HEALTH SYSTEMS 20/20 MISSION CONVERGENCE PILOT PROJECT IN DELHI, INDIA

PROJECT EVALUATION

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AMS

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ACRONYMS

ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
APL	Above the Poverty Line
ARI	Acute Respiratory Infection
ASHA	Accredited Social Health Activist
BPL	Below the Poverty Line
CGHS	Central Government Health Scheme
CSO	Civil Society Organization
DID	Difference-in-Differences
GRC	Gender Resource Centre
HS20/20	Health Systems 20/20 Project
IFA	Iron and Folic Acid
IPD	In-Patient Treatment
JSY	Janani Suraksha Yojna
MCH	Maternal and Child Health
MoHFW	Ministry of Health and Family Welfare
OBC	Other Backward Castes
OPD	Out-Patient Treatment
OOP	Out-of-Pocket
PNC	Post-Natal Care
PPS	Probability Proportionate to Size
PPCP	Public Private Community Partnership
RGSSBY	Rajiv Gandhi Shilpi Swasthya Bima Yojana
RSBY	Rashtriya Swasthya Bima Yojana
SC/ST	Scheduled Caste/Scheduled Tribe
SRS	Simple Random Sampling
TT	Tetanus Toxoid
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

INTRODUCTION

The Government of National Capital Territory of Delhi conceived the Mission Convergence program with a view to realize its goals of poverty alleviation and inclusive growth. To address the issues of socio-economic vulnerability of Delhi's marginalized and excluded communities, the program has adopted a unique Public Private Community Partnership model. It seeks to strike the right balance between various Government departments, community based organizations and the people by ringing in major reforms in governance for empowerment and upliftment of the vulnerable population of Delhi. In order to close the "last mile" gap and make up for the lack of a central point of contact within the community, Mission Convergence is implemented through a network of 104 Gender Resource Centres (GRCs). GRCs are partnership with local civil society organizations (CSOs) to reach out to people and take Government programmes to communities. GRCs are setup in areas having vulnerable families based on an elaborate poverty mapping exercise with a mandate to cater to 15000-20000 households (approximately a population of 100000).

PROJECT DESCRIPTION

Between 2009 and 2012, Health Systems 20/20, a global project funded by the United States Agency for International Development provided technical assistance to the Government of Delhi's Mission Convergence program. It sought to achieve the overarching goal of increasing utilization of Government sponsored health insurance by the poor to reduce out of pocket expenditures and improve health outcomes. It also endeavoured to extend the health system to hard-to-reach urban populations to meet their unique healthcare needs. In order to understand the unique circumstances, attitudes, behaviours, and needs of the vulnerable population living in Delhi slums, a baseline survey was conducted in 2010. The survey sought to assess the health seeking behaviour especially with regard to maternal and child health, coverage of the population by Rashtriya Swasthya Bima Yojna (RSBY) and other health insurance plans and the pattern of out-of-pocket expenditure (OOP) on health.

Information gathered through the baseline survey underpinned the design and piloting of technical strategies to overcome health insurance implementation bottlenecks as well as improve access to healthcare. An eleven-month field collaboration was initiated between the Health Systems 20/20 project and Mission Convergence with an aim to make a significant difference in how the poor access and utilize the health system. The project recognized the role of GRCs as a critical pillar of health system for urban poor and piloted various strategies to

strengthen their capacities. At the organization level, Health Systems 20/20 emphasized capacity building of the Program Management Unit to institutionalize piloted strategies. Specialized training programs equipped Program Managers with a greater knowledge of key health issues affecting poor urban communities as well as a more informed understanding of RSBY and other health insurance schemes.

EVALUATION OF THE PROJECT

An endline survey was conducted at the close of the project to evaluate the impact of project interventions and draw lessons for the future. Key objectives of the endline survey were delineated as —

1. To evaluate the impact of the project interventions in increasing the access to and use of essential maternal and child health services and RSBY;
2. To assess the impact of Health Systems 20/20 piloted strategies in reducing the OOP expenditures for drugs and medical consultations via a clinic model; and
3. To measure the extent to which the pilot program was successful in decreasing the reliance on unlicensed/ informal healthcare providers.

Evaluation Design : The study used a quasi-experimental study design, comparing changes in key outcome indicators from before (baseline) and after implementation of the interventions (endline) in areas where these were implemented and areas where these were not implemented (control areas). Two cross-sectional household surveys were conducted, and difference-in-differences (DID) analysis was used to assess changes between baseline and endline.

Sample Design : In both baseline and endline surveys, a two-stage sampling design was used to select the households. In the first stage, 54 slums each within the catchment areas of intervention and control GRCs were randomly selected based on Probability Proportionate to Size (PPS) methodology. Thereafter, within each selected slum, household listing was conducted to identify the households which had a woman who had delivered in the last one year. Then, from this list, a random sample of 30 households was selected using the Simple Random Sampling (SRS) method.

It would be apt to highlight that the evaluation study had been designed on the basis of an intervention area of five GRCs as originally envisaged at the time of baseline survey. However, due to administrative issues, the project was able to intervene in only four GRCs. As such, the study may be reflecting a somewhat diluted effect of the project interventions. Further, the project worked for a total duration of only 11 months which is too short a period to bring about any significant change at the behaviour level.

Analytic Methods : Following analytic methods were used to analyze the data —

1. Baseline-endline bivariate comparisons of key indicators within the intervention and control groups;
2. Crude (unadjusted) difference-in-differences of key indicators, comparing the intervention and control groups; and
3. Adjusted difference-in-differences using multivariate linear regression analyses to control for confounding variables, namely, socio-demographic characteristics, economic status, and distance to the nearest health facility.

SUMMARY OF MAJOR FINDINGS

Overall, the endline survey presents an optimistic picture of health care scenario in the slums of Delhi. Remarkable improvements are witnessed over the baseline in the access and use of essential maternal and child health services. The survey reflects an encouraging trend that more and more slum dwellers now prefer qualified and licensed health care providers over the unlicensed ones. The survey indicates a significant increase in the awareness about RSBY among the poor slum dwellers. However, the enrolment levels have registered a decline, underscoring the urgent need to address the bottlenecks in the smooth implementation of this scheme. Issue-wise summaries of major findings are presented below.

Health Care Seeking Behavior: The survey findings indicate a significant improvement in the availability of Government health facilities in the slums, reflecting the efforts of the Government to improve the access of the slum dwellers to healthcare. However, despite increased availability of Government heath facilities, the study shows a significant decline in the preference of slum dwellers for visiting these facilities as the first point of contact during ailments. The prominent reasons for not choosing a Government facility as the first point of contact that have emerged in this survey are: unsuitable timings, long waiting time, non-availability of medicines and poor behaviour of the service providers. On the other hand, the preference for private licensed providers has registered a significant increase.

Notably, there has been a decrease in the percentage of households visiting unlicensed providers as their first point of contact. Respondents from both the intervention and control slums reported a significant decrease of about 10% in visits to unlicensed providers in case of ailments, which indeed is a very positive trend observed in this survey.

Out-of-Pocket Expenditures for Healthcare: As quite expected, the survey indicates a wide disparity in the average total cost incurred in seeking treatment through Government and private health facilities. The cost of inpatient and outpatient treatment in private health facilities is excessive when compared to that in the Government facilities. Component-wise break-up

indicates that the cost of medicines forms a major component of the total cost incurred in both types of facilities.

Nonetheless, the study points to a growing preference among the slum dwellers for outpatient treatment at private health facilities over treatment at Government facilities despite higher OOP expenses in case of the latter. Besides unsuitable timings and poor service quality at the Government facilities, the 'opportunity cost' factor may also be responsible for this. For non-severe ailments, slum dwellers generally try to minimize the time involved in seeking the treatment, even if it entails a somewhat higher amount of expenditure which gets compensated by the lower opportunity cost of lost wages. On the other hand, in case of serious ailments requiring hospitalization, they are compelled to go to Government hospitals despite their shortcomings, as the differential cost of going to private hospitals is too exorbitant for them to afford.

Health Insurance: The study shows a significant improvement in the awareness of the BPL slum dwellers about the Rashtriya Swasthya Bima Yojna (RSBY) in the last two years. It may be highlighted here that the Health Systems 20/20 project's interventions with the GRCs have played a prominent role in increasing the awareness about RSBY among masses. The GRCs were reported to be the major source of information about RSBY. The GRCs were also found to be particularly influential in providing the required assistance for enrolment in RSBY. Three out of every five respondents mentioned that GRCs assisted their families for enrolment in RSBY.

However, despite the increased awareness, the actual enrolments in the scheme have registered a significant decline. Based on in-depth discussions with the GRC functionaries and households, this decrease may be attributed to implementation issues of RSBY. It is found that hospitals usually take a long time for paperwork related to free treatment under RSBY, which results in lost wages for the person accompanying the patient. Moreover, out of the prescribed medicines, the patients are made to buy some of the expensive ones from the market. It has also come to the light that some of the hospitals have started refusing to entertain RSBY card holders probably due to the long delay in reimbursement from the insurance companies. These factors have sent a wrong message to the community and created a negative disposition among people with regard to RSBY.

Maternal Health: The endline survey shows a significant improvement in the utilization of maternal healthcare services by the slum dwellers. About 9 out of every 10 women reported to have received three or more antenatal check-ups during their last pregnancy, reflecting a marked increase over the baseline when the proportion of such women was only around 70%.

Iron deficiency anemia is a major threat to safe motherhood and it is recommended that pregnant women should consume 100 IFA tablets during pregnancy. Although the endline survey shows a significant improvement in this regard, it should be noted that the overall

condition in the slums is still very far from satisfactory with a majority (55%) of the women still not consuming the prescribed dosage of IFA.

The endline survey data shows a significant rise in the percentage of women who delivered at an institution during their last child birth. It may be highlighted here that in the intervention slums, 83% of the total deliveries in the last one year took place at an institution, which is much better as compared to control slums (72%).

The study has also indicated a change in the traditional hesitation towards delivery in an institution even among the poor slum dwellers. When probed about the reasons for not delivering at an institution, 3 out of every 4 women mentioned that they had wanted to go to a hospital, but could not go due to – a) the labor pain started suddenly and there was no time to go; b) there was no one to accompany/ look after children; and c) lack of a transport facility.

The Government has introduced a number of maternity benefit schemes like Janani Suraksha Yojna (JSY), MAMTA, etc. to promote institutional deliveries and safe motherhood among the poor strata of the society. The endline survey indicates a significant increase in the awareness of these schemes. However, despite the increase in awareness, there has not been a significant change in the actual utilization of these schemes by the poor slum dwellers. In-depth interviews with some of the households revealed their perception that it would involve a lot of running around / procedural steps for which they had little time available to spare.

Child Health: The vaccination of children against six serious but preventable diseases has been a cornerstone of the child health care system in India and is crucial to reducing infant and child mortality. The endline survey shows a highly significant rise (around 30 percentage points) in the levels of full vaccination in both intervention and control slums. However, it is noteworthy that there is still a vast majority of over 50% children who are not fully immunized for their age. The survey indicates a phenomenon of high drop-out in vaccinations. While the overall coverage for BCG has reached as high as 97%, it drops to almost half (46%) by the time of measles vaccination.

The endline survey has also observed a significant rise in the awareness levels of mothers regarding the management of common childhood illnesses. It is found that the mothers are not only aware, but are also seeking prompt professional help as and when required.

RECOMMENDATIONS

The results of this study have led us to make certain recommendations for further improvements in the delivery of health services, which are outlined ahead.

Augmenting Operational Efficiency of Government Health Facilities : The poor's overall vulnerability to health issues can be mitigated with the help of strengthened public systems providing for preventive and primary health care. Results of the survey indicate a significant improvement in the availability of Government health facilities in the vicinity of slums. Despite the increased availability of Government facilities, the survey indicates a rising preference for private health facilities leading to increased OOP expenses.

Two main reasons for the decline in utilization of Government facilities have emerged as inconvenient timings and long waiting time to access the services. The first issue can be resolved by synchronizing the timing of out-patient facilities with that of the target group. As majority of the slum dwellers are working as daily wagers, the timings of Government clinics/ dispensaries are often at odds with their work schedule. Further, there is a need to study the work mechanisms which will help in devising action plans for enhancing operational efficiency of these facilities leading to a reduction in waiting time. Modern management techniques like work study and proper layout designing can be utilized for this purpose.

