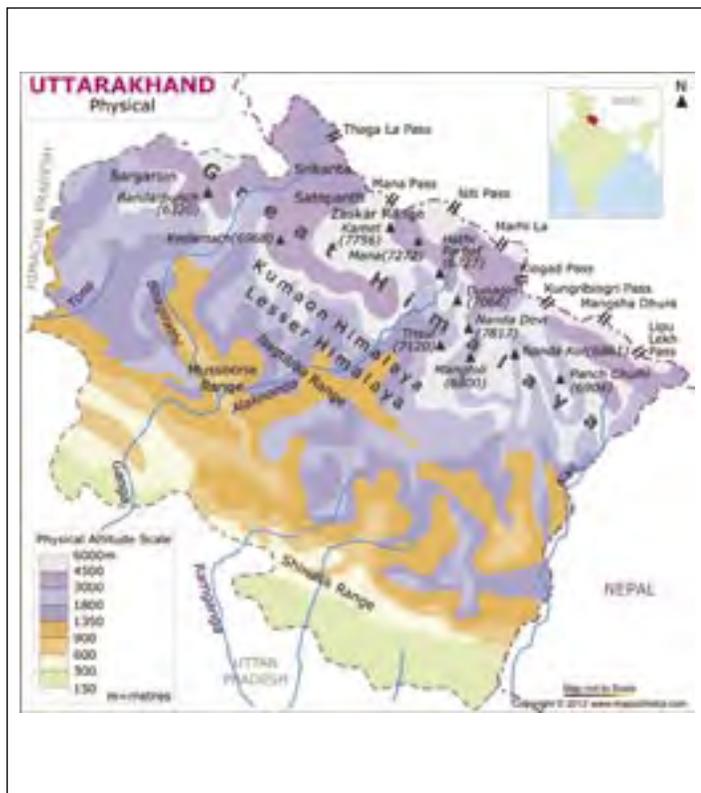
### 2.1 DEMOGRAPHIC FEATURES AND TERRAIN

The state of Uttarakhand (earlier Uttaranchal) was created in 2000 from portions of Uttar Pradesh state.<sup>1</sup> As per Census 2001, Uttarakhand had a total population of 8.5 million. The state divided into 13 districts, had 74 percent of its population residing in 16,826 villages. Uttarakhand

is distinguished by its hilly and mountainous Himalayan terrain which is a challenge to navigate for a largely impoverished population. Of the 13 districts, nine have mountainous terrain. Owing to the hilly terrain, the state has virtually no railway network. In 2005, only five major towns in four districts - Dehradun, Haridwar, Rishikesh, Haldwani and

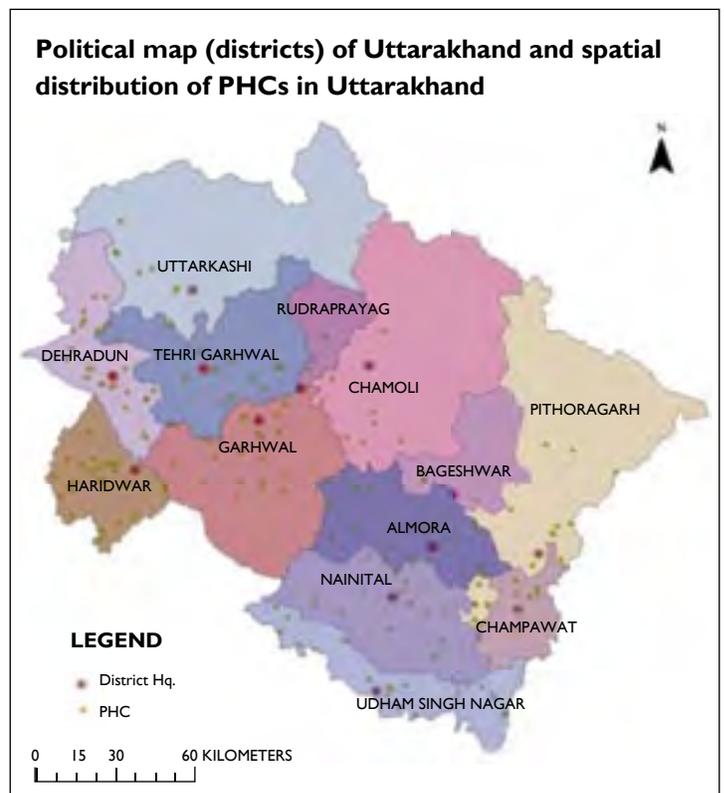
Kathgodam - are connected by railway. The remaining nine districts are completely dependent on the road network. Access to even primary healthcare services is nearly impossible for many people. Figures 1 and 2 clearly indicate that distribution of health facilities is limited, if not absent, in the Upper Himalayas and skewed towards the plains.

FIGURE 1: PHYSICAL MAP OF UTTARAKHAND



Source: <http://www.mapsofindia.com>

FIGURE 2: STATIC FACILITIES



Source: Jansankhya Stihrata Kosh <http://www.jsk.gov.in/>

<sup>1</sup> Uttarakhand was originally known as Uttaranchal. Its name was changed in 2007.

## 2.2 HEALTH INFRASTRUCTURE AND HEALTH PROFILE

In addition to the challenges of physical access to facilities, the quality of services is limited by a scarcity of basic amenities and an insufficient number of healthcare providers, as a large number of positions for doctors, laboratory technicians, pharmacists, nurses and mid-wives remain vacant. In 2005-06, the shortfall<sup>2</sup> of doctors, lab technicians and nurses at primary health centers (PHCs) and community health centers (CHCs) was 50, 249 and 446 positions, respectively, suggesting that the sanctioned positions were inadequate to meet the requirements of the state. Of those sanctioned, 90 positions for doctors, 58 positions for laboratory technicians and 16 positions for nurses remained vacant<sup>3</sup> at the PHCs and CHCs. (Bulletin on Rural Health Statistics in India, 2007)

In 2005, with the launch of the National Rural Health Mission (NRHM), the GoUK set specific goals for itself to improve the health indicators of the state. In 2005-06, the total fertility rate was 2.5 children per woman, as against the 2010 NRHM goal of 2.1, leaving room for improvement. The infant mortality rate (IMR), at 41 deaths per 1,000 live births, was significantly higher than the projected goal of less than 30 deaths per 1,000 live births. Regarding maternal health indicators, the maternal mortality

**TABLE I: COMPARISON OF HEALTH INDICATORS AGAINST RCH II NRHM (2010) GOALS FOR UTTARAKHAND**

Indicators	2005-06	RCH II NRHM Goals (2005-2010) <sup>1</sup>
Total fertility rate	2.5 (NFHS-3)	2.1
Full immunization	60 (NFHS-3)	100
Early ANC Registration	43.3 (NFHS-3)	75
Full ANC	16.1 (NFHS-3)	NA
Institutional delivery	32.6 (NFHS-3)	59
IMR	41 <sup>2</sup>	28
MMR	440 <sup>3</sup>	Below 100

Source: NFHS-3, 2005-06

<sup>1</sup>Uttaranchal RCH II Program 2005-10 PIP

<sup>2</sup>SRS Bulletin, 2005

<sup>3</sup>Combined data 2004-06 (Uttar Pradesh and Uttarakhand) SRS Bulletin, 2009

rate (MMR) was 440 deaths per 100,000 live births, whereas the 2010 goal was projected to be below 100 deaths per 100,000 live births. Further, the institutional delivery rate in Uttarakhand in 2006 was 32.6 as compared to the 2010 goal set at 80 percent. (NFHS-3, 2005-06, SRS Bulletin 2005 and Uttaranchal Reproductive and Child Health (RCH) II Program 2005-10 Project Implementation Plan (PIP), 2005)

## 2.3 BARRIERS TO SERVICE ACCESS AND USE

According to NFHS-3, for most households in Uttarakhand, the private health sector is the main source of healthcare (52% of urban households and 55% of rural households). Among households that do not use government health facilities, the main reasons given are

poor quality care (64%) and lack of a nearby facility (49%) (NFHS-3, 2005-06). An important reason for low health indicators has been limited access to fixed healthcare facilities due to poor transportation infrastructure in the more remote and interior regions of Uttarakhand. Faced with the challenges of getting to a facility, many people either refrain from seeking medical help or use the services of untrained medical service providers living in the vicinity. Those who are most in need, such as the below poverty line (BPL) population, find it especially difficult to access these fixed point facilities, as their health-seeking behaviors are impacted by the costs of travel and lost wages (Health and Population Policy of Uttaranchal, 2002).

Growing inequalities are visible in accessing healthcare services between

<sup>2</sup> Shortfall is defined as required positions minus positioned

<sup>3</sup> Vacant is defined as sanctioned positions minus positioned

the rural and urban populations, the poor and the rich, and the scheduled castes/scheduled tribes versus the others. For example, only 36 percent of rural women had access to three antenatal checkup visits versus 71 percent of urban women who had access to them and only 20 percent of rural women had institutional

deliveries versus 59 percent of urban women (NFHS-3, 2005-06).

Other constraints to accessing healthcare are lack of awareness, societal norms, unreliable government facilities, shortage of medical specialists and other health staff, non-functioning diagnostic

equipment, and high costs associated with services.

One way in which the GoUK endeavored to overcome the problem of access was to take the health services to the poor and remote populations by means of MHVs.

## Chapter 3

# RATIONALE FOR THE MOBILE HEALTH VAN SCHEME

In 2002 the government of the new state of Uttarakhand adopted its first Health and Population Policy which prioritized improved coverage of FP services, antenatal and postnatal care (ANC and PNC) and counseling.

Recognizing the challenges imposed by the difficult terrain and therefore access to health facilities, the Department of Medical Health and Family Welfare (DMHFW), GoUK identified the use of MHVs as an effective method to improve healthcare access for rural communities. Thus, through the Health and Population Policy, the government committed itself to introducing mobile services as well as “innovative approaches in primary healthcare delivery...especially for remote areas.”

Through the MHVs it was aimed to increase accessibility of preventive, diagnostic and curative services, with an emphasis on RH services. Equipped with trained medical personnel, equipment and supplies, these MHVs have the potential to improve the health profiles of underserved populations and to strengthen health seeking behavior among the poor. Technological

advances and equipment design have further increased the potential of MHVs, especially when they operate as an integral part of the government health systems and in coordination with static health facilities. MHVs and static facilities then complement each other; laboratory and other equipment related diagnostics provided by the van and continuity of care as well as

follow-up better provided by the fixed institutions.

The decision to expand the use of MHVs is also in-line with Gol's strategy to make healthcare accessible to the rural poor, especially in remote, hard to reach and poorly served areas through its flagship program, the NRHM.



