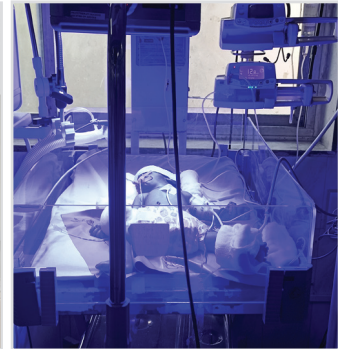
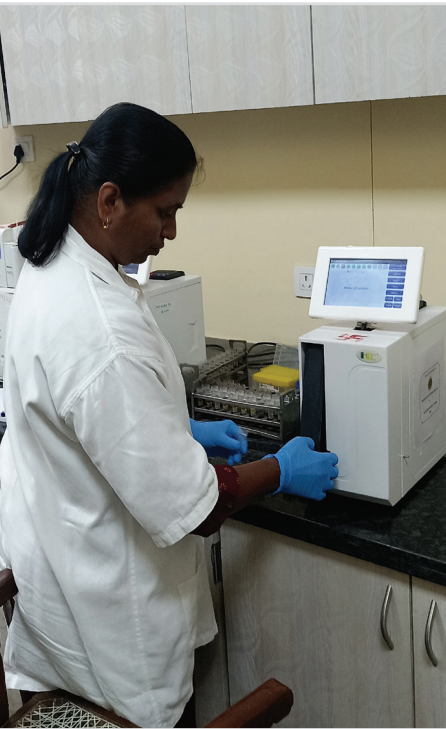


IMPACT ASSESSMENT

Supply of Medical Items - Public Hospitals in Mumbai



Report Prepared by



**THE ENERGY AND
RESOURCES INSTITUTE**

Creating Innovative Solutions for a Sustainable Future

The Energy and Resources Institute

Southern Regional Centre

4th Main, 2nd Cross, Domlur II Stage Bangalore -560071

Submitted to



Mazagon Dock Shipbuilders Limited

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Summary of the project

In the financial years 2020–21 and 2021–2022, during the COVID pandemic, the Mazagon Dock Shipbuilders Limited, Mumbai had taken the decision to support the five hospitals in Mumbai under CSR by developing medical infrastructure to treat the patients who are suffering from severe COVID-19 infection. The five assisted hospitals with supply of equipment and other items include BYL Nair Hospital, Kasturba Hospital, CAMA & Albles Hospital, Rajawadi Hospital, and Mumbai District Aids Control Society. Four hospitals are government-operated and one is a non-profit charitable hospital. All the five were designated as COVID care centres during the Corona pandemic. As the patient flow was very high during the pandemic, hospitals faced shortage of infrastructure facilities and started exploring for quick funding resources through CSR. All the five hospitals approached MDL for funds with the proposal to purchase necessary equipment and other accessory items for treating COVID patients. MDL approved the proposals after scrutiny and immediately released the payment. A total of 28 different types (135 units) of equipment and other accessories were bought for a total of Rs 177.77 lakhs by the five hospitals, mainly lab equipment for testing of blood and urine samples, patient monitoring devices, NICU devices, x-ray instrument, drug analysis instrument, N95 masks, educational materials, etc. These items really helped the hospitals to cope up with the increasing demand of treatment by severe COVID infection. Presently, all the equipment and accessories are in use, the one in Kastruba hospital needs some minor service. Hospital staff members have informed that action is initiated for the same and will be made in order at the earliest; all the equipment and accessories are under operation and also covered under warranty and CMC. Once that is over, hospital authorities will take AMC for maintaining of the equipment. The project has met all of its physical and financial goals, up to 100%. With MDL's assistance, lacunae of insufficient infrastructure to meet the growing treatment demand during the Corona pandemic was effectively addressed, allowing the hospital staff to treat COVID patients and save many lives. The MDL's investment in COVID-19 management was a worth investment and the perception is that the amount spent is used for a noble cause and such acts will certainly inspire the other organisations/companies to come forward and extend hand-holding support during any calamitous event in future.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome.
AMC	Annual Maintenance contract
COVID-19	Coronavirus disease 2019
CR	Computed Radiography
CSR	Corporate Social responsibility
CMC	Comprehensive Maintenance Contract
DWT	Deadweight tonnage
ECG	Electro diagram
FTIR	Fourier Transform Infrared Spectroscopy
HDU	High dependency unit
HIV	human immunodeficiency virus
ICU	Intensive Care Unit
KII	Key Informative Interview
MDL	Mazagon Dock Shipbuilders Limited
MoU	Memorandum of Understanding
OT	Operation theatre
SOS	Save our Souls
NICU	Neonatal intensive care unit
SARS	Severe Acute Respiratory Syndrome
TERI	The Energy and Resources Institute

Executive Summary

The Mazagon Dock Shipbuilders Limited, also called “Ship Builder to the Nation”, is one of India’s leading Defence Public Sector Undertaking Ship-yard under the Ministry of Defence, Government of India. It was incorporated as a Private Limited Company in 1934.