Another key reason which the survey highlights is the non-availability of all the prescribed medicines in the Government facilities. Utilization of generic drugs may be an effective strategy which would allow the Government to procure greater quantities of medicines in the same budget. Health Systems 20/20 project's local implementation partner, Swasth Foundation has already demonstrated a model of procuring low cost medicines from the manufacturers and passing on the benefits to the poor consumers.

Interventions to Improve Maternal Health : The endline survey brings to light an appreciable improvement in the maternal health scenario in the slums of Delhi. An increasing number of women in the slums are now aware of and utilizing services including antenatal care, institutional delivery and postnatal care. However, the survey has highlighted that the situation with regard to the consumption of prescribed IFA dosage during pregnancy is very far from satisfactory which has serious repercussions on safe motherhood and the health and survival of infants. It is needed to design and pilot an innovation on the lines of the DOTS project to monitor the consumption of these tablets. It is proposed that local ASHA should be incentivised to ensure that the pregnant women consume the IFA tablet in her presence. This should be made an integral part of her duty.

Also, despite increase in awareness, low service utilization of maternity benefit schemes persists. This emphasizes the need to design appropriate demand-side interventions, such as, reducing the procedural steps which deter the poor slum dwellers from claiming the benefits of these schemes.

A Tracking System to Improve Full Immunization : A significant increase is observed in the awareness levels of mothers regarding all issues related to child health. It is also found that the mothers are not only aware, but they also seek prompt professional help as and when required. The survey results indicate success of the project interventions in spreading the awareness and the resultant increase in vaccination coverage in the slums.

However, the survey reveals a phenomenon of high drop-out in vaccinations. While the coverage for BCG has reached as high as 97%, it drops to almost half (46%) by the time of measles vaccinations. The high drop-out in vaccinations reflects the challenge inherent in administering multi-dose vaccines. There is a great need to design a tracking system for effective monitoring of full vaccination of children in the slums.

Better Implementation of RSBY : Survey findings indicate a rising awareness among slum dwellers regarding health insurance schemes, particularly RSBY. However, it is a matter of grave concern that the enrolments in RSBY have registered a marked decline from the baseline level. In-depth discussions with health functionaries and households indicate serious issues with respect to the implementation of RSBY, which have eroded the trust of people in the scheme. In order to make this scheme more acceptable and gratifying for the communities, Government needs to put robust monitoring mechanisms in place to ensure timely delivery of services under the scheme. The organizational relationship between the various stakeholders of RSBY needs to be re-engineered and strengthened.

Capacity Building of GRCs and Empowerment of Communities : The pilot project implemented its strategies with the help of GRCs run by non-government organizations. The survey findings go on to highlight the instrumental role played by these GRCs in spreading awareness regarding RSBY and assisting families for enrolment in RSBY. Civil society organizations like GRCs can play a vital role in ensuring effective implementation of social welfare initiatives. Therefore, to create robust systems for implementing innovative health interventions, the Government needs to build the capacity of such grassroots level organizations.

Furthermore, being multi-faceted, delivery of healthcare requires a coordinated effort by a multitude of stakeholders such as the Department of Health and Family Welfare, Department of Women and Child Development, external support agencies, private health care providers, non-government/ civil society organizations and the community. An empowered community will be an invaluable partner for proper implementation of health initiatives. The Government needs to garner community participation, as it brings accountability, transparency, sense of participation and greater responsibility from both sides. The capacity of the community should be built so that they are able to demand improved health services from the various providers.

1. BACKGROUND & CONTEXT

"Implicit in the pursuit of human development is a firm conviction that improvements in the well being of the poor are fundamental to ensuring a better life, not just for them, but for all."

1.1 THE MISSION CONVERGENCE PROGRAM

In 2008, the Government of National Capital Territory of Delhi made a path-breaking decision to bring about a paradigm shift in the delivery of social services to the poor and most vulnerable households of Delhi. To address the issues of socio-economic vulnerability of Delhi's marginalized and excluded communities, the Government rolled out an ambitious program, termed the Delhi Mission Convergence Program. Prior to this program, a number of social welfare schemes were being run by the Government to improve the quality of life and bring the vulnerable population within the ambit of social development. But by 2008, the Government realized that social support initiatives delivered separately across nine departments had created a complicated and inefficient system, with implementing agents often duplicating efforts. The lack of a central point of contact within the community diminished the reach of all welfare programs. It was unclear as to what extent any program was closing the "last mile" gap— that is how well the public welfare program was actually delivering services to intended beneficiaries. It was also difficult to track which services individual beneficiaries accessed.

In view of these challenges, Mission Convergence was designed as a rationalization process aimed at de-duplication and convergence of various departments' efforts for effective and targeted social welfare to bring about qualitative change in the lives of the urban poor communities. It adopts a multi-pronged and multi-disciplinary convergence of services covering welfare schemes of various departments, like Health and Family Welfare, Education, Women and Child Development, Social Welfare, Food and Civil Supplies to name a few. Moreover, the Mission has re-engineered the process of service delivery through a unique Public Private Community Partnership (PPCP) to make the system more responsive to the citizens. The Mission Convergence implements its mandate through a network of 104 Gender Resource centers (GRCs) which serve as the focal point of contact for the community. GRCs are partnership with local civil society organizations (CSOs) to reach out to people and take Government programmes to communities. GRCs are setup in areas having vulnerable families based on an elaborate poverty mapping exercise with a mandate to cater to 15000-20000 households (approximately a population of 100000).

1.2 USAID Health Systems 20/20

Heath Systems 20/20 is a global flagship project funded by the United States Agency for International Development (USAID) to support health systems strengthening in countries across the globe. In India, Health Systems 20/20, provided technical assistance to the national and state governments in the design and implementation of innovative healthcare financing programs for low-income households. Health Systems 20/20 India activities sought to achieve the overarching goal of increasing utilization of Government sponsored health insurance by the poor to reduce out of pocket expenditures and improve health outcomes. Between 2009 and 2012, Health Systems 20/20 provided technical assistance to the Government of Delhi's Mission Convergence program with a dual aim. The project sought to facilitate greater access to health insurance and financial risk protection for the urban poor. It also endeavored to extend the health system to hard-to-reach urban populations to meet their unique healthcare needs.

The project began with an informal process mapping exercise to identify opportunities, bottlenecks, and challenges that Government-sponsored health insurances schemes face in delivering health insurance to poor and vulnerable populations. This exercise brought to light various operational and implementation bottlenecks which compromise the ability of the Delhi Government to reach its intended beneficiaries for the Government-sponsored health insurance schemes. This was followed by a baseline survey of vulnerable households in Delhi slums to understand the unique circumstances, attitudes, behaviours, and needs of this population. In 2010, AMS Consulting (P) Limited was commissioned by Health Systems 20/20 to conduct a baseline survey in the slums of Delhi for the purpose of establishing initial indicators for the Mission Convergence Program. The baseline survey sought to assess the health seeking behavior especially with regard to maternal and child health, coverage of the population by Rashtriya Swasthya Bima Yojna (RSBY) and other health insurance plans and the pattern of out-of-pocket expenditure (OOP) on health. The findings of baseline survey substantiated the process mapping findings. It indicated that respondents had limited knowledge of Government-sponsored insurance options available to them and low use of preventive health care.

Information gathered during the informal process mapping exercise and the baseline survey underpinned the design of technical strategies to overcome health insurance implementation bottlenecks as well as improve access to healthcare. The collaboration initiated between the Health Systems 20/20 project and Mission Convergence then involved piloting strategies intended to make a significant difference in how the poor access and utilize the health system. Health Systems 20/20 also aided close coordination among Delhi Government's Mission Convergence and Departments of Health and Labor to facilitate vulnerable households' access to healthcare, reduce their OOP expenditure on health care, and provide financial protection against catastrophic illnesses.

Health Systems 20/20 intervened at two levels. At the community level, it sought to pay special attention to the problem of covering the 'last mile.' In order to ensure that the health system includes strong mechanisms to extend access to insurance and health services at the community level, the project worked through local implementing partners, Hindustan Latex Family Planning Promotion Trust and Swasth Foundation, to build the capacity of GRCs. The project recognized the role of GRCs as a critical pillar of the health system for urban poor and designed interventions to strengthen this component of service delivery. Health Systems 20/20 strategies included: strengthening local level convergence processes; networking to create effective linkages to public and private sector providers to deliver services in a more accessible fashion; facilitating access to Government-sponsored health insurance schemes; using demand-side mobilization to create awareness on key health issues and bring about behavioral change within the community; and enhancing GRCs' capacity to recognize and use community resources to address specific health issues of concern to the community.

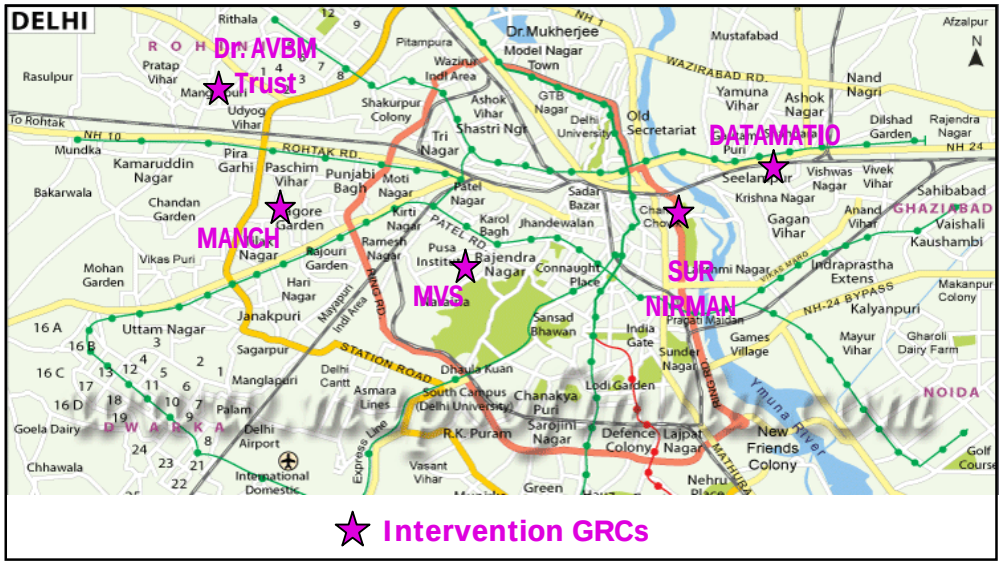
At the organization level, Health Systems 20/20 emphasized capacity building of the Program Management Unit to institutionalize piloted strategies. Specialized training programs equipped Program Managers with a greater knowledge of key health issues affecting poor urban communities as well as a more informed understanding of RSBY and other health insurance schemes. These technical competencies are important to increasing Managers' abilities to support and supervise GRC activities. Overall, Health Systems 20/20 encouraged Mission Convergence to support GRCs to take on a larger role in extending the public health system to the urban poor.

1.3 PROJECT LOCATION AND TARGET POPULATION

Life in rural villages in India can be hard, with limited opportunities for employment. Every year millions of people from these areas travel to cities in search of work and better life, only to find that the cost of living in cities is crippling. Even if people can find work, an affordable accommodation is almost impossible to find. People set up makeshift shelters with whatever materials are to hand and form unauthorized settlements commonly known as slums. The slums are typically characterized by overcrowding and inadequate access to even the most basic of public amenities needed for decent living. Slum dwellers are especially vulnerable to health risks as close living quarters accelerate the spread of contagious diseases.

At present, Delhi, the capital city of India, is estimated to have a population of nearly 10 million slum dwellers, representing more than half of its total population. In order to improve access to healthcare in such areas, Mission Convergence has partnered with GRCs, which are community based organizations situated in slums. Each GRC covers about 20,000 households and a population of roughly 100,000 people.

The Health Systems 20/20 project originally planned to work with five GRCs — Dr. A.V. Baliga Memorial Trust (North West District), Manch (West District), Datamation Foundation Charitable Trust (North East District), Mahila Vikas Sansthan (South West District) and Sur Nirman (Central District). In this way, the project planned to cover five out of a total of nine districts in Delhi to have a widespread coverage of its interventions. Accordingly, the baseline survey was conducted taking the entire catchment area of these five GRCs as the sampling universe. The endline survey conducted to evaluate the effect of project interventions, also followed the same sampling design to maintain the comparability of the baseline and endline results.



