HDFC BANK PARIVARTAN
A step towards progress

Impact Assessment of Rural Health Infrastructure Project (RHIP)

A Study Report

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Partners in Social Development

Impact Assessment of Rural Health Infrastructure Project (RHIP)

A Study Report

Project ID	C0113-22

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Abbreviations

BiPAP	Bilevel Positive Airway Pressure
CPAP	Continuous Positive Airway Pressure
CSR	Corporate Social Responsibility
CT Scan	Computed Tomography Scan
ER	Emergency Room
HFNC	High Flow Nasal Cannula
HFNO	High Flow Nasal Oxygen Therapy
ICU	Intensive Care Unit
NGO	Non-Government Organization
MoU	Memorandum of Understanding

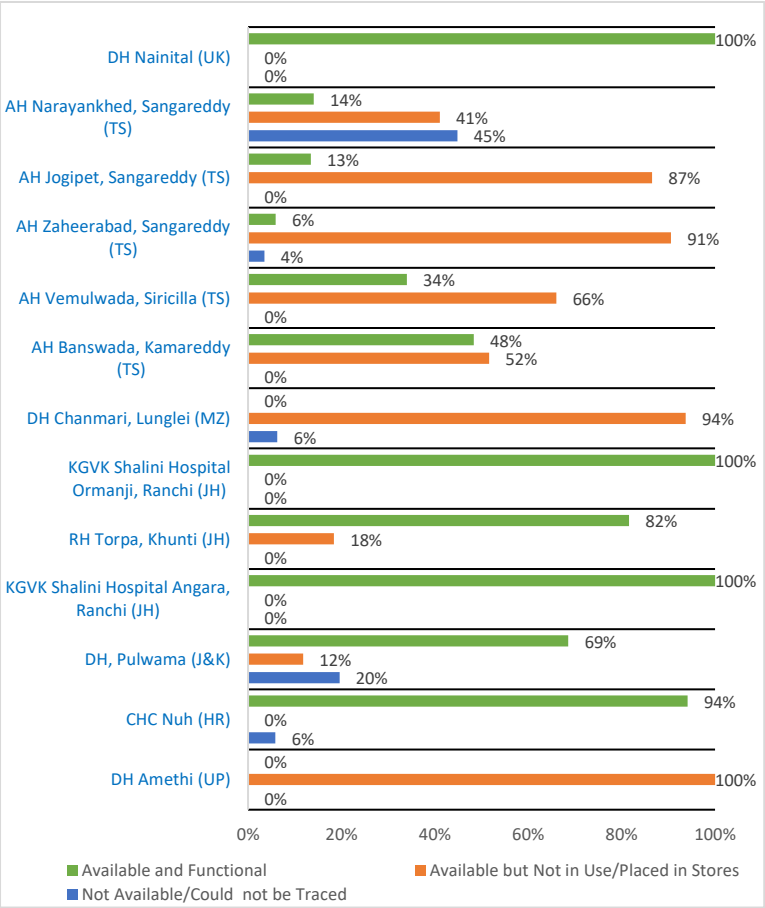
Executive Summary

During 2020-21, the two rounds of COVID-19 highlighted the need for several critical equipment, particularly among the government hospitals in remote rural areas of India. Due to the lack of these equipment, many patients had to travel long distances to district and super specialty hospitals not only created financial stress on the patients but also an additional burden on these hospitals. HDFC Bank CSR Parivartan, in partnership with Give India and Doctors for You decided to strengthen the available facilities at 15 such rural hospitals across 7 states of India. Doctors for You conducted a quick needs assessment with these rural hospitals and curated the support, addressing the specific needs of each of these hospitals. A grant worth INR 8,68,58,226 was sanctioned by HDFC Bank CSR under Parivartan to procure and provide these equipment and supplies to the identified rural hospitals. **The primary purpose of the grant was to provide infrastructure strengthening for the selected hospitals to improve the type and quality of services they provide and make them ready to face any future emergencies like COVID-19.**

HDFC Bank CSR Parivartan recently conducted the impact assessment of the grant to assess the extent to which the grant has served the purpose, i.e., strengthening these rural hospitals' capacity to manage critical patients. Of the 15 hospitals that received the support from HDFC Bank, 13 were physically visited to ascertain the extent to which the grant's objectives have been achieved.

The assessment findings concluded that almost 60% of the equipment provided to these 13 the identified hospitals were in working condition and were in active use for the patients. Five of these hospitals were effectively using all the equipment they received through these grants.

Percent Utilization of Total Cost by Hospitals



During discussions, all the doctors and administrative staff of the hospitals were highly appreciative of the equipment and supplies they have received through the grant. They acknowledged the needs assessment carried out by the team of Doctors For You and confirmed the usefulness of these equipment provided to them.

Some of the high value equipment including a Dexa Scan and CT scan at Pulwama (J&K) and a CT scan at Nainital (Uttarakhand) are currently serving the patients. The high demand for these CT scan services among local patients and the non-availability of these equipment in government facilities have led to their effective utilization and patients are also benefitting, financially. In terms of cost savings due to the availability of Dexa scan and CT scan at

Pulwama Hospital in J&K, patients have saved over INR 15 Lakh in 12 months of operation, just on the cost they would have paid in a private facility. In addition, these patients have been able to save on the transport and other costs that they would have incurred to access these services from far-off places, along with the wage loss.