The MHV driving through the hilly terrain of Uttarakhand

## Chapter 4

# INTRODUCTION OF MOBILE HEALTH VANS IN UTTARAKHAND

### 4.1 EVALUATION OF EARLY MODELS

In 2006, ITAP, in collaboration with Uttarakhand Health and Family Welfare Society (UKHFWS), conducted an evaluation of the three initial MHV models in the state. At the time, three MHVs were operational, namely, the Birla Institute for Scientific Research (BISR) operated Technology Information Forecasting and Assessment Council (TIFAC) van (2002), Hindustan Latex Family Planning Promotion Trust (HLFPPT) operated van in Chamoli (operational since 2004) and HLFPPT operated van in Tehri Garhwal (operational since 2005). The evaluation found that the BISR operated van had a strong management structure, demonstrated independence and ensured attendance, provided a wide range of services, good quality of services and supplies and attended to a large number of patients. The fixed-date approach adopted by the TIFAC van was easy for the community to remember and together with the excellent record of holding camps as planned, resulted in greater attendance at camps (ITAP, 2006).

### 4.2 DESIGN OF A PROTOTYPE

After analyzing the advantages and limitations of each model, in March 2006, the ITAP team conducted a workshop to discuss the findings of the evaluation and to design a prototype model that would best serve the needs of the communities in Uttarakhand. Participants included the Executive Director and officials from UKHFWS, officials from the Department of Medical Health and Family Welfare and the Health Systems Development Project, Chief Medical Officers (CMOs) of districts, and representatives from NGOs and marketing organizations. Stakeholders determined that a mobile clinic is most effective if it functions as an integral part of the government health system and operates in coordination with static health services, hence supplementing them.

#### 4.2.1 Service provision

During the workshop, stakeholders identified that access to diagnostic facilities was a challenge. Patients had to spend much time and effort travelling long distances, sometimes by foot, for an investigation. Thus, in developing the prototype for future MHVs, stakeholders focused on the need for diagnostics in addition

to basic RCH care, treatment for minor ailments and referrals to higher-level facilities when needed. Additional diagnostic recommended were laboratory tests (blood and urine), ultrasound, X-ray and electro cardio-gram (ECG). Basic services and treatments suggested were general physician and obstetrics/gynecological (OB/GYN) consultations, immunization, ANC checkups, FP services including intrauterine contraceptive device (IUCD) insertions, and reproductive tract infection (RTI)/sexually transmitted infection (STI) diagnosis, and treatment including syndromic case management. In addition, MHV personnel would conduct awareness generation activities.

#### 4.2.2 Adequate and trained personnel

The prototype MHV would have a full complement of trained personnel in order to offer the wide range of needed services. Staff traveling on the MHV would include a radiologist, general physician, gynecologist, laboratory technician, X-ray technician, ECG technician, pharmacist, staff nurse, project coordinator/accountant, information, education, communication (IEC)

assistant, driver and helper. These specialist medical and supporting staff would be hired solely for van duties and would be paid adequate salaries and compensation.

#### **4.2.3 Supplies and maintenance**

The MHVs would also include a pharmacy with availability of quality medicines, as well as free distribution of FP products. Supplies (apart from vaccines and contraceptives) would be procured from local vendors, with the project team maintaining stock records, in order to reduce dependence on erratic government supplies. An efficient computerized data management system would be installed in the van. The program would give maintenance contracts for

the van and its equipment to suppliers and provide local maintenance for the timely solution of minor problems.

#### **4.2.4 Management and monitoring**

It was suggested that the management of the MHV be outsourced to external agencies, following the PPP approach. Implementation would be monitored regularly by state and district officers as well as field staff. At the state level, a management committee would provide guidance and overcome bottlenecks to ensure the smooth functioning of the program. Each district would also have a project review and monitoring committee for more detailed monitoring of progress.

Specific goals regarding the number of camps, clients and services provided etc., would be set for each van, with monthly reports submitted to the CMO. District and state officials would also visit MHV camps regularly to monitor their operations.

Deliberations also concluded that MHVs would each visit a specific number of sites on fixed dates, twice a month. District health officials and outreach workers would disseminate information about the MHV program among community members. Clients would pay reasonable user fees to allow financial sustainability and prevent service abuse. Systems for releasing funds on time would be put in place.

## Chapter 5

# IMPLEMENTING 'RAMNAGAR MOBILE HEALTH VAN MODEL': PILOT PHASE

Following the 2006 evaluation and design of a prototype model, the GoUK decided to implement a pilot MHV model which would be fully equipped with diagnostic equipment and basic investigation facilities. The GoUK had previously purchased a vehicle through the Chief Minister's Constituency Development Fund, which was managed by Department of Health and Family Welfare (DoHFW) and used it sparingly for health camps. Given its irregular schedule and the fact that it was not fully utilized, the then-Chief Minister asked the DoHFW to improve the utilization of the MHV. This provided an opportunity to pilot the prototype MHV model developed for the state.

USAID, through the IFPS project, agreed to fund the operation of this van. The contract was given to BISR, with ITAP providing technical and managerial assistance. The Ramnagar MHV pilot was funded by USAID following the PBD approach<sup>4</sup> for more than two years from November 2007 to March 2010. The first benchmark for MHVs was

approved as part of a third set of benchmarks Project Implementation Letter (PIL) 70 dated September 13, 2006. A total of six benchmarks were approved covering 29 months from November 2007 to March 2010. The total value of benchmarks for the Ramnagar MHV was USD 417,240.

The services of this van prioritized the provision of FP and RH services using a PPP model. The operation of the van was delayed by approximately six months since it needed refurbishment to bring it to the desired standards. In late 2007, the activities of the van started in Uttarakhand's Nainital district, covering Ramnagar, Kotabagh and Haldwani blocks. The van would supplement the services provided by the public health facilities in the three blocks.<sup>5</sup> The van adopted a three pronged comprehensive approach of providing diagnosis, treatment and follow up.

This BISR operated van is often referred to as the Ramnagar model, although its coverage extends to other areas.

### 5.1 VAN SPECIFICATIONS

Technical expertise in automobile engineering, biomedical engineering and instrumentation is required while designing MHVs. The specifications required that the van have a) the basic ground clearance to traverse hilly terrains; b) dimensions to accommodate the equipment required yet enable it to navigate narrow mountainous roads; c) have a six wheel base with hydraulic brake system; and d) strong suspension since it carried delicate, specialized equipment.

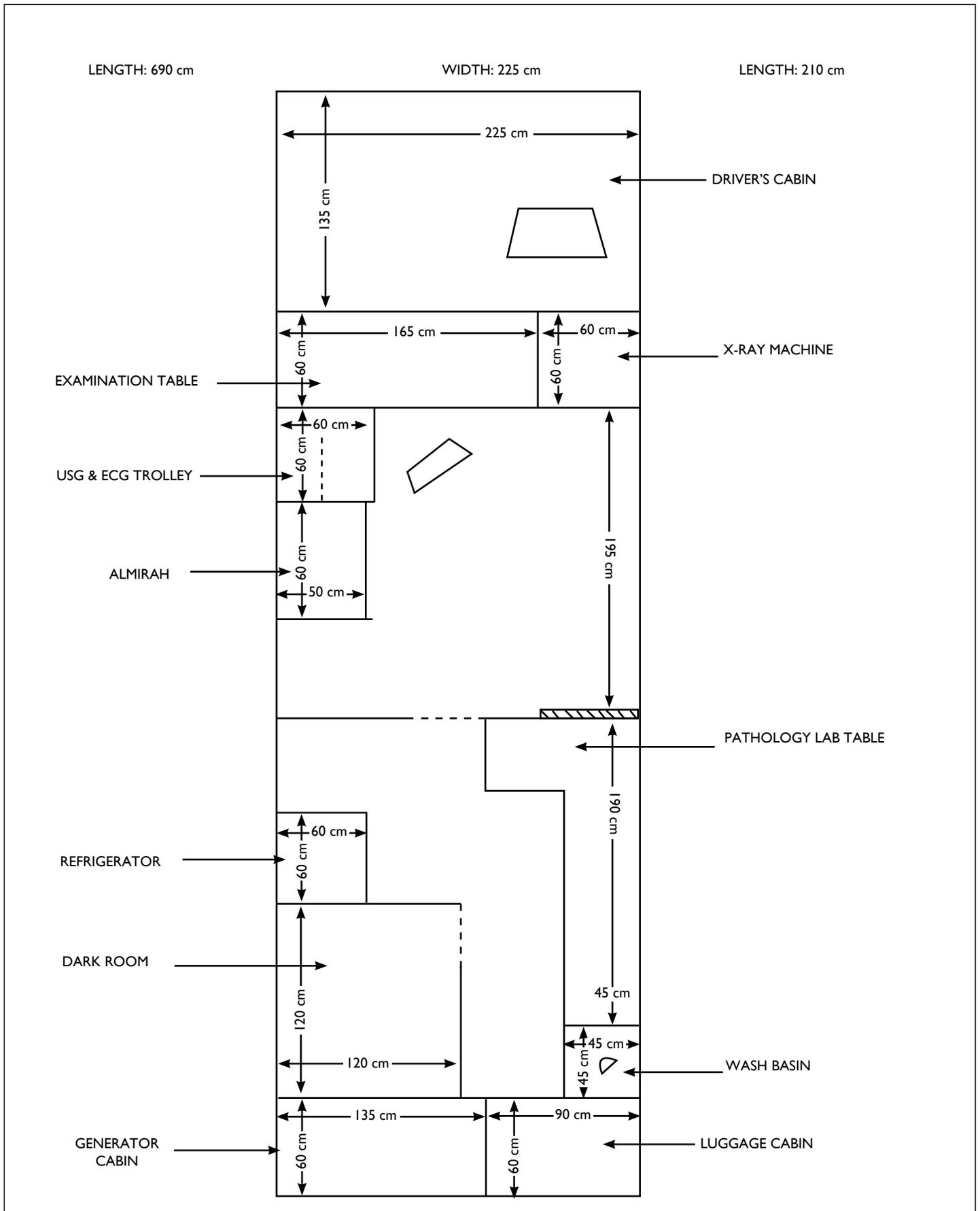


A mother and child visit the MHV for health services

<sup>4</sup> Bilateral activities conducted under IFPS are funded through a mechanism known as performance based disbursement (PBD). Under this funding mechanism, a set of results is agreed upon between USAID and the implementing partners, namely the state health societies. A dollar value is attached to the activities that will produce those results. The benchmarks are incorporated into the overall project agreement with the GoI. The process is known as establishing a benchmark for a specific result or group of results. When the results are achieved and verified, payment of the benchmark's value is made to the implementing partners as payment for the activities that resulted in the achievements outlined in the benchmark. The goals for achievement are set at an achievable yet ambitious level to emphasize the focus on achieving results.

<sup>5</sup> The public health facilities in Ramnagar include 18 sub centers, three PHCs and one combined hospital. For Haldwani the public health facilities include 21 sub centers, six PHCs, one base hospital and one female hospital and for Kotabagh these include 17 sub centers, one PHC and one CHC. (District Program Management Unit, Nainital)

**FIGURE 3: DIAGRAM OF RAMNAGAR VAN**



The Ramnagar van was built on a vehicle with strengthened suspension for operation in difficult terrain. It is equipped with a generator, an air conditioner, a refrigerator and audio-visual capabilities with space for ultrasound and X-ray equipment. Its size allows it to access sites in the interior and operate in more challenging terrain. Additional tents and furniture provide space for medical officers to conduct patient examinations.