However, during the actual implementation, due to administrative issues, the community based interventions of the project could not be implemented in the catchment area of Sur Nirman GRC. Therefore, the results of our study should be viewed with the perspective that the project was able to intervene in only four-fifth of the planned intervention area. Moreover, the Health Systems 20/20 project worked for a total duration of only 11 months, which is quite short a period indeed.

This report gives a detailed description of the methodology used and results obtained in the endline survey. It seeks to inform the concerned authorities about the key findings with regard to the effectiveness of this pilot project.

2. OBJECTIVES & METHOD

2.1 RESEARCH OBJECTIVES

Key objectives of the endline survey for the Mission Convergence Pilot Insurance Project were to —

1. Evaluate the impact of the Health Systems 20/20 Mission Convergence Health Project interventions, which were designed to increase access to and use of essential maternal and child health services and RSBY;
2. Assess the impact of Health Systems 20/20 piloted strategies to reduce OOP expenditures for drugs and medical consultations via a clinic model;
3. Assess the extent to which the pilot program was successful in decreasing the reliance on unlicensed/ informal healthcare providers.

2.2 STUDY DESIGN

The study uses a quasi-experimental study design, comparing changes in key outcome indicators from before (baseline) and after implementation of the intervention (endline) in areas where the intervention was implemented and areas where it was not implemented (control areas). Two cross-sectional household surveys were conducted, and difference-in-differences (DID) analysis was used to assess changes between baseline and endline.

To measure the impact of the intervention on a given indicator, we compare the difference (change) in the indicator from baseline to endline in the intervention group to the difference (change) in the control group. The DD analysis indicates the effect of the intervention on the given indicator. Table-2.1 below illustrates this method —

TABLE-2.1 : MEASURING THE EFFECT OF THE INTERVENTIONS USING A DIFFERENCE-IN-DIFFERENCES METHOD

Group	Indicator Value		Difference (Change)
	Baseline	Endline	
Intervention Group	I_b	I_e	$I_e - I_b$
Control Group	C_b	C_e	$C_e - C_b$
Effect of the Intervention (Difference-in-differences) :			$(I_e - I_b) - (C_e - C_b)$

It is apt to highlight that the above design requires that the key indicators, research instruments and the sample design are kept the same for the baseline and the endline survey.

2.3 SELECTION OF STUDY AREA

As already mentioned, at the time of baseline survey, the Health Systems 20/20 project had identified five GRCs as intervention sites to pilot innovative strategies aimed at improving the access and utilization of health services among the urban poor population of Delhi. Accordingly, the households living in the catchment area of these five GRCs combined formed the intervention group for the baseline study. Since the intervention group had already been decided, a quasi-experimental design approach was followed. The Mission Convergence officials who were fully familiar with the intervention GRCs, were asked to identify five other GRCs in the vicinity with similar socio-economic and public health status demographic characteristics as the control group. The households covered by these five GRCs combined formed the control group for the study.

TABLE-2.2 : SELECTED STUDY AREA

Districts	Intervention GRCs' Area	Control GRCs' Area
North West	Dr. A.V. Baliga Memorial Trust	PRAYAS
West	Manch	SSMI
North East	Datamation Foundation Charitable Trust	Action India
South West	Mahila Vikas Sansthan	MPS
Central	Sur Nirman	SPOWAC

Accordingly, the baseline survey was conducted over a sample drawn from the aforementioned five intervention and five control GRCs. However, as already stated, due to administrative issues, the community based interventions of the project could not be implemented in the catchment area of Sur Nirman GRC. Nonetheless, to maintain the integrity of the survey design, the endline survey revisited all the five original proposed intervention GRCs as well as the five designated control GRCs that were covered during the baseline.

2.4 SAMPLE SELECTION

Keeping in mind the study objectives, the target respondents were identified as — a) head of the households for gathering information pertaining to health seeking behaviour, out-of-pocket expenditure and various issues related to health insurance; and b) women who had given birth in the last one year for assessing the access to and use of quality maternal and child health services.

Considering the fact that MCH services were the key strategic component of the intervention, the households having at least one woman who had given birth in the last one year were of utmost interest for the study. Therefore, in concurrence with the suggestions of USAID Statistical Expert, it was sought to combine the two sets of respondents, that is, select households which had at least one woman who had delivered in the last one year. While the

women would be asked about maternal and child health issues, their household heads would be queried for the issues relating to health seeking behavior and health insurance. It would be pertinent to add here that with owing to such a method of sample selection, our sample is not strictly representative of all households in the GRC catchment areas.

In both baseline and endline surveys, a two-stage sampling design was used to select the households. In the first stage, 54 slums each within the catchment areas of intervention and control GRCs were randomly selected based on Probability Proportionate to Size (PPS) methodology. Thereafter, within each selected slum, household listing was conducted to identify the households which had a woman who had delivered in the last one year. Then, from this list, a random sample of 30 households was selected using the Simple Random Sampling (SRS) method. A brief note on the sample size calculation for the study is presented in Annexure-A.

The baseline data collection took place during July-August, 2010 while the endline data collection was done during May-June, 2012. The resulting household sample is summarized in Table-2.3.

TABLE-2.3 : NUMBER OF HOUSEHOLDS COVERED IN HOUSEHOLD SURVEY

Category	Baseline		Endline	
	Intervention Group	Control Group	Intervention Group	Control Group
Number of Slums	54	54	54	54
Number of Households	1619	1618	1620	1620

2.5 RESEARCH INSTRUMENTS

Considering the nature and scope of the study, a detailed structured questionnaire comprising five sections was prepared. Section-1 solicited information to develop a socio-demographic profile of the household and their access to basic amenities/services, such as, drinking water, toilet facilities, and healthcare services. Section-2 contained questions on health insurance and probed in detail about the households' awareness, registration and enrollment in the RSBY and other health insurance schemes. Section-3 was designed to gather information on health seeking behavior of individual household members. The questions related to the utilization of outpatient as well as inpatient services, and the expenses incurred for those services. Section-4 dealt with questions pertaining to maternal and child health. This section was designed to capture comprehensive information including the expenses incurred on delivery and treatment of common childhood illnesses. Section-5, the final section, collected information about the household assets and living expenses to establish an economic profile of the household.

2.6 ANALYTIC METHODS

Sampling weights reflecting the probability of selection in the samples were computed and used in all statistical analyses. The results presented in this report have been accomplished using the following analytic methods —

4. Baseline-endline bivariate comparisons of key indicators within the intervention and control groups;
5. Crude (unadjusted) difference-in-differences of key indicators, comparing the intervention and control groups; and
6. Adjusted difference-in-differences using multivariate linear regression analyses to control for confounding variables, namely, socio-demographic characteristics, economic status, and distance to the nearest health facility.

2.7 LIMITATIONS OF THE STUDY

The conclusion of this study should be viewed in the light of following limitations. The first one concerns the study design. The design that is best suited for measuring impact of an intervention on individual/household level behaviours is the randomized control trial design, whereby households within the same area are randomly allocated to an intervention and a control group. Such an ideal design was not feasible for this study due to two reasons. One, the interventions were designed at the GRC level and impacted all the households within the GRC. Two, the intervention GRCs had been pre-decided as per the suggestions of the Mission officials. Further, the extent of comparability of the intervention and control GRCs is also a matter of concern.

Secondly, the study had been designed on the basis of an intervention area of five GRCs as originally envisaged at the time of baseline survey. However, as already mentioned, due to administrative issues, the project was able to intervene in only four-fifth of the planned intervention area. As such, the study may be reflecting a somewhat diluted effect of the project interventions.

Thirdly, given the very short duration of the project, the sample size of the study is too small to detect the effects of the intervention, particularly for rare health related events, such as, hospitalization.

3. DESCRIPTION OF SURVEY SAMPLES

3.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS

Table 3.1 presents a comparative analysis of intervention and control groups covered at the time of baseline and endline surveys. It shows that the two groups are quite comparable with regard to the education, religion and gender of the household head. However, it indicates a significant albeit small difference between the two groups with respect to the age, social group and occupation of the household head. Accordingly, while estimating the project's effect on various key indicators, we have used multiple regression analysis to control/adjust for any confounding effects of these differences.

TABLE 3.1 DESCRIPTION OF SURVEY SAMPLES: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Household Characteristics	Baseline Survey			Endline Survey		
	Intervention Group (n=1619)	Control Group (n=1618)	Signif.[1]	Intervention Group (n=1620)	Control Group (n=1620)	Signif.[1]
Age of Household Head			**			*
Upto 25 years	14%	16%		16%	20%	
26-30 years	31%	35%		31%	31%	
31-40 years	27%	24%		24%	21%	
Above 40 years	29%	25%		29%	29%	
Education of Household Head						
Illiterate/No Formal Education	38%	42%		28%	28%	
Upto Primary Level	19%	19%		21%	21%	
Middle Level	19%	18%		19%	18%	
Secondary Level	16%	13%		18%	16%	
Higher Secondary & Above Level	9%	7%		14%	16%	
Religion of Household Head						
Hinduism	62%	67%		70%	75%	
Islam	35%	32%		30%	24%	
Others	3%	1%		0.5%	1%	
Social Group of Household Head			**			
Scheduled Castes & Tribes	39%	48%		33%	33%	
Other Backward Castes	27%	23%		37%	37%	
General Castes	35%	29%		30%	30%	
Occupation of Household Head			***			**
Employed in a Private Enterprise	34%	34%		41%	36%	
Self Employed (Hawker, etc.)	26%	18%		23%	21%	
Unskilled Casual Labor	19%	25%		15%	21%	
Skilled Casual Labor	7%	8%		4%	6%	
Government Employee	3%	5%		5%	5%	
Not Working	11%	10%		12%	12%	
Female Headed Households	7%	7%		7%	6%	
Average Household Size	5.4	5.3		5.6	5.6	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

An analysis of change in the socio-demographic characteristics of intervention and control group households between the baseline and endline is presented in Table 3.2. Overall, there is a general improvement in the educational status of the household heads. The proportion of household heads having some education has risen to 72% and 71% from the baseline levels of 62% and 58%, respectively. However, it is still well below the overall average of 86% literates in entire Delhi (Census 2011), corroborating the fact that the study sites include poor communities.

TABLE 3.2 CHANGE IN SOCIO-DEMOGRAPHIC CHARACTERISTICS FROM BASELINE TO ENDLINE

Household Characteristics	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=1619)	Endline Sample (n=1620)	Signif.[1]	Baseline Sample (n=1618)	Endline Sample (n=1620)	Signif.[1]
Age of Household Head						**
Upto 25 years	14%	16%		16%	20%	
26-30 years	31%	31%		35%	31%	
31-40 years	27%	24%		24%	21%	
Above 40 years	29%	29%		25%	29%	
Education of Household Head			***			***
Illiterate/No Formal Education	38%	28%		42%	29%	
Up to Primary Level	19%	21%		19%	21%	
Middle Level	19%	19%		18%	19%	
Secondary Level	16%	18%		13%	16%	
Higher Secondary & Above Level	9%	14%		7%	16%	
Religion of Household Head						
Hinduism	62%	70%		68%	75%	
Islam	35%	30%		32%	24%	
Others	3%	1%		1%	2%	
Social Group of Household Head			**			***
Scheduled Castes & Tribes	39%	33%		48%	33%	
Other Backward Castes	27%	37%		23%	37%	
General Castes	35%	30%		29%	30%	
Occupation of Household Head			***			**
Employed in a Private Enterprise	34%	41%		34%	36%	
Self Employed (Hawker, etc.)	26%	23%		18%	21%	
Unskilled Casual Labor	19%	15%		26%	21%	
Skilled Casual Labor	7%	4%		8%	6%	
Government Employee	3%	5%		5%	5%	
Not Working	11%	12%		10%	12%	
Female Headed Households	7%	7%		7%	6%	
Average Household Size	5.4	5.6		5.3	5.6	***

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Employment in private enterprises continues to be the predominant occupation in each group and the share of non-working household heads remains more or less the same. However, there has been a significant change in the social group-wise composition of households between the baseline and the endline. It may be due to the high incidence of migration in the urban slums, more so in big metropolitan cities like Delhi.

3.2 ECONOMIC CHARACTERISTICS

As per the Government norms, there are three categories with respect to economic status of households. These are above poverty line, below poverty line and another lower segment called poorest of the poor (Antyodaya). Table 3.3 presents a comparative analysis of the economic characteristics of the intervention and the control groups. It shows that the two groups are quite comparable in this regard.

