MASTER OF PUBLIC HEALTH

A cooperative Program of

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH
&
INDIAN INSTITUTE OF HEALTH MANAGEMENT RESEARCH

Capstone Project
at
TAABAR, Jaipur

(Training Awareness and Behavior change About Health & Rehabilitation Society)

By
Dr. Richa Sharma

IIHMR/JHSPH MPH

2013-2015

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A Study of TABAR Mobile Van in Jaipur, Rajasthan

By
Dr. Richa Sharma

Under the guidance of
Dr. Suresh Joshi

Master of Public Health

Year 2013-15

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JOHNS HOPKINS
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TO WHOMSOEVER MAY CONCERN

This is to certify that Richa Sharma, student of Master of Public Health Program offered by Indian Institute of management Research, Jaipur in cooperation with Johns Hopkins Bloomberg School of health has undergone capstone project training at TAABAR in Jaipur from May 18th 2014 to September 29th 2014.

The candidate has successfully carried out the study designated to him during capstone project training and her approach to the study had been sincere, scientific and analytical. The internship is in fulfillment of course requirements.

I wish her all the success for her future endeavors.

Dean, Academics and Student Affairs
IIHMR, Jaipur

Capstone Advisor/Advisors
IIHMR, Jaipur/ JHSPH, Baltimore

INDIAN INSTITUTE OF HEALTH MANAGEMENT RESERCH, JAIPUR
JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

CERTIFICATE BY SCHOLAR

This is to certify that Capstone Project titled "A Study of TAABAR Mobile Van Clinic in Jaipur" and submitted by Richa Sharma Enrollment No. 8 under Supervision of Dr. Suresh Joshi for award of Master Of Public health Program carried out from 2013 to 2015, embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Richa Sharma
Signature.

Abstract:

Mobile health unit is an emerging concept of " health at the door step for all"[7, 8, 9]. Many mobile units have been helping the underserved for past few years in the big cities. But TAABAR's mobile van clinic is the first and only mobile health clinic in Jaipur, Rajasthan, which is assisting the underprivileged slum families. TAABAR mobile van clinic is dedicated to providing for the needs of slum population of Jaipur. The main reason for mobile healthcare to be successful is the need for accessible services that are welcoming to the slum communities who can't or won't go to primary health centers or hospitals. This report focuses on the use of Mobile van clinics to provide a variety of health services to people without consistent housing.

The TAABAR mobile van clinic brings primary medical care as well as counseling directly to the streets serving the hardest to reach communities. TAABAR mobile van clinic provides referrals, free treatment, medication and counseling on personal hygiene.

This is a descriptive cross-sectional study, conducted on TAABAR mobile van clinic. In depth personal interviews were conducted at the various centers of mobile van clinic, during the study period, also 10 staff members of TAABAR were interviewed. The Mobile Van works approximately a total number of 323 days out of 365 days. Total 25563 people including children, men, and women, reported at the mobile clinic for general health ailments. These people got the direct benefit from the Mobile Clinic. There was a review of data of TAABAR mobile van clinic for the year 2011-2014 (N= 25563)

The tools used in the study were interview schedules, questionnaire, designed to investigate the reach of mobile van clinic in the slums of Jaipur.

The results highlight that total number of new patients, has been increased during the period under study except in the year 2011-12. In 2010-11, 2781 new patients came to Mobile Van Clinic. This number decreased to 2419 patients in 2011-12 but after that it increased to 4164 patients in 2012-13 and reached finally to 4970 patients in the year 2013-14. Number of follow up patients were 881 in 2010-11 which increased to 2273 in 2011-12 and reached to 4420 patients in 2012-13. Then it decreased to 3655 patients in the final year 2013-14.

The data analysis results have new and follow up patients showed that Mobile Van Clinic improved access for vulnerable slum families of Jaipur, bolster prevention and reduced cost. TAABAR Mobile Health Clinicwas able to outclass obstacles to access and establishtrusting relationships to reduce disparities, improve health and reduce costs.

Also TAABAR mobile health clinics provide referral services, such as TB patients are referred to TB hospital, patients requiring hospital care are referred to SMS, HIV positive patients are referred to ICTC (HIV Testing), and children needing referrals are referred to BalBasera which is also operated by TAABAR. Apart from referrals, TAABAR mobile clinic provides education to children via mobile van, which no other mobile health clinics in India provide. At TAABAR mobile clinic,free lectures on diseases are also provided by the doctor.

Acknowledgement

In the completion of my Capstone project, several people and institutions have helped me and been instrumental in fulfillment in the completion of Capstone project.

I am extremely thankful to:

My respected Director, Dr. S.D. Gupta, Institute of Health Management Research, Jaipur, for the cooperation extended by him in providing me with the opportunity of pursuing this field study.

Dr. Suresh Joshi, this project would not have been possible without the support of Dr. Joshi, who is also the advisor for this Capstone project. Dr. Joshi's sincere efforts in explaining the subject and the related topics helped me to accomplish each step through the project.I extend my sincere thanks to Dr. Joshi, for his active involvement right from the beginning of the project. Also I am grateful to the entire IIHMR faculty for being extremely helpful through out my capstone project.

Dr. Nutan Jain for being supportive throughout the project and granting the ERB approval.

Mr. Ramesh Paliwal, Secretary and Director, TAABAR, Jaipur for his guidance and constant support and help all through of my project, I would like to extend my appreciation and gratitude to TAABAR for allowing me the opportunity to do the study on TAABAR mobile Van clinic. Also my sincere gratitude to all the staff members of TAABAR Mobile Van clinic for providing all the required information and cooperation to complete this study.

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Abbreviations

HIV	Human Immunodeficiency Virus
ICTC	Integrated counseling and Testing Center
MS Excel	Microsoft Excel
N/A	Not Applicable
NGO	Non Governmental Organization
SMS	Sawai Man Singh Hospital, Jaipur
SOS	Si Opus Sit (Medicine to be administered when required)
SPSS	Statistical Package and Service Solutions
STI	Sexually Transmitted Infections
TAABAR	Training Awareness and Behavior change About Health & Rehabilitation Society
TB	Tuberculosis
UTI	Urinary Tract Infection
WHO	World Health Organization

Introduction

India's statistics affirm that children are accorded a low priority in national policy and governance decisions, and it is crucial for public health workers to take lead and do their best in order to achieve safety and permanence for children[12]. In low and middle-income countries children are continued to be exploited and abused, because the State and people do not address children's issues comprehensively and effectively.

