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Final Report: Satellite Spot Assessment of Smiling Sun Network

USAID's Advancing Universal Health Coverage Project

Conducted by:
Capacity Building Service Group (CBSG)
www.cbsg-bd.org

Contents

List of Abbreviation and Acronyms

ANC	Antenatal Care
AUHC	Advancing Universal Health Coverage
BDT	Bangladesh Taka
BRAC	Bangladesh Rehabilitation Assistance Committee
CBSG	Capacity Building Service Group
CBA	Cost Benefit Analysis
CC	Community Clinic
CSG	Community Support Group
CSP	Community Service Provider
EmOC	Emergency Obstetric Care
EPI	Expanded Program on Immunization
ESP	Essential Services Package
FC	Family Care Card
FO	Facility Observation
FP	Family Planning
FGD	Focus Group Discussion
FWV	Family Welfare Visitor
GOB	Government of Bangladesh
GMP	Growth Monitoring Promotion
HBC	Health Benefit Card
HIV	Human immunodeficiency virus
IDI	In-depth Interview
IUD	Intrauterine device
LA	Least Advantage
LGCC	Limited General/Curative Care
MBBS	Bachelor of Medicine and Bachelor of Surgery
MCH	Mother & Child Health
M&E	Monitoring and Evaluation
MERL	Monitoring Evaluation Research and Learning
NGO	Non-Governmental Organization
NHSDP	NGO Health Service Delivery Project
NSDP	NGO Service Delivery Project
PHNE	Population Health Nutrition and Education
PNC	Postnatal Care
PoP	Poorest of the poor
RCT	Randomized Control Trail
SACMO	Sub-Assistant Community Medical Officer
SDG	Sustainable Development Goals
SHN	Surjer Hashi Network
SSI	Semi Structure Interview
SSN	Smiling Sun Network
SP	Service Promoter
TT	Tetanus Toxoid
USAID	United States Agency for International Development
WB	World Bank

Acknowledgement

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We are grateful to the respondents who allowed us to collect information. We appreciate all the SHN clinic staffs who extended their helping hand during our data collection period.

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Executive Summary

USAID's flagship health service delivery project Advancing Universal Health Coverage (AUHC) activity made a challenging shift towards transforming a large network of clinics (399 clinics), previously managed by 25 NGOs, into a centrally managed pro-poor social enterprise - Surjer Hashi Network (SHN). The aim is to deliver high-quality, customer-oriented, and affordable health-care services disregarding age, sex and economic status through 399 static and nearly 10,000 satellite clinics or "spots".

This Satellite Spot assessment was commissioned by USAID's Advancing Universal Health Coverage (AUHC) Activity to understand the dynamics and utility of the satellite clinic as it currently exists, and to take appropriate measures to make satellite clinics a viable part of Surjer Hashi Network. At this transformational process, it was critical for AUHC to understand – who is using the satellite clinics, why they are using them, what services they are seeking, the quality of the services provided, as well as an analysis of the cost of satellite sessions in comparison to the number of clients served in a given population. The results of this assessment are expected to contribute towards evidence-based decisions regarding the cost effectiveness of the satellite clinics and understanding the service gaps and barriers of the satellite clinics to more effectively serve clients' needs and move towards a more viable business model.

The assessment followed a mixed method, specifically the convergent parallel approach. Qualitative and quantitative data were collected and triangulated simultaneously. It used small yet statistically significant sample size of 42 spots. Using a mix of cluster and simple random sampling techniques, spread equally in 7 administrative divisions between urban and rural locations. The assessment was conceptualized in May 2018. Data collection was completed in October 2018.

Satellite Structure

The typical SHN satellite team is composed of a female Paramedic, a Service Promoter (usually female) and a Community Service Provider (all female). In a few instance a clinic aid is also part of the satellite team. Their role was to help with spot operation and management.

In rural areas, Satellite Clinics are organized in courtyards, private residences, public places, and educational institutions. In urban areas, satellites are generally organized in vacant factories, market places, community centers, and the space provided by local NGOs and communities.

Satellite clinics operate with very basic medical equipment including height-weight scale, stethoscope, BP machine, thermometer, and limited mobile diagnostic tools such as pregnancy testing kits, glucose meters, and reagents for blood grouping. Satellite provide family planning, maternal and child health, and Limited Curative Care to women, children and male adults. Following provides the general features and facilities of satellite clinics included in this assessment:

- **Physical amenities in satellite spots:** Forty two percent of the spots had proper seating arrangements (Urban 38 percent and rural 48 percent); while 62 percent spots had washroom facilities (Urban 57 percent while Rural 67 percent).
- **Operating hours and preference**: Satellites generally operate for five hours, typically from 9:30 AM to 2:30 PM in urban areas, and 10:00 AM to 3:00 PM in rural areas. However, preferred hours were found to be 8:00 AM – 12:00 PM for females and 3:00 – 5:00 PM for males, in both urban and rural areas.
- **Medical equipment**: BP cuff, stethoscope and weight scale were found available in almost all spots, while height scale was found only in 30 percent spots. Urban spots were found slightly better equipped.
- **Lab testing facilities**: Pregnancy test kits were found in over 80 percent clinics; blood grouping facility existed in 62 percent of rural and 33 percent of urban spots. Similarly, diabetic test capacity was found in 81 percent of rural and 62 percent of urban spots respectively.
- **Distance:** 71 percent urban spots were found within 5 kilometers from the static clinic while 78 percent rural clinics were found beyond 5 kilometers In other words, many urban satellites were

in closer proximity to the static clinic. We observed lower client uptake in these sites as compared to others.

- **Diagnostic facilities**: 73 percent satellite spots had limited diagnostic facilities, 75 percent in urban and 71 percent in rural spots. A positive relation was found between diagnostic facilities and client flow and revenue.
- **Satellite session and service contacts:** On average two satellite sessions were held in a month, three sessions in urban areas while only one session in the rural areas. On an average, service contacts per session were found to be 41 while number of clients remained 23. It exhibits that each client sought approximately two services per contact. In urban areas, average service contacts per session were found to be 35 in contrast to 46 in rural spots. Multiple monthly sessions generate more revenue per session.
- **Privacy and confidentiality:** More than half (52 percent) of satellite spots were held either in a covered space or had separate rooms for medical consultations. This ratio was higher in urban areas than in rural. In both urban and rural areas, only 45 percent service providers were found to seek permission from the client prior to check up.
- **Gender concerns at spot:** SHN clinic staffs were found to be gender sensitive and they treated male and female clients equally. Male client flow remained lower than female and children.

Client Characteristics and Service Quality

We found the general perception was that the SHN services were mainly for females and children. General notion of males towards satellites services of Surjer Hashi Network (SHN) is that Surjer Hashi Network (SHN) services are for females and children. Thereby, male clients are either hesitant or feel in receiving services from Surjer Hashi Network (SHN) satellite spots. Many of them even don't informed about the availability of limited curative care service availability for both males and females in satellite spots. General overview of clients who sought services from satellite clinics are outlined below:

- **Gender and age**: Over 80 percent clients were female, and majority (50 percent) of them were adolescents of reproductive age while 42 percent male were children. Majority (65 percent) of the females were married.
- **Education**: Over 71 percent of the clients had education up to secondary level; 21 percent had no formal education. No significant differences were found between urban and rural areas.
- **Economic category of client**: Two thirds of the clients can be categorized as poor based on World Bank 1.9 USD per capita income criterion. Sixty percent of the clients in the urban areas, and 71 percent in the rural areas were found to be poor. This implies that urban able to pay clients are slightly more prone to receive services from smiling sun satellite clinics.
- **Profession**: In urban areas, clients were: 32 percent engaged small business; 17 percent non-agricultural labor, and 12 percent private employment. In rural areas, 25 percent were farming their own land; 17 percent were day laborers, and 9 percent had private jobs. Housewives were found to be the common visitors either for themselves or for their child.
- **Services sought**: Family planning (89 percent) and maternal health (88.6 percent) were the most sought-after services. Limited curative care (68 percent) and child health (40 percent) were next. Only 12 percent of the clients sought diagnostic services. Urban and rural variations were not significant. Clients most value satellite services for their low cost and proximity to home.
- **Alternative service providers**: Only about 8 percent clients used GoB facilities and private providers for similar services offered by SHN such as family planning, maternal and child health. For limited curative care, 34 percent chose pharmacies, 32 percent private providers, and 27 percent used SHN. Only 7 percent used GoB facilities for limited curative care.
- **Service seeking pattern**: Further examination of clients' health seeking behavior indicates as a general source of care, client's preference for pharmacies as a source of care is driven by accessibility at any time, low cost, and good reception. In general, service seeking behavior patterns in clinic catchment areas were found to be: 67 percent choose pharmacies, 23 percent

went to other NGO facilities 30 percent used government facilities and 26 percent went to private providers. Distance to nearest health facilities within the catchment areas was 1 kilometer in urban and 4 kilometers in rural areas.

- **Service promotion**: Community Service Providers (CSP) and existing clients were found to be the main sources of service promotion. Support groups and formal communication methods like billboard and signboard were not as effective as anticipated.
- **Client satisfaction:** More than 70 percent clients expressed their satisfaction for SHN service mainly for service availability (71 percent), low cost (70 percent), provider attentiveness (82 percent), information sharing (77 percent), and overall provider behavior (89 percent).

Cost Benefit Analysis (CBA)

SHN is a social enterprise that aims to provide high quality, low cost, and affordable health services for all Bangladeshis. Thus, SHN service prices are less than the market price in general though poor clients are often provided service at free of cost. The following are key findings from the CBA:

Cost of satellite session: Average cost for each session was found to be BDT 1,602 in urban areas and BDT 1,746 in the rural areas. Human resource (salary and remuneration) constitutes 79 percent of the total cost followed by travel (12 percent), and service promotion (5 percent). These costs items are fixed with very little opportunity to reduce costs without compromising the quality of services. Costs in rural area were high due to higher number of service providers, service promotion and travel cost.

Revenue of satellite session: Average revenue per session is BDT 545. To be specific, BDT 708 for rural and BDT 402 for urban. Most of the revenue (68 percent) came from service fees followed by drug sales commission, registration, and other services. Diagnostics generates about 3 percent of the total revenue. Higher revenue was generated where sessions were held more frequently. Those spots in distant locations also generated higher revenue.

Cost recovery: Average cost of one satellite session was BDT 1,602 while revenue for the same was only BDT 545. Overall, cost recovery had been calculated at 33.6 percent, while it was 41.5 percent in the rural areas and 26.7 percent in the urban areas. Cost recovery in the urban areas was much lower than in the rural areas, even when urban satellite operation cost was comparatively low.

Cost savings for community: Satellites help communities make savings on services they receive because of lower cost as compared to other service options and low or no travel expenses. Based on client flow, in monetized terms, communities on average saved BDT 860 for each satellite session, BDT 1,268 in rural areas and BDT 453 in urban areas. In other words, communities saved more than 50 percent on their out of-pocket costs by choosing SHN satellites.

Double bottom index: [1]A composite measure for the extent of poor people served and revenue generated, showed that rural spots accomplished their mandates more effectively than the urban spots. In that, rural satellites exhibited better viability and impact.

Conclusion of Cost Benefit Analysis

The assessment findings clearly showed high level of relevance and effectiveness of satellite services in the current context. Overall, satellite clinics are making a positive contribution in advancing universal health coverage to the communities, particularly to poor and marginalized women and children who need services. Based on cost benefit analysis, it might not be possible to fully recover the costs and achieve financial sustainability. However, SHN can save a lot from satellite operations and increase revenue through price adjustments with better quality assurance to improve cost recovery.

[1] A detail calculation process is presented in Annex-3

Main Recommendations

- Current business/function model of the satellite needs a review. A quasi experimental trial could be designed with 10 - 20 low and mid performing satellites involving rural and urban spot to explore feasibility and sustainability of a new business model. The model should be based on reduced team strength, improved physical amenities and privacy and with higher prices for the clients who are able to pay.
- Relocate or close-down satellites that are close to the parent static clinic; or integrate these satellite services with the static clinics. Roughly 20 percent urban and 5 percent rural satellites could be readjusted in this way.
- Satellite spots could be segmented. This segmentation could be based on both revenue potential and health impact. SHN should consider separate satellite spot approaches for each cluster of satellite clinics based on the needs of the client population.
- Review communication, business promotion and demand strategies to ensure that the promotional activities attract new clients.
- Establish direct communication and help lines with the clients - (call center could be a good option to reach clients). Promotional activities should be more engaging towards male clients.