TABLE 3.3 DESCRIPTION OF SURVEY SAMPLES: ECONOMIC CHARACTERISTICS

Household Characteristics	Baseline Sample			Endline Sample		
	Intervention GRCs (n=1619)	Control GRCs (n=1618)	Signif.[1]	Intervention GRCs (n=1620)	Control GRCs (n=1620)	Signif.[1]
Economic Status as per Govt. Norms						
Above Poverty Line	32%	28%		40%	41%	
Below Poverty Line	19%	17%		17%	17%	
Poorest of the Poor	49%	55%		42%	41%	
Type of House						
Pucca	75%	74%		89%	85%	
Semi-pucca	17%	14%		6%	9%	
Kutcha	5%	7%		3%	3%	
No Structure	2%	5%		2%	3%	
Asset Ownership						
Own a Television	79%	74%		86%	83%	
Own a Washing Machine	30%	24%	*	35%	33%	
Own a Refrigerator	48%	40%	*	53%	52%	
Own a Motorcycle	19%	15%		25%	26%	
Own a Mobile Phone	82%	84%		93%	93%	
Main Source of Drinking Water						***
Piped water in dwelling	66%	55%		77%	58%	
Public tap	29%	38%		15%	22%	
Borewell	2%	3%		7%	14%	
Other	3%	4%		1%	6%	
Toilet Facility Type						***
Flush to Piped Sewer System	56%	54%		67%	42%	
Flush to Septic Tank / Pit	6%	10%		8%	36%	
Public Toilet	17%	11%		19%	17%	
No Toilet Facility	21%	26%		5%	5%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Further analysis with respect to the type of house and assets ownership also underscores this fact. However, a comparison of the endline situation with the baseline indicates an overall improvement in the economic status of both the groups (Table 3.4).

TABLE 3.4 CHANGE IN ECONOMIC CHARACTERISTICS FROM BASELINE TO ENDLINE

Household Characteristics	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=1619)	Endline Sample (n=1620)	Signi.[1]	Baseline Sample (n=1618)	Endline Sample (n=1620)	Signi.[1]
Economic Status as per Govt. Norms			**			***
Above Poverty Line	32%	40%		28%	42%	
Below Poverty Line	19%	17%		17%	17%	
Poorest of the Poor	49%	42%		55%	41%	
Type of House			**			**
Pucca	75%	89%		74%	85%	
Semi-pucca	17%	6%		15%	9%	
Kutcha	5%	3%		7%	3%	
No Structure	2%	2%		5%	4%	
Asset Ownership						
Own a Television	79%	86%	***	74%	84%	***
Own a Washing Machine	30%	35%		24%	33%	***
Own a Refrigerator	48%	53%		40%	52%	***
Own a Motorcycle	19%	25%	*	15%	26%	***
Own a Mobile Phone	82%	93%	***	84%	93%	***
Main Source of Drinking Water			***			***
Piped water in dwelling	66%	77%		55%	58%	
Public tap	29%	15%		38%	22%	
Borewell	2%	7%		3%	14%	
Other	3%	1%		4%	6%	
Toilet Facility Type			***			***
Flush to Piped Sewer System	56%	67%		54%	42%	
Flush to Septic Tank / Pit	6%	8%		10%	36%	
Public Toilet	17%	19%		11%	17%	
No Toilet Facility	21%	6%		26%	5%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

In the intervention group, the percentage of households above the poverty line increased from 32% to 40%, while an improvement from 28% to 42%, was observed for the control group. The data shows that proportion of households living in pucca houses has increased from 75% to 89% in case of intervention slums, while in control slums, the increase has been from 74% to 85%.

The descriptive analysis for asset ownership also depicts significant improvements in both the intervention and control groups. In the intervention areas, the percentage of people owning a television increased by 7%, while the possession of mobile phone increased by 11%. Similarly, the households in control slums showed significant improvements in ownership of all assets, ranging from 8% to 12% increase in various assets.

Nonetheless, a majority, or 60% of the households in the sampled areas, fall either below the poverty line or in the poorest of poor category, reiterating the fact that the study sites comprise mostly of urban poor communities.

Water and sanitation are considered to be important determinants of the health of individuals and communities. The descriptive analysis indicates a significant improvement in the access to safe sources of drinking water in both the intervention and the control slums. Similarly, there is a significant improvement in the access to toilet facilities as well. Nonetheless, in the both the groups, 5-6 percent of the households are still resorting to open defecation as they do not have access to toilet facilities.

In short, the above analysis corroborates that the study sites are indeed poor communities of Delhi. As is evident from Table 3.4, despite an overall economic improvement, a majority or 60% of the households in sampled areas, fall either below the poverty line or in the poorest of poor category. Further, there are statistically significant differences between the intervention and control groups with regard to certain socio-demographic and economic characteristics, although their magnitude is small. To account for the potentially confounding effects of these differences on our key indicators, we have used multivariate linear regression analysis to compute adjusted difference-in-differences estimates.

4. HEALTH CARE SEEKING BEHAVIOUR

4.1 AVAILABILITY OF HEALTH CARE FACILITIES

The Municipal Corporation of Delhi and the Delhi Government are responsible for the provision of health care services to Delhi citizens. Besides operating Urban Health Centers/Dispensaries to provide primary health care services, they also provide reproductive and child health services through contracted Auxiliary Nurse Midwives (ANM) attached to various dispensaries.

Table 4.1 demonstrates a significant improvement in the availability of health care facilities in both the intervention and control GRCs. Overwhelming majority of the households reported the availability of a Government health facility within a kilometer of their dwelling. It reflects the efforts of the Government to improve the access of the slum population to health care facilities.

TABLE 4.1 : AVAILABILITY OF HEALTH CARE FACILITIES

Distance to Nearest Facility	Intervention GRCs' Area			Control GRCs' Area		
	Baseline	Endline	Signif.[1]	Baseline	Endline	Signif.[1]
Distance to Nearest Government Health Facility			***			***
Upto 1 Kilometer	83%	96%		81%	94%	
2-3 Kilometers	11%	2%		14%	6%	
Above 3 Kilometers	6%	2%		5%	0%	
Distance to Nearest Private Health Provider			***			
Upto 1 Kilometer	91%	97%		93%	95%	
2-3 Kilometers	7%	2%		5%	4%	
Above 3 Kilometers	2%	1%		2%	1%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Field Visits of ANMs

However, the increased availability of static health centres has led to a decrease in the field visit of ANMs in the slums. The data in Table 4.2 shows that there has been a significant decrease in the visits of ANMs in both the intervention (23%) and control slums (16%).

TABLE- 4.2 : PERCENT HOUSEHOLDS REPORTING ANM's VISIT IN THEIR AREA

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	67%	43%	-0.23	***
Control Slums	62%	46%	-0.16	***
Difference-in-differences :		Unadjusted	-0.08	
:		Adjusted	-0.08	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

When asked about the type of services being provided by the visiting ANMs, majority of respondents stated immunization, medicine distribution and ante natal care.

Reduced field visits of ANMs might be impacting the occurrence of one-to-one counselling on the importance of preventive and promotive health care. Such counselling is more effective in informal home settings. The decrease in ANM field visits may be countered, however, by the introduction of Accredited Social Health Activists (ASHAs) as discussed below.

Accredited Social Health Activists (ASHAs)

In order to provide access to improved health care at the household level, the Government has introduced a cadre of female volunteers designated as Accredited Social Health Activists (ASHAs) who act as an interface between community and the public health system. ASHAs help promote referrals for universal immunization and provide escort services for delivery and other health care programs. Table 4.3 indicates a significant increase in the awareness about ASHAs in both the intervention as well as control slums. In all likelihood, it is because of wide publicity of this new initiative by the Government as also due to the posting of more and more ASHAs in the slums.

TABLE- 4.3 : PERCENT HOUSEHOLDS AWARE ABOUT ASHA

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	50%	59%	0.09	*
Control Slums	41%	61%	0.20	***
Difference-in-differences :		Unadjusted	-0.11	
:		Adjusted	-0.12	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Out of the households who were aware of ASHA, the proportion of households reporting ASHA visits in their area has also registered a significant increase in both intervention and control slums (Table 4.4).

TABLE- 4.4 : PERCENT HOUSEHOLDS REPORTING ASHA's VISIT IN THEIR AREA

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	48%	53%	0.05	
Control Slums	41%	58%	0.17	***
Difference-in-differences :		Unadjusted	-0.12	
:		Adjusted	-0.13	*

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

When inquired about the type of services being provided by ASHA, the respondents indicated that ASHAs mostly offer assistance in immunization, followed by registration of pregnant women and counseling support to mothers.

Gender Resource Centers

As GRCs were the focal point of Health Systems 20/20 interventions, survey activities also assessed household awareness about these local organisations. Table-4.5 shows a significant increase in the awareness about GRCs in both the intervention as well as control slums.

TABLE- 4.5 : PERCENT HOUSEHOLDS AWARE ABOUT GRCs

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	27%	33%	0.06	
Control Slums	29%	40%	0.10	**
Difference-in-differences :		Unadjusted	-0.04	
:		Adjusted	-0.04	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

However, the rise in awareness can not be directly attributed to the Health Systems 20/20 project, mainly because majority of the respondents believed provision of vocational training to be the main role of GRCs and the project did not deal with this issue at all. It would be apt to add that when probed, the respondents did indicate that the GRCs were also involved in spreading health awareness and providing health services through camps and clinics.

4.2 FIRST POINT OF CONTACT FOR TREATMENT

Despite an increase in the availability of Government health facilities and workers in the slums, when queried about their first point of contact in case of ailments, both the intervention and control groups reported a significant decrease in using Government facility as their first point of contact (Table 4.6). On the contrary, there has been a significant increase in the usage of licensed private providers as the first point of contact in both the intervention and control GRC areas.

TABLE 4.6 : FIRST POINT OF CONTACT FOR TREATMENT

Type of Health Facility	Intervention GRCs' Area			Control GRCs' Area		
	Baseline	Endline	Signif.[1]	Baseline	Endline	Signif.[1]
First Point of Contact for Treatment			***			***
Government Health Facility	59%	45%		65%	50%	
Licensed Private Providers	18%	44%		14%	38%	
Unlicensed Private Providers	23%	12%		21%	12%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Notably, there has been a decrease in the percentage of households visiting unlicensed providers as their first point of contact. Respondents from both the intervention and control slums reported a significant decrease of about 10% in visits to unlicensed providers in case of ailments, which indeed is a very positive trend observed in this survey.

When asked about the reasons for not choosing a Government facility as their first point of contact, majority of respondents gave unsuitable timings, long waiting time, poor behavior of the service providers and non-availability of medicines as the explanation for this behavior.

5. OUT-OF-POCKET EXPENDITURES FOR HEALTH CARE

This chapter presents an analysis of the OOP expenditures for health care incurred by slum dwellers in the areas of intervention and control GRCs. The study approaches this issue from two perspectives. It looks at common (not-so-serious) aliments suffered in past 30 days where a treatment was sought as an outpatient. The study also covers serious aliments in the past 365 days leading to hospitalization. All expenditures reported here are in Indian Rupees. The expenditures for the endline survey have been adjusted for inflation, which was around 20 percent in the two-year period between baseline and endline.

5.1 OUTPATIENT TREATMENT AND EXPENDITURE

During the survey, the respondents were first probed if any member of their household had suffered any ailment in the past 30 days. The endline survey showed about 13 percentage point increase in the reported incidence of ailments over the baseline across both the intervention and control groups (Table 5.1). The reason for this considerable increase may be ascribed to increase in awareness among the households regarding health and health related issues, which has made them recognize and report ailments when inquired. Moreover, the endline survey was conducted during a more disease-prone part of the year as compared to the baseline.

TABLE 5.1: PERCENTAGE REPORTING AILMENTS IN PAST 30 DAYS

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	5%	18%	0.13	***
Control Slums	4%	18%	0.14	***
Difference-in-differences :		Unadjusted	-.01	
:		Adjusted	-.01	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Further enquiries revealed that in overwhelming majority of these cases, a treatment had been sought from a health care provider, while very few just about 2-3% relied solely on self-care (Table 5.2). Though there is no significant change in this regard when compared with baseline data, but it indicates a positive attitude change among respondents in their readiness to approach a health care provider when sick instead of relying solely on self care.