According to WHO revised methodology, India had a share of 20.6% of world's poorest in 2013. And poverty is a leading cause of runaway children who are forced into child labor. Such children are vulnerable to abuse and disease, they need shelter, and guidance in order to become a contributing member of the society. A mobile health clinic proves to be a promising solution to reach desperate families who struggle everyday with poverty and lack of health care in overcrowded slums. Mobile medical unit emphasizes on the treatment of STI's and proving counseling and medication, another focus of the mobile medical unit is to identify and care for patients with chronic diseases like diabetes and hypertension, and to provide them with a continuous supply of free medications.

This study is based on evaluation of a NGO that is devoted to work for street children and many crucial aspects related to them in order to uplift their standard of living. TAABAR is a highly productive Jaipur based NGO (non-governmental organization) working tirelessly fortifying their focus on children and in addressing their rights in some critical issues related to the neglected and vulnerable street children. *TAABAR means "children"* in the local dialect and stands for "Training, Awareness And Behavior change About Health and

Rehabilitation". TAABAR offers help and support through its various projects such as Boy's rescue Home BalBasera, Mobile Van Clinic, Girl's School Luniyawas, Day Care Center and Women Empowerment Project. This report focuses on assessing the work of `TAABAR' Mobile Van Clinic. TAABAR mobile van is leading a demonstration project aimed at strengthening the healthcare delivery system in urban slum communities using mobile medical clinics. Also, this study is an evaluation of mobile clinic's quantitative working performance and qualitative support for the marginalized slum population of Jaipur. TAABAR Mobile clinic provides free general health check ups, medication; plus, counseling on issues like personal hygiene and sexual enlightment.

Mr. Ramesh Paliwal, a social worker who made a difference in the lives of many innocent children of Jaipur, founded TAABAR in 2007.He felt that something needed to be done to improve the situation of the underprivileged children. Mr. Paliwal and his team are working vigorously to bring relief to the needy and deprived street children in Jaipur. Whether it was indigentwomen orchildren, he made sure that he did everything in his power to help theseneglected and deprived women &children, in order for them to lead more dignified lives.

TAABAR Mobile clinic comprises of two cabins one for medical exams and counseling,and one for storing and dispensing of medication

Rational

- The concept of mobile van clinics is emerging as a promising concept for the urban slum population as they are faced with inadequate housing, poor hygiene, lack of safe drinking water and high prevalence of STI's (Sexually Transmitted Infections) [8,9,10,11]. The mobile serviceprograms provide onsite medical services and counseling.

An equipped mobile van brings doctors and free medical assistance on a regular basis to various locations within the slum communities. The mobile van program has being into practice for several years but there is a lack of comprehensive database to show the results of this initiative hence it was proposed to review the available data and systematically observe the processes and the related outcomes of this service[8, 9,10,11].

Objective: The overall objective of this study is to understand the functioning of TAABAR mobile unit. And how the below stated objectives of mobile medical van have been achieved. So to inference, the objectives are:

- To study the feasibility of Mobile van services
- Explore the consumer's perspective about obtaining services from the mobile van.

Specific Aims and Objectives:

- To understand the process involved in delivery of services of the mobile clinic run by TABBAR in slums of Jaipur
- To analyze the disease profile and management and service utilization over a period of time
- To understand the good practice and bottleneck in delivery of service.

Methodology

This is a descriptive cross-sectional study, conducted on TAABAR mobile van clinic. In depth personal interviews was conducted at the various centers of mobile van clinic, during the study period, also 10 staff members of TAABAR were interviewed. There was a review of data of TAABAR mobile van clinic for the year 2011-2014 (N= 25563)

The tools used in the study were interview schedules, questionnaires, designed to investigate the reach of mobile van clinic in the slums of Jaipur.

Research procedure for the present study include following steps:

- Record review,
- Onsite observation and
- Personal interviews, with staff and service users

Record Review

- This study has reviewed the available data from TAABAR mobile clinic; record review is an economical and efficient data collection method.
- The Sample size of the mobile van clinic, from 2010-11 to 2013-14 of patients attended and diagnosed.
- The study has also focused on understanding the disease profile of patients attended by the mobile clinic through the proxy mechanisms.
- The information about number of patients attended and diagnosed during this study period has been tabulated and analyzed. Also seasonal diseases occurred frequently have been indicated.

Onsite observation

The study has analyzed service delivery process of TAABAR mobile clinic, process evaluation, analysis of outputs and outcomes, and impact assessment has been ascertained. The study has focused on understanding how the mobile van operated and how do they delivered medical and other services to the slum families, such as general health check up, personal hygiene counseling, free medication, awareness about sexually transmittable diseases.

Service Delivery Process

To understand the process involved in delivery of services of an organization, onsite observation is necessary. In the present study, Mobile Van Clinic and its activities, method of working has been observed.

- The equipped mobile medical van is staffed with a doctor, pharmacy assistant/social worker and driver/logistician, so that the immediate health care needs of the slum residents can be evaluated and treated, and appropriate referrals can be made when necessary.
- The van visits 8 locations 2 days per week on pre-specified dates. The locations are as follows: Railway Station, Luniyawas 1st& 2nd,Prem Nagar, Khor, Jhalana, Kagdiwara, Jhawahar Nagar. The time schedule has been attached in ANNEX.
- Medical services are available six days a week (Monday through Saturday) from 3 p.m. to 6:30 p.m.
- Upon the arrival of a patient, registration is done by logistician and then the patient is seen by the doctor, and thereafter the patient is handed out the free medication.

- For the purposes of privacy and due to scarcity of space one patient can be seen at a time, hence rest of the patients wait outside the van for their turn to be called in. Patients are welcome walk-in.
- If the patient is a follow up patient, he has to bring the prescription from the last visit.
- If the patient is coming for the first time, he's given an ID number upon registration.
- The Mobile van clinic provides out patient services, which includes general checkups, free screening, sex-education, personal hygiene. The mobile Van also provides first aid to the patients with minor cuts and wounds.
- The doctor and the HIV counselor provide a variety of screening and counseling services in a culturally and linguistically competent manner.
- Patients in need of additional diagnostic or treatment services receive referrals to their primary care providers or community health centers.
- There is a diverse range of age group, which avails mobile van services ranging from children to older population.
- The columns of the register of the mobile van can be referred at the back in ANNEX.

The above picture shows the registration process at TAABAR Mobile Clinic.