Section A: Background and Methodology

1.1 Introduction

Smiling Sun Clinics have become a familiar name in the health service arena in Bangladesh. Since the 1980s, the Smiling Sun Network has been serving people living far away from static facilities through a Satellite Clinic approach[2]. Over the years, the number of satellite clinic has increased to 10,186 that are coordinated and managed by 399 static clinics to provide mother and child Health (MCH), vaccination and family planning services at the household level. About 74 percent of the satellite clinics or spots are in the rural areas. The remainder are in the urban locations.

This Satellite Spot assessment is commissioned by the USAID's Advancing Universal Health Coverage (AUHC) Activity project to understand the dynamics and utility of the satellite clinic as it currently constitutes and to take appropriate measures towards establishing a sustainable Surjer Hashi Network (SHN). The assessment was conceptualized in May 2018, while the data collection was completed in October 2018.

1.2 Background and Assessment Context

The Government of Bangladesh (GoB) formally introduced a semi-static service center model called "satellite clinics" in 1988 to provide health care services, particularly to the people living far away from family welfare centers. Prior to that, in 1984, the Ministry of Health and Family Welfare in association with the International Center for Diarrheal Disease Research, Bangladesh (icddr,b) undertook a pilot project to operate satellite clinics in the rural areas in Abhoynagar and Sirajganj Upazilas. The purpose of the pilot project was to provide health and family planning services to rural residents who live far away from medical facilities and motivate them to seek services available at the static facilities.

Modelled on that pilot, the Smiling Sun network has been operating satellite clinics since 1980s, and has become a major health service provider at the community level. The Surjer Hashi Network (SHN) service providers based in static clinics routinely operate these satellite clinics in collaboration with the community residents. Satellite clinics are located in factories, community centers, and in private residences. Main purpose of the satellite clinics is to provide selected components of the Essential Services Package (ESP) to meet the health needs of the poor. Typically, urban satellites function on weekly basis while the rural spots are less frequent. They are generally convened monthly. [3]

One function of the satellite clinics is to refer clients to static clinics for higher levels of care. Satellites refer approximately 20 percent of their clients to the static clinics for more advanced care. Prices at the satellite clinic range between free for the poor and BDT 30 for able to pay[4].

Each SHN clinic has got a dedicated counselor, who are supposed to greet and inspire client about taking services from the (SHN clinics. Assessing effectiveness of counseling at static level was beyond the scope of the study. However, during our observation of satellite sessions it was found that either unwillingness or lack of scope for the provider to counsel clients at the satellite spots. Clinic level MIS data and our assessment, both reveals that around 75 percent of the total service contact of particular static are coming from door step community services (from Community Service Provider (CSP) and satellite sessions) and the share of satellite is on an average 30 percent. Contribution of these outreach approach remained fairly consistent, but strong outreach promotional activities including counseling were not underscored.

[2] These are mobile medical service teams that provide routine (weekly, fortnightly or monthly) and selective health services in certain 'spots' (communities) away from static clinic. Satellite team consists of one paramedic, one Service Promoter and a Community Service Providers who are residents in each community. In addition, a Clinic Aide supports on spot operation.

[3] Hossain, Najmul, Soliman Guirgis, Rose Schneider, and Usha Vatsia. 2017. "Midterm Performance Evaluation of the Bangladesh NGO Health Service Delivery Project (NHSDP)".

[4] USAID, NSDP, and Pathfinder International. 2007. "The Cost Efficiency of Health Care Services Provided by the Smiling Sun Clinics." http://www2.pathfinder.org/site/DocServer/Monograph_2.pdf?docID=9081.

Satellite clinics were designed to play a complementary role to the static clinics, thus contributing to an increase in service contacts for SHN, and refer clients to static clinics for higher levels of care. Considering this, the main research questions for this assessment were:

- What is the current structure of SHN's satellite clinic?
- Who is using the satellite clinics?
- Why they are using satellite clinics?
- What services are they getting from the satellites and for what reason (i.e. quality, convenience, cost, and so on)?
- Is there any competition between Satellite clinic and the Static clinic; and if yes, how this affects client flow into the static clinics? What the marginal value of satellite clinic is in terms of overall clinic flow to the SHN?
- Why clients are going to the private providers instead of SHN clinics?
- Why clients are going to private providers even for family planning and maternal health services which are available at the Satellite clinics?
- Is the satellite clinic financially viable for the SHN from the cost-benefit perspective?

1.3 Assessment Objective

The assessment was conceptualized to evaluate the functionality of the satellite clinics in terms of delivering sustainable services at the community level. Results of the assessment will also inform how best SHN can use the satellite clinic concept in future. Specific objectives of the assessment were to:

- Analyze the characteristics of satellite spots, in terms of services, locations, frequency, team structure and cost;
- Better understand what services people are receiving from satellite spots and what are the demands, and is there a perceived need for holding satellite clinics;
- Evaluate the perceived quality of the services provided at satellite clinics;
- Conduct a cost-benefit analysis of satellite spots, in terms of economic as well as health outcomes; and
- Recommend different strategies for satellite spots considering SHN value propositions.

1.4 Methodology and Extent of the Assessment

1.4.1 Methodology

The assessment followed mixed method approach, specifically the convergent parallel approach. Qualitative and quantitative data was collected and triangulated simultaneously. It used a scientific and statistically valid sample size of 42 spots, using a mix of cluster and simple random sampling technique, spread equally in 7 administrative divisions, and between urban and rural locations.

Essentially, this Assessment generated information to assess satellite spots' capacity, relevance, and competitiveness to serve the changing needs of the clients and to fit into the new reality of SHN's business model. Finally, the methodology was fine-tuned based on the assessment concept note, our proposal and upon discussion with MERL team of the project. The process includes:

Desk review and system assessment: This included review of secondary information provided by the AUHC project and satellite service statistics of NGOs. We undertook reconnaissance visits to three SH clinics' satellite spots as a part of the assessment.

Questionnaire sample survey: A survey questionnaire was administered through in-person interview with the satellite clinic clients. We used pre-programmed tablet for data recording.

Semi-structured interview: We conducted semi-structured interview with service providers (clinic managers, paramedics and CSPs).

Competitors' mapping: We have conducted competitors mapping for similar service providers within satellite clinic catchment areas.

In-depth interview (IDI): Respondents for in-depth interview was selected upon discussion with MERL team of the project. They were important stakeholders and included other NGOs, government health and family planning department, local private service providers.

Focus group discussion: FGDs were conducted with satellite users and non-users. Separate FGDs were conducted for male, female and for different age segments.

Cost-benefit data collection: We used a checklist to collect cost data from 30 static and 30 Satellite clinics.

Observation of satellite facilities: We observed the satellites using a checklist to assess the availability of equipment and facilities as well as clients' flow.

Data triangulation: Several yet interrelated methods were adopted to derive information and data required for the assessment. These methods complemented and supplemented the rigor and authenticity of the assessment results. Results of client survey, FGD, IDI, Semi-structured Interview and other data sources have been used for comparative analysis and triangulated these data sources to draw survey conclusions.

1.4.2 Assessment sample coverage

Matrix-1: Assessment respondents by methods	
Quantitative	**Qualitative**
▪ Facility observation: 42 Satellite Clinic Spots ▪ Semi-structured Interview: 126 (42 Clinic Managers, 42 Paramedics and 42 CSP/SPs) ▪ Questionnaire based sample survey: 420 clients; 10 from each of 42 Satellite Clinics Spots ▪ Cost- Benefit data collection from: 30 satellite and 30 static = Total 60 clinics ▪ Competitors mapping: 16 Government, NGO and private service providers in the catchment areas	▪ Focus Group Discussions: 12 FGDs - 6 with Clients and 6 with non-clients. Separate FGDs with male (4), female (8) and different age segments – covered both rural and urban areas ▪ In-depth Interview (IDI): 22 (10 Government officials and 12 private and NGO providers) ▪ Data Triangulations: Collected data using 7 different tools and from multiple sources

1.5 Implementation and Data Quality Control

1.5.1 Implementation

CBSG signed the subcontract agreement with Chemonics International Inc. for undertaking this satellite spot assessment on August 14, 2018. It conducted inception meeting on August 16, 2018 followed by reconnaissance visits to three satellite clinic spots between August 17 and 19. The inception report was duly submitted on August 20, 2018. Between August 21 and September, we drafted all necessary data collection instruments, conducted 4 days (including one-day practicum) training to the field research team. After the training, data collection instruments were finalized and endorsed by the AUHC project. Overall implementation was conducted in three major phases as follows:

- Inception and Methodology Finalization Phase: August 14 to September 16, 2018
- Field Preparation and Data Collection Phase: September 17 to October 11, 2018
- Analysis, Reporting and Dissemination Phase: October 12 to November 25, 2018

After field data collection, consistency check, data cleaning and processing were done in SPSS for quantitative and in NVivo for qualitative data.

1.5.2 Quality control

CBSG developed a strategy to ensure randomization viz. surprise visit to cluster (spots), monitoring frequency and non-compliance of randomization protocol. The data quality control measures begun

with SurveyCTO program development with conditional entry options, data ranging, stringent validation rules, popped-up on screen messages for illogical data.

A survey Protocol was prepared and put in place that included tracking of errors by the quality control staff/Supervisors, and strategy to overcome emerging field problems. We put efforts on sample descriptions and identification of sample locations, strategies to handle non-response and systematic errors, and daily review of the quantitative and qualitative surveys including around 20 percent back checks.

1.5.3 The assessment respondents

Facility Observation respondents: Paramedics of the respective Satellite Clinics – all of them were female. Their work experience with the SHN ranges from 1 month to 25 years - on average 5 years.

Client Perception Survey respondents: These clients visited Satellite clinic at least once in the last three months. An overwhelming majority (87 percent) of them were female. They were between 16 and 83 years of age. Average age for female respondents was found at 31 years and for male 41 years. Average monthly household income for the respondents was BDT 17,459 BDT, where 16,187 in rural areas and BDT 18,731 in urban areas. As far as educational status was concerned, 34 percent of clients had primary level of education, while 21 percent clients had no formal education and a few (8 percent) of them were graduates.

FGD participants: On an average, 8 participants attended in a FGD. Average age of male participants was 32 years while that of female was 26 years.

Semi-structured interview respondents: We interviewed 42 persons from each of the three professional groups-- Paramedic, Clinic Manager and Community Service Providers working in static clinics included in the assessment. They were working for 5 to 10 years with the SHN. Following table presents a brief profile by type of respondents covered in this assessment.

Matrix-2: Assessment Respondent		
Respondent type	**Brief Profile of the respondents**	**Specific survey instruments used**
Clinic Manager	Mostly male (93 percent); Average length of service is 10 years, ranging from 2 to 29 years	CBA, SSI and FO
Paramedics	All female, average length of service is 5 years, ranging from 1 month to 25 years.	SSI and FO
CSP/SP	Majority (91 percent) are female; average service length is 9 years, ranging from 2 months to 22 years.	SSI and FO
SHN client survey	Female 87 percent. Avg. age: 31 Female, 41 Male; Avg. Income for rural areas BDT: 16,187, Urban 18,731. Education – mostly (34 percent) primary level.	Questionnaire Survey
FGD participants	Client -Non-client ratio 50:50; Average age. Male 32 years, Female 26 years	FGD
In-depth Interview respondents	22 Respondents (32 percent female): Government= 10, NGO= 7, Private= 5	IDI

1.5.4 Limitation of the assessment

The assessment team designed and tested the tools for data collection in two phases. With cluster sampling techniques, a representative sample of 42 spots were selected. We planned in association with the AUHC MERL team to cover three categories of satellites; high, medium and low service contacts and revenue during last three months. However, performance category-wise spots could not be easily found in sampling areas, and we had to compromise for few instances. It was

challenging to organize FGDs with the male participants/clients in day time, compelled us to organize the same in the late evening. Assessment time was not enough, given the number of sub-assessment such as cost benefit analysis, competitors mapping in the catchment area. However, due to heterogeneity of satellite spots and performance, an adequate number of service wise contacts and corresponding revenues could not be collected. Therefore, assessment could not provide estimates of service contact and revenue information for low volume sites. Besides, overall time appeared too short given the volume of research.

1.6 Report Structure

Apart from the executive summary, this report consists of five parts:

Section A: Encompasses the introductory section covering basic background, assessment context, assessment questions, methodology, and implementation plan of Satellite Spot Assessment.

Section B: Provides an analysis of the characteristics of satellite spots, in terms of services, locations, frequency, and team structure. This is related to objective one of the assessments.

Section C: Provides a description of what services people are receiving from satellite spots, the demands and what is their perceived need for satellite clinics. This section also presents the perceived quality of the services provided at satellite clinics.

Chapter D: Provides a cost and benefit analysis of satellite operations in terms of double bottom – health outcomes and economic viability.

Section E: Contains summary of the assessment followed by conclusions and recommendations.

In addition to these sections, we have presented several reference documents and analysis tables in the annex. These annexes contributed to a deeper analysis allowing for more accurate evidence-based conclusions and recommendations.