TABLE 5.2: PERCENTAGE REPORTING TO HAVE SOUGHT CARE IN CASE OF AILMENT

CATEGORY	Intervention GRCs' Area		Control GRCs' Area	
	Baseline	Endline	Baseline	Endline
Sought care from a licensed/ unlicensed health care provider	96%	94%	94%	94%
Self care, but also Sought care from a licensed/ unlicensed health care provider	3%	4%	3%	4%
Relied solely on self-care	1%	2%	3%	3%

Detailed inquiries into the source of outpatient service used revealed a significant change between the baseline and endline survey. First and foremost, a significant decline is observed in the proportion of cases where the treatment had been sought from an unlicensed private health care provider (Table 5.3). In the intervention group, the percentage seeking care from unlicensed providers decreased from 29% at baseline to 19% at endline, while in the control group, it decreased from 42% to 29%. On the whole, the intervention group appears to have a better disposition in this regard as compared to the control group.

TABLE 5.3: SOURCE OF MOST RECENT OUTPATIENT SERVICE

CATEGORY	Intervention GRCs' Area			Control GRCs' Area		
	Baseline	Endline	Signif.[1]	Baseline	Endline	Signif.[1]
SOURCE OF SERVICE			***			***
Government Health Facility	31%	27%		30%	26%	
Licensed Private Healthcare Provider	40%	54%		28%	46%	
Unlicensed Private Healthcare Provider	29%	19%		42%	29%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

When comparing Government and private health care providers, it was observed that there was a decrease in the proportion of persons seeking treatment from a Government health facility in both intervention and control groups. On the other hand, there was a marked increase in both the groups in the proportion of persons seeking health care from licensed private provider. This may be due to the poor performance of public sector health services, which has prompted more patients to seek out private providers. Overall, the data reflects an encouraging trend; people are now approaching qualified and licensed health care providers instead of relying on the unlicensed private providers.

Table 5.4 presents the average OOP expenditure for outpatient treatment for the three types of providers. As expected, the average total expenditure at a licensed private facility is much higher than the cost at a Government facility or with an unlicensed practitioner.

TABLE 5.4: AVERAGE TOTAL OOP EXPENDITURE (Rs.) ON OUTPATIENT TREATMENT

Type of Facility	Intervention GRCs' Area			Control GRCs' Area		
	Baseline	Endline	Signif.[1]	Baseline	Endline	Signif.[1]
Government Health Facility	374	318	*	427	220	*
Licensed Private Healthcare Provider	568	637		779	803	
Unlicensed Private Healthcare Provider	214	196		164	218	
Overall Average	**407**	**461**		**415**	**468**	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Baseline versus endline comparison indicates a significant reduction in the average cost of outpatient treatment at the Government facilities, possibly because of enhanced ability of households to access free services (especially medicines) with the help of local ASHA, GRC and

other civil society organizations. On the other hand, there has not been any significant increase in the cost of treatment through private providers. As a result, the overall average cost of outpatient treatment is not showing any increase despite a shift towards qualified private providers.

To study the pattern of expenditure in Government, Private and Unlicensed facilities, the endline survey gathered information on itemized health expenditure. It is notable that on an average, the cost of medicines accounts for a substantial portion (69%) of the total OOP expenditure (Table 5.5).

TABLE 5.5: ITEMIZED HEALTH EXPENDITURES (Rs.) FOR TREATMENT BY TYPE OF PROVIDER

Category	Government Health Facility	Licensed Private Healthcare Provider	Unlicensed Private Healthcare Provider	Overall Average
Doctor's Fee	8 (3%)	117 (18%)	11 (6%)	66 (15%)
Medicines	211 (66%)	435 (68%)	159 (81%)	319 (69%)
Investigations	57 (18%)	47 (8%)	13 (7%)	43 (9%)
Transport & Others	42 (13%)	37 (6%)	13 (6%)	33 (7%)
Total Expenses	**318 (100%)**	**637 (100%)**	**196 (100%)**	**461 (100%)**

Thus, on the whole, we can say that there is an increase in awareness of health related issues among the slum dwellers. They are showing a preference for seeking professional care for minor ailments as well. Overall, it is also observed that for outpatient treatment, they are preferring private providers over Government facilities. As previously explained, the factors of perceived low quality of services being offered, unsuitable timing of services, and negative provider attitudes were cited as the main reasons for non-use of Government facilities.

5.2 INPATIENT TREATMENT AND EXPENDITURE

To understand the pattern of in-patient treatment and related OOP expenditure, the respondents were probed if any member of their household had ever been admitted to a hospital or long term care facility due to illness or injury in the past 365 days. The data (Table 5.6) shows a significant increase in percentage of people reporting hospitalization in the past 365 days. This rise in the levels of hospitalization may be attributed to the combined effect of rising consciousness among people regarding their personal health and increasing availability of health facilities in their area.

TABE 5.6 : PERCENTAGE REPORTING HOSPITALIZATION DURING PAST 365 DAYS

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	2.7%	3.2%	0.01	*
Control Slums	1.8%	3.5%	0.02	***
Difference-in-differences :		Unadjusted	-.01	***
:		Adjusted	-.01	***

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Further enquiries were made about the type of facility where the household member had been hospitalized. Considering the high costs of hospitalization, it is no surprise that the majority of slum dwellers had gone to a Government facility for hospitalization. Nonetheless, a comparison with the baseline reveals a shift towards private hospitals, more so in the control group.

TABLE 5.7: TYPE OF HOSPITAL WHERE ADMITTED DURING LAST HOSPITALIZATION

Type of Hospital where Admitted	Intervention GRCs' Area		Control GRCs' Area	
	Baseline	Endline	Baseline	Endline
Government Hospital	67%	66%	71%	56%
Private Hospital	33%	34%	29%	44%

During the survey, it was also probed whether the admitted person had been discharged from the hospital after full recovery or due to any other reason. It was reported that in around 12 - 13% of the cases, the admitted person had been discharged on doctor's orders, even when s/he had not recovered fully (Table 5.8). In another 4-5% of the cases, it was reported that the person had her/himself requested for a discharge, despite not being fully recovered. In one-half of such cases, inability of the household to bear the cost of hospitalization was mentioned as the primary reason. In the remaining cases, nature of the ailment being such that it could not be fully cured, emerged as the main reason.

TABLE 5.8: REASONS QUOTED FOR DISCHARGE FROM HOSPITAL

Category	Intervention GRCs' Area	Control GRCs' Area
Recovered fully	83%	83%
Not recovered fully, but required by doctor	12%	13%
On self request	5%	4%

Table 5.9 presents the average total expenditure incurred on hospitalization in the intervention and control slums. It highlights a wide disparity between the average cost of hospitalization incurred in Government hospitals vis-à-vis private hospitals. In private hospitals, the average cost per episode is found to be three to five times higher than that incurred in Government hospitals.

TABLE 5.9: AVERAGE TOTAL OOP EXPENDITURE (Rs.) ON HOSPITALIZATION

Type of Facility	Intervention GRCs' Area			Control GRCs' Area		
	Baseline	Endline	Signif.[1]	Baseline	Endline	Signif.[1]
Government Health Facility	5731	2210	*	2626	3191	
Private Health Facility	16297	11597		15113	9746	
Overall Average	**8719**	**5026**	**	**5846**	**5949**	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Table-5.9 also shows a significant decline in the average cost per episode of hospitalization in the intervention slums, as compared to baseline. As already mentioned, enhanced ability of the households to access free services with the help of local civil society organizations may be a possible reason behind this decline. Besides, better availability of medicines in the Government

facilities owing to higher budgetary allocations in the recent years could also be another contributing factor. On the other hand, the average cost of hospitalization in the private facilities has not registered any significant change after adjusting for the general inflation. Nonetheless, since the Government facilities account for the majority of the hospitalization cases, the overall average cost per episode of hospitalization is showing a significant decline.

Component-wise break-up indicates that as in the case of out-patient treatment, here too the cost of medicines forms a major component of the total cost (Table 5.10).

TABLE 5.10: ITEMIZED HOSPITALIZATION EXPENDITURES (Rs.) FOR INTERVENTION SLUMS AS PER ENDLINE SURVEY

Category	Government Hospital	Private Hospital	Overall Average
Hospitalization Expenses	259 (12%)	4919 (42%)	1657 (33%)
Medicines	1401 (63%)	4411 (38%)	2304 (46%)
Investigations	233 (11%)	1175 (10%)	516 (10%)
Transport & Others	316 (14%)	1093 (10%)	549 (11%)
Total Expenses	**2210 (100%)**	**11597 (100%)**	**5026 (100%)**

In short, the study points to a preference among the slum dwellers for outpatient treatment at private health facilities over treatment at Government facilities despite higher OOP expenses in case of the latter. Besides unsuitable timings and poor service quality at the Government facilities, the 'opportunity cost' factor may also be responsible for this. For non-severe ailments, slum dwellers generally try to minimize the time involved in seeking the treatment, even if it entails a somewhat higher amount of expenditure which gets compensated by the lower opportunity cost of lost wages. On the other hand, in case of serious ailments requiring hospitalization, they are compelled to go to Government hospitals despite their shortcomings, as the differential cost of going to private hospitals is too exorbitant for them to afford.

6. HEALTH INSURANCE

6.1 AWARENESS ABOUT RSBY

The Rashtriya Swasthya Bima Yojna (RSBY) is a flagship health insurance scheme, conceptualized and developed by the Ministry of Health and Family Welfare (MoHFW) in 2008 for households below the poverty line, commonly referred to as BPL households. The Government designed this scheme with a view to improving financial access to health care services by reducing OOP expenditure at the point of service. Mission Convergence and Health Systems 20/20, working together, focused on improving slum dwellers' knowledge about RSBY and facilitating their enrollment in the scheme. Since only BPL households are eligible for this scheme, all the analysis in this chapter pertains only to them and not for the entire sample.

The results of endline survey show a significant improvement in the awareness of the BPL households about RSBY (Table 6.1). The data indicate a 18 percentage point increase in the awareness of BPL households in intervention slums (31% at baseline to 49% at endline), while in control group the awareness improved by 24 percentage points (from 23% at baseline to 47% at endline).

TABLE- 6.1: PERCENT BPL HOUSEHOLDS WHO HAVE HEARD ABOUT RSBY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	31%	49%	0.18	***
Control Slums	23%	47%	0.24	***
Difference-in-differences :		Unadjusted	-0.07	
:		Adjusted	-0.07	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

6.2 ENROLLMENT IN RSBY

Despite the increase in awareness of the scheme, it was found that the enrolment levels have declined in both the intervention and control slums (Table 6.2).

TABLE- 6.2: PERCENT BPL HOUSEHOLDS PRESENTLY ENROLLED IN RSBY OUT OF TOTAL AWARE

Category	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	26%	11%	-0.14	***
Control Slums	24%	13%	-0.10	**
Difference-in-differences :		Unadjusted	-0.04	
:		Adjusted	-0.06	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

In the intervention slums, the percentage of BPL households enrolled under RSBY has declined from 26% at baseline to 11% at endline. The control group also reported a decrease in enrolment in RSBY from 24% at baseline to 13% at endline. Based on in-depth discussions with the GRC functionaries and households, this decrease may be attributed to implementation issues of RSBY. The hospitals empanelled under RSBY faced long delays in getting the payments from the insurance companies. As a result, some of the hospitals started refusing to treat RSBY cardholders. This sent a wrong message to the community and created a negative disposition among people with regard to RSBY.

These facts are very clearly brought out if we compare the proportions of ever enrolled and presently enrolled in the endline samples (Table 6.3).

TABLE-6.3 : PERCENT BPL HOUSEHOLDS EVER ENROLLED AND PRESENTLY ENROLLED IN RSBY (ENDLINE)

Group	Ever Enrolled	Presently Enrolled
Intervention Slums	28%	11%
Control Slums	28%	13%

Nonetheless, it may be highlighted here that the Health Systems 20/20 project's intervention with the GRCs has played a prominent role in increasing the awareness about RSBY among masses. The GRCs were found to be very instrumental in spreading awareness about RSBY. Out of those who were aware, 28% stated that GRCs were the source of information about RSBY. The GRCs were also found to be particularly influential in providing the required assistance for enrolment in RSBY. Three out of every five respondents (58%) mentioned that GRCs assisted their families for enrolment in RSBY.