To address the issue of shortage of trained human resources and regular maintenance of CT scan equipment, Doctors For You had signed a partnership MoU with the district hospital where a nominal user fee is charged from the patient which is used for the salary of the trained technician that operates the CT scan, fee for the consultant radiologist for preparing e-report and consumables, which is managed jointly by the hospital administration and Doctors For You.

During the assessment, it was observed that about 28% of the equipment supplied to all 13 hospitals were not currently in use and generally, these were largely lifesaving equipment including ventilators (transport media and others) and defibrillators. The primary reason for these equipment not being in use was that most of these hospitals were secondary-level hospitals at the district or block/tehsil level and not fully equipped to handle critical cases that needed ventilators or defibrillators support for the patients. In many such instances, the hospitals may not have specialist doctors to handle such emergencies and were therefore referring these cases to specialist hospitals at the district level or the nearby metro cities where super specialty hospitals like medical college hospitals are available. However, these rural hospitals have confirmed that with the availability of these equipment, they are now fully equipped and ready to handle any COVID-19-like emergencies in future as the specialist doctors and other human resources can be arranged at a short notice with the help of district and state health administration.

During the assessment visits, in 5 rural hospitals, some of the equipment could not be physically verified as the concerned staff were not aware of the storage location. The records with Doctors For You confirmed that these equipment were delivered/handed over and the hospital staff also confirmed receiving these equipment. Upon further enquiry, the hospital staff believed that these equipment were likely shifted to the associated Primary Health Centers, as these may have been requested for those centers. As these were not entered into the hospital store records and the store in-charge had changed (in all 5 hospitals), documents related to these transfers could not be verified.

Medical Superintendents interviewed during this assessment were of the opinion that the support received by their respective hospitals was quite relevant and was essential to improve the quality of patient care in their hospitals catering to a large population. With the addition of advanced and high-quality machines, all the hospitals have gained popularity and recognition among people as equipment such as ventilators, BiPAP, CPAP, suction machines, and HFNCs are now available. During the COVID pandemic, when these were not available, they were not able to serve their patients as much as they wanted to. These HDFC Bank supported rural hospitals are now fully strengthened to provide quality care services for the effective management of patients and cater to emergent needs such as life support systems (HFNCs and ventilators), suction machines, ECG, BiPAP, CPAP, Dexa scan and CT scan.

One of the major support from HDFC Bank received by many of these rural hospitals was ICU beds/fowler beds with automatic functions. The support has enhanced the bed strength as well as strengthened the ICU set-up. The same holds true for the bedside monitors that enhanced the capacity of ICU ward set-up mainly used for the monitoring of patients' vitals while treatment is being provided. All these rural hospitals perceived that their hospitals have become ready for managing emergencies in future. Due to the equipment and items support, patients get services at the reduced rates/fees as compared to the private service providers in an around their hospitals. Also, since most of these facilities are in rural or peri-urban areas, patients now save the cost of travel to distant locations, which is an additional benefit to them.

At J&K, the availability of an ambulance with Advanced Life Support (ALS) (including ventilator and multipara monitor) is capable of providing transport facility to severely ill patients as well as referrals to other higher apex hospitals in Srinagar. This being the only ALS in the hospital, can be of immense use for critically ill patients, once this gets operational.

It is recommended that the Doctors For You team take note of equipment currently not in use at these hospitals and re-assess their utility at these hospitals. In consultation with these rural hospital authorities, they can consider transferring these equipment to other associated hospitals where these can be utilized appropriately.

Chapter 1
Introduction

1.1 HDFC Bank CSR – Parivartan Program

HDFC Bank helps in transforming the lives of millions of Indians through various social initiatives, carried out as part of their CSR initiative named HDFC Parivartan. Parivartan aims to contribute towards economic and social development by empowering its communities and ensuring sustainability. The Parivartan program has been a catalyst in making a difference in people's lives through its interventions in rural development, education, skill development, livelihood enhancement, healthcare and hygiene, and financial literacy. Under Parivartan, social initiatives are delivered through financial support provided to several NGOs for implementing projects across the country, on various thematic areas prioritized under Parivartan.

1.2 Rural Health Infrastructure Project

In 2020-21, the COVID-19 second wave created a crisis for ICU Beds and the need for oxygen support as critical life support emerged and the requirement for such increased both in private and public sector hospitals. During the pandemic phase, there was an increasing number of cases and there was a dearth of availability of ICU beds and utmost need for oxygen support. In such a situation, hospitals were struggling and felt the need for themselves to become adequately equipped to manage and effectively treat critical patients. Moreover, there was a gap in the availability of infrastructure between rural and urban sector healthcare facilities.

To meet this requirement, HDFC Bank under its Rural Health Infrastructure Program under HDFC Parivartan supported the infrastructure of the Government Hospitals by providing ICU-related infrastructure as well as hospital-related equipment. This was undertaken to strengthen the Rural Health Infrastructure and narrow the urban-rural healthcare disparity across 8 states of India. Through this HDFC-supported project, Give India partner 'Doctors For You' increased the capacity of paediatrics, gynaecology, radiology, general surgery and emergency medical services of 15 government hospitals in rural parts of 8 states of India.

1.3 About Give India

Give India[1] (Give Foundation) works to alleviate poverty by delivering impactful social initiatives in India. Established in 2000, Give India motivates individuals and institutions to choose causes, donate funds to these causes and then deliver programs, on their behalf, with high-impact outcomes across India. With a strong network of partners and a vast geographical presence, Give India brings people and organizations closer to realizing a poverty-free India. Give India offers its support through a network of non-profit sector organizations.