Section B: SHN Satellite Structure

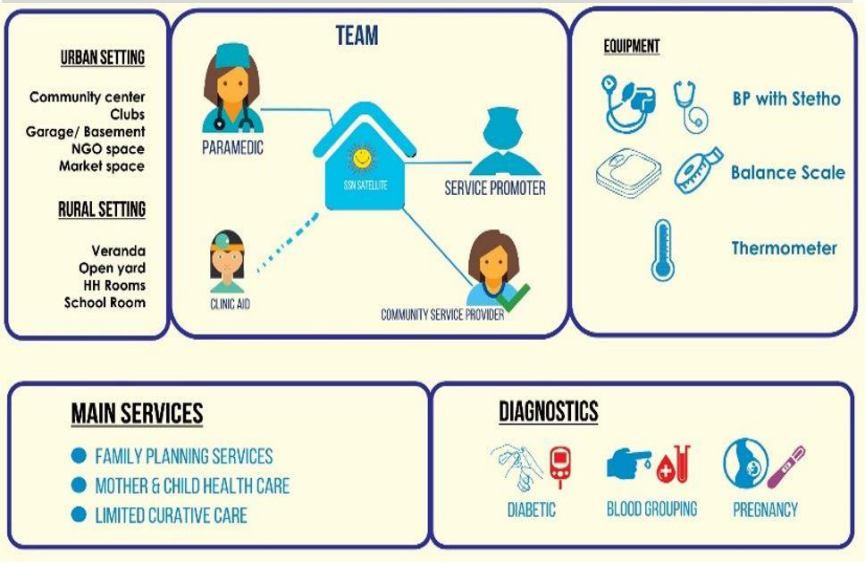
2.1 Introduction

A substantial number of service contacts of SHN are being generated from satellite clinics. Therefore, it is evident that satellite spots have an importance in terms of service delivery and revenue generation.

SHN uses standard satellite service protocols to confirm high quality of services. These protocols provide clear guidelines for satellite setting, physical facilities, service types, medical equipment and supplies, human resources, and the management as well as monitoring systems. Service providers are oriented on these standard operating procedures of satellite spot management and mode of service delivery.

Assessment of satellite clinic structure is an important element of this assessment that presents an analysis of the characteristics of satellite spots, services offered, locations, frequency, team structure[5] and cost. The main objective of the facility observation is to assess and understand prevailing status in terms of both revenue generation and health impact point of view. To be specific, the assessment was intended to get insights about the below mentioned areas of satellite services of SHN:

Illustration-1: Satellite Structure



- Satellite spot setting and physical environment
- Availability of appropriate medical equipment/tools, medicines and supplies
- Service standards
- Privacy and confidentiality of the service recipients
- Gender consideration, and other related issues

The assessment resulted in the following empirical evidence regarding structure of the current satellite service modality of SHN.

2.2 Physical Setting

SHN satellite spots are organized in places that are voluntarily provided by community people. In other words, SHN does pay rent for the space. Usually in rural areas, satellite clinics are organized in courtyards, private residences, public places, and educational institutions. In urban areas satellites are organized in vacant factory and market places, and sometimes in spaces provided by NGOs and communities. In some spots, tables and chairs are provided by the community or space providers. In rural areas, equipment are usually kept on floor mat or cloth provided by the satellite team. A banner with Smiling Sun logo is hung at the spot to let people know that the clinic is open for service.

[5] The primary data source is Facility Observation checklist while among others semi structured interview with service providers have also been complemented to the analysis and to draw conclusion in this section

The satellite team is composed of – one female Paramedic, one Service Promoter (usually female) and a Community Service Provider (all are female). A few cases (10 percent) were found where a clinic aid was also part of the satellite team – who basically help on spot operation and management.

2.3 Amenities at Satellite Spots

Satellites are organized in a spot or place provided voluntarily by the community or local philanthropists often with very basic facilities and physical amenities. However, the assessment team observed that seating arrangements and washroom facilities for clients are also offered voluntarily by the space providers.

2.3.1 Seating arrangements

More than half (53 percent) of the satellite spots did not have proper seating arrangements for clients. This was particularly acute in the urban areas where more than 62 percent spots lacked proper seating arrangements. Clients had to seat on the floor in around 21 percent spots with no major variations between urban and rural areas. Overall, around 10 percent spots did not have any seating arrangements. If we compare readiness in line with physical facility by geography, in general spots of Dhaka and Rangpur division were better than other parts of the country.

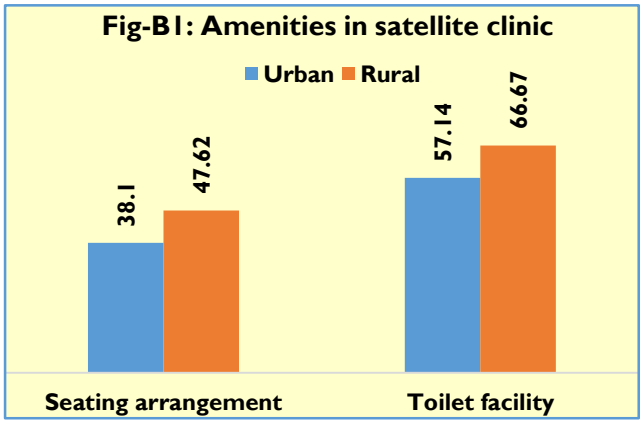


Fig-B1: Amenities in satellite clinic

As observed, there was a strong expectation from the clients to have proper seating arrangements at the satellite spot. Many of them wanted a private space so they could breastfeed while waiting for the service provider. It is important to note that the space is provided voluntarily by the community who often arrange tables and chairs for the providers.

2.3.2 Washroom facilities

A hygienic washroom and maintaining privacy is an essential element of a clinic - be it static or satellite; especially when majority of the clients are female. Assessment participants also reiterated this point as a basic need for SHN satellites.

Unfortunately, the assessment revealed that about 38 percent of the satellite spots did not have toilet facilities. This scenario was far more acute in urban areas where nearly 43 percent satellite spots had toilet facilities against 33 percent in rural areas. Less than one-third of the facilities had toilets with water supply. We found only 21 percent toilets were clean, while 14 percent functioning and available but unhygienic were not worth to using. The other two-thirds of the toilets were found moderately clean. The survey team also observed that toilet facilities were cleaner in urban than in rural areas.

2.3.3 Medical equipment

According to the SHN satellite protocol, a standard set of medical equipment and devices must be available to the service team. This equipment not only supports quality service delivery, it also enhances clients' confidence in the providers.

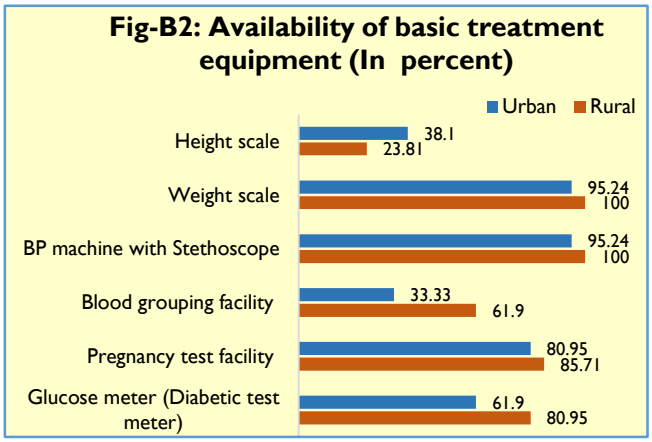


Fig-B2: Availability of basic treatment equipment (In percent)

The list of equipment and medical supplies that the satellite clinics should carry can be found in Table-B3. The assessment did an inventory to see what equipment and supplies were available during the service session. Following provide the details.

Basic balance scales (height and weight scale) are still quite reliable for patient body weight and height data. The assessment revealed that about 98 percent surveyed spots had such facilities. However, instead of height scale, they used measuring tape for height measurement as height scales were difficult to transport.

Blood pressure checking machine (sphygmomanometer) along with stethoscope were found available and functional in almost 98 percent clinic spots. However, in one spot, the blood pressure checking machine was not working.

Blood-grouping machine is an important when serving pregnant women. The assessment revealed that about half of the satellite spots (48 percent) did not have blood grouping capacity. Availability of blood grouping facility was relatively higher in rural areas (61 percent) than in urban areas (33 percent). One reason could be that such facilities were more available in private or NGO and GoB health clinics in urban areas.

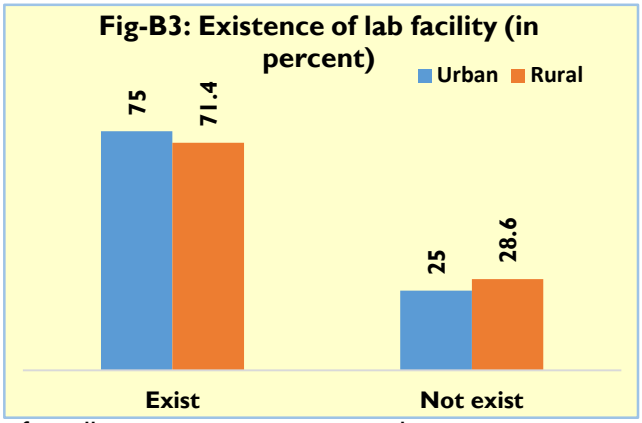
Glucose meter is widely used for blood sugar monitoring of regnant. A pregnant woman free from gestational diabetes rarely has high blood glucose level, though there is always a chance of that happening during pregnancy. Therefore, it is important for a satellite clinic to have the capacity to test pregnant women. About 70 percent of the spots surveyed had glucose meter indicating that nearly 30 percent satellite spots did not have this critical equipment. Availability of such equipment was higher in the rural satellites than the urban ones.

Pregnancy test facilities were found available in 83 percent surveyed spots meaning that 17 percent satellites did not have this capacity. There was no significant difference between urban and rural areas, and or among divisions.

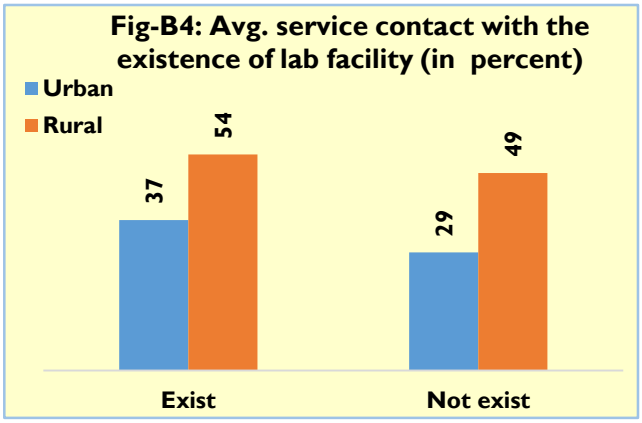
Medical supplies and medicine have significant impact on quality of health care in satellite clinics. Only 57 percent of Urban and 38 percent of Rural satellite clinics carry adequate medicine (as per list of medicine provided by the SHN management) to the spots. For instance, respective government department cannot ensure regular supply of family planning contraceptives. This is especially true for condoms in rural areas. We also observed that medicines as per list are not available, even iron tablets are not found adequately.

First-aid box: The importance of first aid box is hard to overestimate. This is a basic medical requirement. However, the assessment found that only half the (52 percent) spots carried first aid box without any significant variations between rural and urban areas. The situation was particularly worse in Khulna and Rangpur divisions.

Diagnostic facilities: Diagnostic capacity is an important element for quality health care center. SHN satellite clinics provide limited diagnostic services that included reagent-based blood-grouping, kit based diabetic and pregnancy test facilities. The assessment team found that 75 percent of urban spots and 71 percent of rural spots had this capability. In addition, about 3 percent satellite clinics collect cough and blood samples to conduct tests in the static clinics in the rural areas.



We attempted to investigate the impact of diagnostic facilities on the service contacts in satellite spots. It was evident that irrespective of satellite spots, a positive correlation prevailed between the existence of diagnostic facility and the number of service contacts. The impact was apparent more in urban areas than the rural areas.



Consultation time: The survey team considered the consultation time as the time a medical service provider or Paramedic give to a client to discuss problem and provide advice. Our survey team collected and analyzed data on consultation time of paramedics in the SHN satellite spots. The average consultation time per client was found little over 10 minutes, slightly longer in rural areas (11 minutes). However, consultation time varies from patient to patient depending on his/her problem. For instance, post-natal (first visit) check-up takes longer (20 minutes) followed by Growth Monitoring Promotion (GMP), ANC and PNC revisits. A minimum amount of time was required for Vitamin A supplementation, referrals and blood pressure check-ups. A detailed table by service type is presented in the annex.