6.3 AVAILING MEDICAL FACILITY UNDER RSBY

Out of total BPL households ever enrolled, only 15-16% reported to have availed any medical facility using RSBY (Table 6.4).

TABLE-6.4: PERCENT BPL HOUSEHOLDS WHO AVAILED ANY MEDICAL FACILITY, OUT OF TOTAL EVER ENROLLED

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	20%	15%	-0.04	
Control Slums	5%	16%	0.11	**
Difference-in-differences :		Unadjusted	-0.16	*
:		Adjusted	-0.15	*

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Table 6.4 suggests that out of the total respondents ever enrolled, the proportion of those reporting to have availed any medical facility under RSBY has improved significantly in the control slums, while the similar proportion for the intervention slums has decreased from 20%

at baseline to 15% at endline. As evident from the table, the percentage for this response was very low (just 5%) in control slums at the baseline stage. So having started from such a low base, the increase in percentage at endline appears to be significant. On the whole, the present proportion of those who have ever availed a medical facility under RSBY is almost same in both the groups.

Those who had ever availed a medical facility under RSBY were further probed regarding the quality of services received. Table 6.5 indicates a significant decrease in the proportion of satisfied clients, as much as 39 percentage points in the intervention group and 35 percentage points in the control group. Considering the above fact, the high drop-out rate in the RSBY enrollment does not seem to be surprising.

TABLE- 6.5: PERCENT BPL HOUSEHOLDS WHO RECEIVED QUALITY HEALTH CARE SERVICES, OUT OF TOTAL WHO AVAILED

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	94%	55%	-0.39	***
Control Slums	100%	65%	-0.35	**
Difference-in-differences :		Unadjusted	-0.04	
:		Adjusted	0.39	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

In-depth discussions with dissatisfied clients revealed that hospitals usually took a long time for paperwork related to free treatment under RSBY, which resulted in lost wages for the person accompanying the patient. Moreover, many a time, the patients were made to buy medicines from the market. A few households even mentioned that some of the hospitals had started refusing to entertain RSBY card holders probably due to the long delay in reimbursement from the insurance companies. All of these factors together may have eroded the trust of people in the RSBY scheme.

6.4 AWARENESS ABOUT OTHER HEALTH INSURANCE SCHEMES

Besides RSBY, there are a number of other Government sponsored health insurance schemes catering to different segments of population. Schemes include the Employee State Insurance Scheme (ESI) for industrial employees, the Central Government Health Scheme (CGHS) for Central Government employees, and Rajiv Gandhi Shilpi Swasthya Bima Yojna (RGSSBY) for handicraft artisans. In addition, there are also a number of private Medi Claim schemes in operation. The endline survey sought to assess the awareness of BPL households in both the intervention and control slums regarding these insurance schemes. Table 6.6 indicates a considerable increase in the percentage of respondents who are aware of at least one health insurance scheme. In the intervention slums, 67% of the respondents reported to have heard

about at least one such scheme during the endline survey as compared to only 41% at the baseline. While in case of control slums, the awareness of respondents increased from 28% at baseline to 58% at endline. The improvement in the awareness levels is found to be highly significant.

TABLE-6.6: PERCENT BPL HOUSEHOLDS WHO HAVE HEARD ABOUT AT LEAST ONE INSURANCE SCHEME

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	41%	67%	0.26	***
Control Slums	28%	58%	0.30	***
Difference-in-differences :		Unadjusted	-0.04	
:		Adjusted	-0.05	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

On the whole, the endline survey portrays a positive image about the awareness of health insurance schemes among the poor slum dwellers. There is a clear indication that the awareness levels of the BPL households regarding insurance schemes have improved. The reason of this increase in awareness may be attributed to the efforts of GRCs as well as other Government interventions designed and implemented for the purpose of increasing public awareness. However, there is a definite need to improve upon the implementation aspects of these insurance schemes to make them more acceptable and beneficial to the intended beneficiaries.

7. MATERNAL HEALTH

The endline study involves comparing the extent of access of the slum dwellers to quality maternal health services. It approaches the issue of maternal health from three perspectives, antenatal care, delivery and postnatal care. The survey also examines the access of maternity benefit schemes to the slum dwellers. As mentioned in Chapter-2, women who had given birth in the last one year were chosen as the target respondents for probing these issues.

7.1 ANTENATAL CARE (ANC)

Antenatal Care refers to the care provided to pregnant women during the maternity cycle. Ideally, antenatal care should monitor a pregnancy for signs of complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice/ counselling on preventive care, diet during pregnancy and delivery care. The entire spectrum of antenatal care should be provided by skilled health professionals to avoid any complications during pre or post pregnancy.

The Government of India guidelines prescribe a minimum of three antenatal check-ups for all pregnant women. Table 7.1 shows that at the time of endline survey, about 9 out of every 10 women in both the intervention and the control groups reported to have received three or more antenatal check-ups during their last pregnancy. It reflects a significant increase over the baseline when the proportion of such women was only about 70%. Increased deployment of ASHAs to facilitate access to maternal and child care services may have been the reason for improved utilization of pre-natal visits.

TABLE 7.1: PERCENTAGE WOMEN WHO RECEIVED 3 OR MORE ANTENATAL CHECK-UPS DURING THEIR LAST PREGNANCY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	73%	91%	0.19	***
Control Slums	70%	87%	0.17	***
Difference-in-differences :		Unadjusted	0.01	
:		Adjusted	0.02	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

TIMING OF FIRST ANTENATAL CHECK-UP

The timing of the first antenatal check-up is important for an early detection of complications that may impact the health of the mother and the outcome of the pregnancy. It is recommended that the first check-up should be done as soon as the pregnancy is detected, preferably in the first trimester of pregnancy. The endline survey (Table 7.2) shows a significant increase in the

proportion of women who reported to have received their first antenatal check-up within the first trimester. It was observed that both in the intervention and the control slums, three-fourth of the women had received their first antenatal check-up in the first trimester.

TABLE 7.2: PERCENTAGE WOMEN WHO RECEIVED THEIR FIRST CHECK-UP WITHIN FIRST TRIMESTER

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	62%	74%	0.12	***
Control Slums	59%	75%	0.15	***
Difference-in-differences :		Unadjusted	-0.04	
:		Adjusted	-0.03	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

TETANUS VACCINATION

In India, an important cause of death in infancy is neonatal tetanus. Neonatal tetanus, however, is a preventable disease. Two doses of the tetanus toxoid (TT) vaccine, given one month apart during early pregnancy, are nearly 100 percent effective in preventing tetanus both among newborn infants and their mothers. Immunity against tetanus is transferred to the foetus through the placenta when the mother is vaccinated. The endline survey sought to find out the percentage of women who had received the mandated two TT injections during their last pregnancy. The data shows an improvement in this regard in both the intervention and the control slums, although the increase in the control slums is statistically insignificant.

TABLE 7.3: PERCENTAGE WOMEN WHO RECEIVED 2 OR MORE TT INJECTIONS DURING THEIR LAST PREGNANCY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	88%	93%	0.05	***
Control Slums	85%	88%	0.03	
Difference-in-differences :		Unadjusted	0.02	
:		Adjusted	0.02	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

IRON AND FOLIC ACID (IFA) SUPPLEMENTATION

Iron deficiency anaemia is a major threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight and lowered resistance to infection. Provision of iron and folic acid (IFA) tablets to pregnant women is an integral part of safe motherhood services. It is recommended that pregnant women should consume 100 IFA tablets during pregnancy. The endline survey shows (Table 7.4) a significant improvement in the percentage of women reporting to have consumed at least 100 IFA tablets during their last pregnancy. However, it should be noted that the overall condition in the sampled areas is still very far from satisfactory with a majority (55%) of the women still not consuming the prescribed dosage of IFA.

TABLE 7.4: PERCENTAGE WOMEN WHO CONSUMED ATLEAST 100 IFA TABLETS DURING THEIR LAST PREGNANCY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	33%	45%	0.12	***
Control Slums	30%	45%	0.15	***
Difference-in-differences :		Unadjusted	-0.03	
:		Adjusted	-0.01	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

FULL ANTENATAL CARE

The Ministry of Health and Family Welfare (2005) recommends that a pregnant woman should have 3 or more antenatal check-ups, consume 100 IFA tablets and receive more than 1 TT injection. Together, these actions constitute a full antenatal care. The data (Table 7.5) shows that in the intervention slums the percentage of women reporting to have received full ANC during their last pregnancy increased significantly from 27% at baseline to 43% at endline. In the control slums as well, a significant improvement from 24% to 41% is noted.

TABLE 7.5: PERCENTAGE WOMEN WHO RECEIVED FULL ANC DURING THEIR LAST PREGNANCY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	27%	43%	0.16	***
Control Slums	24%	41%	0.17	***
Difference-in-differences :		Unadjusted	-0.01	
:		Adjusted	-0.00	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

MAIN SOURCE OF ANTENATAL CARE SERVICES

Further, all the women who had received any antenatal care were enquired about their main source for the same.

TABLE 7.6 : MAIN SOURCE OF ANTENATAL CARE

Category	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=454)	Endline Sample (n=270)	Signif.[1]	Baseline Sample (n=590)	Endline Sample (n=445)	Signif.[1]
Source of ANC			***			***
Government Facility	99%	85%		100%	87%	
Private Facility	-	15%		-	13%	
Unlicensed Medical Practitioner	1%	-		-	-	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

The statistics (Table 7.6) indicate a significant change in the source of antenatal care services for these women. At the time of baseline survey, almost all the women had relied solely on a Government facility for their antenatal care. While in the endline survey, considerable number

of women from both intervention (15%) and control (13%) groups reported to have sought the care from a private facility. The reason for change in the preference may be attributed to overcrowding and poor service delivery at the Government facilities.

7.2 DELIVERY

Skilled care during childbirth is important because a significant proportion of women and newborns develop serious and hard to predict complications during delivery. Obstetric care from a trained provider during delivery is recognized as being critical to the reduction of maternal and neonatal mortality.

PLACE OF DELIVERY

The endline survey data (Table 7.7) shows a significant rise in the percentage of women reporting to have delivered at an institution during their last child birth. It may be highlighted here that in the intervention slums, 83% of the total deliveries in the last one year took place at an institution, which is much better as compared to control slums (72%).

TABLE 7.7: PERCENT WOMEN WHO DELIVERED IN AN INSTITUTION DURING THEIR LAST PREGNANCY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	72%	83%	0.12	***
Control Slums	63%	72%	0.09	***
Difference-in-differences :		Unadjusted	0.02	
:		Adjusted	0.04	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Facility-wise break-up of the institutional deliveries is presented in Table 7.8. It shows that, out of the total institutional deliveries, the majority of the women in both the intervention (74%) and control (67%) slums preferred to deliver at a Government institution. Nonetheless, it is apt to highlight that the share of private institutions among total institutional deliveries has registered a marked increase in the control slums.

TABLE 7.8: TYPE OF FACILITY WHERE DELIVERED DURING LAST PREGNANCY

Type of Facility where Delivered	Intervention GRCs' Area		Control GRCs' Area	
	Baseline Sample	Endline Sample	Baseline Sample	Endline Sample
Government Facility	73%	74%	75%	67%
Private Facility	27%	26%	25%	33%

When probed about the reasons for not delivering at an institution, 3 out of every 4 women mentioned that they had wanted to go to a hospital, but could not go due to – a) the labor pain started suddenly and there was no time to go; b) there was no one to accompany/ look after children; and c) lack of a transport facility.

ASSISTANCE DURING HOME DELIVERY

Appropriate care during delivery by a trained provider is one of the most important steps in preventing maternal and neonatal mortality. The analysis of home deliveries (Table 7.9) in both the groups shows that more than half of such deliveries are unsafe as these were assisted by untrained Dai or relatives, etc. However, the data does show a significant increase from baseline in the percentage of women who received assistance from an ANM or a nurse at the time of their delivery at home.