In the above pictures, patients are seen waiting for their turn, to be seen by the doctor (L), and Pharmacy assistant dispensing medication (R)

Personal interviews, with staff and service users

Questionnaire for Mobile Van Staff and patients (Appendix-1) has been prepared and conducted with 10 providers (social worker, attending physician and administrator) who are primarily responsible for providing services at Mobile van clinic to understand the service delivery process and the impact of TAABAR mobile health clinic. The main focus of

interview with patients was to understand their experience in availing the services from TAABAR mobile van clinic. For this purpose, 50 patients were observed and interviewed on one day at TAABAR mobile health clinic. In order to understand the patients perspective in obtaining the mobile van services general opinions have been conceptualized, that:

- Mostly patients were happy about the fact that they were provided free medication,
- Also they found the concept of mobile van services to be very convenient, as they didn't have to go anywhere but medical services came at their doorstep in order for them to avail the medical services.
- Most interviewers mentioned staff being empathetic and welcoming. Which encouraged the slum families to utilize the medical services provided by the TAABAR mobile van.

Similarly, conclusions have been drawn from the interviews with staff members which also suggest that the staff members like to be able to help the unprivileged slum population, Dr. Kaushik said that they expect the program to scale up and he commented:**"Taking health care directly to this vulnerable population fills a critical need. We see around 300 patients every week alone through our mobile medical van program, and we expect that number to grow".**

In the above picture, Dr. Kaushik is examining a patient at TAABAR Mobile Unit

Analysis Plan

- Review of secondary data of Mobile Clinic for the period from 2010-11 to 2013-14.
- The available data has been rearranged, tabulated, analyzed and interpreted applying various statistical techniques like average, standard deviation, coefficient of variation etc. SPSS 16 was used for data analysis.
- Graphical presentation can make it easier to understand indication and trend of data. It has also been used wherever required by preparing graphs using MS Excel.

RESULTS

Table 1 and figure 1 ,shows that total number of Male new patients, have increased during the period under study except in the year 2011-12. In 2010-11, 2781 new patients came to Mobile Van Clinic. This number decreased to 2419 patients in 2011-12 but after that it increased to 4164 patients in 2012-13 and reached finally to 4970 patients in the year 2013-14. Number of follow up patients was 881 in 2010-11 which increased to 2273 in 2011-12 and reached to 4420 patients in 2012-13. Then it decreased to 3655 patients in the final year 2013-14.

Table 1: Year wise Distribution of Male Patients attending the Mobile Clinic

Year wise Distribution of Male Patients attending the Mobile Clinic

(From 2010-11 to 2013-14)

Sex of Patients	2010-11		2011-12		2012-13		2013-14	
	New	Follow up	New	Follow up	New	Follow up	New	Follow up
Male Patients	2438	771	1565	1236	2159	2110	2609	1772

Figure 1 :Year wise Distribution of Male Patients attending Mobile Clinic

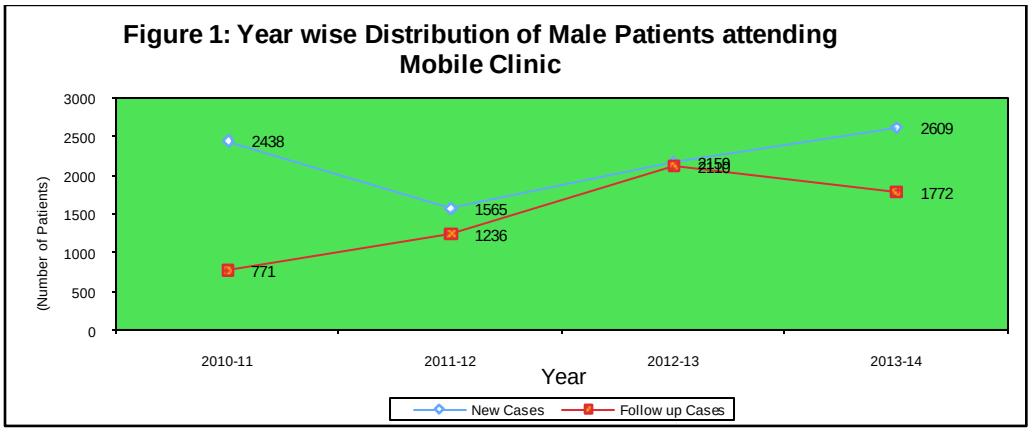


Table 2: Year wise Distribution of Female Patients attending the Mobile Clinic

Year wise Distribution of Female Patients attending the Mobile Clinic

(From 2010-11 to 2013-14)

Sex of Patients	2010-11		2011-12		2012-13		2013-14	
	New	Follow up	New	Follow up	New	Follow up	New	Follow up
Female Patients	343	110	854	1037	2005	2310	2292	1838

Figure 2 :Year wise Distribution of Female Patients attending the Mobile Clinic

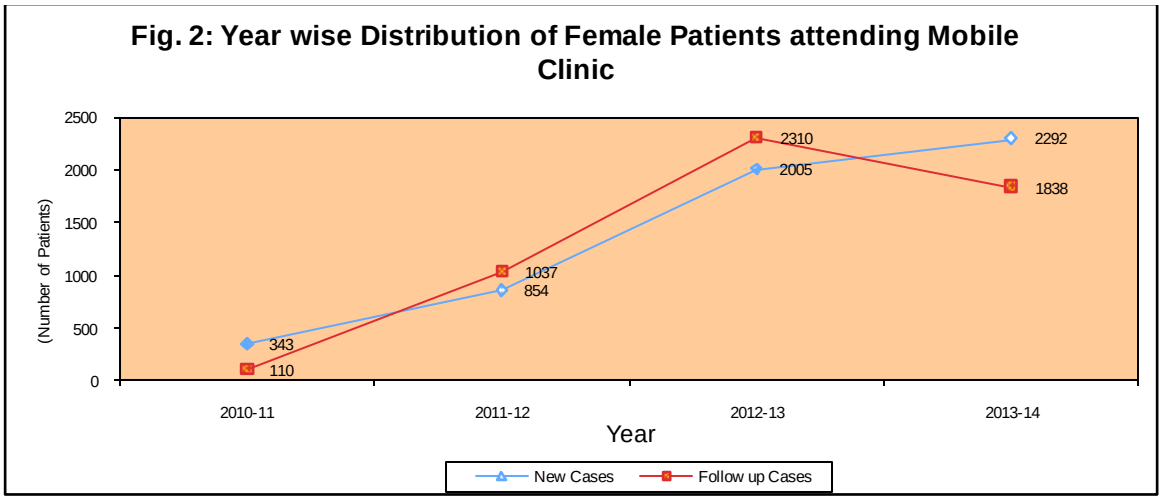


Table 2 and figure 2, shows the pattern of female patients attending the Mobile Clinic from 2010-11 to 2013-14. It is observed from the above table that there has been increase of female patients attending the Mobile clinic in both new and old cases.