Shortcomings of satellite spot

- Lack of amenities in the spot, mainly seating arrangements and washroom facilities
- Irregular supply of FP contraceptives and inadequate medicines are taken to satellite spots (iron tablets)
- Limited session frequency (on average only 1.2 per month) in rural areas
- Lack of follow-up service provision on emergency need – not always open
- Lack of understanding and scope to maintain clients' privacy.

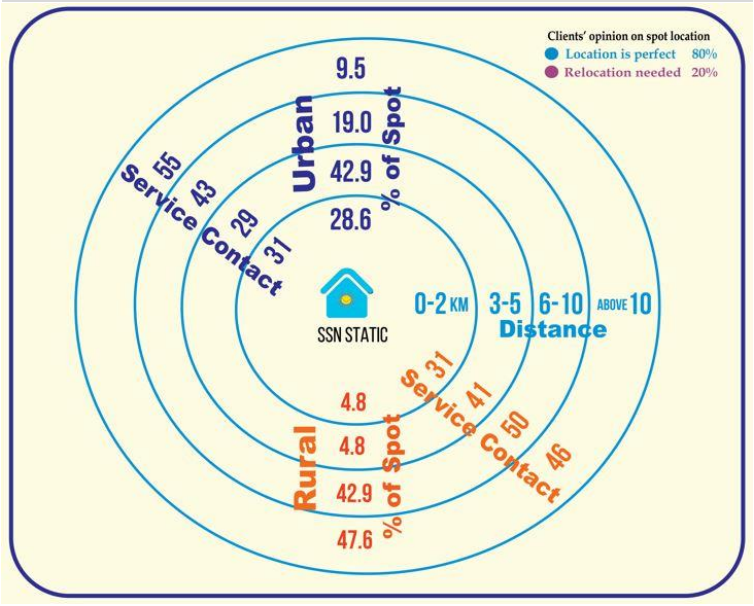
Cleanliness of satellite spot: Maintaining a clean environment in the satellite spot is not only important to the clients but also crucial for ensuring service quality. The assessment used several parameters to assess the cleanliness of the satellite spot. Accordingly, only 14 percent spots were found in perfectly clean condition. About 83 percent spots were found moderately clean, meaning these spots were good, but needed further improvement. About 3 percent spots were found dirty and had unhealthy condition. Overall, cleanliness was not a major issue to the clinic performance and service contact. Clients did not raise any concerns about satellite cleanliness.

2.4 Distance between Satellite Spot and Associated Static Clinic

Distance is still a major impediment for health care service accessibility in Bangladesh. The satellite spot concept was initially designed as a last mile solution to bring health services to hard-to-reach communities. On the contrary, mobility and outreach capability of health service providers are also important to be taken into consideration to ensure population coverage and resource efficiency, particularly in the rural areas.

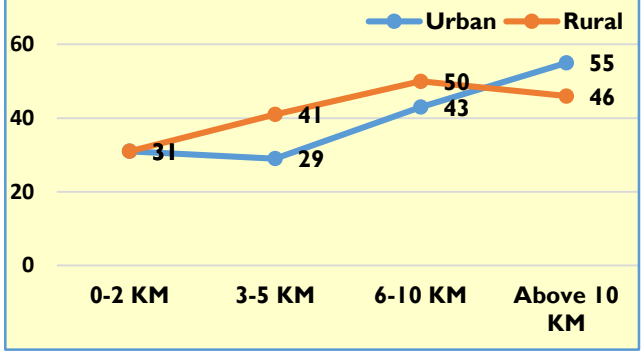
This assessment attempted to ascertain distance between satellite spot and the associated static clinic. The average distance between satellite spots and associated static clinics is 9 Kilometers. Therefore, service providers had to travel quite some distance especially when they had to rely on public transport. This is particularly difficult in the rural areas where about half of the satellite spots were found beyond 10 Kilometers.

Illustration-2: Service Contact and Distance



The assessment looked at a potential correlation between service contact and distance. We found that with a higher distance were more service contacts. Regardless of spot location, a gradual progression in service contacts were observed as the distance between static and satellite clinic increased, except in rural areas where service contacts fell slightly in cases distance increased more than 10 Kilometers. This suggests that a 10 Kilometer range provides the optimum service contacts for the rural satellites. However, government determination of catchment area may appear as a constraint.

Fig-B5: Avg. service contact and distance



The above graph (Fig- B5) clearly shows that the net service contact achievement was the lowest (31 contacts) at spots those closer to the static clinics. In other words, clients have the choice to visit between static or satellite clinics to meet their health needs. It may be argued, though not empirically tested, that if SHN chose to discontinue satellites close to static clinics, there will not be any drop of SHN service contacts or there will be no impact on client's health seeking behavior. On the other hand, such a strategy may bring positive outcome to improve financial viability of satellites and thus enhance SHN sustainability.

2.5 Clinic Hours, Day and Contacts

The assessment collected basic information, which is in the following table. Clinic hour means the period that service providers offer services to the clients. On average, satellite clinics remain open for approximately five hours, although distant clinics may have less time because of greater travel time. The table also shows an existence of relationship between clinic frequency and client flow. In other words, higher the clinic frequency more are the clients.

Table-B1: Clinic Hours, Day and Contacts

Attribute	Urban	Rural	Overall
Clinic hours	9.30-2:30	10:00-3:00	Depending on distance
Clinic days	Weekly 53 percent	Monthly 83 percent	-
Avg. session per month	2.95	1.2	2.05
Customer contact per day	19	27	23
Service contact per session	35	46	39

2.6 Privacy and Confidentiality

Privacy and confidentiality is a key in SHN service protocol. This requires a separate room or covered area be used to do check-ups, consultations and that services are provided privately, not in presence of others. This is particularly important for maternal health.

The assessment revealed that nearly half of the satellite spots failed to comply with this requirement. Privacy issues were seriously compromised mainly due to lack of adequate and proper place and facilities. Privacy concerns were not only raised by female but also by males.

Table-B2: Privacy and Confidentiality

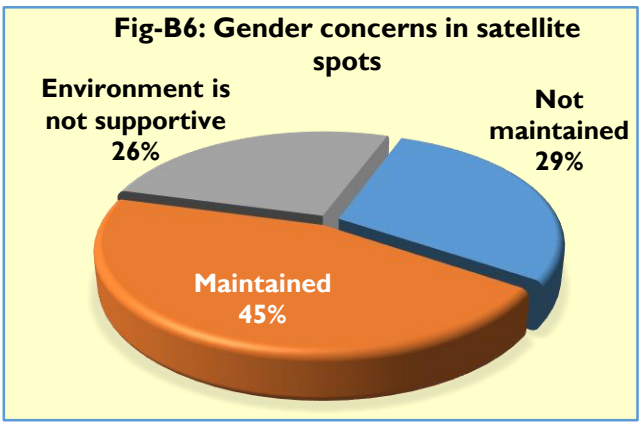
Privacy and confidentiality	Urban	Rural	Total
Have separate room and/or covered space	57.14	47.62	52.38
Permission sought prior to physical check-up	42.86	47.62	45.24
Check-up/consultation in the presence of others	57.14	52.38	54.76

The assessment found that 52 percent satellite spots had either covered space or separate room for medical check-ups and consultations. Such facilities were observed more in urban areas than in rural areas. Regarding seeking verbal permission from the client prior to medical/physical check-up, the assessment observed that in 45 percent cases such verbal permissions were sought. There was no significant variation observed between urban and rural areas. However, this should not be a major issue as the service providers know majority clients and a good rapport already exists.

More than half of the (55 percent) spots maintained privacy and confidentiality during the consultations. There remains a big gap where satellite clinics can improve to gain confidence of client thus to increase service contact of satellite clinics.

2.7 Gender Sensitivity in the Spot

Attempts have been made to incorporate health service businesses with social issues within SHN service model. There remain gender issues in SHN satellite services. This is despite the fact that service providers are gender sensitive.



This assessment attempted to observe to what extent gender issues were addressed in the satellite clinic environment. Detail discussions were held with the clients and service providers on gender and social issues. Since satellite clinics are organized in informal set-up, maintaining privacy and gender concerns, at times, become difficult. The assessment revealed that gender concerns were maintained in 45 percent satellite spots while in 29 percent spots, gender issues were

compromised. In 26 percent spots, the environment does ensure gender concerns due to lack of proper seating arrangement, separate toilet facilities, and consultation space. The assessment did not observe much variation between urban and rural areas except that in urban areas, seating arrangement for waiting clients is found to be the main obstacle.

2.8 Sectional Observations and Recommendations

Observations

- In most satellite spots, the basic amenities are lacking such as not having enough seating for the waiting patients, limited or no access to toilet facility, and lack of privacy and confidentiality.
- Usually, a SHN spot remains open for around five hours though distant clinics may have less time because of higher travel time.
- A positive relationship between distance of satellite from the static and service contacts is evident; however, this relationship is only observed up to 10 KM for rural areas.
- Even a limited diagnostic facility (such as kit and re-agent-based diagnostics tests) is not available in all spots. About 30 percent rural spots lack such facility.
- Supplies and medicine, irregular supplies of government-provided contraceptives and an inadequate supply of common medicines was observed in many spots. For instance, the first aid box is available only in 50 percent spots.

Recommendations

Following are some of the quick fix and longer-term recommendations that may improve the reliability and effectiveness of satellite clinics and thus enhance client confidence in its service.

Quick-fix:

- Improve physical setting and amenities at the satellite spots with proper seating arrangements for the clients and waiting patients. SHN may consider providing makeshift SHN branded outdoor umbrella for provider and few chairs for clients.
- Ensure privacy of the clients especially during ANC and PNC examination and private consultation. Folding tent can be provided for rural spots. For urban satellites, cloths with stand can be provided to set up makeshift structure.
- Provide and ensure standard equipment set and diagnostic kits for all satellite teams.
- Ensure medicine supply with the satellite team as per the standard medicine carrying lists

Longer term:

- Conduct mapping and performance analysis of satellites that are too close -within 2 Kilometers in urban areas, and far (beyond 10 Kilometers) in the rural areas and use the findings for further rationalization of satellite spot particularly for closing-down low performing spots.
- Relocate or close-down satellites that are too close to the parent static clinics; integrate close-down satellite services with the static clinics. This could be done in roughly 20 percent urban satellites and 5 percent rural satellites assessed.
- Consult and motivate community people to provide their toilets for emergency needs of the clients. In this respect, Community Support Group can play a key role.

Section C: Client Characteristics of Satellite Clinic

3.1 Client Characteristics of Satellite Clinic

This section attempts to address two major objectives of the assessment. The first one is to understand the clients and their service demands. The second deals with the perception of clients on satellite service quality. To address both the objectives, detailed service statistics for three months from the sampled satellite data were collected and reviewed. In addition, both client and non-client interview data were analyzed and triangulated with satellite spot performance data.

Furthermore, we considered service statistics for preceding three months, client perception survey and service providers' interview data while analyzing our survey data and draw inference on that.

3.2 Age and Sex

It is important to learn the current client profile of those using SHN satellite clinics. This will help SHN to envision who would be target clients if revenue generation, health impact and sustainability is concerned.

Table-C1: Age and sex composition of the SHN client

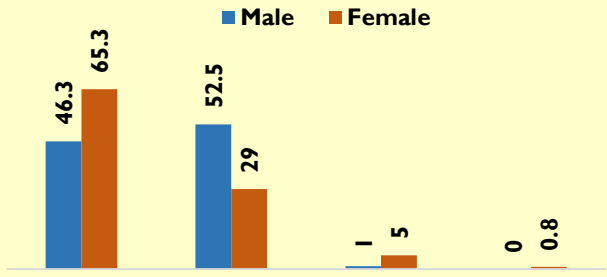
Age group	Female		Male		Total	
	Col %	Row %	Col %	Row %	Col %	Row %
Upto 5 yrs	10.3	49.4	42.4	50.6	16.6	100.0
6-10 yrs	0.3	50.0	1.0	50.0	0.4	100.0
11-17 yrs	17.5	97.2	2.0	2.8	14.4	100.0
18-35 yrs	49.5	90.8	20.2	9.2	43.7	100.0
36-49 yrs	11.8	71.2	19.2	28.8	13.2	100.0
50 yrs & above	10.8	74.1	15.2	25.9	11.6	100.0
Total	100.0	80.2	100.0	19.8	100.0	100.0

Among the clients, over 80 percent were female and 61 percent of them were aged between 18- 49 years compared to 39 percent male of similar age group. Adolescent and reproductive age groups were found as the primary clients of SHN clinics.

Besides, children are the major service recipients of the satellites. The average age of female (28 years) clients were higher than male (24 years). No significant difference was observed between rural and urban areas with respect to age of the clients. The assessment also observed that in the adolescents' age group, female proportion was higher; 17 percent female compared to only 2 percent male.