Give India secured funds for the procurement of equipment from HDFC Bank under the Rural Health Infrastructure Project (RHIP), which was managed by Give India's partner NGO, Doctors For You (DFY). DFY played an important role in the procurement, examining the quality, usability, and cost-

[1] https://www.giveindia.org/aboutus#aboutus

effectiveness of the procurement in order to deliver as much equipment to the hospitals as possible in order to meet their demands.

1.4 Doctors for You

Doctors For You (DFY)[2] started as a platelet donation and awareness drive to manage the outbreak of Dengue, Leptospirosis, and Malaria in Mumbai in 2007. Over the past 16 years, DFY has established itself as an organization with the technical capacity to respond to different types of humanitarian crises and as the leading medical humanitarian organization in the country.

The DFY exclusively works in the field of general healthcare services including:

- public health
- emergency response
- rehabilitation projects
- training and capacity-building programs
- research studies

Currently, DFY works in more than 18 states in India and has vast experience working in disasters such as floods, landslides and earthquakes, with a focus on addressing the medical, public health and nutritional needs of the affected population.

1.5 Need for the Study

In an attempt to learn about the efficacy of the financial support provided by HDFC Parivartan, HDFC Bank intended to carry out the impact assessment of the project, with the aim of assessing the extent to which the project was able to expand and strengthen the service delivery of the hospitals, in the best interest of patients. IMPACT PSD Private Limited was given the task of conducting the impact assessment and reporting to HDFC Bank with recommendations for the future.

1.6 Specific Objectives of impact assessment

The assessment was designed to accomplish the following objectives:

- How effective was the strengthening of rural health infrastructure such as ICU equipment, other equipment, and transport vehicles?
- To what extent health infrastructure support could provide essential care and services during the pandemic time as well as thereafter.
- How the COVID support helped the hospitals in preparing to cater to the needs of patients and the type of load they can handle
- What mechanism has been adopted for the maintenance to sustain the effective functionality of the equipment.
- To obtain the opinion and views of the medical doctors and nursing staff about the support and how it helped them in the management of patients.
- To understand the challenges in the maintenance of health infrastructure and how these challenges were addressed.
- To seek the opinion of medical doctors on how health infrastructure support could reduce the mortality rates.

The current report presents the study findings of the impact assessment study.

[2] https://doctorsforyou.org/

Chapter 2

Study Methodology

This chapter gives a comprehensive overview of the methodology adopted for the impact assessment study, including the assessment framework, research methods, sample coverage, survey implementation for data collection, data management, and so on. The following sections have been discussed in detail to provide in-depth information on these components.

2.1 Assessment Framework

For undertaking the impact assessment studies, we proposed to use the following assessment framework which the standard OECD-DAC criteria[3] considered as one of the gold standards in evaluation. This framework recommends adapting this framework, wherever feasible and applicable:

Using this framework, following questions/indicators were adopted to assess each program, using the six parameters stated above. These questions were finalized in a discussion with the HDFC Bank team.

	Indicators/Questions
Relevance	• What criteria was adopted for identification of most deserving recipient government hospitals for the support
Coherence	• Feedback of medical doctors from the government hospitals on timeliness, appropriateness and sufficiency/adequacy of the support received
Efficiency	• Number of patients served through the provided infrastructure
Effectiveness	• Improvement in the quality of services being made available by the hospitals, that can be attributed to the infrastructure provided
Impact	• Impact of provided equipment on the management of serious illnesses and hospitals' capacity in providing the required treatment services.

[3] https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

	Indicators/Questions
	• Cost per patient saved and overall cost benefit analysis of the infrastructure provided
Sustainability	• In what ways does this infrastructure support the service delivery in future? • Plans in place for maintenance of the infrastructure and equipment provided. • How the government hospitals plan to use this infrastructure support in future

These questions were finalized in consultation with the HDFC Bank Monitoring and Impact team prior to the implementation of the impact assessment study.

2.2 Target Government Hospitals

The following 13 government health facilities were covered under the impact assessment study:

State	District	Hospital
Uttar Pradesh	Amethi	District Hospital, Amethi
Haryana	Mewat	Civil Hospital Nuh, Mewat
Jammu & Kashmir	Pulwama	District Hospital, Pulwama
Jharkhand	Ranchi	Shalini Hospital, Angara Block Ranchi
	Khunti	Govt Referral Hospital, Torpa Block, Khunti
	Ranchi	Shalini Hospital, Ormanji Block Ranchi
Mizoram	Chanmari	Civil Hospital, Lunglei-1
Telangana	Kamareddy	Area Hospital, Banswada
	Sircilla	Area Hospital, Vemulwada
	Sangareddy District	Area Hospital, Zaheerabad
		Area Hospital, Jogipet
		Area Hospital, Narayankhed
Uttarakhand	Nainital District	BD Pandey District Hospital, Nainital

2.3 Methodology for the Impact Assessment

The evaluation essentially adopted the qualitative approach with the inclusion of analysis of secondary data, wherever available, from the hospitals. Of the 15 hospitals, 13 were physically visited and the respective medical officers in charge were interviewed, along with the senior doctors, store in charge and nurses. Data related to patient admission and inventory of equipment provided under the grant were obtained from the concerned officials and the equipment provided were physically verified. All these processes were carried out in coordination with the representatives of DFY, who joined the visit.