The main activities of the company are construction of warships and submarines with facilities situated at Mumbai and Nhava (under development). MDL also constructs cargo ships, passenger ships, supply vessels, multipurpose support vessel, water tankers, tugs, dredgers, fishing trawlers, barges and border out posts for various customers in India as well as abroad. The MDL has also fabricated and delivered jackets, main decks of wellhead platforms, process platforms, jack-up rigs etc. MDL has the capability to build warships, submarines, merchant ships up to 40,000 DWT since 1979. Since 1960, MDL has built total 801 vessels including 27 warships and 7 submarines.

As per the CSR policy of the MDL it is committed to undertake various programs for integrating social and business goals in a sustainable manner to create social impact through inclusive growth and to bring a positive impact on people and society at large.

In year 2021 & 2022, MDL had taken up a project to manage Corona pandemic and treat COVID-19 patients in Mumbai, Maharashtra and provided different medical equipment-, accessory items and N-95 masks to 5 different hospitals of Mumbai. The entire cost of purchase, supply and installation was borne by the company.

The project was implemented with the main objective of treating COVID-19 patients from economically weaker section having multifaceted problems to cater paid medical services.

The specific objective of project was to combat COVID-19 outbreak by strengthening the in-house infrastructure of the hospitals by providing different health equipment, accessories and N-95 masks. The Energy and Resources Institute (TERI), Bengaluru was assigned the task of assessing the effectiveness and impact of the project with a special focus on the target groups and each beneficiary hospital

The impact assessment of the CSR initiatives was carried out using a multi-dimensional approach. The process included secondary data collection and analysis, primary data collection using methods that were appropriate for the initiative and field evaluation such as survey and key informant interviews. Despite of the limited information available on the ground, utmost effort was made to personally interact with various stakeholders like nodal persons of the hospitals like Doctors, Nurses, and Officers of MDL to acquire and assimilate their views and opinions on the utility of the initiative and its impact and also to draw suggestions for future initiatives.

MDL had selected four government hospitals and one non-profit charitable hospital to provide various medical equipment, accessories including N-95 masks considering their proposal for support. The hospitals chosen were unique COVID-19 care centres during the Corona pandemic time with adequate bed facilities with a scope of treating large number of patients.

The five hospitals chosen on credibility were BYL Nair Hospital, Kasturba Hospital, CAMA & Albless Hospital, Rajawadi Hospital and Mumbai District Aids Control Society.

The equipment and items provided included, i) Defibrillator with ECG Monitor - 01 No. ii) FTIR Machine with PC & Printer - 01 No., Computed Radiography (CR) System-1 No., N95 Masks and other medical items.

Hospital authorities and staff have been interviewed to understand the usage of supplied items. It was clear during the survey that they had been using the health equipment based on the necessity and condition of the patients during the Corona pandemic. The hospital administration maintained all the other medical equipment in good working condition. Before using the device, doctors and nurses at the hospital received training on operation and maintenance. The project has met all of its physical and financial goals for tune of 100%. All hospitals have maintained a ward-level asset record as well as a centralised asset record. The MDL logo is put on all the equipment for branding purpose. Most of the equipment is currently under warranty and CMC; following that, hospital administrators have assured to opt for AMC with the equipment provider.

BYL Nair Hospital: T. N. Medical College & BYL Nair Ch. Hospital is one of the premier medical institutes which provides extensive training courses in various medical and allied branches including super speciality courses. The hospital handled almost 20,000 COVID patients with 1700 beds (2020-21 (1000 beds) and 2021-22 (784 beds) during the Corona pandemic. MDL helped BYL Nair Hospital to acquire one defibrillator with an ECG monitor. The device was purchased to treat the patients who were suffering from the ophthalmic complications. Due to stress of the surgery, some individuals had developed cardiac symptoms during this time. The supplied defibrillator was helpful save such patients' lives. The purpose of the machine "save our souls (SOS)" during an emergency situation (when the patient becomes ill or falls) prior to surgery was well met and was as evidenced from the experiences shared from hospital staff during the interview.