Table 3: Year wise Distribution of All Patients attending the Mobile Clinic

Year wise Distribution of All Patients attending the Mobile Clinic

(From 2010-11 to 2013-14)

Sex of Patients	2010-11		2011-12		2012-13		2013-14	
	New	Follow up	New	Follow up	New	Follow up	New	Follow up
Total No. of Patients seen	2781	881	2419	2273	4164	4420	4970	3655

Figure 3: Year wise Distribution of All Patients attending the Mobile Clinic

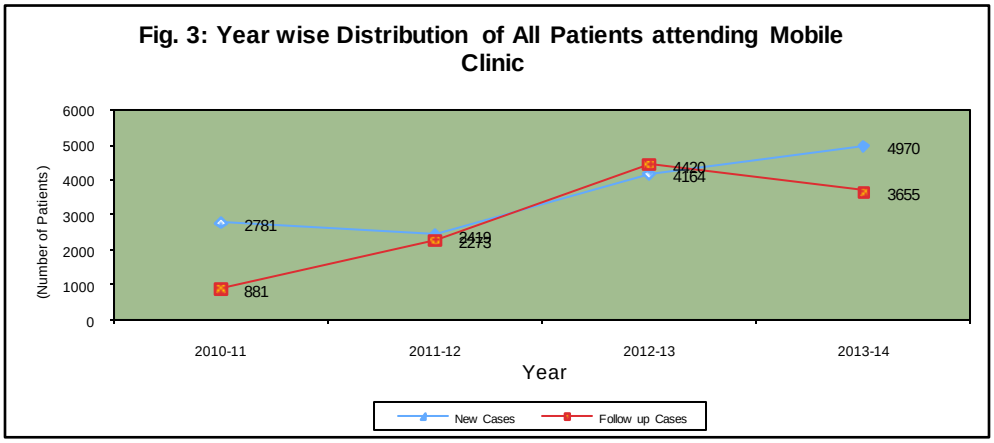


Table 3 and figure 3, The data analysis results of new and follow up patients showed that Mobile Van Clinic improved access for vulnerable slum families of Jaipur, there has been a consistent increase of follow up patients, except in 2013-14, which shows a slight drop in the follow up patients.

The data analysis results of new and follow up patients showed that Mobile Van Clinic improved access for vulnerable slum families of Jaipur, bolster prevention and reduced cost. TAABAR Mobile Health Clinic was able to outclass obstacles to access and establish trusting relationships to reduce disparities, improve health and reduce costs[7, 11].

Also TAABAR mobile health clinics provide referral services, such as TB patients are referred to TB hospital, patients requiring hospital care are referred to SMS, HIV patients are referred to ICTC (HIV Testing), and children needing referrals are referred to BalBasera which is also operated by TAABAR. Apart from referrals, TAABAR mobile clinic provides education to children via mobile van, which no other mobile health clinics in India provide. At TAABAR mobile clinic, free lectures on diseases are also provided by the doctor.

Table 4: Year wise Distribution of new and follow up Male Child Patients

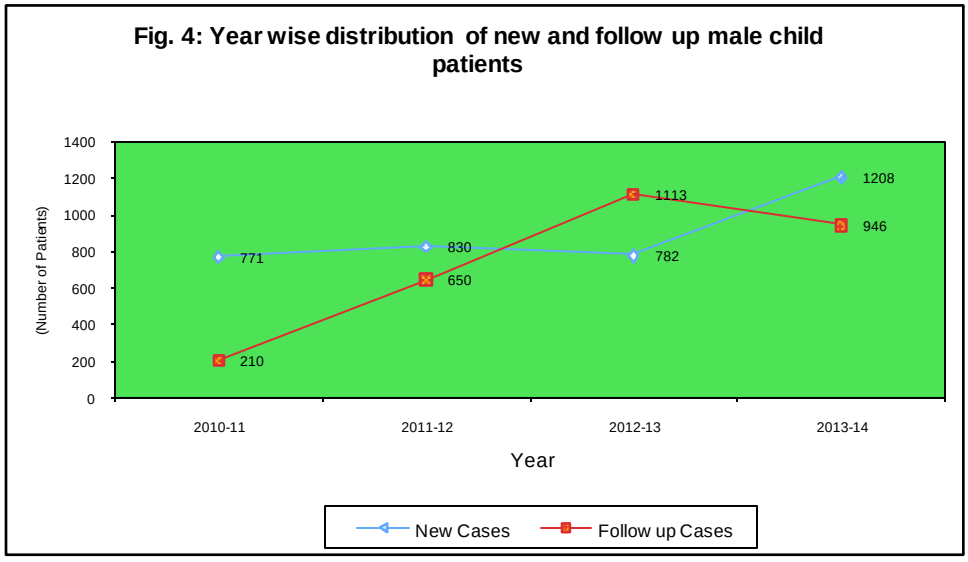
Year wise Distribution of new and follow up Male Child Patients

(From 2010-11 to 2013-14)

Year	Male Child Patients (6-18 years)	
	New Cases	Follow up Cases
2010-11	771	210
2011-12	830	650
2012-13	782	1113
2013-14	1208	946
Total	3591	2919

Taking Base year 2010-11 = 100%

Figure 4: Year wise Distribution of new and follow up Male Child Patients



2010- 11= 100% is taken as a base, In Year 2011-12 male patients Accessing the mobile health facilities increased 3 times, following an subsequent increase in 2012-2013 by 2 times, then there was a slight decline in the year 2013-2014. The decrease is due to not following up the treatment completely.

Table 4 shows that total number of new male child patients increased (100, 107.65,

101.43 and 156.68 percent respectively from 2010-11 to 2013-14). In 2010-11, 771 new male child patients came to Mobile Van Clinic. This number increased to 830 patients in 2011-12 but after that it decreased marginally to 782 patients in 2012-13 but increased and reached finally to 1208 child patients in the year 2013-14. Number of follow up child patients was 210 in 2010-11 which increased to 650 in 2011-12 and reached to 1113 patients in 2012-13. Then it decreased to 946 child patients in the final year 2013-14. According to service providers, large numbers of male child follow up patients were not taking prescribed dose of drugs regularly and completely.