2.4 Target Groups

The following target groups were covered in each hospital:

- Medical Superintendent/Hospital In-charge
- Senior Nursing Staff
- Representatives of Give India

- Representatives of Doctors For You (DFY)

2.5 Development of Tools

The study tools were designed considering the type of support under ICU setup that has been provided and the type of stakeholders to be covered are as follows:

- Observation Checklist
- In-depth interview Discussion Guide with the Medical Superintendent /In Charge
- In-depth interview Discussion Guide with Nursing Staff
- Datasheet or the patients' coverage

The observation checklist was designed for the physical verification of the equipment supplied under the grant, with the purpose of assessing their availability, functionality, and usage. The data sheet was designed to collect information on patients supported through the project to assess the reach, time duration, and average number of patients supported with the type of equipment.

2.6 Sample Coverage

Of the 15 hospitals included in the RHIP support, 13 were physically visited for this assessment. The two hospitals in the north-east could not be visited as the one in Manipur did not have favourable travel conditions and the one in Mizoram was out of bounds due to climatic conditions.

2.7 Study Implementation

- During the initial phase, the HDFC MI team facilitated a detailed discussion with the Give India team that helped the implementation team build the context and an understanding of what to expect during the visits.
- Further, Give India officials connected the IMPACT team with Doctors For You officials as they were the key players in the procurement as well as supply of the equipment through their ground force. The DFY provided all the basic information and their views about the usefulness of the intervention as well as their perception of the current status of various equipment at the hospitals.
- Post receiving the information, the discussion guides and checklists were developed. The feedback was provided by the HDFC Bank team.
- The researchers visited the 13 locations for the data collection. The visits were well coordinated with the DFY officials who provided support in terms of introducing researchers to the officials and staff of the hospital and also coordinated the physical verification of the equipment.
- At all hospitals, one-on-one in-depth interviews were conducted to capture all minute details.
- We sincerely acknowledge the support received from DFY team.
- The entire data collected was brought to the IMPACT office for processing and management.

2.8 Data Analysis and Report Writing

All the data collected by the researchers were collated and data synthesis and content analysis were undertaken. While conducting the data analysis, efforts were made to provide justifications to the findings, that emerged from the interviews and discussions. A detailed report was then produced.

2.9 Challenges Faced

- Some of the records could not be accessed as the officials posted at the time of receipt of support at the hospitals were transferred to other locations.
- Most hospitals were not very open to sharing patient-level data/statistics and mentioned that these data were not available.
- Data compilation was a challenge as all hospitals were using different and multiple templates to record their respective data.
- It was impossible to verify the status of general supplies provided to the hospitals as some of the supplied materials were either immediately consumed/distributed to the wards/units for use or kept in the storage for future.
- Equipment that were reported to be shifted to other locations could not be physically verified during the visit.

Chapter 3

Study Findings

HDFC Bank CSR funded the Rural Health Infrastructure Project aiming to strengthen rural government hospitals' health infrastructure by providing medical equipment and supplies. In order to assess the impact of the support provided through the grant, an impact assessment was commissioned by HDFC Bank CSR. The primary purpose of this assessment was to ascertain the usefulness and effectiveness of the grant and the extent to which it has been able to strengthen the health facilities to improve the depth and quality of healthcare facilities for the patients accessing these hospitals.

The grant was commissioned through the Give India Foundation, which in turn partnered with Doctors for You (DFY) to implement the grant on the ground. **The primary purpose of the grant was to provide infrastructure strengthening to select hospitals to improve the type and quality of services they provide and make them ready to face any future emergencies like COVID-19.**

A total of 15 hospitals were identified and a comprehensive list of equipment and supplies was prepared by DFY, in consultation with the hospital in charge of each of these hospitals. The total grant value for these 15 hospitals included in the grant was INR 8,27,22,120 and included 5% administration cost (41,36,106), making a total grant value of INR 8,68,58,226.

Out of all 15 rural government hospitals (supported in eight states of India), 13 government hospitals in 7 states were physically visited as part of this impact assessment. One hospital in Manipur could not be covered due to the prevailing situation in the state and another in Mizoram, as the area was unreachable due to climatic conditions.

During these visits, medical superintendents were interviewed along with other hospital staff such as the Store in charge, Nursing Head or Senior Nurse and medical doctors, available at the time of the visit. Along with these discussions, available patient records and equipment inventory registers (wherever available) were reviewed, and the equipment provided were physically verified.

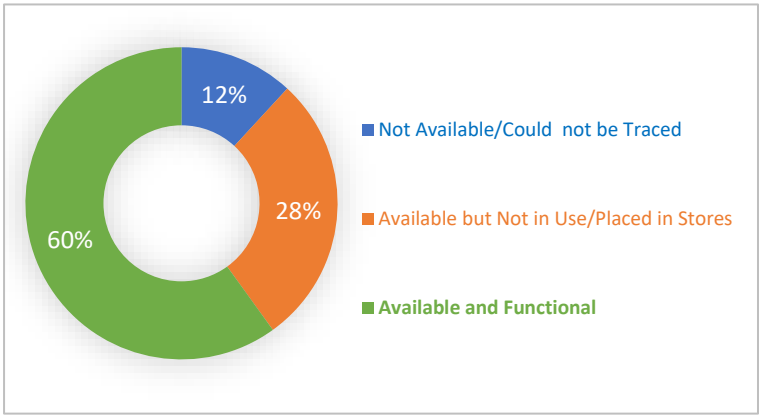
Information on the type of equipment and supplies along with numbers and costs incurred for each hospital was analyzed and matched with the current status of the support. For the 13 hospitals included in this assessment, a total expenditure of INR 7,73,35,620 was incurred on the purchase of

the equipment and supplies and INR 38,66,781 (@5% of the total expenditure cost) was provided as administration cost.