Rajawadi Hospital Ghatkopar: Hospital is a major peripheral municipal hospital in the Eastern suburbs of Mumbai, with a capacity of 596 beds, this hospital is having different wards like Obstetrics, Gynaecology, Paediatrics and Causal wards. During the Corona pandemic, 100 beds were allotted to treat COVID 19 patients and hospital treated more than 4000 patients during 2020 to 2023. The hospital's CR system was failed in the middle of COVID pandemic. It was 13 years old, and there were no spare parts available for repair. Consequently, the hospital was exploring for financial assistance to purchase one computed radiography (CR) system and then submitted a proposal to MDL. MDL has approved the proposal to purchase the equipment based on the urgent requirement. The, equipment had been used quite successfully during the Corona pandemic. Nearly 200 people were benefited, and the system could produce over 1.74 lakh x-ray prints.

Mumbai District Aids Control Society: MDACS is an autonomous body established by the Municipal Corporation of Greater Mumbai (MCGM) for control & prevention of HIV/AIDS in Mumbai. They use multi-sectoral approach collaborating with general health systems, other Government departments, NGOs/CBOs, private sector organisations to treat and support people living with HIV/AIDS. The society also played a significant role during Corona pandemic by treating -more than 39000 COVID patients. MDL provided financial help for the procurement of 8350 N95 masks. The masks were distributed to vulnerable HIV

+ve patients in order to prevent them from contracting COVID infection resulting in increased vulnerability for life threatening complications. Masks were distributed to 14 clinics and hospitals by MDACS. The intervention was extremely successful, benefiting 8350 HIV patients.

Kasturba Hospital- This hospital is located in the middle of the Mumbai city. It is the largest infectious diseases hospital in the South East Asia, which treats patients of the all the infectious diseases. A central analytical laboratory is also established in this hospital to analyze drug samples received from various Mumbai Municipal Corporation hospitals and dispensaries. Hospital treated about 10,000 patients during Corona pandemic. Out of the available 515 beds, nearly 100 were dedicated to COVID patients.

MDL has supported Kasturba Hospital to purchase five types of health equipment, namely: i) FTIR Machine with PC and Printer (01 No.) ii) Blood Gas Analyzer (01 No.); iii) Haematology Analyzer, AGD 300 Model (01 No.) iv) BD Phoenix M 50 System (01 No.).

All the above four equipment-are used in different laboratories of the hospital. The FTIR Machine with PC & Printer is used in Central Analytical lab, Haematology Analyser - AGD 300 Model (Blood cell counter) is used in clinical pathology lab, BD Phoenix M-50 System is kept in Micro-Biological lab, Blood Gas Analyser is operated in Bio-chemistry lab. The equipment obtained with the MDL financial aid providing cutting-edge technology with more functionalities than the existing lab equipment. The efficiency equipment enabled doctors to assist a more number of COVID patients during the Corona pandemic. From January 2020 to December 2023, the hospital treated a total of 8387 patients. Hospital staff are very happy about MDL's support. MDL sanctioned the project in very short time, and many COVID patients benefited from the project.

CAMA & Albless Hospital: Pestonji Cama & Albless Hospital & Jaffer Suleman Dispensary, Mumbai is the only hospital in Maharashtra exclusively for women and children with a Oncology wing. It is a government-run hospital in Maharashtra with highly qualified medical staff. During the COVID pandemic, this hospital was also turned into a COVID-19 care hospital. During this time, as the number of patients increased, and the hospital faced lack of sufficient infrastructure, i.e., necessary equipment and accessories to cope up with the increasing demand. As a result, based on the hospital's proposal, MDL sponsored the procurement of various critical equipment and items needed to treat COVID-19 patients.

MDL's fund was used to procure around 21 different equipment- (128 units). One item, the Paediatric Manikins with simulation unit, is handed over to the nursing school, and a binocular microscope is used in the histopathology lab. Other equipment are used in different sections of the hospital, like the high dependency unit (HDU), paediatric intensive care unit, labour ward, neonatal intensive care unit (NICU), operating theatre (OT), septic ward, and cancer ward. During the survey, the TERI team visited every section of the hospital to inspect the deployment, functionality, and usage of equipment. All the equipment are in good working condition, used as per requirements. All the procured items are under AMC and necessary services are provided by the concerned vendor.

MDL's initiative of assisting five hospitals for acquiring various health equipment and accessories to treat COVID-19 patients during the pandemic was a worth decision and reflects its commitment to social welfare. All the five hospitals for which the assistance was provided are of different types and offer a variety of services, including child and women's health care, infectious disease treatment, HIV/AIDS treatment, general medicine, and so on. The identification of five hospitals as COVID care centres enhanced the inflow of COVID patients into the hospitals. Due to the limited infrastructure facilities available in the hospitals, the management was forced seek financial assistance from CSR funds for quick up gradation. With MDL's in-time assistance for the purchase of equipment and other items, to the lacunae were reduced to a greater extent, allowing hospitals to manage the increased demand effectively thereby saving thousand lives suffering from severe COVID complications. As a whole, the initiative is well appreciated and the perception is that the amount spent was used for a noble cause and such acts will certainly inspire the other organisations/companies to come forward and extend hand-holding support during any calamitous event in future.