## 5.2 ROUTE DESIGN AND OPERATIONS

The partnership between GoUK and BISR for the Ramnagar van focused on providing regular, accessible primary and diagnostic health services in regions and villages with limited access. The project was implemented through a regular series of camps rotating among eight established locations around the district, on a 'fixed date-fixed route' schedule. Under the fixed date-fixed route approach, an MHV fixes camps on designated dates and in designated places and maintains this schedule on a monthly basis.

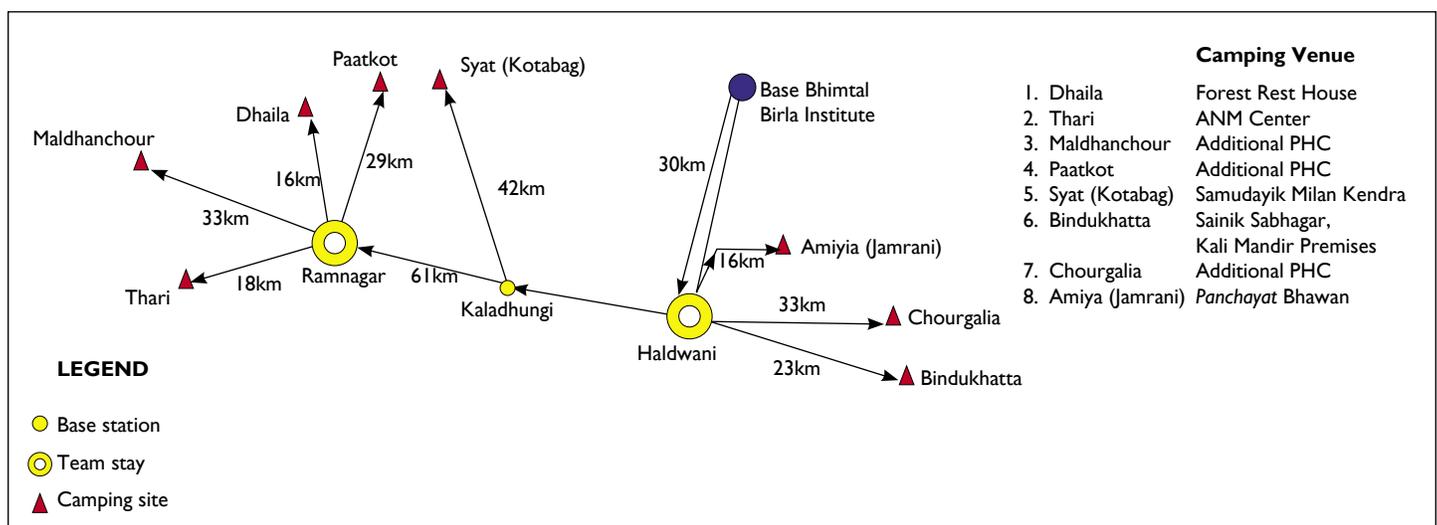
Accordingly, the van visits each fixed site on the same calendar date of each month of the year. The routes are prepared in a manner that the van can move from one point to another with the minimum time spent in traveling. The routes are planned with two objectives: firstly, the vans will try to reach out to the people in remote and inaccessible areas where there are no health facilities and secondly, in consultation with the CMOs along the route map, the vans will sometimes be stationed at certain fixed health facilities to provide support to the facilities to address staff shortages, non-availability of radiologists, ultrasound facility and pathological tests. Once all the scheduled camps are held, the van returns to the base camp.

Camp venues were selected based on their proximity to a large cluster of inaccessible villages, availability of space and electricity determined in consensus with the local health staff. Including travel time from its base at Bhimtal, the van operates for 16 days each month, allowing approximately 14 days for maintenance and time off for staff.

Benefits of adopting a fixed date – fixed route approach:

- **Simple scheduling for clients** – The clients are able to pre-plan their visits as they are well aware of the van schedule, in terms of the date and place for each camp.
- **Better follow-up of RH/FP cases** – Certain services, such as ANC checkups, require a periodic follow up. The fixed date-fixed route approach aids the beneficiaries to plan their subsequent visits, increasing the likelihood of regular follow ups. The doctor is also able to provide services to the client in a more efficient manner.
- **Efficiency in community mobilization** – IEC efforts are not constantly required regarding camp sites and dates since the same schedule is repeated every month. This puts less pressure on the community mobilizers to inform their communities about the schedules.
- **Better referrals** – The approach gives much scope for referrals between fixed facilities and vans. The fixed date – fixed route approach allows MOs of a facility

**FIGURE 4: RAMNAGAR VAN ROUTE MAP**





A beneficiary collects her diagnostic test report from the MHV lab technician

## BOX 1: TYPICAL DAY FOR A MOBILE HEALTH VAN

The BISR operated MHV is in Bindukatta in Haldwani block. The van is parked on the side and tables are laid out for the team. There is one registration desk, one for the laboratory technician, a table for the pharmacist, and another for the physician. The gynaecologist and the senior nurse sit in foldable tents near the van. Privacy is ensured for all examinations.

The registration for the van is initiated at 10:00 am and continues till 1:00 pm. Today, since there are a higher number of patients, the registration is likely to continue till 1:30 pm, giving the MHV staff just enough time to give the clients their reports before they leave for the day.

The outpatient department (OPD) will operate from 10:00 am to 1:00 pm with the MO and lady medical officer attending to the ailments of men and women. The doctors listen to their clients patiently and give each of them a prescription. The pharmacist outside the tents provides the client with medicines for an initial three to five day period or refers them for a pathological test or diagnostic test, if prescribed by the doctor. Other beneficiaries wait patiently for their turn in shaded spaces identified for them.

Simultaneously, patients line up for diagnostic tests that are conducted by the radiologist and the X-ray technician. Diagnostics will continue until 3:00 pm.

The laboratory technician has the necessary supplies of reagents and equipment within the van to analyze the samples and generate reports. The X-ray technician as well as the radiologist also generate reports for the tests conducted. These reports are made available to the patients from 3:00 pm to 4:00 pm, after which the doctors have a post-test consultation with the clients. The beneficiary goes back satisfied knowing well that the van will be back at its designated place as per schedule. This summarizes a day in MHV operations in Ramnagar. At the end of the day, the smiles and relief of nearly a 100 beneficiaries leaves the MHV team tired but happy.

to send clients to the MHVs to avail specific services that may not be available in their facility and vice-versa.

- **More effective management and monitoring** – The fixed date-fixed route approach improves management by allowing the performance of a standard set of activities and services to be more easily overseen. Likewise, the approach also aids in better field monitoring because supervisors have prior knowledge of the MHVs' schedule.

*“We see MHV as a combination of mechanical, medical equipment and human resource. Through a synchronized approach coupled with fixed day, fixed – site plan, we have been able to provide services to the communities.”*

MHV Project Coordinator

*“Villagers living in some of the remotest regions now have the advantage of getting services near their villages or doorsteps.”*

Deputy Chief Medical Officer

### **5.3 HEALTH SERVICES OFFERED**

The health services provided through the van are intended to meet clients' preventive, diagnostic and curative needs. These services include RH and FP services including IUCD insertion, RTI and STI diagnosis and treatment including syndrome case management, immunization, general physician consultation and diagnostic services, obstetric and gynecological examination, ANC and postnatal care (PNC), laboratory tests for blood and urine (general and pregnancy-related), ultrasound (ensuring no contravention of pre-conception and prenatal diagnostics techniques (PNDT)



A radiologist conducting an ultrasound on a pregnant woman in the MHV

Act, 1994, related to prohibition of sex selection), X-ray, ECG and immunization.

The van also maintains a pre-approved list of drugs and medicines. Clients for the van are provided with medication for three to five days. If further medication is required, the patient is expected to visit the health center for a follow-up visit.

In addition, the van staff offer awareness generation activities in collaboration with auxiliary nurse midwives (ANMs), accredited social health activists (ASHAs) along with other health/ community workers and refer patients to fixed health facilities as needed.

### **5.4 PERSONNEL**

Personnel traveling with the van include a project coordinator, MO, lady medical officer, radiologist, X-ray/ECG technician, pharmacist, laboratory technician, health coordinator, lady health worker, utility worker and two drivers.

As a result of this comprehensive complement of medical staff, specialists such as gynecologists are introduced into areas where people rarely have access to them. The inclusion of female medical staff has been cited by patients as a major advantage, as social norms may inhibit women from freely discussing health issues with male providers. Female medical staff members are more readily able to discuss FP, STI and other maternal healthcare concerns with women (ITAP, October 2008).

The Ramnagar van has been successful in overcoming the common challenge of staff retention by offering fair salaries as well as perquisites such as camp allowances, medical and accident insurance and adequate time off. Salaries for the staff members are competitive and part-time staff members are remunerated based on daily rates. Accommodation is also arranged for staff during camps. These additional perquisites are intended to improve motivation and minimize employee turnover.

“I have been associated with MHVs prior to joining Ramnagar MHV and I can see the difference from the point of view of management and work culture, which is far better.”

MHV Medical Officer

## 5.5 CAPACITY BUILDING

The technical approach of the pilot model has been to involve local stakeholders at all stages and build their capacities through experiential learning over the course of project implementation. The initial design workshop facilitated by the ITAP involved all stakeholders in developing an ideal model for the state. The government as well as implementers were involved in developing strategy and implementation plans for MHVs. Involvement of all stakeholders for regular review facilitated problem solving and strengthening MHV implementation in the state.

Contraceptive technology updates were conducted for MOs of both public and private sectors along the route of the MHV. The training updated the providers on contraceptive technologies while encouraging them to offer method

choice with particular emphasis on modern spacing methods. Forty four medical officers were trained during the pilot project.

In 2008, ITAP held a workshop for 69 ASHAs from Ramnagar and Haldwani (along the van route) to build their capacity and skills for IPC. In order to mobilize clients to utilize the services available through the MHV, ASHAs were trained with respect to the van's route and services. The ASHAs also put forth easily implementable recommendations to increase the reach of the van.

*“ASHA is the first port of call for any health related demands of deprived sections of the population, especially women, children, old aged, sick and disabled people. Mostly, it is the ASHA who informs about the MHV timings by going from home to home.”*

Project Coordinator, BISR operated Van, 2011 assessment.

Subsequently 374 ASHAs were oriented on MHV operations, RH issues and effective communication with community members in 2009 and 2010.

## 5.6 COMMUNITY ENGAGEMENT

To strengthen the component of demand generation, address the challenge of low awareness and to build trust among the communities, ITAP developed a comprehensive BCC initiative that focused on the communities at large as well as community health workers, especially ASHAs.