Equipment Utilization

Data findings revealed that three-fifths of the total expenditure cost (60% = INR 4,63,63,400) incurred on the support is currently being utilized by government hospitals. The following graph illustrates the status of the per cent utilization of the total cost expenditure.

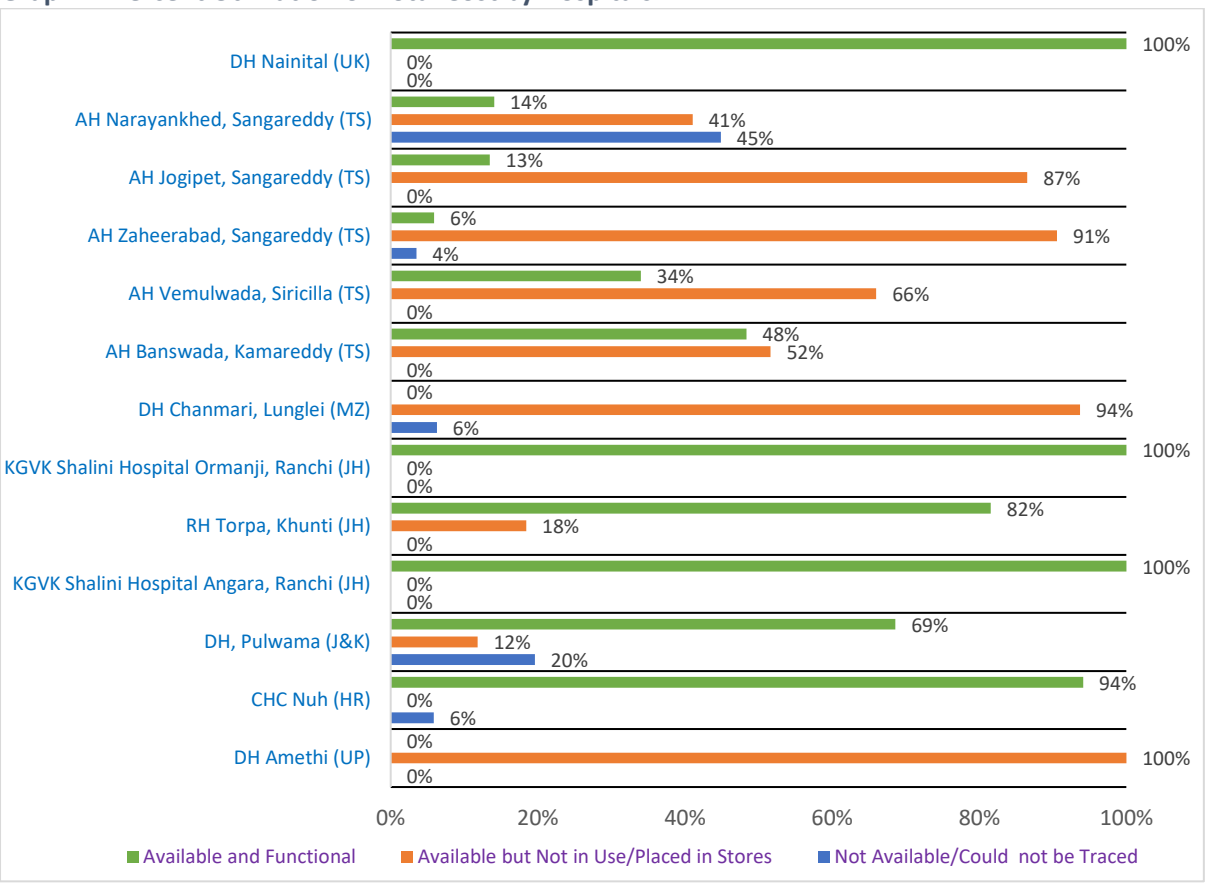
Graph 1: Current Status of Percent Utilization of Cost Expenditure



As evident, over a quarter of total expenditure (25%) is available with the hospitals but are currently not in use and largely, the equipment and items have been placed either in the ICUs or kept in the hospital stores, in packed condition. Also, the equipment worth 12% of the total expenditure could not be physically verified as the store in charge could not locate these equipment and could not provide any documentation related to the transfer of these equipment to other locations.

Further, the findings for a similar analysis for each of the 13 supported hospitals are presented in the following graph.

Graph 2: Percent Utilization of Total Cost by Hospitals



The 32-slides CT scan provided to the District Hospital in Nainital (Uttarakhand) is currently being fully utilized as they have a qualified person who manages the operations on a daily basis. The same holds true for the other two hospitals in Ranchi managed by KGVK in association with the Government of Jharkhand where all the equipment and machines are in place and used whenever they receive patients for treatment. It can also be observed that the majority of hospitals have the equipment and items available but not currently used for the patients' care and have been kept in stores and placed in locked rooms/ICUs.