TABLE 7.9: ASSISTANCE DURING HOME DELIVERY

Category	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=454)	Endline Sample (n=270)	Signif.[1]	Baseline Sample (n=590)	Endline Sample (n=445)	Signif.[1]
Assistance during Home Delivery			***			***
ANM/ Nurse/Midwife	3%	9%		4 %	10%	
Trained Dai	46%	34%		35%	29%	
Untrained Dai/ Relatives, etc.	51%	57%		60%	61%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

EXPENDITURE INCURRED ON INSTITUTIONAL DELIVERY

Table 7.10 presents the average total expenditure incurred on institutional deliveries in the intervention and the control slums. The expenditures for the endline survey have been adjusted for inflation, which was around 20% in the two-year period between baseline and endline. The table highlights a wide disparity between the average expenditure for delivery in a private health facility vis-à-vis a Government hospital. The average expenditure in private facilities is found to be almost 6-7 times higher than that in Government facilities.

TABLE 7.10: AVERAGE TOTAL EXPENDITURE (Rs.) INCURRED FOR INSTITUTIONAL DELIVERIES

Type of Facility	Intervention GRCs' Area			Control GRCs' Area		
	Baseline	Endline	Signif.[1]	Baseline	Endline	Signif.[1]
Government Health Facility	1390	1263		1384	1508	
Private Health Facility	10101	7072	***	10819	10444	
Overall Average	3473	2586	**	3299	4104	**

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Further, in the intervention slums, the average expenditure for delivery in private facilities is showing a significant decline, possibly because of market competition. As a result, the overall average expenditure for institutional delivery has registered a significant decline in the intervention slums.

On the other hand, in the control slums, average expenditures for deliveries in Government and private facilities have remained more or less unchanged. But, as already mentioned, the share of private institutions in total institutional deliveries has registered a marked increase in the control slums, 33% at the endline as compared to 25% at the baseline. As a consequence, in the control slums, the overall average expenditure for institutional deliveries has witnessed a significant increase despite no significant change in the average delivery expenditures in Government and private facilities.

It would be worthwhile for the control GRCs to investigate as why increasing number of women in their area are going to private institutions for delivery, rather than using a Government facility.

7.3 POSTNATAL CARE (PNC)

Postnatal care forms another vital component of maternal health. The endline survey sought to find out if there was any improvement in the percentage of women receiving any postnatal care after their last delivery (Table 7.11). The statistics indicate a remarkable rise in the percentage of women who reported having received at least one postnatal care after their delivery. In the intervention areas, the percentage of such women increased from 32% at baseline to 84% at endline, and from 27% to 74% in the control slums. It is worthwhile to point out here that after controlling for the variations in the socio-demographic and economic characteristics of the two groups, improvement seen in the intervention slums is significantly higher than that in the control slums. It indicates that the Health Systems 20/20 project's work with the GRCs on disseminating health promotion messages may have made a significant contribution in raising the consciousness regarding postnatal care.

TABLE 7.11 : PERCENTAGE REPORTING TO HAVE RECEIVED A PNC AFTER THEIR LAST DELIVERY

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	32%	84%	0.51	***
Control Slums	27%	74%	0.46	***
Effect of the Intervention (Difference-in-difference)		Unadjusted	0.05	
		Adjusted	0.06	*

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

7.4 MATERNITY BENEFIT SCHEMES (MBS)

The Government has introduced a number of maternity benefit schemes like Janani Suraksha Yojna (JSY), MAMTA, etc. to promote institutional deliveries and safe motherhood among the poor strata of the society. The endline survey sought to assess the awareness of BPL women regarding these benefit schemes in the chosen intervention and control GRC areas. As shown in

Table 7.12, there has been a significant increase in the percentage of BPL women who were aware of any of these schemes at the time of their last child birth.

TABLE 7.12 : BPL WOMEN WHO WERE AWARE ABOUT ANY MATERNITY BENEFIT SCHEME

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	72%	88%	0.16	***
Control Slums	74%	83%	0.09	***
Difference-in-differences :		Unadjusted	0.06	
:		Adjusted	0.06	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Out of those women who said that they were aware of these schemes, there were very few who had actually availed the benefits provided by these schemes — only 19% in the intervention and 15% in the control slums. Table 7.13 shows no significant change in the proportion of aware women who had availed these schemes in both the groups.

TABLE 7.13 : BPL WOMEN WHO AVAILED MATERNITY BENEFIT SCHEME, OUT OF TOTAL AWARE

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	16%	19%	0.03	
Control Slums	17%	15%	-0.02	
Difference-in-differences :		Unadjusted	0.04	
:		Adjusted	0.03	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

It is indeed a matter of concern that the poor women are not availing the benefits of these schemes despite being aware of them. In-depth interviews with some of the households revealed their perception that it would involve a lot of running around / procedural steps for which they had little time available to spare.

Thus, it is concluded that, on the whole, the utilization of key maternal health services has improved significantly from the time of baseline survey. An increasing number of women in the slums are now aware of and utilizing the various antenatal care, institutional delivery and postnatal care services available. However, the utilization of maternity benefit schemes continues to remain a matter of concern. There is a definite need to design appropriate interventions to promote the utilization of these schemes.

8. CHILD HEALTH

Child health forms another important component of investigation for the endline survey. The survey intends to assess the level of awareness and utilization of the child health services available in the slums. The study approaches this issue from three perspectives. First, the vaccination of children is studied to find out the extent to which the slum dwellers are following the prescribed routine. Then the prevalence, awareness and ensuing care seeking behavior in case of acute respiratory infections (ARI) and diarrhoea are studied, as these are the two most common diseases threatening the lives of infants in India. They are also particularly prevalent in poor urban settings where close living quarters and poor sanitation enable diseases to spread more easily between inhabitants.

8.1 VACCINATION OF CHILDREN

The vaccination of children against six serious but preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles) has been a cornerstone of the child health care system in India and is crucial to reducing infant and child mortality.

As already mentioned, the survey targeted women who had delivered a baby in the last one year. During the survey, these women were asked to show the vaccination card of their last born child (aged 0-12 months). Wherever the card was available, details of the vaccination were noted down directly from it. However, in order to ensure that none of the children having received vaccines were missed out, even in cases where the card could not be seen, the surveyors probed the mothers giving them the details of various vaccines. For example, the mothers were asked whether the child had been injected with a vaccine on the biceps and whether the shot had also left a scar (BCG). Similarly, for DPT vaccination, the mothers were asked whether the child had received a vaccine injected on the thighs/buttocks.

Accordingly, in this chapter, the vaccination trend is presented in two ways. First the combined figures for data obtained from card and mother's report are presented, which is the recommended pattern in most of the Government surveys. Then the data based solely on the information available in the immunization card is presented as it is a more authentic and verifiable source. The information presented in both tables might show a slight variation, which may be attributed to the possible loss of information when mother's memory is the primary source.

The survey first sought to find out the percentage of children who had received the BCG vaccination for the prevention of tuberculosis, which is recommended in the first few hours of birth or at the first clinical contact. The endline data shows a highly significant increase in percentage of children getting the BCG vaccine in both the groups. Table 8.1 based on the

combined information from card and mother's report, shows that in case of intervention slums, there was a 42 percentage point increase, from 50% at baseline to 92% at endline. A similar pattern was observed in the control slums as well.

TABLE 8.1: PERCENTAGE OF CHILDREN (0-12MONTHS) WHO RECEIVED BCG VACCINATION (Based on Immunization Card and Mother's Report Combined)

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	50%	92%	0.42	***
Control Slums	52%	90%	0.38	***
Difference-in-differences :		Unadjusted	0.04	
:		Adjusted	0.04	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

If one considers only those children whose immunization card could be seen, the proportion of children who have received the BCG vaccine is found to be as high as 97% in both the intervention and the control groups (Table 8.2). The difference-in-differences analysis shows that the gains over the baseline are significantly higher in the intervention slums as compared to the control, which indicates the success of the pilot intervention in spreading the awareness and ensuring vaccination in the targeted slums.

TABLE 8.2: PERCENTAGE OF CHILDREN (0-12MONTHS) WHO RECEIVED BCG VACCINATION (Based only on the Immunization Card)

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	51%	97%	0.46	***
Control Slums	60%	97%	0.37	***
Effect of the Intervention (Difference-in-differences) :		Unadjusted	0.09	**
:		Adjusted	0.09	**

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Since the measles vaccination is given at 9 months of age, the mothers of children in the age cohort 9-12 months were probed whether their child had received the vaccination for measles. Based on the combined information from card and mother's report (Table 8.3), it was observed that though there was a significant (24 percentage points) increase in proportion of children reported to have received the measles vaccination in both the groups, there was still a vast majority of almost 50% of children (9-12 months) who had not been vaccinated against measles. A similar trend was also observed in the data obtained solely from the immunization card (Table 8.4).

TABLE 8.3: PERCENTAGE OF CHILDREN (9-12MONTHS) WHO RECEIVED MEASLES VACCINATION (Based on Immunization Card and Mother's Report Combined)

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	24%	48%	0.24	***
Control Slums	21%	45%	0.24	***
Difference-in-differences :		Unadjusted	0.00	
:		Adjusted	0.00	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

TABLE 8.4: PERCENTAGE OF CHILDREN (9-12MONTHS) WHO RECEIVED MEASLES VACCINATION (Based only on Immunization Card)

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	23%	52%	0.30	***
Control Slums	21%	50%	0.28	***
Difference-in-differences :		Unadjusted	0.01	
:		Adjusted	0.01	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

According to the guidelines developed by the WHO, children are considered fully vaccinated when they have received a vaccination against one dose of tuberculosis (BCG), three doses of DPT, three doses of poliomyelitis, and one dose of the measles vaccine by the age of 12 months. Normally, 12-23 months age cohort is chosen for analysis of full vaccination. However, given the sample design of this survey, this analysis has been done for 9-12 months age cohort. The analysis focuses on verifying whether children are fully immunized for their current age.

Table 8.5 based on the combined information from card and mother's report, shows a significant rise (30 percentage point on an average) in the levels of full vaccination in both the groups.

TABLE 8.5: PERCENTAGE OF CHILDREN (9-12 MONTHS) FULLY VACCINATED (Based on Immunization Card and Mother's Report Combined)

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	10%	42%	0.32	***
Control Slums	11%	39%	0.28	***
Difference-in-differences :		Unadjusted	0.03	
:		Adjusted	0.04	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

A much higher increase (a little above 40 percentage points) is observed in both the groups, when data based solely on immunization card is considered (Table 8.6). However, it is noteworthy that there is still a vast majority of over 50% children who are not fully immunized for their age. It indicates a phenomenon of high drop-out in vaccinations. While the overall coverage for BCG was 97%, it dropped to almost half (46%) by the time of measles vaccination. The high drop-out in vaccinations reflects the challenge inherent in administering multi-dose vaccines. There is a great need to design a tracking system for effective monitoring of full vaccination of children in the slums.

TABLE 8.6: PERCENTAGE OF CHILDREN (9-12MONTHS) FULLY VACCINATED (Based only on Immunization Card)

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	2%	46%	0.44	***
Control Slums	3%	45%	0.42	***
Difference-in-differences :		Unadjusted	0.03	
:		Adjusted	0.02	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Place of Vaccination

Mothers of the children who had received vaccinations were probed to find out the place where they got the vaccinations done. An overwhelming majority (94%) of mothers in both the intervention and control slums reported Government facility as the source. The data presented in Table 8.7 shows a significant increase in the percentage of mothers using a Government facility for vaccination of children. This remarkable rise may be attributed to the improved availability of Government health facilities in the proximity as also to the increased deployment of ASHA workers.

TABLE 8.7: PLACE OF VACCINATION

Category	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=1178)	Endline Sample (n=1535)	Signif.[1]	Baseline Sample (n=1122)	Endline Sample (n=1493)	Signif.[1]
Source of Vaccination			***			***
Government Facility	85%	94%		83%	94%	
Private Facility	15%	6%		17%	6%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

8.2 ACUTE RESPIRATORY TRACT INFECTIONS (ARI)

In India, ARI is the leading cause of childhood death. ARI assumes more significance in an urban slum setting where congestion and air pollution are very common. During the endline survey, 5% children in the intervention slums and 3% in the control slums were reported to have suffered from ARI in the two weeks preceding the survey (Table 8.8).

TABLE 8.8: PERCENT CHILDREN WHO SUFFERED FROM ACUTE RESPIRATORY INFECTION IN LAST 2 WEEKS

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	2%	5%	0.02	***
Control Slums	3%	3%	0.00	
Difference-in-differences :		Unadjusted	0.02	*
:		Adjusted	0.02	*

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. For early diagnosis and treatment, it is essential that mothers are aware of the ARI danger signs and symptoms and seek help for treatment early. The endline survey showed that mothers in both the groups did seek help when their children showed symptoms of ARI. These mothers were then probed about the facility where they sought treatment. Table 8.9 indicates a growing preference for licensed qualified private providers over the unlicensed ones.