Surprisingly, 42 percent of the male clients were children under 5 years of age as opposed to 10 percent of female under five. In other words, only a handful of adult males come to receive SHN services. The survey data has been triangulated with service statics of the last three months and they are found to be consistent.

Fig-C2: Marrital status of SHN clients

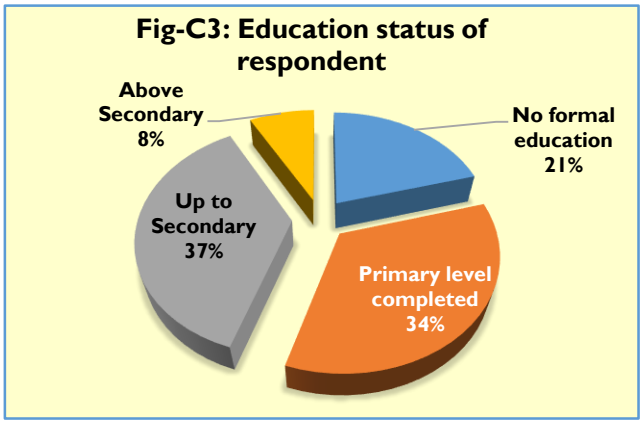


3.3 Marital Status

Over 60 percent of the clients were found to be married conforming that the SHN satellite services are mainly focused on the mothers and married couples. The ratio was as high as 65 percent for female, however, for male patients the ratio was 46 percent, meaning majority of male clients (52 percent) were unmarried. It is worth mentioning that a significant proportion (50 percent) of the unmarried males and female clients were children under 5. No major deviation was found between urban and rural areas.

3.4 Education Status

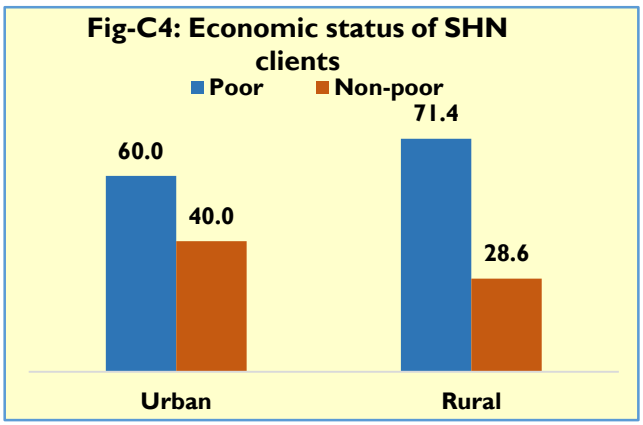
It is empirically evident that educational status has positive impact towards health seeking behavior. We analyzed the education status of the client respondents and found that about 55 percent of them had primary level of education, and only 20 percent were found having no formal education or can sign only. Another 37 percent had secondary level of education, and 8 percent of the client respondents had graduation and/or higher level of education. Educational status of urban client respondents was better than that of rural areas.



3.5 Economic Classification of the Clients HHs

Economic status is an important determinant to health seeking behavior and choosing health service. The assessment attempted to know the economic status of client households and classified the households based on their reported monthly income.

The assessment used the World Bank Report "**Poverty and Shared Prosperity 2018"**, which determined USD 1.90 as the cut-off daily income point for considering someone poor. Accordingly, satellite client's reported household[6] monthly income of BDT 19,416 or below has been considered as poor.



Based on this categorization, the assessment revealed that about two-thirds (66 percent) of the clients belonged to the poor economic category.

Looking at the rural urban variations, it was found that more urban poor visit SHN satellite clinics than poor in rural areas while rural well off community has more inclination of seeking services from SHN clinics.

[6] Household size: 4.06 BBS estimate of 2016 and USD conversion rate: 1 USD=BDT 83.9, BB rate November 20, 2018.
Percentile distribution of client's household income suggests two major categories - 'Poor' below the cut-off line, and above - 'Non-poor'.

3.6 Most Common Services Sought by the Client

People make choices of their health service providers based on their needs as well as their confidence on the service providers. The assessment tried to understand the services the clients seek from satellites. This assessment enquired on the service clients who had taken services in the last three months. It is worth mentioning that one service recipient may take more than one services over the last three months. SHN satellite services are usually categorized into 8 major service categories. Accordingly, most of the clients mainly sought family planning and maternal health services, followed by limited curative care and child health care. We looked further into what services were included in family planning and maternal health services. The assessment found that oral pills and injectables were the most frequently sought family planning services, followed by condoms. There was a limited number of IUD (6.4 percent) and Implant (5.4 percent) services. There was little variation between urban and rural in respect of seeking family planning services.

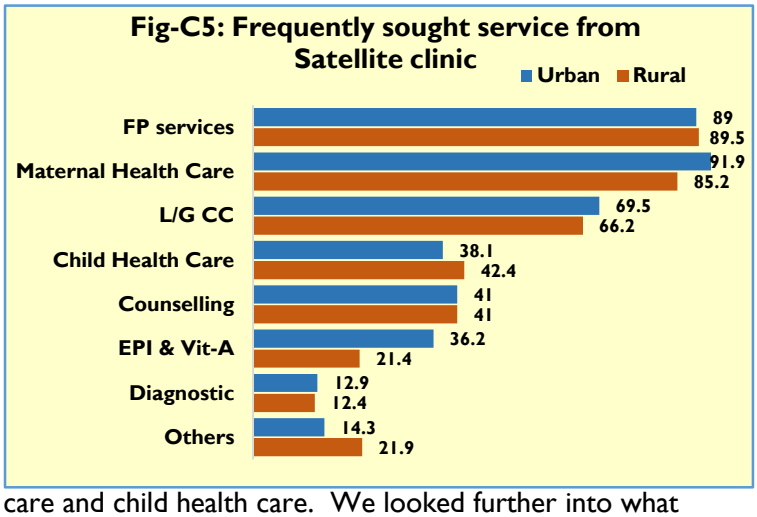


Table-C2: FP Services Sought by Client			
FP Services	**Urban**	**Rural**	**Total**
Oral Pill	88.7	86.6	87.7
Injectable	89.8	85.0	87.4
Condom	58.1	60.4	59.2
IUD	3.8	9.1	6.4
Implant	3.8	7.0	5.4

Among the maternal health services, most frequently asked common service included Antenatal Care (ANC), followed by tetanus toxoid, PNC and delivery related services. In the urban areas, tetanus toxoid service was more frequently sought than in rural areas.

Table-C3: Maternal Health Services Sought by Clients			
Maternal health Services	**Urban**	**Rural**	**Total**
ANC	88.6	88.8	88.7
PNC	39.9	34.6	37.4
TT (pregnant & non-pregnant)	37.3	20.1	29.0
Delivery service	20.2	20.1	20.2
Vaccination (without EPI)	9.3	7.3	8.3

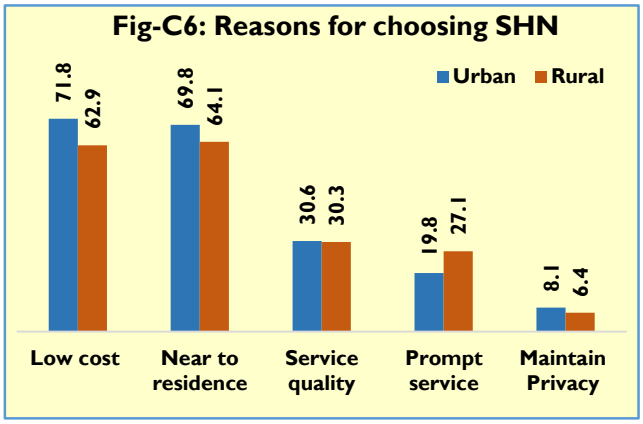
SHN has been a major service provider of EPI and Vitamin A supplementation under the government partnership program. The assessment revealed that overall 29 percent satellite clients received EPI and Vitamin A services in the last three months. Relatively less sought services included Diagnostic, TB, Obesity and Hypertension.

3.7 Reasons for Choosing SHN

Bangladesh health market is increasingly becoming competitive both in urban and rural areas. Clients, therefore, choose service providers to their comparative advantage and specific service needs. The survey found that SHN clients and non-clients also went to other providers and therefore, the survey tried to analyze reasons for why the respondents went to SHN clinics. The survey found five major reasons for the clients to choose SHN services:

a). quality of service; b). low cost; c). prompt service; d). privacy; and e) proximity. Among these reasons, low cost and proximity to their residence remained far more important than others.

Overall, low cost was the prime reason for choosing SHN as 67 percent of the clients mentioned it for choosing SHN, 72 percent for urban clients and 63 percent for the rural clients. Low cost was followed by proximity to residence which was mentioned by 67 percent clients with marginal variation between rural (64 percent) and urban clients (70 percent). About 31 percent clients mentioned service quality for their selection of SHN with no major variation by location. Again, 23 percent clients, 20 percent in urban and 27 percent in rural areas, cited "prompt service" for choosing SHN. Only very few (7 percent) clients identified "maintaining privacy" as a reason for SHN selection, with little difference between urban and rural locations.



3.8 Services Sought by SHN Clients

The assessment looked at the service-seeking pattern of the SHN clients. It revealed that about 95 percent of them relied only on SHN for family planning, maternal health and child health issues. This gave a notion of high degree of client confidence as well reliance on SHN for these services except for the limited curative care. It was observed that many satellite clients went to pharmacies (34 percent) and private service providers (32 percent) for limited curative care. Only 27 percent clients sought LCC services from SHN Satellite clinics. Clients had to rely on other providers more for LCC mainly because satellite services were available only after an interval which can't meet emergency service needs. Majority of the clients (52 percent) preferred pharmacy as they are easily accessible (pharmacy remains open for a large part of the day and are close to the community) and 24 percent for low cost. Some also mentioned welcoming reception as a reason for choosing pharmacy.

Tab-C4: Services Sought by SHN Clients (percent)

Service type	Service providers			
	SHN	GOB	Pharmacy	Others
FP service	96.0	2.0	-	2.0
Maternal Health	94.0	4.0	-	.0
Child Health	92.0	2.5	-	.0
Limited Curative Care	27.0	7.0	34.0	2.0

The assessment also attempted to understand comparative advantage of SHN and non-SHN clinics. It revealed that the main reasons for choosing other providers over SHN were service quality and equipment.

3.9 Other Service Providers in the Catchment Area

There exists a range of other health service providers in the SHN catchment areas with few exceptions. Oftentimes, their service basket is broad that attracts more client to their service delivery point. The survey found that there were no service providers but the SHN in nearly 5 percent catchment areas mainly in the rural areas though. Local pharmacies are considered as the major service alternatives for clients. Sixty-seven percent of the respondents considered pharmacies as alternative service providers – more in the urban areas than the rural areas.

This report already discussed earlier that the SHN non-clients gave higher value to service quality and medical equipment for choosing service providers. Other service providers had comparative advantage over SHN especially in these two areas.

The highest number of non-SHN clients sought treatment from pharmacies (47 percent) followed by MBBS Doctor (21 percent), GoB Centers (12 percent) and Private Clinic (11 percent) with marginal difference between rural and urban areas (see Table-B 12). Only a few people visited Homeopathy providers (4 percent) and Village Doctors (5 percent).

3.10 Proportion of Male Clients

Overall, about 19 percent patients are male. Interestingly, 43 percent of them were under 5-years of age, only 3 percent were adolescents and about 55 percent were adult. Proportion of male clients varies geographically - relatively more male clients were found in Rajshahi and Rangpur Divisions than other divisions; Sylhet Division was the lowest. The proportion of male was found more in rural areas than urban (55:45).

Fact about male clients

- About 19 percent of total clients are male
  - 43 percent - under 5 years
  - 55 percent - Adult
- More male (55 percent) in Rural areas
- More male in Rajshahi and Rangpur Divisions while less Male in Sylhet

3.10.1 Reasons for fewer male clients

A total of 56 percent of the non-clients are male in general and the well-off have a perception that the SHN services are meant for poor, female and children. Those who know availability of male services at the SHN clinics, find the services range too narrow for them to go and seek services. Many the SHN services are not appropriate for them, at least at the satellite spot; some static clinic services are more relevant. However, it is quite clear that a large section of male are not aware of the provision of male services at the SHN and many in fact have a wrong perception. Access to information in this connection is also limited.