While providing CT scan 32 Slides at Nainital and Pulwama, DFY realized that the hospitals may not have the technical staff to operate these machines and therefore worked out a partnership model with the respective hospital and the state government. DFY facilitated this process through a MoU where DFY provided the technical person and engaged a third party for e-report[4] of the scan. They have also worked with a vendor to provide the consumables. The hospital, on the other hand, charges a user fee from the patient availing the service and compensates DFY for their services. This ensures the smooth functioning of the machines.

During the assessment, it was observed that about 28% of the equipment supplied to all 13 hospitals were not currently in use and generally, these were largely lifesaving equipment including ventilators (transport media and others) and defibrillators. The primary reason for these equipment not being in use was that most of these hospitals were secondary-level hospitals at the district or block/tehsil level and not fully equipped to handle critical cases that needed ventilators or defibrillators support for the patients. In many such instances, the hospitals may not have specialist doctors to handle such emergencies and were therefore referring these cases to specialist hospitals at the district level or the nearby metro cities where super specialty hospitals like medical college hospitals are available. However, these rural hospitals have confirmed that with the availability of these equipment, they are now fully equipped and ready to handle any COVID-19-like emergencies in future as the specialist doctors and other human resources can be arranged at a short notice with the help of district and state health administration.

During the assessment visits, in 5 rural hospitals, some of the equipment could not be physically verified as the concerned staff were not aware of the storage location. The records with Doctors For You confirmed that these equipment were delivered/handed over and the hospital staff also confirmed receiving these equipment.

[4] Once the scan is completed, it is digitally sent to a consultant who then writes the report including the diagnosis. The consultant could be anywhere in the country and is paid on per case basis.

Upon further enquiry, the hospital staff believed that these equipment were likely shifted to the associated Primary Health Centers, as these may have been requested for those centers. As these were not entered into the hospital store records and the store in-charge had changed (in all 5 hospitals), documents related to these transfers could not be verified.

Record Keeping

During the visit, attempts were made to review the hospital records for inpatient admissions and stock inventory of equipment supplied under the grant. Regarding patient records, most hospitals were unwilling to share their detailed records and as the team visiting these hospitals did not have any mandate or permission to review these records, these could not be accessed. Some estimated figures related to daily OPD attendance, inpatient admission and deaths were verbally provided by the concerned nursing staff. In some cases, the number of patients accessing specific services (e.g., monthly CT scans in Nainital, daily ECGs in Telangana and CT scan and Dexa Scan in J&K) were provided to the team visiting the respective hospital.

Social Return on Investment (SRoI)

An effort was made to assess the SRoI for the HDFC Bank support under the RHIP grant. Though it is difficult to estimate the social return on investment in the absence of sufficient data related to the number of patients, an attempt has been made to see the status of SRoI for some of the equipment where utilization data were available. Some of the examples from different hospitals and equipment are attempted to see the SRoI trends as follows:

(a) District Hospital, Pulwama (J&K)

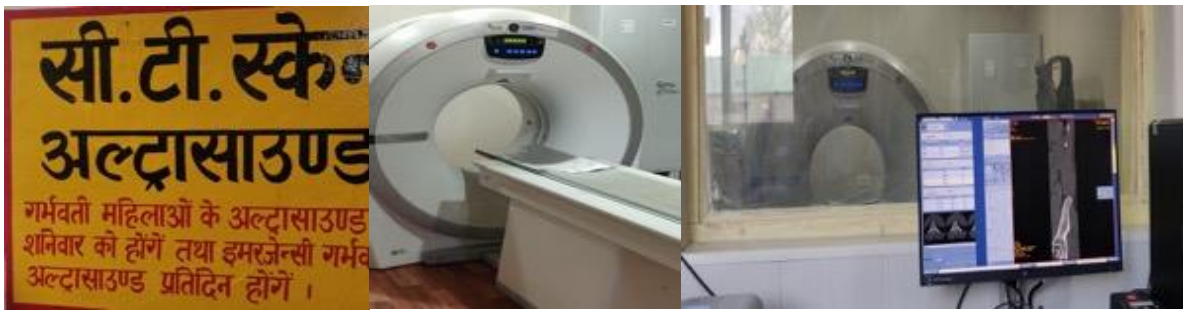
Dexa Scan: District Hospital, Pulwama has received Dexa Scan Machine for the diagnosis of bone density that provides services to 40 to 50 patients per month and charges INR 200 per patient. The rate for this scan at a private facility is around INR 2,000 which means a difference of INR 1,800. Considering the lower side (40 patients/month), INR 72,000 are saved by the patients per month. In a year, INR 8,64,000 are saved for the patients by using this equipment. The cost of the Dexa Scan equipment is INR 18,00,000 which means 48% SRoI has already been achieved by this support over a period of 12 months. This indicates the Dexa Scan machine would recover the SRoI in two years and subsequently, it would continue providing services in future.

CT scan Machine: HDFC Bank has supported DH, Pulwama with 32 Slides CT scan machine. CT scan lab has been functional in partnership between DH and DFY where DFY has provided the trained CT scan technician for running the facility. The CT scan machine provides services to around 50 patients per month and charges for CT scan ranges between INR 900-1200 per patient depending upon the type of scan needed. The CT scan rates at private centres for these types vary in the range of INR 2,000 to 2,400 indicating a difference of around INR 1100-1200. Therefore, for 50 patients/month, INR 55,000 are saved by the patients per month, making it INR 6,60,000 per year.

The cost of the 32 Slides CT scan machine is INR 130,00,000. SRoI on CT scan has been computed to be 5% has been achieved over a period of 12 months (Total money saved in a year/cost of the equipment). Hence, the CT scan machine would recover the SRoI in about 18-20 years.