1 Introduction of the specific project

1.1 Mazagon Dock Shipbuilders Limited (MDL), Mumbai

The Mazagon Dock Shipbuilders Limited, also called “Ship Builder to the Nation”, is one of India’s leading Defence Public Sector undertaking Ship-yards under the Ministry of Defence, Government of India. It was incorporated as a Private Limited Company in 1934.

The main activities of the company are construction of warships and submarines with facilities situated at Mumbai and Nhava (under development). MDL also constructs cargo ships, passenger ships, supply vessels, multipurpose support vessel, water tankers, tugs, dredgers, fishing trawlers, barges and border out posts for various clients in India as well as abroad. MDL has also fabricated and delivered jackets, main decks of wellhead platforms, process platforms, jack-up rigs etc. MDL has the capability to build warships, submarines, merchant ships up to 40,000 DWT since 1979. Since 1960, MDL has built total 801 vessels including 27 warships and 7 submarines.

As per the CSR guidelines of the company, MDL is committed to undertake various programs for integrating social and business goals in a sustainable manner to create social impact through inclusive growth and to bring about positive impact on people and society at large. MDL has executed several projects as part of its CSR initiatives in sectors of Health, Nutrition & Sanitation, Education, Rural Development, Skill Development and Promotion of Sports.

Substantial contributions were also made by MDL to support the nation's fight against the COVID-19 pandemic. These projects were undertaken in different parts of Maharashtra like Mumbai, Thane, Raigad and the aspirational district of Nandurbar and even outside of Maharashtra viz Lucknow, Uttar Pradesh (UP).

1.2 COVID-19 Pandemic

Coronavirus disease (COVID-19) is a highly infectious disease caused by a virus named SARS-CoV-2. The COVID-19 pandemic was a deadly pandemic that affected the whole world. The viral infection affected almost everyone in some way or the other. However, the effects have been felt differently depending on various factors. - As a highly mutant virus, it made several changes over time resulting in different variants. The pandemic has affected the whole lifestyle of human beings. It has affected all the systems including health, education, transport, banking and even the global economy. Many people lost their lives and faced various problems with their employment and livelihood.

For the two financial years, - (2020-21 and 2021-22) MDL had spent an average 28% of CSR funds for COVID care activities. It spent Rs 679 lakh to Rs 234 lakhs annually for COVID care activities, like procurement of health equipment, medicines, establishing Covid care centres, etc. MDL implemented projects during the COVID-19 pandemic in Mumbai, Maharashtra and Lucknow, Uttar Pradesh. These include:

- i. Supply of different medical equipment, accessories and distribution of N-95 masks in 5 different hospitals in Mumbai

- ii. Support for establishing Atal Bihari Vajpayee COVID Hospital, Lucknow

This study report provides the details of the impact evaluation conducted pertinent to the project taken-up in Mumbai during Corona pandemic by providing different medical equipment, accessories and distribution of N-95 masks to 5 different hospitals of the city.

1.3 Objective of the Study

The main objective of the impact assessment study was to assess the direct and indirect impact on target groups/stakeholders and community within and outside of the periphery of the MDL project area, to document any shortfall in the program which hampered the progress in implementation and also to come out with required corrective measures for the future. The specific objectives of the study are furnished below:

- To study the direct/indirect impact of MDL's CSR projects on the lives of community/people within the periphery of MDL project areas and surrounding locations
- To study the direct/indirect impact of MDL's CSR projects on other target groups, locality and environment
- To evaluate the level of awareness of CSR projects / initiatives amongst the target beneficiaries / concerned stakeholders
- To understand the consistency in the process of project implementation together with fulfilment of stated objectives.
- To identify the gaps in the project identification, beneficiary engagement, implementation of projects and recommendations for improvements.
- To recommend continuation/closure/expansion of scope of the project.

2 Details of the specific CSR project

2.1 Project proposal themes and area covered

MDL has completed a number of projects as a part of its CSR initiatives, mostly in the areas of health, nutrition, and sanitation, education, rural development, skill development, and promotion of sports. MDL has also made significant contributions to the Nation's fight against the COVID-19 pandemic, in the ambitious region of Nandurbar and government hospitals in Mumbai and also outside Maharashtra.

One of the important themes selected by MDL is health. Under this theme, MDL financially supported hospitals to improve their infrastructure to treat COVID patients. The COVID-19 pandemic made state and central governments go through difficult position, and decision-makers had to balance everything before taking any decision. Protecting public health and saving lives while at the same time balancing the livelihoods of the people were the bigger challenges. The -virus was new, and no medicine was existing during outbreak to treat it. Doctors and people were trying in their own way to cure the disease with home remedies and medicines. On one hand, COVID cases were increasing, and on the other, there was a shortage of infrastructure and medical care facilities in hospitals. It had created a big gap between the treatment demand and the available infrastructure facilities for treatment.