The number of female child was less than male child in each respective year but it was in the increasing trend both for new and follow up female child patients.

Table 5: Year wise Distribution of New and Follow up Female Child Patients

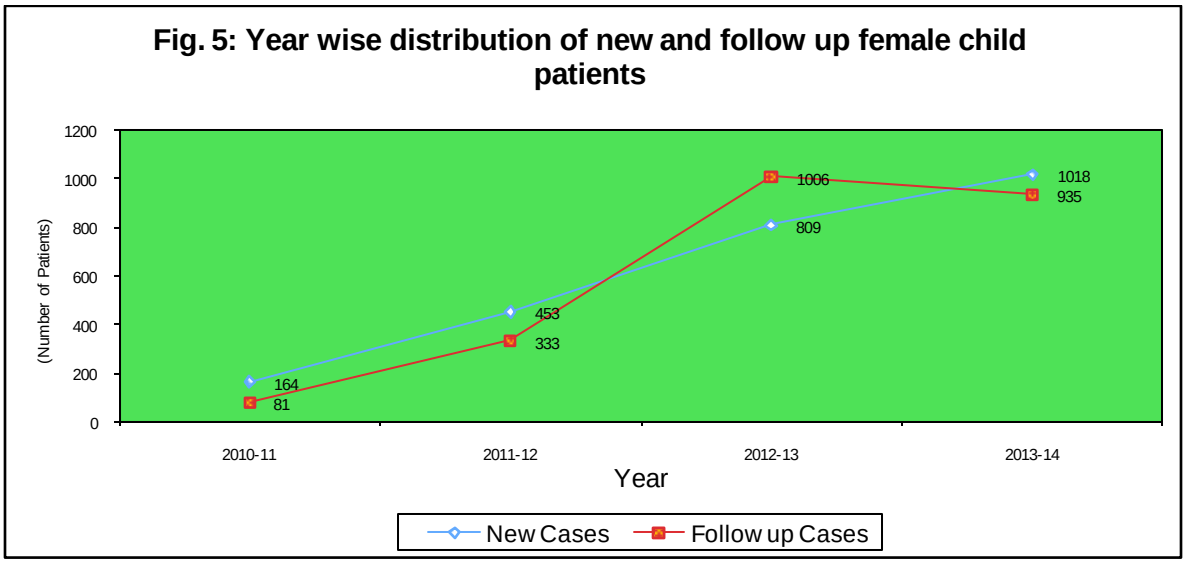
Year wise Distribution of New and Follow up Female Child Patients

(From 2010-11 to 2013-14)

Year	Female Child Patients (6-18 yrs)	
	New Cases	Follow up Cases
2010-11	164	81
2011-12	453	333
2012-13	809	1006
2013-14	1018	935
Total	2444	2355

Taking Base year 2010-11 = 100%

Figure 5: Year wise Distribution of New and Follow up Female Child Patients



Inference: The female patient profile is showing a resemblance pattern in availing the health services provided by mobile van, to the male patient profile. From year 2012 to 2014 there was an increase in number of new cases registered where as there was a slight drop in year 2013 -2014 in the number of follow up cases.

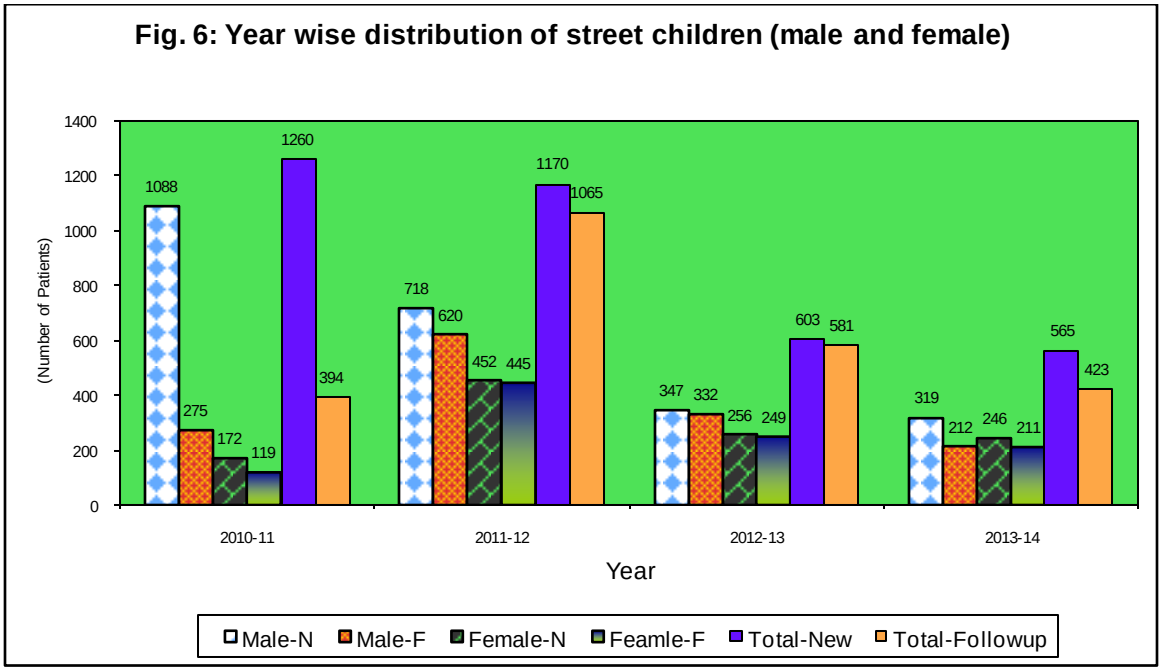
Table 6: Year wise Distribution of Street Children (Male and Female)

Year wise Distribution of Street Children (Male and Female)

(From 2010-11 to 2013-14)

Particulars	2010-11		2011-12		2012-13		2013-14	
	New	Follow up	New	Follow up	New	Follow up	New	Follow up
Street Children (Male)	1088	275	718	620	347	332	319	212
Street Children (Female)	172	119	452	445	256	249	246	211
Total	1260	394	1170	1065	603	581	565	423

Figure 6:Year wise distribution of street children (male and female)



(iii) Table 6 shows that total number of new male street children patients has been decreased during the period under study. In 2010-11, 1088 new male street children patients came to Mobile Van Clinic. This number decreased to 718 patients in 2011-12, 347 in 2012-13 and

came down to 319 patients in the year 2013-14. Number of follow up street children patients was 275 in 2010-11 which increased to 620 in 2011-12 but declined to 332 patients in 2012-13 and further came down to 212 male street children in the final year 2013-14.