Main reasons for less male clients

- Misconception/Social Stigma that the SHN satellite serves Female and Children
- Lack of Separate room and waiting facility for Male
- Males are hesitant to receive services from female providers
- Males prefer quality services over cost
- Limited services for male client
- Inconvenient timing for male (3 – 5 PM)
- Inadequate promotional activity to attract male client

Male's Expectations: Male service provider preferably Doctor, better seating facility and privacy, and service after 5 PM

Besides, males are found reluctant and uncomfortable to seek services from the SHN providers who are mainly female. They rather prefer male providers. Male clients are less concerned about cost and prefer to see a qualified doctor even if the cost is higher. The current satellite seating arrangement is major impediment for males to seek services from SHN service delivery points be that satellite or static. They prefer privacy and independent place to seek services. In addition, satellite timing is not appropriate particularly for a working male. Most male want the satellite clinic to continue services beyond 5:00; 56 percent in urban, overall 48 percent.

3.11 Quality of SHN Satellite Services

3.11.1 Day and location

SHN organizes day clinics at the community level to serve people of the community. A specific day is selected in consultation with the community and the clinic is held based on predetermined routine that may include a weekly, fortnightly, monthly interval.

The survey data revealed that most satellite clinics in the urban areas were held weekly (53 percent), followed by fortnightly (26 percent), then monthly (16 percent). Only 4 percent satellites in the urban areas were held more than once in a week. However, 54 percent clients preferred the clinics to provide services on multiple

Tab-C5: Existing and preferred frequency of organizing the day

Frequency of Satellite	Urban		Rural	
	Existing	Preferred	Existing	Preferred
Monthly	15.7	0	83.8	6.7
Fortnightly	26.2	9.0	15.2	25.7
Weekly	53.2	35.7	-	38.1
Weekly two-three times	4.3	54.3	-	29.6

days in a week while 36 percent expected to have the clinics provide services on a weekly basis, and none for a monthly clinic.

On the contrary, a little over four-fifths (84 percent) of rural clinics were held once in a month and the remainder (16 percent clinics) were held fortnightly indicating that the intervals (monthly and fortnightly) are relatively high in rural areas. However, clients shared their dissatisfaction to the long intervals and expected that the intervals to be reduced to shorter duration, preferably to weekly or bi-monthly.

The location of a satellite clinic is very important as it provides health services to the community people, especially, to women, children and the poor. Therefore, opinions about the existing location of the satellite spots was gathered and analyzed. Four-fifths (80 percent) opined that the current location was just right for them both in the urban and rural context. About 18 percent respondents wanted relocation of the satellite location mainly for their convenience such as seating arrangements, basic facilities and privacy. Distance was not at all an issue for the clients.

Table-C6: Clients' opinion on satellite spot location			
Location	**Urban**	**Rural**	**Total**
Just Right	79.5	80.0	79.8
Far from Client reach	1.4	0.5	1.0
Relocation needed	18.1	18.6	18.3

3.11.2 Source of information about SC and its services

SHN maintains regular promotional activities and campaigns to inform local people about its services and health awareness information. Campaigns are also organized to increase customer contacts and clinic sustainability. A range of communication methods and tools have been used to reach that goal. Choosing the appropriate promotional channel is crucial for communication and awareness success. It was evident from the client perception survey that clients received information about SHN satellite clinic and its services from multiple communication channels as depicted in the table (C6).

Tab-C7: Source of Information about satellite clinics			
Sources of Information	**Urban**	**Rural**	**Total**
CSP	53.8	78.1	66.0
Neighbor/relative/friends	66.2	62.9	64.5
Other clients	33.8	38.6	36.2
SHN staff other than CSP	42.4	21	31.7
Bill/ sign boards	16.6	17.6	17.1
Support group	15.2	16.2	15.7
Posters/ Leaflet	8.6	10.0	9.3
Miking	0.5	7.1	3.8

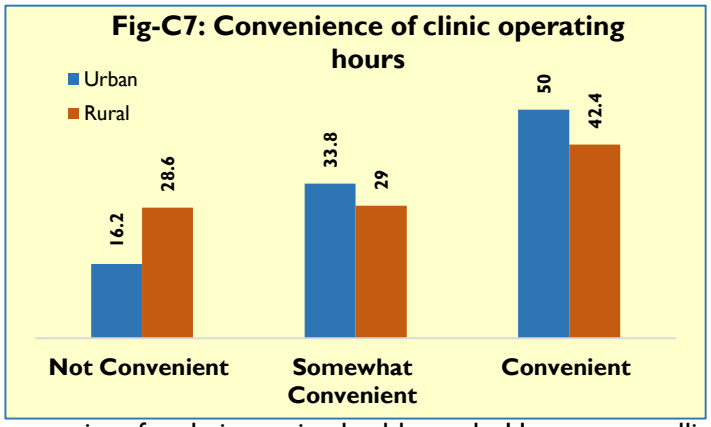
The survey found that two-thirds of respondents (66 percent) knew about satellite services from the Community Service Providers (CSP), as well as friends and relatives. SHN clients were also good sources for information dissemination. Other SHN staff had played important role in promoting satellite services. Overall, it was found that informal and face-to-face interactive communication played the most effective means to inform and aware the satellite services than relatively formal communication methods such as billboards, signboards, leaflets, posters and *miking*.

Most common service demands

- Diagnostic - USG and X-Ray (both rural and urban)
- Emergency Safe Delivery support (mostly from rural)
- Diabetic Treatment service (both rural and urban)
- Eye and ENT Treatment service (both rural and urban)
- TB Treatment service (mostly from Rural areas)

To understand urban and rural perspective in this regard, the assessment found that in urban locations, majority of people got information from their neighbors, relatives and friends. In rural areas, most people got information from CSPs followed by neighbors, relatives and friends

SHN satellites operate from 9:00 am to 3:00 with slight variations in both rural and urban areas. However, in distant locations clinic hours were shorter. This timing is essentially set with the general office hours of the SHN rather than customer suggested timing. The impact of convenient timing on client flow cannot be ignored. This assessment as well as other secondary assessment on service delivery project substantiates the importance of appropriate time convenience for patients. Therefore, the assessment tried to enquire how much convenient the existing satellite clinic hours was for Satellite clients.

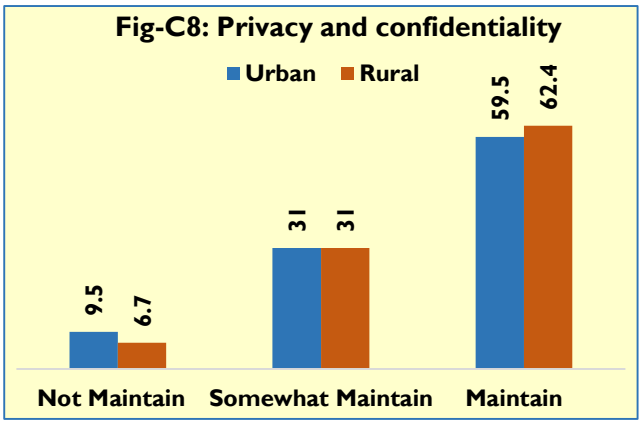


The assessment revealed that majority (see above graph) of the clients found the existing timings to be, in general, convenient for their routine health needs. However, satellite clinics were found not suitable for emergency health needs as only operates on a specific day or date. Similarly, existing operating hours were also found in convenient for male clients, particularly in the urban areas.

The assessment found that respondents did not wait for the satellite clinics for emergency needs. They often went to other providers as and when such needs arose. Hence, only general and routine health needs were met at the satellite. Indeed, most of the respondents found the existing time convenient. However, several male face difficulties to seek services during the current timing. Timing of urban clinics was more convenient to the clients than rural ones in terms of clinic hours.

3.11.3 Privacy and confidentiality

Health professionals are ethically obligated to protect patient confidentiality. Protecting private details of patients is not just a matter of moral respect; it is essential to retain trust between the service providers and the service seekers. Therefore, a health system with strong privacy mechanism promotes public confidence in the healthcare services.



The assessment found that nearly 60 percent of the clients expressed their satisfaction over privacy and confidentiality issues at the satellite center. Still a large section of the clients (39 percent) had expressed issues and concerns with the existing privacy practices while about 6 percent had expressed complete dissatisfaction. Physical setting and lack of necessary facility were the main reasons to compromise privacy requirements. Not much variation was found between rural and urban satellites in this regard.

3.12 Satisfaction on SHN Services

Customer satisfaction is a key to create long-term relationship with customers and ensure sustainability of the health systems. For sustained delivery of value for money, customer convenience and service quality are the key for customer satisfaction. The assessment used a set of parameters to assess customer satisfaction over the satellite services. It found that many clients expressed their satisfaction on the satellite services.

In particular, 82 percent clients expressed their satisfaction over attentiveness and service providers' behavior respectively.

Table-C8: Quality and Satisfaction rated by client			
Category	Not satisfied	Somewhat satisfied	Satisfied
Service availability	1.9	27.4	70.7
Service cost	8.1	21.9	70
Attentiveness of service provider	0.2	17.9	81.9
Information sharing	0.5	22.1	77.4
Behavior of provider	0.7	10.2	89

Seventh-eight percent of the clients were satisfied with information shared with them by the service providers, and 70 percent respondents were satisfied with the service cost.

Overall, about 80 percent respondents had expressed their satisfaction with the satellite services, though there were still issues that need to be addressed to ensure increase client satisfaction.

Government Officials' Perspective

- Fill in Government's service gaps especially in EPI and child health in rural areas
- Expressed concern on privacy in the satellite spots specially for FP and Maternal health services
- Satellite should focus more on reaching out to the unserved and marginalized group, not on revenue.
- SHN may focus on the static clinic and compete with the private service providers for financial sustainability
- SHN service providers' need to be at par with the SACMO and FWV.
- Improve coordination mechanism with the Government, and ensure accountability.

3.13 Sectional Observations and Recommendations:

Observations

- Though perceived quality is not a significant issue in rural and urban areas, the diversification of the services sought and client's type (in terms of gender, and income status) seem to be an issue. Family planning, limited curative care, maternal care are three common services sought. While these services are valuable if we consider the social impact, these are not revenue generating.
- The lack of adult male is a potential missed opportunity. As previously discussed, there are several reasons for this such as no male doctor, no privacy, not having the satellite in the convenient time. The most important issue, however, is a persistent misconception regarding the services availability. Many males perceive that spots are only for female and children. In order to increase diversity of clients, this issue should be addressed.
- The frequency of the spots especially in the rural areas is one of the concerns raised by the clients.
- A significant number of SHN clients and non-clients still prefer pharmacies as their providers. Now, if it is due to non-availability of spots when needed, then it is understandable. However, if the clients perceive the quality of service provided at the spots are not significantly better than the service provided at the pharmacy, then it is of a great concern.
- CSPs, neighbors, residents of satellite spots and existing clients are observed as main vehicles to promote satellite services in the community. Community Support Group are not found pro-active in the catchment areas.

Recommendations

Quick-fix:

- Strengthen mobilization and promotional activity targeting male clients. Use massages that clarify satellite services to the male. Address male's concerns within the existing satellite structure.
- Increase satellite sessions in rural areas which are within 10 Kilometers to fortnightly from existing monthly sessions.
- Keep at least one experienced and qualified paramedic or Sub-assistant Community Medical Officer (SACMO) in each team

Longer-term:

- Collect personal contact information of non-clients in the spot adjacent areas and organize targeted motivational campaign using a call center. Existing clients can also be reached through the call center services.
- Bring doctor periodically/occasionally at the satellite spots to enhance confidence of the clients in the satellite system.
- CSP can have some stock of essential medicine with necessary training for ESP/LCC – so that patients could chose them instead of going to a pharmacy.
- CSPs capacity could be strengthened to promote SHN health service in the community.

Good Performing Rural Satellite
Rural satellites are quite spread out and cover as far as twenty Kilometers from the parent static clinic. They serve a significant population in rural catchment areas attracting more economically middle-class clients. Community clinics have some distance making satellites dependable source of health services for the rural people who have few alternatives around. Satellites operate monthly or fortnightly basis. More experienced Paramedics and local active CSPs operate rural satellites. They enjoy better rapport with the community and get more support. Spots are more spacious, mainly at household premise, and have better amenities, privacy, and client facilities. Rural satellites receive more ANC and FP clients; carry adequate medicines and FP materials; conduct pregnancy and diabetic tests. Customers generally expressed high satisfaction with satellite services except about more frequent sessions – some with the Doctors.