(b) District Hospital, Nainital (UK)

HDFC Bank has supported DH, Nainital with 32 Slides CT scan machines. At DH, Nainital, a public-private partnership model has been adopted by the hospital wherein a trained CT scan technician is provided by DFY to manage the machine. Standard rates of INR 4,000 are being charged for the CT scan of all types which are equivalent to the private service providers in the city and nearby areas. The CT scan facilities mainly cater to patients staying in the range of 45 to 50 Km from the District Hospital. Due to hilly terrain, usually patients come to the nearest health facility and hence, District Hospital has been the most approachable facility for the super specialty services.



The person managing the CT scan mentioned that a market survey was carried out to ascertain the open market rates of CT scans. No service was available within Nainital city and uphill for about 50 km. The nearest facility available was 50 km downhill, at Kathgodam, where the average price for conducting the CT scan was INR 4,000. The hospital then decided to charge similar rates i.e., INR 4,000 per scan and claims that the patients get the advantage of saving their travel cost, further downhill 50 km, which is approximately 600 INR, both ways. This is the only SRoI that can be associated with this service.

(c) Government Referral Hospital, Torpa block, District Khunti (JH)

Biochemistry Analyzer and Hematology Machine: The Government Referral Hospital at Torpa block, Ranchi in Jharkhand received equipment for strengthening the diagnostic services at the hospital. The equipment provided cost around INR 7,50,000. On average, 100 tests are being conducted on a daily basis free of cost, whereas similar tests at private labs are conducted at the average rate of INR 50/-. This indicates that INR 5,000 on a daily basis is being saved by the patients. Taking 300 working days over a period of 12 months, a total amount of INR 15,00,000 is being saved in one year. The incurred cost of the equipment (biochemistry analyzer, hematology machine and allied materials) was INR 7,50,000. The computation suggests that 20% of the SRoI has been achieved. Thus, the investment would be recovered in almost 4-5 years.

Advantages of HDFC Bank Support

Medical superintendents interviewed during this assessment were of the opinion that the support received by their respective hospitals was quite relevant and was essential to improve the quality of patient care in their hospitals. Some of the key highlights of these discussions are summarized here:

- With the addition of advanced and high-quality machines, all the hospitals have gained popularity and recognition among people as equipment such as ventilators, BiPAP, CPAP, suction machines, and HFNCs are now available. During the COVID pandemic, when these were not available, they were not able to serve their patients as much as they wanted to.

- The hospitals are strengthened to provide quality services for the effective management of patients and cater to emergent needs such as life support systems (HFNCs and ventilators), suction machines, ECG, BiPAP, CPAP, Dexa Scan and CT scan.
- One of the major supports received by many hospitals was ICU beds/fowler beds with automatic functions. The support has enhanced the bed strength as well as strengthened the ICU set-up. The same holds true for the bedside monitors that enhance the capacity of ICU ward set-up mainly used for the monitoring of patients' vitals while treatment is being provided.
- All the hospitals perceived that the hospitals have become ready for managing emergency situations in future.
- Due to the equipment and items support, patients get services at reduced rates/fees as compared to the private service providers. Also, since most of these facilities are rural, patients now save the cost of travel to distant locations, which is an additional benefit to them.
- The availability of an ambulance with Advanced Life Support (ALS) (including ventilator and multipara monitor) is capable of providing transport facility to severely ill people as well as referrals to other higher apex hospitals in Srinagar. This being the only ALS in the hospital, can be of immense use for critically ill patients, once this gets operational.

Challenges Faced

The following challenges have been identified, associated with the support provided RHIP grant:

- Some of the hospitals, do not have provisions for repair and maintenance of these equipment and are dependent on their untied funds. The staff in these hospitals mentioned that seeking approvals for expenditure is a long process and sometimes results in denial as well. The district hospital Nainital found a solution where they are billing the cost of supplies and maintenance related to the CT scan to the patient. While this increases the cost for the patient, it ensures that the machine remains functional.
- In the absence of trained staff to operate the equipment such as ventilators and defibrillators, patients may not get the services when these are needed. For operating other machines such as CT scans, the hospital has to depend on external agencies like DFY for support.
- The warranty for most of the equipment that are not in use has expired. These have not been opened and therefore it is uncertain if these would still be in a working condition, at the time when needed.
- The warranty cards for several equipment, across hospitals are missing and therefore, if required, the warranty can't be claimed. DFY claims that all these documents were handed over to the respective hospitals, along with the equipment, and it is likely that the hospitals have misplaced these documents at their end.

- DFY/Give India claims that all equipment are supplied upon receiving the request from the respective hospital but in some cases, hospitals mentioned that they did not ask for any such equipment and are not sure how and why they have received these equipment. At one instance, Lunglei Hospital mentioned that they don't have an ICU, but still received 5 automated ICU beds.