The number of new female street children was 172 in 2010-11 which increased to 452 in 2011-12 but decreased to 256 in 2012-13 and came down to 246 in the year 2013-14. There were a large number of follow up female patients also as can be seen from Table 4.

It can be concluded from this analysis that Mobile Van Clinic of TAABAR is doing excellent work for children, street children, and every age group patients. The large and increasing number of patients shows its success in generating awareness among needy and poor people who cannot afford to go to hospitals and not having money for medicines[7,8,9]. They can reach to mobile clinic van, consult to doctor and counselor and get treatment and medicine free of cost.

Diseases Profile

In the Absence of record maintenance on disease distribution, an attempt has been made through using proxy mechanisms:

1. Expenditure pattern for drugs (information available from records)
2. Onsite observation for one day
3. Discussion with service providers.

Followingtables have been prepared to show the disease profile at the mobile van clinic by proxy method. The table below shows the maximum number of medication distributed by the mobile van (from maximum to lowest order, pertaining to volume expenditure of the medication).

Table 7:Most Commonly Distributed Drugs At Mobile Clinic (a)

Most Commonly Distributed Drugs At Mobile Clinic (a)		
S. No	**Drug's Name**	**Medical Condition**
1	Paracetamol Tablets	General Fever
2	Paracetamol Syrup	General Fever
3	Declofenac 10mg	Pain
4	Diclofenac&Paracetamol Tablets	Pain & Fever
5	Cetirizine Tablets 10mg	Allergy
6	Ciprofloxacin Tablets 250/500 mg	Antibiotic for bacterial infections
7	Declofenac ointment	Pain reliving ointment/gel
8	Metrogel	Gastritis
9	Norflox 400mg	UTI
10	Cefalexin 250	Antibiotic for bacterial infections
11	Ibuprofen	Pain & Fever
12	Cough syrup	Coughing and conjestion

Table 8: Most Commonly Distributed Drugs At Mobile Clinic (b)

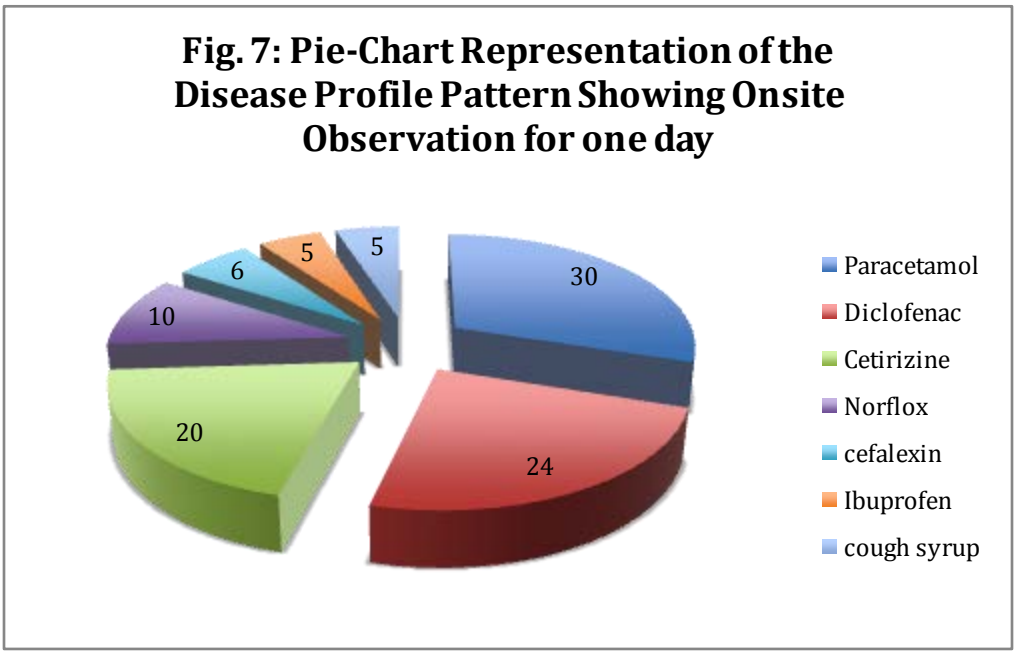
Most Commonly Used Drungs At Mobile Van Clinic (b)					
Serial No.	Drug's Name	Medical Condition	Does 6-12 yrs	Does 12-18 yrs	Does 18-58 yrs
1	Paracetamol Tablets	General Fever	125 mg for 3 days Three Times a day	250 mg Three Times a day for 5 days	500 mg Three Times a day for 5 days
2	Paracetamol Syrup	General Fever	5-10 ml Three times a day for 5 days or SOS	250 mg Three Times a day for 5 days	N/A
3	Declofenac Gel 10mg	Pain	N/A	10 mg SOS	10 mg SOS
4	Diclofenac & Paracetamol Tablets 50 + 325	Pain & Fever	1/2 tab before dinner for 5 days	1 Tab Twice Daily for 5 days	1 Tab Twice Daily for 5 days
5	Cetirizine Tablets 10mg	Allergy	1/2 tab before dinner for 5 days or SOS	1/2 tab before dinner for 5 days or SOS	1 tab bed time for 5 days or SOS
6	Ciprofloxacin Tablets 250/500 mg	Antibiotic	250 mg twice daily for 5 days	500 mg twice daily for 5 days	500 mg twice daily for 5 days
7	Declofenac tablets 100 mg	Pain reliving Tablets	1/2 tab before dinner for 5 days or SOS	1 Tab Before Dinner for 5 days or SOS	1 Tab Before Dinner for 5 days or SOS
8	Metrogel	Gastritis	250 mg tab twice daily for 5days	400 mg tab twice daily for 5days	400 mg tab twice daily for 5 days
9	Norflox 400mg	UTI	-	200mg twice daily for 5days	400 mg tab twice daily for 5 days
10	Cefalexin 250	Antibiotic	250 mg twice daily for 5days	500 mg twice daily for 5days	500 mg twice daily for 5days
11	Ibuprofen	Pain & Fever	Only Syrup	Twice Daily	Twice Daily
12	Cough syrup 50 ml	Coughing and conjestion	5 ml twice daily for 3 days	10 ml twice daily for 5 days	10 ml twice daily for 5days
13	Amoxicillin Capsules 250/500 mg	Antibiotic	125 mg Twice daily for 5days	250 mg Twice dailyfor 5days	500 mg twice dailyfor 5days
14	Metronidazole Tablets 400 mg ,		200mg Before Dinner	400 mg for5 days twice daily	400 mg for5 days twice daily
15	Doxycycline	Antibiotic	N/A	250 mg Twice daily	500 mg twice daily
16	Omeprazole	Gastritis	N/A	Once Daily	Twice Daily

Volume expenditure of Medications

Onsite observation for one day:

- Total numbers of patients seen at Taabar Mobile van clinic on one day were 50
- Maximum distributed drug was Paracetamol as most of the patients were suffering from fever. It was 30% of total medicine distributed.
- Further, other most commonly distributed drugs at Taabar Mobile van clinic were: Diclofenac:(24%), Cetirizine:(20%), Norflox:(10%), Cefalexin:(6%), Ibuprofen:(5%), and cough syrup:(5%).