In 2008, a formative study was conducted by UKHFWS through technical support from ITAP. A BCC Plan was developed by ITAP based on barriers and behavioral factors that came to light in this study. Based on the findings, ITAP designed a multi-pronged approach that addressed:

- Brand building of MHV services as being efficient and economical;
- Generating awareness and saliency around the MHV, its services and facilities, schedules, cost of registration and medicines;
- Increasing utilization of MHV services (preventive, diagnostic, curative) by focusing on the benefits of MHV;
- Strengthening the capacity of service providers in improving client-provider interaction; and
- Strengthening skills of service providers in IPC, community mobilization and advocacy.

Following several orientation workshops with ASHAs, the ITAP team used the resulting recommendations to develop materials to support increased demand and use of services through the MHV. The communication materials included posters, wall writings and paintings (murals), mobile text alerts to remind beneficiaries about the date and location of the van's visit, public



An ASHA increases utilization of MHV services by educating the community

announcements made via microphone, visiting cards, and pencil flags for children. Additional takeaway materials were developed to provide information on important health topics, including ANC, pregnancy danger signs, PNC, newborn care, condoms, menstruation, nutrition and immunization. The BCC strategy was developed in consort with the BISR pilot MHV team and UKHFWS and materials were pretested and refined through workshops with ASHAs and ANMs in the MHV camp communities. The BCC/IPC strategy was incorporated in Uttarakhand's annual ASHA training curriculum and was also integrated into plans for the 26 MHVs scaled up in 2009 in the 13 districts.

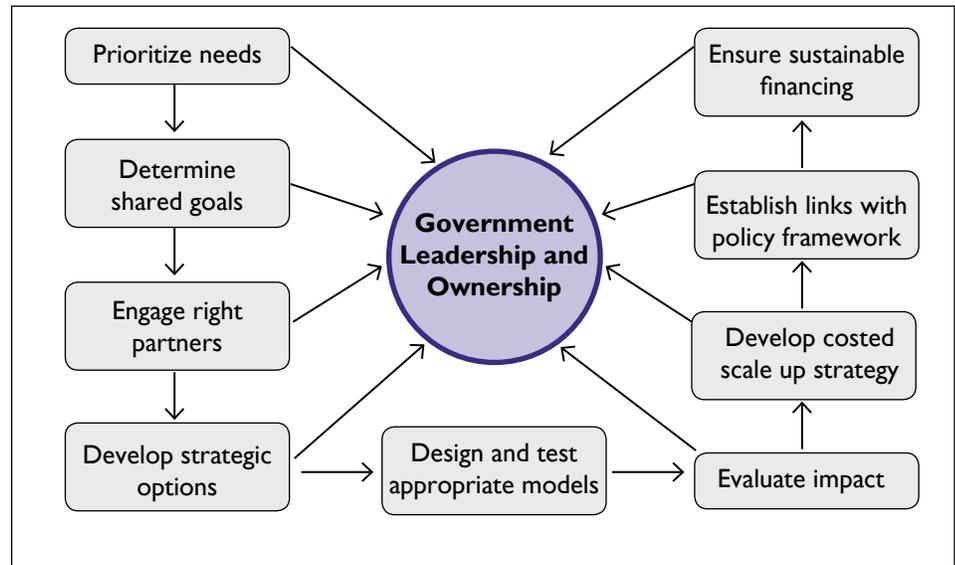
## 5.7 VAN OPERATIONS MANAGEMENT

As the management agency, BISR, provided oversight to different aspects of van implementation. This included identifying and recruiting personnel, their capacity building, regular monitoring implementation, as well as reporting to GoUK and ITAP. The fact that almost all camps were organized as per the schedule bears testimony to their effective management.

### 5.7.1 Equipment maintenance

Operational efficiency is enhanced by maintenance contracts with three external agencies for equipment, generator and vehicle maintenance, which minimize delays in carrying out repairs. These contracts have been negotiated such that the agencies provide BISR with replacement equipment in case of a breakdown. This ensures that all camps are conducted as per schedule even in the event of equipment breakdown.

**FIGURE 5: USING A SYSTEMATIC PROCESS OF BUILDING PPP MODELS**



The van takes two breaks each month for maintenance. Considering the difficult terrains in which the van operates, servicing of the vehicle regularly is essential to adhere to the van routine.

### 5.7.2 Logistics

The route is planned to ensure a break for van maintenance, as well as to provide a break to the personnel. An additional vehicle accompanies the MHV on its route to transport staff. During the camps, the drivers assist in the client registration process, and other logistical tasks such as setting up camp, data entry, electrical connection or running generator and water connections.

### 5.7.3 Reporting and monitoring

Careful monitoring of service provision and meticulous record-keeping has been maintained throughout the project period. These are essential to the project's success, both in gauging its impact and identifying areas for further improvement. Throughout

the project duration, van staff maintained tracking data for a comprehensive set of indicators on the number and profile of people utilizing services, as well as the type of services provided. On a monthly basis, the van staff reported data on these specific indicators which included the percentage of planned camps conducted, the average number of out patient department (OPD) patients registered per camp, the percentage of BPL clients accessing services at health camps, the number of ANC checkups conducted, the number of ultrasound examinations conducted, the number of IUCD clients, the number of X-rays and the total revenue generated through van operations. Monthly reports were sent to UKHFWS and ITAP which also included any implementation issues requiring resolutions. These reports were reviewed and shared with the Technical Advisory Group (TAG) regularly. In addition, regular site visits by BISR, ITAP and state officials were conducted.

# COMMUNICATION MATERIALS

The table below describes each of the materials developed for increasing the demand for the mobile van services, to increase awareness about the services, costing and timings.

## MATERIALS FOR ANNOUNCEMENTS AND ADVOCACY

### Poster

Objective: Increase awareness about the MHV facilities, cost of services, range of services offered and schedule of the van.

**हॉट हेल्थवेन**  
**आरोग्य रथ**

- प्रसवपूर्व व प्रसव बाद
- सर्वोच्च प्रतिष्ठित एवं विश्वीय को टी.बी. जी. टी.सी
- सर्वोच्च प्रतिष्ठित एवं विश्वीय को आरोग्य की जांचियां
- बच्चे की जांचियां
- बच्चों का टीकाकरण
- कुलपित बीमारियों व अन्य रोगों
- यौन संचारित रोगों का इलाज
- मूत्र एवं मल-मूत्र की जांच
- एक्स-रे सुविधा
- इन्फॉर्म सेवाएँ

सामान्य बीमारियों का इलाज एवं अन्य जांचियां समाप्त

**दिनिच स्पॉट पर आरोग्य रथ की जांच की दिने तथा समय जांचियां के दिने-**

	7	14	21	28
	वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण
1	8	15	22	29
वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण
2	9	16	23	30
वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण
3	10	17	24	31
वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण
4	11	18	25	
वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण	
5	12	19	26	
वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण	
6	13	20	27	
वेराकवाण	वेराकवाण	वेराकवाण	वेराकवाण	

USAID INDIA AMS

### Wall Writings and Paintings

Objectives: To motivate and remind people to utilize van services and inform them of the dates and timings.

**एक कदम स्वास्थ्य की ओर**  
**गाड़ी पर उपलब्ध सेवाएँ**

- प्रसव पूर्व/पश्चात जांच
- बच्चों की बीमारियां का इलाज व टीकाकरण
- परिवार कल्याण सेवाएँ
- यौन संचारित रोग की जांच व इलाज
- एक्स-रे सुविधा व खून/मल-मूत्र की जांच

डा. हेल्थवेन आरोग्य रथ  
के लकले का दिन तथा समय  
दिनांक 3 मार्च, 2010  
समय: 10.00 बजे

आरोग्य रथ

### Mobile SMS Alerts

Objectives: Reminding beneficiaries about the date, time and location of the mobile van

**खुशहाल जिन्दगी का करें सफर,  
स्वास्थ्य सुविधा अब आपके घर !**

गाड़ी की सेवाओं का लाभ उठाएं। प्रसव से पूर्व, प्रसव के बाद, टीकाकरण, बच्चों की बीमारियों, प्रजनन स्वास्थ्य, यौन संचारित रोग, टी.बी., अन्य बीमारियों के लिए।

The mobile van will be parked at Bindukatta on ----- and ----- of ----- ( month) /at -----/ between ----- and -----

### Announcements on Microphone

Objectives: To motivate and remind people to utilize van services by focusing on benefits like low cost, at their doorstep, availability of free medicines, quality service, etc.

## MATERIALS FOR COUNSELING AND TAKE AWAY

### Objectives

1. To increase awareness of pregnant women about components of ANC, testing and availability of ANC services at the mobile van.
2. To inform pregnant women and their family elders about importance of institutional delivery, clean delivery practices at home and PNC for both the mother and the new born.



### Nutrition Takeaway

Objectives: To inform women and adolescents about components of good nutrition.

<h2>संतुलित भोजन</h2> <p>हमारे देश के झण्डे के तीन रंग याद है ना ?</p> <table border="1"> <tr> <td style="background-color: orange;">भारतिका</td> <td style="background-color: white;">सफ़ेद</td> <td style="background-color: green;">हर</td> </tr> </table> <p>जिन्दा रहने के लिए क्या चाहिए ? भोजन, यही ना ! पर अच्छा और सही भोजन क्या है ? अच्छा भोजन उसे कहते हैं जो संतुलित हो, और शरीर की सभी जरूरतों को पूरा करे । संतुलित भोजन का मतलब जिसमें कार्बोहाइड्रेड (अनाज, चीनी) प्रोटीन (दाल, दूध, अंडा) चिकनाई (घी, तेल) विटामिन और खनिज पदार्थ (ज्यादातर फल और सब्जियों में पाए जाते हैं) मौजूद हों ।</p>			भारतिका	सफ़ेद	हर
भारतिका	सफ़ेद	हर			

### Immunization For Children

Objectives: Increase awareness about vaccine preventable diseases, their schedules and benefits to mothers with children under five years and to avail these services from the mobile van.

## 5.8 MANAGEMENT AND OVERSIGHT

A TAG was created in order to provide expert guidance to, and oversight of, the van's operations. The TAG forum is chaired by the Executive Director of the NRHM, Uttarakhand and is held on a quarterly basis. The TAG members include top NRHM officials of the state from the Director level to the State Program Management Unit (SPMU), as well as representatives of USAID and other program partners.

All findings of assessments and studies of the Ramnagar van were presented before the forum on a quarterly basis and based on these, the TAG deliberated on changes needed to improve operations. Any decision pertaining to the Ramnagar MHV had to be approved by the forum before an activity could be added, deleted or modified.

Generally, a concept note is presented during a TAG meeting to seek approval for a new activity, and after approval and recommendation, the activity is designed and strategized, with final approval also being obtained from the TAG.

In addition, a Project Review and Monitoring Committee composed of representatives from BISR, UKHFWS, the CMO of Nainital district and ITAP regularly reviewed the progress. BISR staff members conducted regular field visits to ensure that the project was being implemented as planned and to address any problems that arise and continue to do so.

## 5.9 LINKAGES TO PUBLIC HEALTH SYSTEM

An important feature of the MHV is its integration with different levels

of the health system, ranging from community health workers who provide direct outreach to clients to higher-level facilities that can treat more complex healthcare needs. The van established referral services with the Base Hospital, Haldwani; Combined Hospital, Ramnagar; Sushila Tiwari Medical College, Haldwani; and other primary and secondary health facilities in the area.