Section D: Cost Benefit Analysis

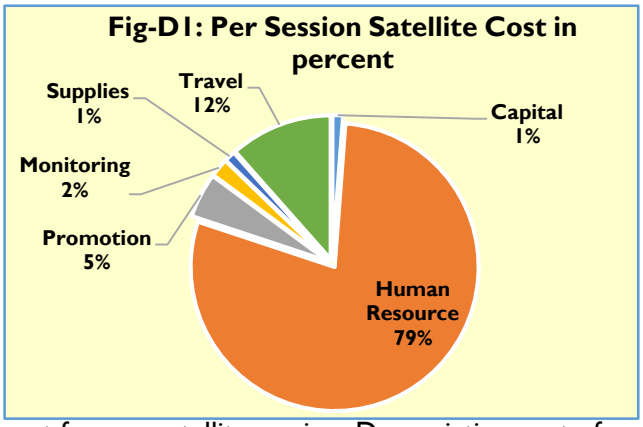
4.1 Cost Benefit Analysis

Advancing Universal Health Coverage (AUHC) Activity moves towards establishing the Surjer Hashi Network (SHN) to ensure sustainable health services at the community level. This assessment has attempted to conduct cost as well as economic analysis of satellite operation to assess viability of community level satellite clinic as a sustainable mechanism to ensure last mile health solutions. Special attention has been given to double bottom line that not only looks at the financial condition but also gives importance to health outcome as social good. Following section provides the detail.

4.2 Cost Analysis of Satellite Operation

Satellite clinics are an integrated part of SHN service delivery mechanism. It essentially uses the human resources, logistics and management of static clinic to deliver/extend community level services via satellite spots. However, additional local resources are also hired for operation of satellite spots. The assessment attempted to analyze the costs of spots and its implication on sustainability and social impact.

Fig-D1: Per Session Satellite Cost in percent



Satellite cost structure includes service providers salaries, travel, supplies, promotional activities, capital cost (equipment), and management including monitoring. The assessment used static clinic's financial statements to calculate total cost for one satellite session. Depreciation cost of capital items and partial cost of management were calculated to arrive at per session cost. Based on the most accurate cost estimate, per session cost of a satellite session has been calculated at BDT 1,602, where BDT 1,476 in urban areas and 1,746 in the rural areas (see Table-D1). Costs of rural areas were found to be high mainly because of higher number of service providers and more service promotion costs. Higher salary cost has been attributed to high salary level of the service providers mainly due to their longer service life with the SHN. Other costs were not much different although relatively high in the rural areas.

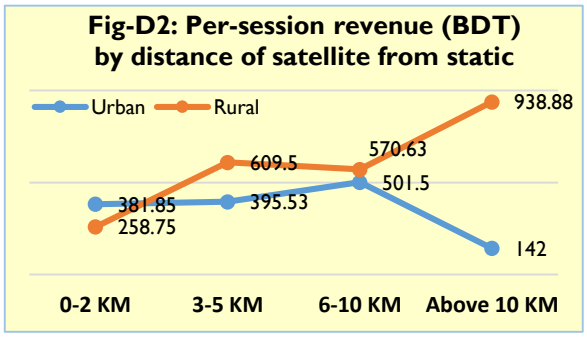
An analysis of the costs suggest that salary and remuneration constitute 79 percent of the total cost, followed by travel, which was 12 percent of the total cost. Promotional cost was about 5 percent of the total cost. It is worth mentioning that service promoter remuneration is included as service providers cost. The travel cost was higher in the rural areas, for in rural areas often longer distances was needed to travel to cover remote and hard-to-reach communities usually at the direction of the government.

Ingredient approach of per session cost

- Identifying the ingredients and then
- Quantifying and pricing them, and
- Ultimately estimating the costs.

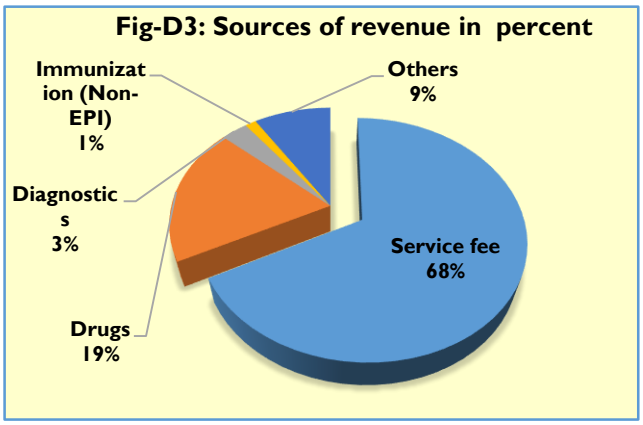
Cost of human resources is calculated based on the annual salary and benefit package of Satellite team. Then these costs are divided by the total number of sessions to assess per session human resource cost. Similar approach is used to estimate the costs from other inputs

A further analysis of costs revealed that the main satellite costs were rather fixed with very little management discretion to trim them downward. Efficacy of promotional expenses may be evaluated as to how it impacted on the client flow. Travel costs reductions will not be possible particularly in the rural areas, as the government has mandated most satellite spots.



4.3 Revenue Analysis of Satellite Operation

Satellite services bring revenue to the SHN though some services are provided free to the poor people. Main sources of revenue are service fees, medicine sales, diagnostic test fees, non-EPI immunizations, and other things such as registration fees. SHN service statistics suggest that on an average one satellite session generated revenue of BDT 545, where BDT 708 in the rural areas, and BDT 402 in the urban areas. Service fees brought about 68 percent of the satellite income followed by profits from medicine sales (19 percent). Diagnostics generated about 3 percent, and other sources like registration and other services generate about 9 percent of the satellite revenue.



The assessment found that there was a correlation between distance and revenue. Meaning the longer the distance of satellite spot from the static clinic, the higher the revenue though additional travel costs were incurred for long distance satellite spots. This correlation was much stronger in the rural context than in urban areas. Indeed, distant satellites in the urban satellite draw fewer clients, thus generate significantly lower revenue.

4.3.1 Session frequency and revenue

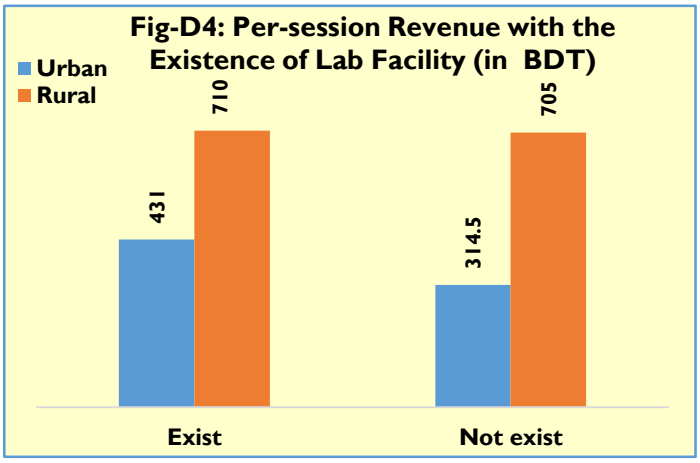
The assessment looked at the consequence of session frequency on revenue. In urban areas, weekly sessions brought the highest revenue per session of BDT 540, whereas monthly sessions brought only BDT 243. Conversely, bi-monthly sessions in the rural areas generated BDT 807, whereas monthly session generated only BDT 693. This pattern corroborates client's opinion to increase satellite frequencies to serve their needs better so they do not go elsewhere for regular health needs.

4.3.2 Satellite distance from static and revenue

The assessment found a positive correlation between service contact and the distance between satellite and static clinics. Likewise, the assessment observed that distance had a positive relation with revenue earnings. In rural areas, there was a gradual increase of revenue as the distance increases. However, in urban areas, revenue declined where distance was more than 10 Kilometers from the static clinic.

4.3.3 Diagnostic facility and revenue

Diagnostic capacity is an important element of SHN satellite clinics. It does not have any mobile diagnostic capacity other than reagent-based blood-grouping, Kit based diabetic and pregnancy test facilities.



The assessment team found that 75 percent of urban spots against 71 percent of rural ones had diagnostics facilities. The assessment attempted to investigate the impact of diagnostic facilities on revenue earnings of satellite spot. It was evident that irrespective of satellite spots, a positive correlation prevailed between the existence of diagnostic facility and revenue generation. Overall, the assessment had found a 10 percent increase (BDT 510 with no diagnostic and BDT 557 with diagnostic) in revenue earning where diagnostic facilities existed. The impact was more apparent in urban areas than the rural.

4.3.4 Service specific cost and revenue

The assessment attempted to estimate the service cost and corresponding revenue earned for selected satellite services. Regardless of service type, cost recovery was higher for rural spots than their urban counterparts. Service-wise cost – revenue gaps for diabetic test was found to be minimum. Cost recovery was found lowest, only 10 percent, for FP services irrespective of spot location. This is probably due to the fact that cost of human resource is involved in FP counselling activities. In ANC, cost recovery (39 percent) was found higher in urban than rural (29 percent) spots.

Table-D1: Cost and Revenue by Services

Services	Urban			Rural		
	Cost	Revenue	Recovery (%)	Cost	Revenue	Recovery (%)
ANC	41	16	39.02	61	17.5	28.69
LCC	77	5	6.49	94	10	10.64
FP Counselling	100	9.65	9.65	120	11.33	9.44
Diabetic cost	36	40.5	112.50	57	50	87.72

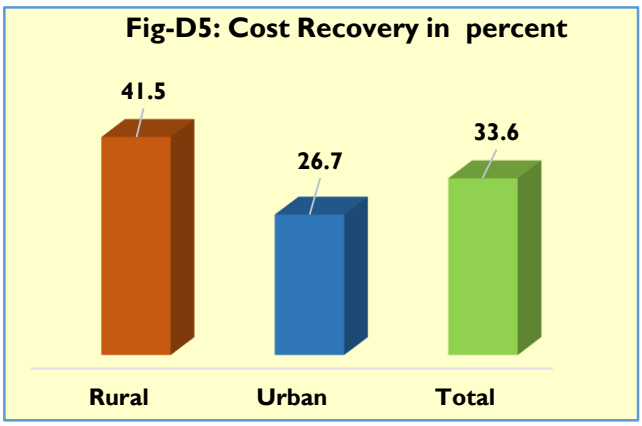
4.4 Satellite Sustainability

4.4.1 Cost recovery analysis

For the purposes of this assessment we defined cost recovery as the percentage of cost recovered from revenue collection. Earlier, the survey found that the average cost of one satellite session was BDT 1,602, while revenue for the same session was only BDT 545. Overall, cost recovery had been calculated at 33 percent, it was 42 percent in the rural areas and 27 percent in the urban areas.

The assessment attempted to analyze the cost recovery situation of studied satellite spots. Only 27 percent were found to have a recovery rate of over 40 percent, while just 50 percent clinics have cost recovery rate ranging from 21 to 40 percent. Surprisingly, only 3 percent clinics have over 80 percent cost recovery (ref. Annex D-2)

Cost recovery in the urban areas was much lower than the rural areas though urban satellite operation cost was lower. This raises the serious question of financial viability of urban satellites. Urban satellites brought only 35 service contacts in a session while the rural ones brought about 46 service contacts. Choice of services had been much higher in the urban areas, only 6 percent clients go to the SHN satellites as opposed to 11 percent in the rural areas. In other words, urban satellites used to face much more competition than the rural satellites, hence, cost recovery from price correction measures might not be a very viable options with the existing level of services even though SHN has a price advantage over other NGO and private sectors, but not over the government services. On the contrary, rural satellites had much higher cost recovery that serves a lot more poor people, and encountered much less competition than their urban counterparts. All in all, rural satellites are better positioned from the cost recovery and economic viability perspective. Next section of the report will deliver more on the economic viability of the satellites.

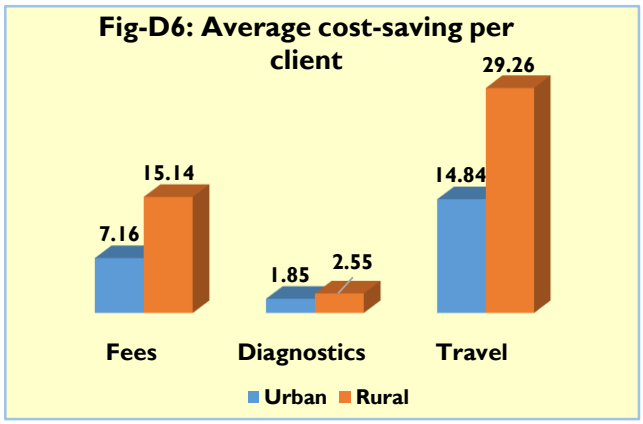


The revenue or benefit of the spot comes from service fees, profits from drug sales, (25 percent is assumed), referral benefit (assuming 10 percent mark-up), and fees for selected services, and fees for registration. Like the costs, we also noticed larger variations in revenue collection from the spots that ranged from BDT 120 to BDT 1,547 with standard deviation of 351.