Fig. 7: Representation of the Disease Profile Pattern Showing Onsite Observation for one day



Discussion with service providers: During the discussion with staff as well, it was observed that most of the patients seen at the mobile van clinic were suffering from general fever.

Thereby, an assumption can be derived using the proxy method that the maximum number of patients seen at the mobile van clinic were of general fever, followed by allergies, multiple boils, insect bites and lastly, respiratory diseases such as Asthma and Coughing.

These findings were collaborated with discussion with the medical staff at TAABAR mobile health clinic and the expenditure on medications,also displays the same pattern.

Also there is a variation in disease pattern according to the seasons: Summer, rainy, winter as per information provided by the medical staff at TAABAR mobile health

clinic. Summer season has most variety of diseases. Frequently occurred diseases in this season are: Gastritis, Vomiting, Fever, Running Nose, Sore throat, Allergy and General Fever (Viral) There is an occurrence of more bacterial diseases in this season. While during the rainy season mainly Insect Bite, Allergy Rashes and Skin Diseases were diagnosed at Mobile Van Clinic. And during the winter season, most of the patients were found suffering from Chest Disease (coughing, Fever) and Asthma (disambiguation).

Discussion

Mobile Van Clinics represent an essential element of the healthcare framework that provides care to populations that are inaccessible by the traditional system, improvingaccess to hard to reach areas and supporting quality disease management[10,11]. Mobile clinics are able to leverage their capability to outclass obstacles to access and establish trusting relationships to reduce disparities, improve health and reduce costs[8, 9].A majority of India's slums lacks affordable primary healthcare, these underserved communities have to travel a long distance in order to get effective and affordable treatment[1, 2].

Thereby the concept of mobile van clinics works well for the slum populations, because the health facilities can be availed by the slum, at their convenience, free of cost[7]. In order to provide medical assistance to the slums, many NGO's are coming forward. And concept of a mobile van clinic is quickly gaining popularity due its success to provide healthcare in the slum populations across India. TAABAR mobile health clinic is a model for providing accessible and affordable primary healthcare to slum populations.

Mostly, NGOs are coming forth in providing mobile health services, in metropolitan cities of India, where slums and poor population is increasing and gathering in search of food, shelter and money. To date, limited attention has been given to mobile van clinics as a model to help achieve accessible and affordable healthcare[10, 11].

The mobile clinic in our study operates in Jaipur, which ensures that marginalized slum population obtain the health services without any cost, and sets an example of what other states in India may achieve with initiating mobile van projects[10, 11].

Mobile health clinicsoperate in many states in India (AmeriCares India, operates in Mumbai's slums and Nagpur mobile clinic, operating in Nagpur[3, 4]) countries around the world (Stanford Children's Health-Teen Van operating in California, US and Washington Hospital Healthcare system: Washington On Wheels Mobile Health Clinic [5, 6] also operating in US), some of the key findings about mobile clinics are:

Population served[7]: Mobile clinics are particularly successful in reaching vulnerable populations. By travelling to these communities and offering affordable, free service, mobile clinics remove logistical constraints such as transportation issues, long wait times, complex administrative processes and financial barriers. Mobile clinics aid communities that have the inadequate access to health services, and target populations include those of ethnic minority,migrant workers, back grounds, the homeless, people lacking financial stability,displaced populations and children.

Service Provided[7]: Mobile clinics provide a wide range of services tailored to community needs.

Controlling Cost[7]: Mobile clinics create significant cost savings as a consequence of their potential to provide community-tailored care in high-risk areas. The principal source of saving is a decrease in avoidable hospital and Emergency Department Visits.

These key findings also support the findings done on TAABAR mobile van clinic, which in turn strengthens the importance of TAABAR Mobile health's study results. While there were some similar findings between the other mobile van clinics and Taabar mobile van clinic, such as emphasis on underserved populations, counseling on STI's and free of cost service delivery and drug distribution, there were some findings that diverge in present study

than others that is most of these mobile van services operate in high populated cities and developed whereas TAABAR mobile clinic operate in Jaipur's slums. Also none of the other mobile health clinics provide referral services, such as TB patients are referred to TB hospital, patients requiring hospital care are referred to SMS, HIV patients are referred to ICTC (HIV Testing), and children needing referrals are referred to BalBasera which is also operated by TAABAR. Apart from referrals, TAABAR mobile clinic provides education to children via mobile van, which no other mobile health clinics in India provide. At TAABAR mobile clinic free lectures on diseases are also provided by the doctor. These are some findings that TAABAR mobile health clinic provides which are diverge from the other studies done on various mobile health clinics.

Conclusion:

Due to the deprivation of basic human needs in slum populations accessibility of healthcare remains a challenge[1]. Poor population are exposed to adversity and disease, they need accommodation and healthcare assistance in order to attain an adequate standard of living. Government hospitals are in limited numbers and generally lack of staff and insufficient medical facilities[4, 5]. Also the socio economic factors further prevent the poor to access the health facilities. A majority of India's slums lacks affordable primary healthcare, these underserved communities have to travel a long distance in order to get effective and affordable treatment. Thereby concept of Mobile clinics has emerged[6, 7].

Mobile clinics play a critical role to in providing high quality at low cost to vulnerable populations. Expanded coverage and delivery, increases opportunities for mobile clinics to partner with hospitals, health systems, and to improve care and lower costs[9,10].

The success of *TAABAR mobile clinic* has been characterized by timely response, meaningful impact, high integrity and intense passion for the work. To deliver medicine, relief supplies and health care to the needy, it has developed a remarkable platform in Jaipur[11, 12]. This model of helping poor and most needy population should be leveraged and spread across Rajasthan.

The TAABAR mobile clinic offers a service that people appear to want, and at a cost they feel they can afford[7].