Medicines are procured from the government and provided free to all clients. Personnel prepare a list of medicines needed and submit it to the office of the district CMO which delivers supplies on a monthly or bi-monthly basis. Medicines are typically provided to clients for three to five days, with referral to a higher-level facility, if needed. This timeline was established as many minor ailments are cured within this period and patients with more serious illnesses should receive additional medical supervision through referrals.

*“Government facilities such as PHCs with no diagnostic facilities sometimes refer patients to the MHV for diagnostic tests. Thus beneficiaries do not have to travel long distances to access services.”*

MHV Medical Officer

The MHV operations received extensive support from the CMO for temporary staff requirements, procurement of medicines during shortages, as well as other administrative requirements.

## 5.10 PUBLIC PRIVATE PARTNERSHIP APPROACH

To support the government in addressing the shortage of manpower, a more effective way of implementing

an MHV project would be to contract out the van management to private agencies, further reinforcing the component of PPPs.

The PPP approach was selected for MHVs in Uttarakhand to provide flexibility in operations, encourage efficient use of resources and to focus on results rather than inputs. In order to successfully implement the approach, the GoUK, private partners and ITAP followed a systematic process as shown in Figure 5, at all stages emphasizing government leadership and ownership. The stages of the process included prioritization of needs, determining shared goals, engaging the right partners, developing strategic options, designing and testing appropriate models, evaluating impact, developing a cost scale up strategy, establishing links with the policy framework and ensuring sustainable financing.

## 5.11 USER FEE

About one-third of the clients who access services from Ramnagar van are BPL card holders (Table 7). All patients, including BPL clients, pay a registration fee of Rs. 10, which is valid for one month (two MHV visits). BPL patients do not pay any charges for diagnostic services, while other patients pay fees ranging from Rs. 15 to Rs. 150 (Table 2). User fees are held in a separate account to be used for IEC activities, vehicle and equipment maintenance or medicines, in case of supply shortages, after due approval from the state government. A total of Rs. 524,915 (nearly USD 10,500) was generated during the period May 2008 to March 2010. These funds have been used in the past, with necessary approvals, for replacement of the USG machine in the Ramnagar van.

**TABLE 2: USER CHARGES FOR RAMNAGAR VAN**

Services	BPL Card Holders	Non BPL Card Holders
Registration	Rs. 10 (USD 0.20)	Rs. 10 (USD 0.20)
Consultation	Free	Free
Medicines	Free	Free
FP supplies	Free	Free
<b>Diagnostic charges, if required</b>		
Lab test - blood and urine	Free	Rs. 15 (USD 0.30)
Ultrasound	Free	Rs. 150 (USD 3.00)
X-Ray	Free	Rs. 60 (USD 1.20)
ECG	Free	Rs. 50 (USD 1.00)
Immunization	Free	Free

## 5.12 FINANCIAL ALLOCATION AND EXPENDITURE THROUGH USAID FUNDS

One of the main objectives of the IFPS project is to demonstrate successful PPP models. Their success would result in expansion of operations when the program is scaled up with funds being leveraged from the national and state governments.

Table 3 shows the costs of program strengthening components and operations for the two BISR operated vans as well as the total budget allocated and utilized. Among the program strengthening components, which totaled Rs. 5 million (USD

100,000), the assessment (evaluation studies) and capacity building (training and workshop) costs were similar, while the IEC/BCC materials comprised a much smaller portion of the costs. The operational costs for the Ramnagar pilot van during the period of USAID support (June 2007 to February 2009) totaled Rs. 4.6 million (USD 92,000), with the largest portions devoted to staff salaries, travel/per diem and program costs.

## 5.13 ACHIEVEMENTS

### 5.13.1 Performance of the BISR operated Ramnagar van

The Ramnagar van did not miss a single scheduled camp. Between

November 2007 and November 2011, it held a total of 464 camps, including five special medical camps. The following table summarizes the services provided by the BISR operated Ramnagar Van since the dates of its refurbishment. A total of 8051 BPL clients availed services through November 2007 to March 2010. The success of the BISR operated Ramnagar van, influenced GoUK's decision to adapt certain features of these models to scale up operations covering the entire state.

## 5.14 CHALLENGES IDENTIFIED THROUGH PILOT EXPERIENCES

While the Ramnagar van operationalized smoothly, some challenges were identified through the course of implementation. These challenges offered opportunities for further improvement and effectiveness.

Furthermore, ITAP conducted an evaluation of the Ramnagar MHV model in 2010, utilizing secondary analysis of service statistics and qualitative interviews with clients, ASHAs, and block/district medical staff to determine how clients perceive MHV services.

**TABLE 3: COST OF PROJECT IMPLEMENTATION, SCALE UP AND LEVERAGED AMOUNT**

Activities supported by USAID for Ramnagar Van	Amount (Rs.)
Assessment (Evaluation: 2006-07) <sup>1</sup>	3,30,990
<b>Pilot phase Ramnagar van USAID Funds (Nov 2007 to Mar 2010)</b>	
IEC/ BCC materials development <sup>2</sup>	84,931
Capacity building (trainings and workshop) <sup>2</sup>	1,29,051
Operational costs of MHV <sup>3</sup>	57,66,612
<b>Total USAID support for Ramnagar van (Nov 2007 to Mar 2010)</b>	<b>63,11,584</b>
<b>USAID support for strengthening components for all MHVs (April 2010 onwards)</b>	
Assessment (evaluation) of all MHVs in the state <sup>1</sup>	22,06,504
Capacity building (training and workshop) <sup>1</sup>	22,70,400

Source: Compiled from <sup>1</sup>Benchmark Documents <sup>2</sup>Futures Group Contract Documents <sup>3</sup>Reported by BISR

**TABLE 4: SERVICE STATISTICS FOR BISR OPERATED RAMNAGAR VAN DURING USAID INDIA ASSISTANCE PERIOD**

Indicators	RAMNAGAR Nov 2007 – Mar 2010
Months of operation	29
Number of planned camps	464
Number of camps conducted (percent)	463 (99.8%)
Number of new clients	24,040
Number of clients	28,144
Number of male clients	7,031
Number of female clients (percent)	14,819 (61.6%)
Number of children	2,190
Number of BPL clients who availed services (percent)	8,051 (33.5%)
Number of ANC cases	2,823
Average number of clients for ANC check-up per camp	6
Average patient check-up in a month	970
Average number of clients who registered in a camp	51.9

Source: Compiled from MIS, BISR for various years

The evaluation also highlighted areas for further strengthening van operations for better patient outcomes.

A major challenge was the lack of coordination among different stakeholders at the district level, hindering speedy decision making to address operational issues. Thus,

following the scale up phase, the synchronization process developed a Strategic Implementation Plan to address these issues.

Despite outreach efforts that improved the knowledge and capacity of community health workers such as ASHAs, there was still inadequate awareness about the MHVs among

the target communities. Many community members near camp sites only became aware of the MHV on the day the van arrived. Poverty, which creates an opportunity cost in terms of travel time and lost income, acts as a further barrier toward service utilization. It was seen that many poor people living in communities served by the MHVs wished to utilize their services but did not have a BPL card that would allow the costs to be waived.

FP and RH is an intended focus area for the MHV program. While the MHV distributed condoms and oral contraceptive pills and carried out IUCD insertions for thousands of clients, program managers felt that the number of FP clients served is not fully reflective of the likely demand for such services. This could be because van personnel are so busy with the large number of clients that they do not have the time for providing counseling and further services on FP. Accordingly, the van personnel needed to be sensitized to provide regular counseling on FP to the communities.

## Chapter 6

# SCALING UP AND SYSTEMS DEVELOPMENT

### 6.1 EXPANSION OF MHV OPERATIONS IN THE STATE

In November 2009, as part of a benchmark activity, USAID supported the operationalization of a second MHV. The MHV, earlier jointly funded by TIFAC and GoUK, was handed over to GoUK in 2007. In November 2009, the GoUK refurbished the van in order to operationalize it. ITAP provided support to operationalize the van through BISR. The van, popularly known as the BISR operated Bhimtal van, was operationalized with USAID funds (USD 100,824) through November 2009 to October 2010. The van operations were in line with the approach followed by BISR operated Ramnagar model.

The GoUK continued its efforts to expand the MHV operations in the state. In 2009, 13 new MHVs were procured under the Health Systems Development Project and handed over to the GoUK. Specifications for vans were developed, open tenders were called for and the agency for supplying the vans was selected. Since the World Bank project came to an end after the purchase of the vans, the state government supported the operationalization of these vans

through their funds. In the meantime, Gol took the decision to encourage states to introduce MHVs to serve people in remote areas using NRHM funds. This further strengthened the GoUK resolve to add more vans. The GoUK proposal to purchase 13 more vans using NRHM resources was sanctioned by Gol. As a result, with the World Bank and NRHM funds, 26 more new vans were added to cover remote areas in all 13 districts of Uttarakhand. With the Ramnagar and

Bhimtal vans operated by BISR and the two vans operated by HLPPT, the total strength of MHVs in the state reached 30. Two vans, one NRHM and one World Bank, were allocated to cover each of the 13 districts of the state.

Following the PPP approach to operate the new vans purchased with the World Bank funds, open tenders were held with contracts awarded to the lowest bidder. In

**TABLE 5: VAN DEPLOYMENT – BY MANAGEMENT AND DISTRICT**

Name of District	Van managed by				Total vans in the district
	BISR	NRHM	World Bank	HLPPT	
Almora		1	1		2
Bageshwar		1	1		2
Chamoli		1	1	1	3
Champawat		1	1		2
Dehradun		1	1		2
Haridwar		1	1		2
Nainital	2	1	1		4
Pauri Garhwal		1	1		2
Pithoragarh		1	1		2
Rudraprayag		1	1		2
Tehri Garhwal		1	1	1	3
Udham Singh Nagar		1	1		2
Uttarkashi		1	1		2
Total Vans in the State	2	13	13	2	30

the case of the vans purchased with NRHM funds, local mother nongovernmental organizations (MNGOs)<sup>6</sup> at the district level were selected by the GoUK to operate the vans. These NGOs

had limited management capacities to operationalize the vans. Subsequently, with the withdrawal of the MNGO scheme, it was decided to involve larger organizations with sound management systems. In 2011,

following a bidding process, three agencies were selected to operate the 13 NRHM vans. Table 5 presents a detailed description of all the four models of MHVs currently operating in Uttarakhand.