TABLE 8.9: SOURCE OF TREATMENT FOR ARI

Category	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=34)	Endline Sample (n=73)	Signif.[1]	Baseline Sample (n=47)	Endline Sample (n=54)	Signif.[1]
Source of Treatment for ARI						
Government Health Facility	29%	31%		28%	24%	
Qualified Private Provider	42%	58%		42%	59%	
Unlicensed Private Provider	29%	11%		30%	17%	

8.3 DIARRHOEA

Diarrhoea is the second most important killer of children worldwide. Children between the ages of 6-11 months are most susceptible to diarrhoea. The endline survey collected information on knowledge and management of diarrhoea from women respondents as part of the assessment of child health. During the endline survey, 20% children in the intervention slums and 23% in the control slums were reported to have suffered from diarrhoea in the two weeks preceding the survey (Table 8.10).

TABLE 8.10: PERCENT CHILDREN WHO HAD SUFFERED FROM DIARRHOEA IN THE LAST 2 WEEKS

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	18%	20%	0.02	
Control Slums	19%	23%	0.04	**
Difference-in-differences :		Unadjusted	-0.03	
:		Adjusted	-0.03	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

Mothers of the children who had suffered from diarrhoea in the two weeks preceding the survey were probed about whether they had sought any advice or treatment for this. The data (Table 8.11) shows that an overwhelming majority (96-97%) of the mothers in both the groups had indeed sought an advice/ treatment for this, indicating a significant increase over the baseline.

TABLE 8.11: MOTHERS WHO SOUGHT TREATMENT/ ADVICE FOR THEIR CHILD'S DIARRHOEA

Group	Baseline	Endline	Difference (End-Base)	Signif.[1]
Intervention Slums	82%	96%	0.14	***
Control Slums	72%	97%	0.25	***
Difference-in-differences :		Unadjusted	-0.11	**
:		Adjusted	-0.11	**

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

When asked about the location where they had sought treatment, more than half of the women in both the groups reported to have approached a qualified private provider (Table 8.12). The

findings are quite similar to those observed in the case of ARI. There is a significant increase in the number of families seeking out a qualified provider to treat childhood diseases.

TABLE 8.12: SOURCE OF TREATMENT FOR DIARRHOEA

Category	Intervention GRCs' Area			Control GRCs' Area		
	Baseline Sample (n=240)	Endline Sample (n=307)	Signif.[1]	Baseline Sample (n=217)	Endline Sample (n=362)	Signif.[1]
Source of Treatment for Diarrhoea			***			***
Government Health Facility	27%	28%		24%	25%	
Qualified Private Provider	37%	55%		31%	53%	
Unlicensed Private Provider	36%	17%		45%	22%	

[1]Statistical significance of difference: ***p<0.01, **p<0.05, *p<0.1

On the whole, the data with regard to child health scenario in the slums presents a very optimistic picture. A significant increase has been observed in the awareness levels of mothers regarding all issues related to child health. It was also found that the mothers are not only aware but they also seek prompt professional help as and when required.

9. CONCLUSIONS & RECOMMENDATIONS

This endline survey for the Mission Convergence Pilot Insurance Project sought to evaluate the impact of project interventions designed to increase access to and use of essential maternal and child health services and RSBY. The OOP expenditure on health care was also studied to assess whether pilot strategies were able to affect costs borne by householders in any way. The evaluation design entailed comparing changes in key outcome indicators from before (baseline) and after the implementation of interventions (endline) in areas where these were implemented vis-à-vis the changes observed in the (control) areas where these were not implemented.

It would be apt to state at the very outset that the study had been designed on the basis of an intervention area of five GRCs as originally envisaged at the time of baseline survey. However, due to administrative issues, the project was able to intervene in only four GRCs. As such, the study may be reflecting a somewhat diluted effect of the project interventions. Further, our sampling universe comprised of only those households which had a woman who had delivered in the last one year. As such, our sample is not strictly representative of all the households in the GRC catchment areas.

For majority of the outcome indicators, the evaluation study does not reflect any significantly higher improvement in the intervention slums as compared to the control slums. In other words, it has not been able to detect any effect of the project interventions on majority of the outcome indicators. It would be apt to add that the project worked for a total duration of only 11 months which is too short a period to bring about any significant change at the behaviour level. Also, the outcome on hospitalization and maternal care at endline look back in time for a whole year which includes some time period before the intervention and some period when it was very young, so this would additionally 'dilute' any impact of the program. Further, there were seriously adverse implementation issues with regard to RSBY, which have greatly inhibited the impact of the project interventions designed to increase the use of health insurance by the slum dwellers.

Nonetheless, the endline survey presents an optimistic picture of health care scenario in the slums of Delhi. Remarkable improvements are witnessed over the baseline in the access and use of essential maternal and child health services. The survey reflects an encouraging trend that more and more slum dwellers now prefer qualified and licensed health care providers over the unlicensed ones. The survey indicates a significant increase in the awareness about RSBY among the poor slum dwellers. However, the enrolment levels have registered a decline, underscoring the urgent need to address the bottlenecks in the smooth implementation of this scheme.

The results of this study have led us to make certain recommendations for further improvements in the delivery of health services, which are outlined below.

9.1 AUGMENTING OPERATIONAL EFFICIENCY OF GOVERNMENT HEALTH FACILITIES

The poor's overall vulnerability to health issues can be mitigated with the help of strengthened public systems providing for preventive and primary health care. Results of the survey indicate a significant improvement in the availability of Government health facilities in the vicinity of slums. Despite the increased availability of Government facilities, the survey indicates a rising preference for private health facilities leading to increased OOP expenses.

The outpatient treatment patterns evident from the survey show a growing preference for private health facilities which entails the risk of increasing OOP expenses. For common ailments which can be treated as an outpatient, the slum dwellers generally try to minimize the time involved in seeking the treatment, even if it involves a somewhat higher amount of money which gets compensated by the opportunity cost of lost wages. On the other hand, in case of serious ailments requiring hospitalization, they do go to Government hospitals as the differential cost of going to a private hospital is too much for them to afford.

Two main reasons for the decline in utilization of Government facilities have emerged as inconvenient timings and long waiting time to access the services. The first issue can be resolved by synchronizing the timing of out-patient facilities with that of the target group. As majority of the slum dwellers are working as daily wagers, the timings of Government clinics/ dispensaries are often at odds with their work schedule. Further, there is a need to study the work mechanisms which will help in devising action plans for enhancing operational efficiency of these facilities leading to a reduction in waiting time. Modern management techniques like work study and proper layout designing can be utilized for this purpose.

Another key reason which the survey highlights is the non-availability of all the prescribed medicines in the Government facilities. Utilization of generic drugs may be an effective strategy which would allow the Government to procure greater quantities of medicines in the same budget. Health Systems 20/20 project's local implementation partner, Swasth Foundation has already demonstrated a model of procuring low cost medicines from the manufacturers and passing on the benefits to the poor consumers.

Poor behavior of the staff is also one of the reasons for decline in the preference for Government facilities. Interpersonal and soft skills training of the staff can prove to be vital in helping the staff cater better to the unique needs of the slum dwellers.

9.2 INTERVENTIONS TO IMPROVE MATERNAL HEALTH

The endline survey brings to light an appreciable improvement in the maternal health scenario in the slums of Delhi. An increasing number of women in the slums are now aware of and utilizing services including antenatal care, institutional delivery and postnatal care. The increased deployment of ASHAs appears to be a plausible reason for this improvement.

However, the survey has highlighted that the situation with regard to the consumption of prescribed IFA dosage during pregnancy is very far from satisfactory which has serious repercussions on safe motherhood and the health and survival of infants. It is needed to design and pilot an innovation on the lines of the DOTS project to monitor the consumption of these tablets. It is proposed that local ASHA should be incentivised to ensure that the pregnant women consume the IFA tablet in her presence. This should be made an integral part of her duty.

Despite increase in awareness, low service utilization of maternity benefit schemes persists. This remains a concern for the Government, and points to the need to design appropriate demand-side interventions such as reducing the procedural steps which deter beneficiaries from claiming benefits due.

9.3 A TRACKING SYSTEM TO IMPROVE FULL IMMUNIZATION

A significant increase is observed in the awareness levels of mothers regarding all issues related to child health. It is also found that the mothers are not only aware, but they also seek prompt professional help as and when required. The survey results indicate success of the project interventions in spreading the awareness and the resultant increase in vaccination coverage in the slums.

However, the survey reveals a phenomenon of high drop-out in vaccinations. While the coverage for BCG has reached as high as 97%, it drops to almost half (46%) by the time of measles vaccinations. The high drop-out in vaccinations reflects the challenge inherent in administering multi-dose vaccines. There is a great need to design a tracking system for effective monitoring of full vaccination of children in the slums.

9.4 BETTER IMPLEMENTATION OF RSBY

Survey findings indicate a rising awareness among slum dwellers regarding health insurance schemes, particularly RSBY. However, it is a matter of grave concern that the enrolments in RSBY have registered a marked decline from the baseline level. In-depth discussions with health functionaries and households indicate serious issues with respect to the implementation of RSBY. It is found that hospitals usually take a long time for paperwork related to free treatment under RSBY, which results in lost wages for the person accompanying the patient.

Moreover, out of the prescribed medicines, the patients are made to buy some of the expensive ones from the market. It has also come to the light that some of the hospitals have started refusing to entertain RSBY card holders probably due to the long delay in reimbursement from the insurance companies. All of these factors together have eroded the trust of people in the RSBY scheme. In order to make this scheme more acceptable and gratifying for the communities, Government needs to put robust monitoring mechanisms in place to ensure timely delivery of services under the scheme. The organizational relationship between the various stakeholders of RSBY needs to be re-engineered and strengthened.

9.5 CAPACITY BUILDING OF GRCs AND EMPOWERMENT OF COMMUNITIES

The pilot project implemented its strategies with the help of GRCs run by non-government organizations. The survey findings go on to highlight the instrumental role played by these GRCs in spreading awareness regarding RSBY and assisting families for enrolment in RSBY. Civil society organizations like GRCs can play a vital role in ensuring effective implementation of social welfare initiatives. Therefore, to create robust systems for implementing innovative health interventions, the Government needs to build the capacity of such grassroots level organizations.

Furthermore, being multi-faceted, delivery of healthcare requires a coordinated effort by a multitude of stakeholders such as the Department of Health and Family Welfare, Department of Women and Child Development, external support agencies, private health care providers, non-government/ civil society organizations and the community. An empowered community will be an invaluable partner for proper implementation of health initiatives. The Government needs to garner community participation, as it brings accountability, transparency, sense of participation and greater responsibility from both sides. The capacity of the community should be built so that they are able to demand improved health services from the various providers.

ANNEX A: SAMPLE SIZE CALCULATIONS

The study aims to measure the impact of the intervention on a given indicator by comparing the difference (change) in the indicator from baseline to endline in the intervention group to the difference (change) in the control group. The required sample size for detecting a specified change between the pre and post intervention levels is computed using the following formula—

$$n = \frac{p_1(1-p_1) + p_2(1-p_2)}{(p_1 - p_2)^2} \times C_{p.power}$$

where,
n = Required sample size
Δp = Expected change in the population proportion
p1 = Population proportion at baseline
p2 = Expected population proportion at endline (=p1 $\pm$ Δp)
Cp,power = 7.9 (for 95% confidence and 80% power)

Table-A-1 shows the required sample size from each group to detect a difference of 5 or 7 percentage points between the baseline and endline at 95% confidence and 80% power. For this purpose, the value of the indicator at baseline has been assumed as 50% to get a conservative estimate of the required sample size as multiple indicators are proposed to be measured.

Table A-1: Required Sample Sizes for Measuring Different Levels of Change in the Indicator

Change	Required Sample Size form Each Group	
	Simple Random Sampling	Two-stage Sampling[1]
5 percentage points	1572	3144
7 percentage points	798	1596

[1]Assumed design effect = 2

Due to budget constraints, the survey was designed to detect a difference of 7 percentage points, indicating the required sample size to be 1596. Considering 30 respondents per slum, it was decided to sample 54 slums each in the intervention and control areas.

ANNEX B: REFERENCES

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