Questionnaire **APPENDIX-1**

For Staff Members

1. Where is the Head Office of NGO `TAABAR' ?

. . . . . .

2. Are there any other office(s) or working station(s) ?

. . . . . .

3. Is it working only in Jaipur or outside also ?

. . . . . .

4. Is it helps to poor and needy children and women only, or men also ?

. . . . . .

5. How many social workers are working for TAABAR ?

. . . . . .

6. In which mannar needy persons searched and identified ?

. . . . . .

7. In which mannar TAABAR provides support for children and women in need ?

. . . . . .

8. Is there any proper school or elementary education has been given in `BalBasera'?

. . . . . .

9. What types of training programmes are conducted for children and women?

. . . . . .

10. Generally we find static hospitals, dispansories etc., but `mobile clinic' is a new idia. Who thought first it and when `Mobile Clinic Van' of TAABAR started?

. . . . . .

11. Is the destinations of `Mobile Clinic Van' is fixed in Jaipur or it goes new places as well?

. . . . . .

12. What is the means of information about its schedule and destination to needy patients?

. . . . . .

13. Who are the staff members of this `Mobile Clinic Van'?

. . . . . .

14. Generally, what type of patients (children, women, men) is most common?

. . . . . .

15. Which diseases have been diagnosed through this mobile clinic?

. . . . . .

16. Is this a better option than government hospitals?

. . . . . .

17. Do you feel that this mobile clinic giving effective results for the society?

. . . . . .

18. Do you also feel that councelling spreading awareness about hygiene and physical health?

. . . . . .

For Patients

1. From which source you got information about ``Mobile Clinic Van''?

. . . . . .

2. What is the diesease you are suffering from?

. . . . . .

3. Are you consulted with doctor of `Mobile Clinic Van'?

. . . . . .

4. Have you got immediate treatment or asked to come next time?

. . . . . .

5. Are you a new patient or came more than once?

. . . . . .

6. Are you satisfied with the treatment?

. . . . . .

7. Do you like to tell your familier persons about ``Mobile Clinic Van''?

. . . . . .

8. Have you heard about councelling?

. . . . . .

9. Do you know, councelling is also provided in ``Mobile Clinic Van"?

. . . . . .

10. Have you attaindedcouncelling session?

. . . . . .

11. If the answer of Q.No.8 is positive, then which session (one-to-one or group session) you have attainded?

. . . . . .

12. Have you got important knowledge and understood live demonstration?

. . . . . .

13. After councelling, do you think that you were unknown about many a things which taught through councelling?

. . . . . .

14. Do you think ``Mobile Clinic Van" is better than Government hospitals?

. . . . . .

APPENDIX-2

	TAABAR Mobile Van time Table	
Day	Time	Place
Monday	4 pm to 6:30 pm	Railway Station
Tuesday	3:30 pm to 6:30 pm	Kagdiwara
Wednesday	2:30pm to 5:00 pm	Luniyawas 2nd
	5:00pm to 6:30 pm	Luniyawas 1st
Thursday	3:30pm to 4:30 pm	Jawahar Nagar
	4:30pm to 6:30 pm	Jhalana
Friday	4:30pm to 6:30 pm	Khor
Saturday	4 pm to 6:30 pm	Prem Nagar

APPENDIX-3

TAABAR Patient Register

S. No.	Name	ID Code	Place-State-Distt./Vil.	ID Number	Date	Other	Street Children	Sex (M/F/T)	Age	New/Repeat	Referred by ORW/PE	General Check up only

Contd. …

S.No.	STI Symptom Visit	Follow Up	Partner Referral	VD	UD	GUD (non herpes)	Gud herpes	ARD	LAP ID	Inguinal Bubo	Scratal Swelling	Other (STI)

S.No.	Fever General	None	Rx 1	Rx 2	Rx 3	Rx 4	Rx 5	Rx 6	Rx 7	Others (STI)	General Treatment	HIV/STI Cousel

S.No.	Condom demonstration	Reverse Condom demo	No. of Condoms Sold	RPR/DRL	VCTC	Danglers/Leaflets /others (Specify)	Cost of medicine	Remarks

APPENDIX 4

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Dr SV Vinod Kumar

Dr Vivek Lal

Mr M M Ranjan

Alternative Members

Dr Deoki Nandan

Dr Rajeshwari Gupta

Institutional Review Board
IORG #: **IORG0007355**
Ethical Declaration Format

1	Serial No. of Institutional Committee for Ethics and Review of Health Management Research office	2014	10
1	Project Title	A study of Taabar Mobile Health Clinic in Jaipur Rajasthan	
2	Name of Faculty In-charge/ Project Coordinator	Dr Richa Pathak Sharma	
3	Date of Submission to the Committee	1 4 0 6 1 4	
4	Date of Submission to the Agency		
5	Review Category of the Proposal		
	Expedited Review	✓	
	Full review		
6	Date of Review	1 6 0 6 1 4	
7	Reviewer's Name/	Dr S V Vinod Kumar, Dr Nutan P Jain, Dr Arindam Das	
8	Reviewer's Feedback (Please tick the following, if you are satisfied)		
8.1	Respect for person	✓	
8.2	Fair subject selection	✓	
8.3	Informed consent	✓	
8.4	Maintaining privacy	✓	
8.5	Maintaining confidentiality	✓	
9	Final Comment		
	Approved without suggestions	✓	
	Approved with suggestions		
	Sent back for revision and re-submission		
	Not approved		
10	Signature of the reviewer Dr S V Vinod Kumar Dr Nutan P Jain Dr Arindam Das Arindam Das.		

APPENDIX-5

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Mr M M Ranjan

Alternative Members

Dr Suresh Joshi

Dr Rajeshwari Gupta

Dr Arindam Das

Institutional Review Board

IORG #: **IORG0007355**

Format for Preliminary Review

	Serial No. of Institutional Committee for Ethics and Review of Health Management Research office		2014		10				
1	Project Title	A study of Taabar Mobile Health Clinic in Jaipur Rajasthan							
2	Name of Faculty In-charge/ Project coordinator		Dr Richa Pathak Sharma						
3	Date of Submission to the Committee		1	4	0	6	1	4	
4	Date of Submission to the Agency								
5	Review Category of the Proposal								
	Expedited Review		✓						
	Full review								
6	Date of Review		1	6	0	6	1	4	
7	Reviewer's Name	Dr S V Vinod Kumar Dr Nutan P Jain Dr Arindam Das Arindam Das.							

Comments if any

Approved

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