Recommendation

- The responsibility of DFY should extend beyond the delivery of equipment and supplies to ensure that each of these equipment are unpacked and installed. This will help DFY in the timely identification of issues such as registration of defibrillators and GPS for the ambulance and facilitate the resolution of these issues, ensuring the functioning of such high-value products.
- At the time of delivery, DFY should reconfirm from the respective hospital, if the particular equipment is still needed and if not, these may not be handed over to them and provided to other hospitals who may need these equipment.
- As evident from the findings, the non-availability of trained staff is severely limiting the use of these equipment. HDFC Bank should consider asking Doctors For You to coordinate with the manufacturing companies to provide first-hand basic training to the existing staff for the use of these equipment. This will help in improving the utilization of equipment.
- The partnership model facilitated by DFY for the management of CT scan at Nainital and Pulwama should be attempted for other equipment, to improve the usability of equipment that are lying idle at different hospitals.
- Give India / Doctors for You should coordinate with the respective facilities to see if the unused equipment can be transferred to other government facilities within the same district or state, where these can be used.
- Give India / Doctors for You should ensure that all warranty-related documents are transferred to the respective facilities and the staff is aware of the process of invoking warranty, whenever required. They should also negotiate with these manufacturing companies to extend the warranty of unused equipment.
- Since many of these equipment are high-value, HDFC can consider investing in getting these insured against damage for at least 3-5 years after the warranty. This will ensure the continued use of these products. In future, this can be a mandatory clause for such grants.

Chapter 4

Assessment on OECD Criteria

This chapter discusses the OECD criteria and presents the status of HDFC Bank support provided to 13 rural government hospitals across 7 States.

Assessment Results

Relevance	Score
All the government hospitals covered under the Rural Health Infrastructure Project are catering to a large population covering bigger geography. These hospitals were in need for strengthened infrastructure setups and advanced treatment and diagnosis facilities so that the patients are provided with quality services and timely referrals. The project's relevance was found to be evident in terms of enhancing the hospital's capacity to handle the huge patients load in future. All the government hospitals that received the equipment and machines were in need of infrastructure support provided by HDFC Bank	5

Coherence	Score
Discussion with the stakeholders and observations at the government hospitals revealed that the RHIP exhibited strong coherence in its execution. The HDFC Bank support was timely and intended to meet the individual needs of the government hospitals. HDFC Bank followed the mandate to upgrade and prepare government hospitals for future emergencies. For the patient care and services, the equipment and equipment and machines provided by HDFC Bank were highly required at the hospitals. The equipment and other items have been integrated with the hospital's existing infrastructure but there are many equipment which are kept in the stores and not being used for the patients' care. The support is majorly contributing to streamlined patient care and the type of services but not fully. The coherence of the RHIP majorly demonstrated effective collaboration between HDFC Bank, the government hospitals, and the partner NGO involved in the process.	4

Efficiency	Score
RHIP has demonstrated efficiency in contributing to the current as well as future needs of the government hospitals. The support from HDFC Bank has improved the hospital's popularity and capacity to cater to the increased number of patients requiring medical care and diagnosis services. The advanced medical equipment such as CT scan 32 Slides, Dexa Scan, USG machines, multipara monitors, adult and pediatric ventilators, etc. has enhanced the patient care delivery, diagnosis services by reducing waiting time and travel to other locations for the similar services. The hospital staff appreciated the technologically advanced equipment, resulting in improved patient outcomes. RHIP has facilitated the efficient execution in the integration of the equipment within the facilities in the hospital's existing setups but still hospitals need to use all the equipment which are to be used for the patients' care but kept in the storage.	4

Assessment Results

Effectiveness	Score
The project demonstrated limited effectiveness in strengthening government hospitals to provide quality services to patients as still there are equipment which are available but are not in use due to lack of trained doctors and nursing staff. The hospitals who received equipment related to diagnosis services are effectively using but there are equipment or transport support that needs GPS devices are not being used due to lack of registration with the authorities who seek compliance from these hospitals. Some hospitals have received equipment that are used in ICUs and ICUs are not functional in these hospitals. There is a potential for these hospitals to be highly effective in future, provided they are supported with the trained human resource and some funds for inclusion of GPS devices.	3

Impact	Score
Positive impact has been created by HDFC Bank's support to the rural government hospitals to be future ready for emergencies. The infrastructure support has played a pivotal role in strengthening the hospitals' diagnosis services (CT scan and Dexa scan, biochemistry analyzer, hematology, etc.). On a clinical side, there are hospitals in Telangana who have received the equipment but are not using the support and keeping the equipment in stores. These hospitals could run ICUs or improved patients' care in medicine wards. At J&K, Ambulance with Advanced Life Support facilities are not being used for more than one year in absence of registration with RTO which is pending due to the non-availability of GPS device costing just INR 15,000. While there is a lot of potential for impact, the impact will occur only when the equipment are put to regular use by the government hospitals.	3

Sustainability	Score
RHIP's sustainability has been consider as a crucial aspect that was assessed during the site visits to the hospitals. Almost in all hospitals, there is no dedicated and standard mechanism for repair and maintenance. However, one or two hospitals have provision for repairs and maintenance if the amount is more than the stipulated value. For CT scan machines, the GE representatives (supplier) are currently providing their support for the inspection and services not for the consumables and the warranty is about to complete by Feb 2024. Post this duration, there will be an immediate need for AMC provisions for these machines which is not available as of now. For other equipment and machines, the warranty cards and papers were not available with the hospitals' staff, and they did not have any information on warranty, etc. or how they can avail the services of the vendors during the warranty period. Many of the equipment (such as ventilators, BiPAP, CPAP, etc.) may have lost its functionality due to remain unused for a long time. No plans are available with the hospitals for ensuring sustainability rather they demand such support from the HDFC Bank. For Sustainability, there is an emergent need to undertake measures to ensure uninterrupted use of the equipment and machines regularly.	3

OVERALL SCORE	3.7 out of 5