During this time, five hospitals (BYL Nair Hospital, Kasturba Hospital, CAMA & Albless Hospital, Rajawadi Hospital, and Mumbai District Aids Control Society) had approached MDL for CSR funds. Hospitals have prepared proposals and submitted them for approval from MDL CSR team. Hospital authorities followed hospital policies and the tendering procedure to choose the equipment supplier after MDL approved the proposal. Before placing the work order, hospital authorities identified the supplier and sent the necessary information to MDL for final approval.

Further, MDL purchase negotiation committee made further negotiations with the supplier to further negotiate the cost of the equipment. Once negotiation was completed the equipment cost will be intimated to hospitals for placing the order. Once equipment was received and commissioned MDL transferred the amount to the supplier directly. The cost included Warranty and AMC part also.

2.2 Target population

The state Maharashtra is a populated state in India, Maharashtra holds a population of 11,23,74,333 (2011 census). The first confirmed case of the COVID-19 in **Maharashtra** was reported on 9th March 2020. The largest single day spike of 68,631 cases, highest in India was reported on 18th April, 2021. The state of Maharashtra was a hotspot that accounts for nearly 22.35% of the total cases in India as well as about 30.55% of all deaths. As of 10th May 2021, the state's case fatality rate was nearly 1.49%. **Pune** was the worst-affected city in Maharashtra, with about 930,809 cases as of 10 May 2021. About half of the cases in the state emerged from the **Mumbai Metropolitan Region (MMR)**. The total number of cases in

Maharashtra reported as of May 2022, was 78,87,086 consisting of 1,47,860 deaths and '77,35,751 had recovered'¹.

During the pandemic, the state faced a lot of problems and hurdles in providing health services to the public with its existing healthcare infrastructure. The pandemic was new and required different types of healthcare infrastructure, equipment, and drugs for providing treatments to patients. To meet this need, both state and central governments had together established special infrastructure to provide treatment to COVID patients. It was also observed that significant-quality discrepancies of healthcare facilities between the rural and urban areas and between public and private healthcare providers. The healthcare systems not being so advanced were exposed due to lack of oxygen and deficiency in getting essential drugs for the treatment of COVID-19. Maharashtra state faced different problems and the unexpected increase of COVID-19 cases made it difficult for state health departments to treat patients.

In response to the aforementioned problem, MDL provided CSR funding to the five Mumbai based hospitals to purchase various medical equipment and accessories to treat patients from all around the city.

2.3 Financial outlay

As per the information provided by MDL and the hospital authorities, the entire sanctioned amount was utilised completely during the years 2020–21 and 2021–22. The financial details of the project are given in Table 2.1 below.

Table 2.1: Financial target and achievement of project

SN	Hospital	Medical Equipment	item / Project year	Units (No)	Estimated Cost (In Rs. lakhs)	Actual cost (In Rs. lakhs Including tax)
1	BYL Nair Hospital, Mumbai	Defibrillator with ECG Monitor	2021-22	1	26.36	1.73
2	CAMA and Albless Hospital Mumbai	Supply of Medical Items in tackling COVID-19 at CAMA and Albless Hospital Mumbai	2020-2021	128 different items	132.10	130.48

¹ https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Maharashtra

SN	Hospital	Medical item / Equipment	Project year	Units (No)	Estimated Cost (In Rs. lakhs)	Actual cost (In Rs. lakhs Including tax)		
3	Rajawadi Hospital Ghatkopar, Mumbai	Computed Radiography System (CR)	2021-22	1	9.70	8.80		
4	Mumbai District Aids Control Society, Mumbai	N95 Masks	2020-21	8350	5.00	5.00		
5	Kasturba Hospital, Mumbai	Blood Gas Analyzer	2021-2022	1	29.61	29.61		
		Hematology Analyzer (AGD 300 Model)		1				
		BD Phoenix M 50 System		1				
		FTIR Machine with PC and Printer		1			18.00	18.00
		Total Amount (In Rs. lakhs)					220.77	177.77

Data Source: MDL CSR team and beneficiary hospitals

As per the proposals submitted by hospitals to MDL, the initial financial target was Rs 220.77 lakhs. Further, after cost negotiations and drooping out of a few items, the cost of the project was revised to Rs 177.77 lakhs and booked as a project expenditure. This expenditure was made in two years, i.e., in FY 2020–21 and FY 2021–22. This project was implemented with a 100% contribution from MDL. The hospital authorities finalised the tender process to buy machines and other items; furthermore, while MDL had paid the amount to the supplier.