**TABLE 6: MHVS INTRODUCED IN UTTARAKHAND**

	BISR operated vans*	HLFPPT	NRHM	World Bank
<b>Operations and management</b>				
Operating since	2007 & 2009	2004	2009	2009
Number of vans	2	2	13	13
Source of funding for procurement of vans	GoUK	Initially SIP, currently NRHM (2007 onwards)	NRHM funds for UK	World Bank
Source of funding for operationalization	Initially USAID, currently NRHM (2010 onwards)	NRHM Funds	NRHM funds for UK	GoUK
Operating agency	BISR	HLFPPT	Rajbhara Medicare 7 districts, Society for Peoples' Development (SPD) 5 districts, EMRI-108 1 district.	Dr. Jain Video on Wheels 11 districts Rajbhara Medicare 2 districts
District coverage	Nainital	Chamoli & Tehri	All districts	All districts
Supervising agency	UKHFWS	UKHFWS	UKHFWS	DoMHFW
<b>Services offered</b>				
General physician consultation	√	√	√	√
O & G consultation	√	√	√	√
Laboratory tests - blood and urine	√	√	√	√
Ultrasound	√			√
X-ray	√		√	√
ECG	√			√
ANC and PNC care	√	√	√	√
FP services	√	√	√	√
RTI/STI diagnosis and treatment	√	√	√	
Immunization	√	√	√	√
Awareness generation	√	√	√	√
Referral services	√	√	√	√

\*BISR van was launched in 2002 and functioned till 2007. In 2007, USAID| India started assisting this van. Post 2010, the vans are being funded through NRHM.

Source: Strategic Implementation Plan for Uttarakhand Mobile Health Van Synchronization 2011

<sup>6</sup> The MNGO scheme was launched by the DoHFW, Uttarakhand under the comprehensive RCH program. Under the ambit of the MoHFW, Gol, the scheme was initiated in partnership with the NGO sector, thus making a paradigm shift towards government and NGO partnership.

Referral and linkages to fixed health facilities have continued to be a focal point as the MHV program has expanded. Van staff members occasionally assist staff at fixed facilities when their expertise is needed. For example, a lady medical officer with a van attended an emergency delivery case at a fixed facility during a camp in Chamoli district. Referrals can work in both directions. Interactions with PHCs and CHCs during an evaluation conducted in 2011 suggest that most of them reported referring their patients to an MHV with advanced diagnostic capabilities.

## **6.2 EVALUATION OF MHVS AND DESIGN OF A SYNCHRONIZATION PLAN**

Though different contracting processes govern each of the different MHV models, synchronization of implementation plans was made possible through ITAP efforts. To avoid duplication of service provision, ITAP convened all stakeholders in order to strategize synchronization possibilities.

In 2011, to develop a synchronization plan, IFPS devised a three-step process to evaluate the vans and develop strategies to address their limitations and promote coordination. The three steps of the process included an evaluation of all the MHVs operational in the state, a TAG meeting and regional MHV workshops.

### **6.2.1 Evaluation of MHVs**

First, ITAP conducted a comprehensive assessment of all 30 MHVs operating in Uttarakhand. The assessment included interviews with stakeholders and state level officials in all 13 districts, addressed issues of management, operation, demand generation and client satisfaction. The most important

finding of the study was that the camps were not held regularly, which posed a challenge for synchronization, for coordination and for referral among the different MHVs. Furthermore, in certain instances, there was duplication as two MHVs were found to cover the same sites.

The assessment identified several other challenges. Among them, there was no active monitoring of MHVs by local government officials who are often constrained for time. FP, RH and immunization services were not being fully provided by all MHVs, despite their mandate to do so. User charges were not uniform, and staffing also sometimes varied from the prescribed positions.

The assessment highlighted the need to coordinate the efforts of the vans to create better harmonization between the state objectives and the capacities of the MHVs. A TAG meeting was organized to brief stakeholders and take a decision on developing Standard Operating Guidelines for MHVs. The Ramnagar experience with PPP approaches had demonstrated that setting up a TAG to provide inputs into overall implementation is an important best practice.

### **6.2.2 TAG meetings**

Following the evaluation process, in June 2011, a TAG meeting was organized to discuss the MHV project and related components such as its assessment and the upcoming regional workshops.

The TAG considered ways to improve strategies related to services, referrals, logistics, management and administration and made several recommendations, including those for a streamlined monitoring system. As

the vans maintained different reporting formats, synchronization would improve the coordination of activities and thus, monitoring and evaluation plans with uniform output indicators and reporting formats were developed.

The TAG also recommended instituting a Monitoring Cell for improving the capacity for structured monitoring, with activities including program planning (route maps, budgets, proposals and contracts), monitoring (schedules, MHV reports, field visits, data compilation), strengthening (best practices, research findings, monitoring tools), evaluation (surveys, quality assurance, audits) and advocacy (regional, state and national level).

Thus, a Monitoring Cell has been housed within the DoHFW/UKHFWS and is governed by a board consisting of the Principal Secretary (Health), Executive Director (NRHM) and Director (National Programs). The Cell includes two consultants from the State Health Resource Center (SHRC), supported by the Program Support Officer (PSO), IFPS Project. The consultants are responsible for monitoring the entire MHV fleet operating in Uttarakhand.

As recommended by TAG members, user charges have been made uniform across vans and a regional hub for equipment repair has been created. Additionally, it was established that reports from MHVs must be accepted at fixed facilities in the event of referrals, MHVs must have a mechanism for patients to provide feedback on the quality of care to project coordinators and CMOs, and there must be some mechanism instituted for the MHVs to inform district officials of problems experienced in the camps.

### 6.2.3 Regional MHV Workshops

Four regional workshops were organized to:

- disseminate findings from the MHV evaluation;
- share the TAG recommendations;
- introduce the participants to standard reporting formats and the Monitoring Cell; and
- develop the Standard Operating Guidelines.

Workshop participants included the van operation agency representatives, medical doctors, District CMOs and Deputy CMOs, MOs from health centers along the van routes, and SPMU and District Program Management Unit (DPMU) officials. The workshops included an analysis of the MHVs to identify the strengths, weaknesses, opportunities and threats faced by the vans, there was a joint effort by the CMO/Deputy CMO and the van operating organizations to develop route maps.

During the workshops, participants developed a Strategic Implementation

Plan which included the following components:

- synchronization of all vans;
- development of a referral system;
- improved IEC activities for demand generation;
- standardized reporting; and
- scheduled monitoring.

### 6.3 MHV SYNCHRONIZATION STRATEGY

All 30 vans were categorized into four types based on size, equipment and staffing pattern. The number of monthly and repeat camps to be conducted were also determined for each van as presented in Table 7.

The number of sites to be visited by each van has been determined. The fixed day-fixed route approach has been adopted to provide additional benefits, such as increasing OPD beneficiaries and decreasing the need for ongoing IEC activities over time, as communities become familiar with schedule of van visits.

A referral system has been developed and implemented to provide referrals

between the different van models as well as the vans and any fixed facility depending upon the services required and the convenience of the beneficiary. Referral slips have been designed and supplied to all vans.

To improve demand generation, pamphlets displaying approved route maps of each district showing fixed sites, fixed dates and type of van available in each site have been distributed to communities, PHCs, CHCs and MHVs. The pamphlets also list the services available in each van.

A central state-based web portal has been created, operated by the DoHFW and supported by ITAP. Each van electronically submits monthly quantitative reports. Reports are compiled by van, district and month, by the PSO and submitted to the Monitoring Cell. In addition, after each camp, the van project coordinator fills in data in the Standard Reporting Format, with monthly data fed into the web portal (Annex B).

**TABLE 7: DESIGN AND IMPLEMENTATION OF SYSTEMS**

Models		Type 1	Type 2	Type 3	Type 4
Number of vans		2	2	13	13
Operational areas (districts)		Nainital	Chamoli & Tehri	All 13 districts	All 13 districts
Number of sites covered per month, per district		16	20	15 fixed sites 6 mobile sites	15 fixed sites
Camp sites determined		Annually	Annually	Quarterly	Annually
Number of times same site is covered in:	<b>1 month</b>	2	1	1	1
	<b>1 quarter</b>	8	3	1	3
	<b>1 year</b>	24	12	4	12
Number of sites reached in the entire state in:	<b>1 month</b>	16	40	195 + 78*	195
	<b>1 quarter</b>	16	40	585 + 234*	195
	<b>1 year</b>	16	40	585 + 936*	195

\* Mobile sites

Source: Strategic Implementation Plan for Uttarakhand Mobile Health Van Synchronization 2011

### 6.4 REFINEMENT OF MONITORING ACTIVITIES

The new monitoring plan is in place. It focuses on periodic checks and is based on virtual dash boards, standardized reporting indicators and a clear reporting structure.

Monitoring of the Type 4 MHV activities are done by officials of the DoHFW Monitoring Cell while the two consultants monitor the other types of vans. Officials make random visits to camp sites without prior notification. At least three sites are monitored monthly for Type 3 and 4 vans, while Type 1 and 2 vans are monitored quarterly. Qualitative

monitoring helps address quality of services provided, timing and consistency of schedule, availability of van personnel, behavior, attitude and knowledge of van staff and management of related activities such as reporting, payments to staff, and equipment maintenance.

A standard monthly reporting tool has also been developed and is being utilized by program managers from each van.