4.5 Social Gains from Satellite Services

4.5.1 Cost savings for community

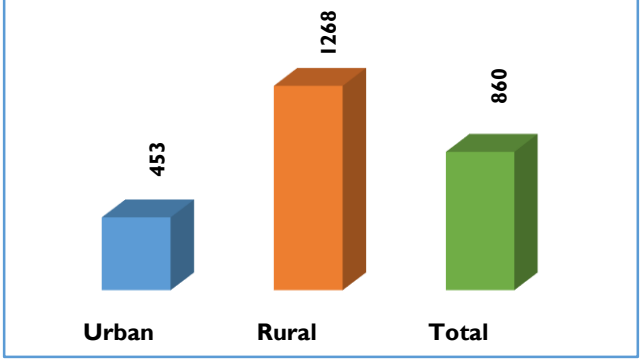
Satellite clinics provide easy accessibility to basic and primary health care at a much lower cost than other available services. This ensures cost savings for the clients, which they may have to incur should they go to other service providers. Specifically, cost savings come from three sources. First, savings comes from lower medical cost including service fees and diagnostic cost. The assessment observed that the medical cost of SHN are lowest among all private providers including NGO services. They are higher than the government clinics. However, major savings for the clients comes from travel and transportation costs. As the satellite services are provided within proximity to the clients' home, they do not need to travel and incur out-of-pocket travel costs. The assessment had monetized cost savings from the three direct sources and found that the clients saved from a 50 percent to 100 percent[7] costs through by using SHN satellite service. Time spent for medical services to get from other providers were not taken into consideration in the cost savings, mainly for data accuracy and authenticity. This, however, has relevance to the social benefit to the clients.



[7] Some low-income patient claimed that they received the service free of costs at the spots and since the spots were close their house, there was no travel costs. Hence, it was 100 percent cost saving for them compared to what the service would cost if the service would have been sought from elsewhere

Cost savings might have a huge influence on the client's health seeking behavior. The assessment did not particularly look at this issue though clients' willingness to pay suggest that many of the clients might not seek basic and primary healthcare anticipating a much higher out-of-pocket cost. Similarly, potential health outcomes from the SHN satellite service is hard to measure though its impact could not be overemphasized.

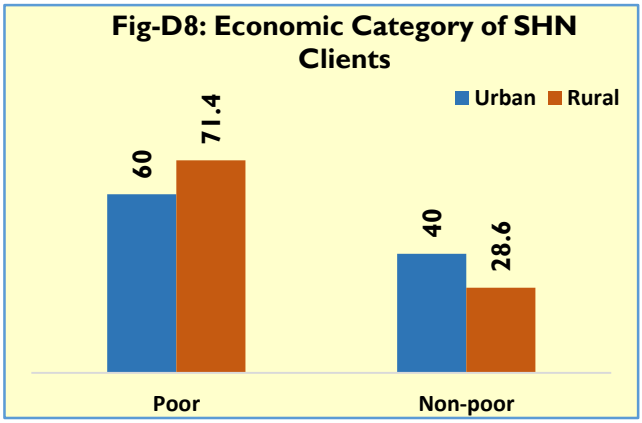
Fig-D7: Cost Savings for Community



Savings from the travel cost is the main source of cost saving for the rural areas. Earlier in the report, we found the cost as well as revenue for each satellite session. Similarly, cost savings had been calculated through multiplying average cost saving per client with average client flow per session. Per client cost saving was higher in rural areas than that of urban areas. This suggested that the community on average saved BDT 860 for each satellite session, as high as BDT 1,268 for the rural areas whereas only BDT 453 for urban areas. Indeed, clients saved more than they actually paid to the satellites. On average, communities paid BDT 545 for each satellite session while they saved BDT 860 from the services rendered in that session.

Now, the second bottom line of SHN's goal is to provide services to the underserved communities especially to the poor. Services provided to the marginalized communities, in percentage terms, were found to be quite high in some spots, but large variation were also noticed across the spots.

Fig-D8: Economic Category of SHN Clients



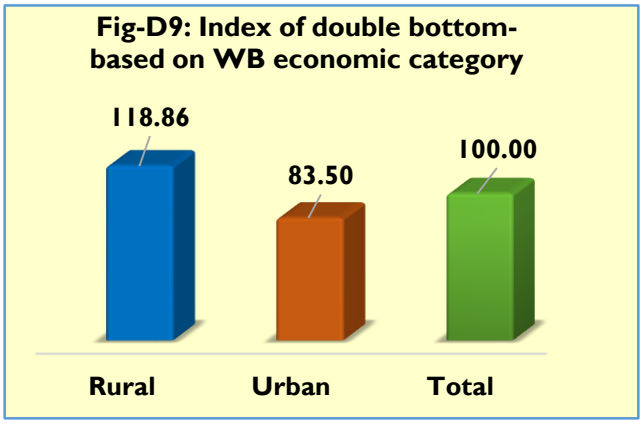
Cross subsidization used to be a good strategy where it was possible to attain sustainability. The assessment found that two-thirds of the clients are poor and thus unable to pay that may help satellites create break-even, let alone margin. Therefore, satellites need to attract high-income clients who are willing to pay more for the service. Currently, a little above one-third (35 percent) clients are from non-poor group. Variable pricing may be tried out for this group to recover full cost (if feasible) of services but ensure that the price remains competitive to the market condition.

NGO's perspective towards SHN satellite

- SHN is very instrumental to enhance health awareness and health seeking behavior among the community people and assists government to expand EPI and vaccination.
- BRAC has a number of competitive advantages over SHNs as BRAC provides door-to-door services – a further extension of satellite services. In addition, BRAC provides free medicine as opposite to selling medicine to the clients (by the SHN).
- One of the shortcomings of Satellite spot has been, it runs in long gap – sometime 30 days. People often do not return to the SHN rather they go to other clinics for service needs.
- Absence of pathological and lab facilities make SHN less attractive to the prospective clients.

4.6 Index of Double Bottom[8]

The concept of double bottom line is often used in social business model and other forms of public investments that not only generate cash flows but also deliver strong social good. Viability of such action is measured not only from the financial returns rather on the financial and social returns together.



The assessment has used multiple variables such as percent of cost recovery as indices of financial sustainability to draw the double bottom line; percentage of low-income population served and then used weightage to draw a double bottom line index. As with the importance to project results, cost recovery has been given 75 percent weight, while poor population served has been given 25 percent weight. Average of rural and urban is used as a base, that is, the index value of 100 indicates the spot is performing as the average spots. Any score higher than 100 means the particular spot is high performer in meeting the criteria of double bottom. Similarly, lower index value than 100 will imply low performer than the average.

The graph summarizes the results. Rural areas had higher index value than the urban areas indicating that rural satellites stood higher in double bottom line goal mainly because rural satellites achieved higher cost recovery and served more poor people. In other words, combining rural and urban, with an overall base of 100, double bottom index for rural is 119 indicating the spots in rural areas accomplished the double bottom objectives more. In contrast the spots of urban areas had a lower than 100 score (which was 84) indicating their low performance. Therefore, the composite measure for the extent of poor people served and revenue generated, showed that rural spots accomplished their mandates more effectively than the urban ones. In that direction, rural satellites exhibited better viability and impact.

If we compare the findings with similar studies conducted elsewhere, we observe a strong similarity. The top three services sought at the satellites have been very consistent with the assessment conducted in Uganda (Mulogo et al, 2013[9]). Average cost of the services estimated in the current studies were lower compared to costs estimated in a similar assessment conducted under NSDP in 2007. In other words, cost of services had reduced over the years meaning that SHN had gained efficiency over the years.

4.7 Sectional Observations and Recommendations

Observations

- Since human resource costs are the lion's share of the spending, SHN may reconsider the number of persons needed in a spot team; in many spots, there are four members, which may be revised to keep team within three members.
- On one hand, the purpose of the spots was to serve marginalized communities and people of hard-to-reach areas even that is not achieved in many satellite spot areas. parts of the assessment reveal that a smaller number of patients in an area where competition is stiff, and where the high-income people live. Hence, instead of having certain number of spots under one static clinic, SHN can focus on the having the more satellites in places where patients flow are high and service contacts are within an acceptable range.

[8] Calculation procedure is presented in the Annex-3

[9] Mulogo, E M, V Batwala, F Nuwaha, a S Aden, and O S Baine. 2013. "Cost Effectiveness of Facility and Home Based HIV Voluntary Counseling and Testing Strategies in Rural Uganda." *Afr Health Sci* 13 (2): 423–29. https://doi.org/10.4314/ahs.v13i2.32.

- Maternal health, FP services and limited curative care dominate the service contacts that demonstrates that there is a lack of service diversity. Therefore, there is a potential for increasing and diversifying SSN services offered.
- There are substantial variations in the cost of promotions, and travel. The variation in travel costs is justified because of distance and transportation facility may affect the costs. The variation in the promotional costs, however, can be revisited. SHN may consider providing specific guidelines that will help contain and standardize costs.
- Spots that attract more non-poor clients contributed to higher cost recovery. It was observed that, in urban areas, spots served more middle class (HBC clients who enjoy partial discounts) resulted higher cost recovery; while in the rural areas, higher cost recovery was attained where more well-off people received satellite services.
- Based on the qualitative studies, we find that there is some misconception with regards to the services available at the spots since most people think the spots are confined to females and children only. Moreover, the sources of revenue are mostly from service fees and profits from drug sales. Hence, SSN may focus on alternative and other revenue sources.

Recommendations

Quick-Fix

- Reconfigure satellite team with reduced staff, not more than three persons particularly in low performing satellites.
- Increase service price for the able to pay customers and ensure that their service expectations are addressed

Longer-term

- Effectiveness of ongoing promotional activities needed further review. Give priority to the cost-effective promotional activities at the community level.
- Introduce business planning at the satellite level with clear service delivery plan/target, customer mix (poor and non-poor) and cost recovery plan.

Good Performing Urban Satellite
Urban satellites are distinctively different from rural ones and operate mainly within five Kilometers of the parent clinic. However, due to high urban population density, SHN serves quite a significant population through satellites. Urban clients have more options for services and therefore, satellite attract fewer clients mainly the FCCs though sessions are held more frequently, weekly or fortnightly basis. Urban satellites are operated by less experienced Paramedics and local CSPs. Their rapport with the community are not as strong as in rural areas. Urban spots are mainly at vacant factory/market place, community centers or places provided by NGOs or local community. Amenities are generally insufficient and not comfortable concerning privacy issue though have better seating arrangements for clients. Clients mainly come for ANC, FP and child health and lot of referrals are made to SHN EmOC clinics. Satellites carry adequate medicines and FP materials; conduct pregnancy and diabetic tests. Client expect doctor service at the satellite.

Section E: Overall Assessment and Recommendation

5.1 Overall Assessment

The assessment findings clearly showed high level of relevance and effectiveness of satellite services in the current context. Overall, satellite clinics are making a positive contribution in advancing universal health care to the marginalized communities in general and the poor women and children who need these services most.

Satellites have problems and limitations including many satellites are too close to the static clinics especially in the urban areas. Utility of such satellites needs further scrutiny. On a comparative note, rural satellites have better cost recovery and serve more people, including the poor. Quality, reliability and privacy were seen as major issues satellites are currently facing. Many satellites lack basic physical settings and medical equipment to deliver quality services. In addition, current team compositions of satellites are too heavy in relation to the services rendered.

Financial sustainability of the satellites will be a goal miles away from what they are currently doing. However, it does not preclude the fact that SHN can save from satellite operations and thereby improve cost recovery on the one hand and may explore increase revenue through price adjustments with better quality assurance on the other.

5.2 Main Recommendations

Assessment findings were presented in separate sections with short and long term recommended improvement suggestion. While accumulating and putting the results, key research questions were focused and addressed. Considering section-wise recommendations, we came up with the following final set of suggestions:

- Relocate or close-down satellites that are too close to the parent static clinics; integrate close-down satellite services with the static clinics. Roughly 20 percent urban satellites and 5 percent rural satellites may fall in this category.
- Current business/function model of the satellite needs a review. A quasi experimental trial could be designed with 10 - 20 low and mid performing satellites involving rural and urban spots to explore feasibility and sustainability of a new business model. The model should be based on a reduced team, improved physical amenities and privacy but with higher price tag for the able-to-pay clients.
- SHN should continue satellite approach of delivering services with diversified service provision and deploying qualified service providers taking into account heterogeneity of the satellite clinics.
- Conduct a thorough opportunity mapping for the rural and remote satellite spots to further assess their viability in terms of health outcomes and financial sustainability.
- Satellite spots could be segmented. This segmentation could be based on both revenue prospect and health impact. Instead of generalized business plan, SHN can adopt separate plan for each cluster of satellite clinics.
- Prepare business plan for each satellite spot with special focus on monitoring. Customized data tracking system for satellite with central management of data would improve monitoring system, thereby increased revenue. This will also allow take data driven decision.
- Review communication and business promotion strategy to ensure that the promotional activities are directly related with increased client flow.
- Establish direct communication and help line with the clients via call center as most clients now have mobile phones. This should be included in the promotion and communication strategy.