2.4 Implementation approach

All the five hospitals had sent different proposals between FY 2020–21 and FY 2021–22 to MDL requesting financial assistance of Rs 177.77 lakhs for buying medical equipment and other necessary items required for managing COVID-19 at the hospitals. After scrutiny of the submitted project proposal, MDL management approved the proposals for financial support under CSR.

Further, based on MDL approvals, all the 5 hospital authorities called for tenders as per the hospital's transparent commercial procedures to identify vendors for supplying the equipment. After commercial procedures, price negotiations were carried out by hospital authorities with the lowest-cost bidder. Finally, hospitals authorities sent the finalized list of vendors' and equipment costs for getting final approval from MDL. The MDL procurement negotiation team approached the short-listed vendors to finalise the equipment cost through additional negotiation. Following negotiations with the chosen suppliers, MDL had sent the hospitals the total cost of the equipment, together with the equipment's warranty and AMC, so that they could place the order.

At the end, hospitals placed the orders with the finalised vendors. The supplier installed the equipment in the hospitals and provided the equipment working certificate. After the final scrutiny of the working certificate by the hospital authorities, a message was sent to MDL for direct payment to the vendors. Hospitals were in charge of overseeing and assessing the project as well as carrying out efficient, timely project implementation. The following figure illustrates the project implementation methodology.

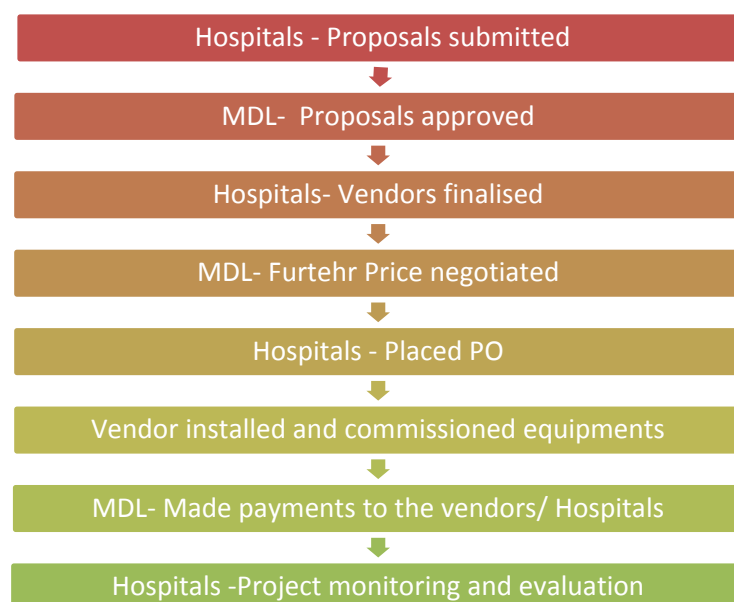


Figure 2.1: Project implementation approach

2.5 Implementation agency

The project was implemented by the five hospitals with the assistance of the MDL CSR team. Contact details of the nodal person and hospital address are as given below.

Table 2.2: Contact details of the nodal person and hospital address

SN	Hospital address	Contact person	Contact number
1	BYL Nair Charitable Hospital, Mumbai Central, Mumbai -400008	Dr Anjali Parande	8433886769
2	Rajawadi Hospital Rajawadi Colony, Ghatkopar East, Mumbai, Maharashtra 40007	Dr Manish Doshi	9869444282
3	Mumbai District Aids Control Society, Acworth Complex, R.A. Kidwai Marg, Wadala West, Mumbai, Maharashtra 400031	Dr Dyaneshwari	9321114549
4	Kasturba Hospital, Sane Guruji Marg, Arya Nagar, Chinchpokli, Mumbai, Maharashtra 400011	Mr Chandrakanth/ Ms Versha Joshi	9004626766/ 9819479234
5	CAMA & Albless Hospital, BMC office Mahapalika Marg opp. Azad Maidan, Dhobi Talao, Chhatrapati Shivaji Terminus Area, Fort, Mumbai, Maharashtra 400001	Dr Tushar/ Deepak Mahulkar	9029293828/ 8425977790

2.6 Extracts of MOU

This project was implemented during COVID outbreaks of 2020-2021 and 2021-2022. All five hospitals submitted a brief proposal to MDL, which included hospital brief details, bedding capacity, efforts in treating COVID patients, a lack of facilities in the hospital, and the purpose and estimated cost of proposed equipment. In terms of MOUs, Kasturba Hospital was only one which made the MOU with MDL for the procurement of FTIR machine, other than this no other MOUs have been prepared by hospitals since the project was sanctioned. The rationale for this is a COVID emergency, limited time for project implementation, limited interactions with MDL and hospital teams, and mobility restrictions during meetings. However, all the five hospitals adhered to the rules and regulations, followed procedures and even without MOUs, completed projects on time after they were approved.