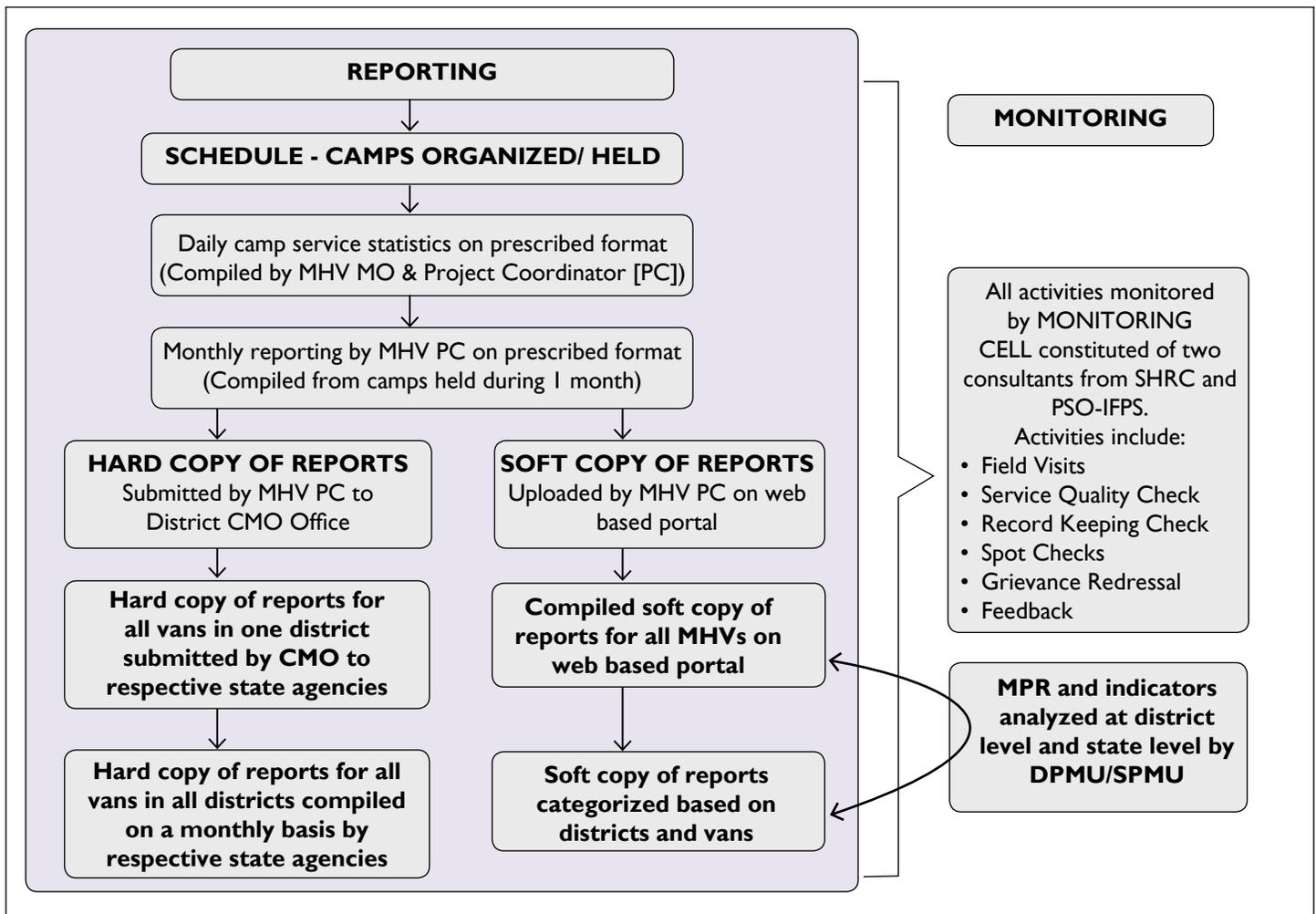
### 6.5 FINANCIAL SCALE UP

From March 2010 through December 2011, NRHM funding for the two BISR-operated vans

totaled Rs. 4.5 million (USD 90,000) and Rs. 2.3 million (USD 46,000) respectively.

The BISR operated vans, NRHM and HLPPT vans have utilized the majority of their allocated budgets. The total amounts spent over the period from April 2010 to March 2011 for each van type were Rs. 3.7 million (USD 75,000) for the BISR operated vans, Rs. 22.8 million (USD 457,000) for the NRHM vans, and Rs. 3.7 million (USD 75,000) for the HLPPT vans. With funding from the state, the World Bank vans have spent a total of Rs. 116 million (USD 2.3 million).

**FIGURE 6: MONITORING AND REPORTING SYSTEMS**



## Chapter 7

# MAIN ACHIEVEMENTS AND LESSONS LEARNED

Successful implementation of the Ramnagar MHV model led to the adoption of certain positive elements by the GoUK and scaled up throughout the state of Uttarakhand. The MHVs have played an integral role in making health services more accessible in the remote regions of Uttarakhand. They have successfully made FP and RH diagnostic services available to villages whose populations avoided preventive care because reaching a medical facility was too difficult and was undertaken only during emergencies. Some of the main achievements and lessons learned from the program are summarized below.

Table 8 presents the service statistics on different indicators of all 30 MHVs operating in Uttarakhand during April 2010 to March 2011. About 300,000 people have received the benefits of MHVs through more than 5,000 camps held across the 13 districts of Uttarakhand.

### 7.1 INCREASED ACCESS FOR THE UNDERSERVED

The MHV program has demonstrated that outreach through mobile clinics improves the accessibility of essential

services. In areas where villages are scattered and far flung, mobile health services are very effective in providing quality healthcare to the underserved for whom distance inhibits access.

All the 30 vans in the state have been effectively providing

outpatient services to the people of Uttarakhand.

A majority of the vans' patients have been women, a typically underserved group. A special success of the MHVs has been in extending the availability of FP, RH and other health services to women. The presence of a dedicated

**TABLE 8: SERVICE STATISTICS OF 30 MHVs IN UTTARAKHAND FOR THE PERIOD OF MARCH, 2010-APRIL, 2011**

Total number of camps	5,031
Beneficiaries availing services	299,350
Patients per camp (average)	60
Lab tests	115,317
ANC	18,113
USG	34,184
Condoms (packages of 5 or 10)	5,922
Oral contraceptive pills (strips)	2,897
IUCD	480

Sources:

WB Data accessed from <http://ukhfws.org/adminpanel/news/mhv.xls> on 17th Jan 2012

NRHM VAN: Accessed from [http://pipnrhm-mohfw.nic.in/index\\_files/high\\_focus\\_non\\_ne/Uk/ufpip.pdf](http://pipnrhm-mohfw.nic.in/index_files/high_focus_non_ne/Uk/ufpip.pdf) on 17th Jan 2012

NRHM Data Available only for the duration of April 2010-Nov 2010

HLFPPT & BISR DATA: Shared by HLPPT and BISR

USG records from BISR and WB Vans

Condoms and OCP records from BISR & HLPPT Vans

IUCD records from BISR Van only



A beneficiary presents her BPL card to receive services during an MHV visit

female doctor with whom women are comfortable discussing sensitive issues, builds knowledge of health issues among communities and strongly reinforces desirable health behaviors. In addition, women and men are able to access counseling and a mix of short- and long-term FP methods, offered by trained providers. In line with the focus on RH, women have had access to ANC and USG facility which might otherwise have been unavailable to them. The USG facility is offered through registered USG machines under the PNDT Act, 1994. The vans have distributed about 23,500 contraceptives. Through its careful design, the program has been highly successful in strengthening the availability of services by filling in gaps.

The quality of services has also been a major success. Clients are satisfied and they are well cared for during their visits to the MHV camp sites. In order to provide immediate treatment and avoid unnecessary travel for the clients, test results are provided on the same day.

## 7.2 OPERATIONAL CONSISTENCY

The efficient management and operation of MHVs have been critical to their success. The fixed date – fixed route approach establishes credibility of services that becomes stronger over time, as beneficiaries in turn become advocates. Camps are systematically organized in a patient-friendly manner, with logistics for each camp carefully managed. All lab test results and non-invasive reports are provided to patients on the day of the visit, thereby reducing their travel time. In addition to quantity, the quality of services provided is viewed as critical. For people to view the MHV visit as a congenial experience, the program has designed carefully considered logistical arrangements such as daily schedule, signage, crowd management and seating arrangements.

*“The satisfaction of providing services to the communities residing in the far-flung areas, where health services are mostly inadequate is the biggest motivation factor. Secondly, the fixed day – fixed route plan gives us the opportunity to*

*ensure follow-up especially in case of chronic illnesses or people suffering from blood pressure, [blood] sugar etc.”*

MHV Medical Officer

Thanks to dedicated retention efforts, the vans maintain regular staff attendance, which facilitates uninterrupted provision of services from the MHV. Modern, well-maintained equipment and instruments are used for treatment.

## 7.3 LINKAGES WITH COMMUNITIES AND PUBLIC HEALTH SYSTEM

The MHVs are most successful when considered to be an extension of the public health system and a way to increase its reach. The referral linkages with state public health fixed facilities further improve healthcare delivery. Remarkably, fixed health facilities have even referred patients to MHVs in cases where their own services are inadequate. In the future, linking the MHVs into the district health plans and policies, and improving their integration with existing district health systems and facilities, would help in creating sustainability for the project while ensuring that health remains a priority.

The MHV program has improved the capacity of service providers in the health system. Capacity building and BCC efforts have improved the mobilization of beneficiaries, including young mothers, adolescents, children and heads of the family such as husbands and mothers-in-law. In addition to strengthening community awareness and provider capacity, the BCC initiatives to generate demand, build trust and provide information about



*“Shortage of manpower is an issue that the state has been facing since its inception. MHVs have been able to fill that gap to a certain extent as not only doctors and staff are available but they are also providing services in some of the remotest areas of the district. Equity and unmet need are being addressed by reaching out to those who quite often fail to avail of services in the normal course.”*

Dy Chief Medical Officer

A woman is satisfied with the services provided by the Lady Medical Officer at the MHV

the competitive costs and services provided were critical to the success of the MHV program.

#### **7.4 GOVERNMENT OWNERSHIP AND STAKEHOLDER ENGAGEMENT**

Although the structure of the MHV program as a PPP has brought in new energy and opportunities from the private sector, it is important not to forget the role of the public sector. Without government leadership and ownership, the project would not have succeeded. Government officials have a unique understanding of the health situation in their constituencies and should take the lead in identifying challenges and suggest possible course corrections. The MHV program demonstrated a high degree of openness to change on the part of the GoUK, which also brought much-needed stability throughout the course of the program.

Following the 2006 evaluation of the first MHVs in Uttarakhand, the design of the prototype included a range of stakeholders. The design workshop included representatives from the GoUK, as well as district level officials and civil society. The commitment to stakeholder engagement was maintained throughout the implementation, scale up and synchronization stages, with frequent consultations as changes to the program were planned and rolled out. This engagement increased the level of knowledge and understanding among those participating in the design process and also generated buy-in from the beginning among those whose support would be critical to the vans' success.

#### **7.5 SYNCHRONIZATION OF ALL MHVS**

While the four MHV models currently operating in Uttarakhand have been successful in their objective of increasing access to health services among remote and underserved populations, the lack of coordination among them was an important challenge. The vans were operating with different route plans, personnel and costs, all of which create confusion and discrepancies in service delivery. The development of a Strategic Implementation Plan informed by in-depth stakeholder consultation at regional workshops, and the input of the TAG was a critical step to harmonizing the MHV approach across Uttarakhand. The synchronization strategy will foster more equitable and standard coverage of localities in the remote areas of the state, and will also allow for added flexibility in adding camp sites when district officials identify an unmet need.

Synchronization has also enhanced the program's design for scale up opportunities. The careful design, with stakeholder input solicited and incorporated throughout, has focused on factors such as ability to implementation, sustainability and scalability. The MHV model in Uttarakhand can to be readily adapted to other contexts where expanding the reach of health services beyond fixed facilities is a priority for governments and their partners.

#### **7.6 MONITORING AND TRANSPARENCY**

The PPP approach has introduced new players with additional capacity into the health system, and facilitated strong relationships with the government. The utilization of

this approach has opened up new opportunities and methodologies for expanding access to health services. Successful PPPs are the result of a systematic process, initiated by a government's decision to seek partners in order to expand the reach and effectiveness of service delivery.

In order to build a genuine and mutually rewarding partnership, consultation and transparency are prerequisites to establishing shared goals. Partners should seek clear guidelines and enabling policies for long-term engagement, with contracts clear and transparent about expectations and benefits for each partner. The initial piloting of the project provided an opportunity for testing and operations research, with scale up then designed from a base of strength. In addition, the creation of a monitoring program with clearly defined indicators, now synchronized across all MHVs in the state, will provide clear benchmarks to assess and improve their performance.

The MHV program has made contraception and choice a possibility for many women who did not have the resources to make a trip to a health facility. MHVs have made preventive health a widespread opportunity in Uttarakhand and with new efforts to coordinate and synchronize the efforts of the vans, still better results can be achieved.