2.7 Expected impact/outcome

The project's primary purpose was to treat COVID-19 patients from economically disadvantaged backgrounds who had a variety of health issues. This goal was achieved after hospitals' infrastructure was strengthened by giving various health equipment, accessories, and N-95 masks. Brihanmumbai Municipal Corporation (BMC) had identified 26 hospitals during the pandemic to handle severe patients with comorbidities, including Kasturba and

BYL Nair hospital. Nearly 104887 patients were treated in the project's five hospitals; COVID patients treated or admitted information for each institution is included below the table.

Table 2.3: Covid patients treated for admitted information for each institution

SN	Hospital	COVID patients treated (OPD)/admitted 2020-2023
1	BYL Nair Charitable Hospital	20000
2	Mumbai District Aids Control Society	39000
3	Kasturba Hospital	8387
4	Rajawadi Hospital	28000
5	CAMA & Albless Hospital	9500
	Total	104887

Source: five hospitals

The equipment purchased under the MDL CSR programme was the cutting-edge equipment and provided high quality health care to COVID patients. For example, in the middle of the COVID pandemic Rajawadi hospital's CR system reported a failure. It was 13 years old, and no spares were available. At the same time, in accordance with hospital proposal, MDL sanctioned funds for purchasing one computed radiography (CR) system. Nearly 200 patients were benefited, and more than Rs 1.74 lakh in x-ray prints have been taken from the equipment. Previously in old machine 260 x-rays were taken every day, however, with new equipment, 290 or more x-ray printouts are taken daily.

Similarly, in Kasturba Hospital, the Fourier transform infrared spectrophotometer (FTIR) is used in the central analytical lab. This machine has the latest features and analyses the drugs with more precision, and graphical representation provides accurate information about the chemical composition, structure, and bonding of the sample drug. This machine is compact, handling is easy, and the graphs are more space/illustrative. Since the beginning, 46 drug samples have been tested by using this machine.

CAMA and Albless Hospital have deployed 21 different types of equipment (128 units). These devices assist patients and labouring mothers, ranging from new-born babies to the elderly. Trays, trolleys, lab equipment, baby warmers, autoclaves, suction machines, foggers, teaching materials, and other human health monitoring devices are deployed.

Below table provides different outputs from different equipment's.

Table 2.4: Different outputs from different equipment's

SN	Hospital	Medical item / Equipment	Out puts (As on 5 th Dec2023)
1	BYL Nair Hospital, Mumbai	Defibrillator with ECG Monitor	For emergency uses
2	Rajawadi Hospital Ghatkopar, Mumbai	Computed Radiography (CR) System	1.74 lakh prints
3	Mumbai District Aids Control Society, Mumbai	N95 Masks	8350 patients benefited
4	Kasturba Hospital, Mumbai	Blood Gas Analyzer	1 lakh samples
		Hematology Analyzer (AGD 300 Model)	25000 samples tested
		BD Phoenix M 50 System	20 samples tested during COVID period
		FTIR Machine with PC and Printer	46 different drugs tested
5	CAMA and Albles hospital	21 different types of equipment's (128 units)	Supporting to number of patients (data provide in next section)

3 Approach, Methodology and Impact

Parameters adopted for impact assessment

The impact assessment of this project was carried out using a multi-dimensional approach. The process included secondary data collection and analysis, primary data collection using methods that were appropriate for the initiative and field conditions. Despite of less information, utmost effort was made to personally interact with stakeholders like officers of MDL, Hospital staff mainly medical superintendent, doctors, staff nurse, etc. to obtain their views and feedback on the usefulness of the initiative, its impact and suggestions for future initiatives.

3.1 Collection of secondary data

Secondary data such as project proposals, project location and profile, list of health equipment's and accessories purchased and other related details were collected from MDL and implementing agencies (hospitals) using a check list. The data collected was compiled and fine-tuned for field work. Data on physical and financial achievements were also collected from the MDL CSR team.

3.2 Collection of Primary data

Primary data was collected at two levels like implementing partners, MDL CSR team. Both quantitative and qualitative methods were adapted to generate desired information from the respondents. The following method were adopted for primary data collection:

- i. Key Informant Interview (KII)
- ii. Check list for system operator

Key Informant Interview (KII): This is a qualitative research method in which data is collected with active participation of stakeholders. This exercise was administered to elicit the views of the implementing agencies and MDL CSR team to elicit their views, experiences, problems, possible solutions, suggestions to improve the programme.

Checklist for equipment operator: Interviewed the equipment operator to gather input on how useful the device is in treating COVID patients.