#### **7.7 PUBLIC-PRIVATE PARTNERSHIPS**

The MHV program, along with other innovative health financing mechanisms adopted through ITAP, has generated a set of lessons learned related to the design and implementation of PPPs. In order to build a genuine and mutually

rewarding partnership, consultation and transparency are prerequisites to establish shared goals. Private sector partners seek clear guidelines with the option for flexibility based on merit, and enabling policies for long-term engagement.

Successful PPPs are the result of a systematic, iterative process. An in-depth analysis of the local situation and context is a necessary first

step. Public and private providers should be oriented and trained to work together. Projects should be piloted first, with a monitoring and evaluation system in place from the beginning, and then scaled up based on demonstrated areas of strength. Although PPPs bring in new energy and opportunities from the private sector, it is important not to neglect the role of the public sector. Without government leadership

and ownership, the project will not succeed. Government officials should take the lead in identifying any challenges and suggest possible course corrections. In addition, there must be enough time and resources to assess the performance of a given PPP using clearly defined indicators. In the meantime, financing for the program must be continuous in order not to lose the interest and engagement of the parties involved.

With a strong foundation in place, continued commitment is necessary to sustain the successes of the Uttarakhand MHV programs over time. It is important that continuous monitoring and evaluation be maintained and stakeholders such as the TAG have the opportunity to revise and expand the program's activities as needed. A strong feedback mechanism is necessary in order to share information about operations and services and their impact among all levels of providers and program managers. In addition, the GoUK is envisioning MHVs as a major component of the state health

program for the next five years. For this to happen successfully, the resource allocations in the annual PIP must be adequate and disbursed according to plan.

At the national level, the years of experience integrating MHVs into the health system in Uttarakhand can serve as an example for replication in other states. For example, in urban slums where the poor are disconnected from the health system, MHVs are a cost-effective mechanism. Again, the lessons learned and best practices devised through the MHV experience in Uttarakhand can be disseminated,

and information shared among other state governments to develop equally successful partnerships and expansion of services.

Since the implementation of the first pilot MHV, GoUK has implemented several innovations in the state to improve access to health services for the most vulnerable. Some of these interventions include the voucher system, the 108 emergency ambulances, and *Rashtriya Swasthya Bima Yojana (RSBY)*<sup>7</sup> among others. These interventions along with the MHVs will go a long way in improving the health of the people in Uttarakhand.

<sup>7</sup> A state implemented health insurance scheme for the poor, the RSBY provides Rs. 30,000 (USD 600) annual cover to a family



# ANNEXURES

## Annexure A

# MOBILE MEDICAL UNITS IN JHARKHAND

### DEMOGRAPHIC AND HEALTH PROFILE OF JHARKHAND

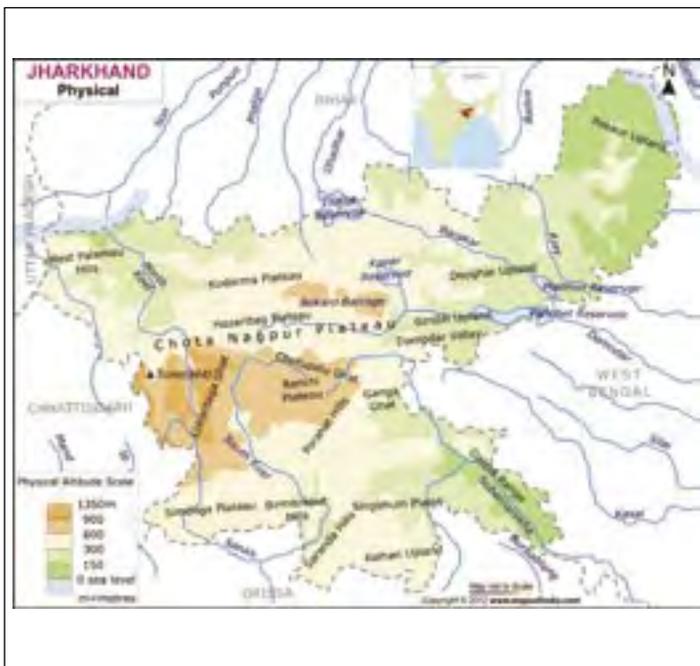
The state of Jharkhand was created from portions of Bihar state in 2000. It is more populous than Uttarakhand, with 33 million people living in 24 districts (Census, 2011). About 78 percent of Jharkhand's population resides in rural areas. Like Uttarakhand, it contains substantial hilly terrain, as well as a high degree of forest

cover (29%) and tribal villages that are very difficult to reach (Planning Commission 2005). In addition, the Naxalite insurgency is active in Jharkhand, which creates instability that inhibits people's movement. This limits the effectiveness of the traditional fixed-location healthcare facilities.

Jharkhand's health indicators show substantial room for improvement.

Women in Jharkhand have an average of 3.3 children each, which is more than 20 percent higher than the national average. Only thirty-six percent of married women of reproductive age use FP, and infant mortality is estimated at 69 deaths per 1,000 live births. Forty percent of mothers receive no healthcare during pregnancy, and only 19 percent of births occur in a health facility (NFHS-3).

FIGURE 7: PHYSICAL MAP OF JHARKHAND



Source: <http://www.mapsofindia.com>

FIGURE 8: STATIC FACILITIES IN JHARKHAND



Source: JansankhyaSthirataKosh link: <http://www.jsk.gov.in/>

## INTRODUCTION OF MOBILE MEDICAL UNITS IN JHARKHAND

The Government of Jharkhand is rapidly expanding the health infrastructure to reach out to its people with quality healthcare. Despite significant improvements, huge gaps still prevail, which are compounded by the inability to access basic healthcare due to geographical impediments.

The mobile medical unit (MMU) scheme was launched in Jharkhand in 2007 under the aegis of NRHM. It started with commissioning 24 vans, one for each of the 24 districts, with operations handled by Vikas Bharti, a local NGO. ITAP provided a TAG to the state government in this process, by providing support in preparing requests for proposal and rolling out the program, as well as in stakeholder orientation.

Based on the requirement for additional services, the government decided to increase the number of MMUs in a phased manner. During the second phase, 42 new vans were added to the existing 24 vans. The third phase saw an addition of another 37 vans. Currently, 103 units are operational in all 24 districts of state. These MMUs are managed by 28 NGOs.

The objectives of the MMUs in Jharkhand are:

- To provide all primary health services in underserved villages/regions in selected blocks of districts where PHCs, CHCs or private healthcare facilities are absent or limited.
- To improve uptake of curative and preventive health services such as immunization, ANC and PNC and general outpatients department services in the

identified villages/regions with the aim of reducing the incidence of common illnesses and lowering maternal and infant mortality.

- To help ANMs, *Anganwadi* workers (AWWs), *Sahiyyas* and village health committees to improve health services.
- To provide diagnostic facilities for rural areas.

There are two types of vans operating as MMUs in Jharkhand. The two types of vans vary in size and staff number but otherwise contain the same equipment and provide the same services, including outpatient and ANC, infant and child health including immunization, FP including IUCD insertion, IEC services, lab tests and referral for serious illnesses and complications.

Vikas Bharti operates 24 vans that are larger in size and are accompanied by a smaller vehicle to transport staff to the sites. The remaining smaller vans are operated by 27 different NGOs whose contracts are signed with the Office of the Civil Surgeon in the relevant districts. The Vikas Bharti vans operate for 22 days per month, and the vans operated by other NGOs provide services 25 days per month. The number of staff traveling with each van varies from seven to 16. The larger vans operated by Vikas Bharti have more staff, including a coordinator, pharmacist, finance officer, counselor, accounts assistant and IEC assistant.

## ASSESSMENT OF MMUs IN JHARKHAND

In 2010, the Jharkhand Health Society asked ITAP to conduct an assessment of the MMUs in Jharkhand with respect to the management, operation, demand generation and overall satisfaction of the beneficiaries. The assessment team

conducted in-depth interviews with service providers and beneficiaries in all districts.

The assessment found that on the whole, MMUs have met their objective of scaling up the availability of health services across the population and to a large extent, the state has been able to address some of the barriers related to access to basic healthcare. The objective of the MMUs in Jharkhand is to maximize the reach of services to certain tribal populations, rather than to meet a quota of site visits. As a result of this approach, there was an increase in the number of vans to 103 as of September 2011 and the fixed date-fixed route tactic was not utilized.

Related to operations and management, the assessment recommends that the number of NGO operators of MMUs be reduced, in order to attract more stable NGOs with sound logistical and financial operations. In addition, ITAP recommends the establishment of a dedicated monitoring and evaluation cell with an internal review system. The assessment also recommends centralized procurement of medicines to assure their quality.

Community engagement is another potential area of improvement for MMUs in Jharkhand. The program should foster more involvement from officials and volunteers through an IEC/BCC strategy for awareness and demand generation activities. IEC materials should be developed and distributed to *Sahiyyas*, ANMs and other community health workers. Effective methods of displaying information about services provided for beneficiaries should also be devised.

## Annexure B

# MONTHLY REPORTING FORMAT IMPLEMENTED FOR THE SYNCHRONIZED VANS

### MHV project monthly monitoring tool

Name of the van

MPR for the month

PSO will share this report with SPM on a monthly basis

Indicators		Name of the district																
		ALM	BGW	CHA	CMP	DDN	GRW	HRD	NNT	PTG	RDP	TGW	USN	UKS				
S. No.	A	General indicators																
1	A1	Proportion of planned camps conducted in a month																
2	A2	Average OPD per camp site in a month																
3	A3	% of patients belonging to BPL category																
4	A4	% of female patients who availed the services																
5	A5	% of patients who availed of any of the diagnostic services																
6	A6	% of BPL patients who availed of any of the diagnostic services																
7	A7	% of patients referred to nearest facility to seek further care																
	B	Indicators for maternal and child health																
8	B1	% of female patients who availed of ANC services																
9	B2	% of women belonging to BPL category wh availed of ANC services																
10	B3	% of women for ANC checkups who availed of ultrasound																
11	B4	% of women for ANC checkups prescribed for lab inv.																
12	B5	% of women for ANC whose weight was measured																
13	B6	% of women for ANC checkups who received IFA tablets																
14	B7	% of women for ANC checkups who received TT injections																
15	B8	Monthly average of PNC care for each campsite																
16	B9	Monthly average of child immunized by ANY vaccine																
17	B10	Monthly average of MEASLES vaccinations at each campsite																
	C	FP																
18	C1	Monthly average of the number of IUCD insertions																
19	C2	Monthly average of the number of people who received condoms (packs)																
20	C3	Monthly average of the number of people who received oral pills (strips)																
21	C4	Monthly average of the number of people counseled for FP																

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## **Errata**

### **Executive Summary, Page xii, Column I, Achievements**

“Between November 2007 and March **2009**, it held a total of 464 camps, including five special medical camps and approximately 8000 below poverty line (BPL) clients availed services from the van.”

should read

“Between November 2007 and March **2010**, it held a total of 464 camps, including five special medical camps and approximately 8000 below poverty line (BPL) clients availed services from the van.”

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