3.3 Tools used for data collection

The following tools were formulated for each of the above methods and also to ensure participation of all groups of stakeholders in the study.

- i. **Key Informant Interview schedule:** An interview schedule was prepared to interview stakeholders like MDL officers, ULB officers, implementing agencies, and other stakeholders, for collection of information on toilet construction and challenges, machineries usage, benefits, labour saving, operation and maintenance

mechanism, advantages, impact, constraints, recommendations, etc. Schedule of Key Informant interview is enclosed in **Annexure -1**

- ii. **Checklist for equipment operator:** A checklist was developed to be discussed with the system operator for better understanding of equipment usage, application, and operation. Checklist is enclosed in **Annexure -2**

3.4 Sampling Techniques

The sampling technique adopted for is described below:

a) Survey

MDL has implemented the project in the 5 hospitals, hence, all the 5 hospitals were visited to get the information. Key informant interviews were conducted with the project medical superintendent, doctors, and nurses. Table 3.1 provides details of the sample size:

Table 3.1: Details of Sample Size

SN	Hospital	Data collection tool	Stakeholders	Sample size (Nos)
1	BYL Nair Charitable Hospital	Key Informant Interview	Authorised medical officer (AMO)	1
			Medical Officer	1
2	Mumbai District Aids Control Society	Key Informant Interview	Deputy Director	1
			Store in charge	1
3	Rajawadi Hospital	Key Informant Interview	Medical Officer	2
4	Kasturba Hospital	Key Informant Interview	Medical Superintend	1
			Medical officer	3
			Senior drug analyser	1
5	CAMA & Albless Hospital	Key Informant Interview	Chief medical officer	1
			Resident Medical Officer (RMO)	2
			Metron	1
			Sisters	5
			Total	20

4 Project Level findings, including survey reports and fund utilisation

4.1 Findings and analysis

The project's outcomes and impact are derived based on interviews with in-charge medical officers, nurses, and metrons from five hospitals. The TERI team visited all the five hospitals and assessed the functionality and use of the health equipment provided. The findings from each hospital are presented below.

4.2 BYL Nair Charitable Hospital

Table 4.1: Number of Health Equipment MDL provided to BYL Nair Charitable Hospital

SN	Benefit received	Brand	Nos	Year of Commission	Status of machine	Usage at the time of visit (Yes/No)
1	Defibrillator with ECG monitor	DEFI GUARD 400 - SCHILLER	1	May 2021	Working	Only be used during SoS (save our souls)

Source: BYL Nair Hospital

T. N. Medical College & BYL Nair Ch. Hospital is one of the premier medical institute which provides extensive training courses in various medical and allied branches including super speciality courses. The hospital handled almost 20,000 COVID patients by allotting 1700 beds (2020 – 21-1000 beds) and (2021–22 -784 beds) during COVID. MDL helped the BYL Nair Hospital to acquire one defibrillator with an ECG monitor. The device was purchased to treat the patients who were suffering from the ophthalmic complications. Due to the stress of the surgery, some individuals had developed cardiac symptoms during the pandemic time. A defibrillator helped to save such patients' lives. Hospital staff informed that it would be used only in emergency situations (Save Our Souls (SOS)) when the patient becomes ill or falls prior to surgery.

4.2.1 Mumbai District Aids Control Society

MDACS is an autonomous body established by Municipal Corporation of Greater Mumbai (MCGM) for control & prevention of HIV/AIDS in Mumbai. They use multi-sectoral approach collaborating with general Health System, other Government departments, NGOs/CBOs, private sector and People living with HIV/AIDS. This society is also played main role in treating COVID patients more than 39000 COVID patients.

Table 4.2 : Number of N95 masks MDL provided to MDACS

SN	Benefit received	Brand	Nos	Year of Commission/distribution	Status of equipment/item	Usage at the time of visit (Yes/No)
1	N95 masks	Yugan Lifecare (Bhairavi corp)	8350	September 2020	Distributed to patients	Not applicable

Source: MDACS Hospital

With the objective of safeguarding HIV+Ve patients from the COVID virus, MDACS has purchased 8350 N95 masks with MDL CSR funding because if HIV patients get COVID, it will be even worse and pose a danger to their lives. MDACS has distributed masks to 14 clinics and hospitals. This intervention was very effective and benefited 8350 HIV patients. The masks were distributed to the Anti-Retroviral Treatment (ART) centres for issuance to patients whose CD4 count was below 350 and pregnant women taking treatment from these centres.

4.2.2 Rajawadi Hospital

Table 4.3: Number of Health Equipment MDL provided to Rajawadi Hospital

SN	Benefit received	Brand	Nos	Year of Commission	Status of machine	Usage at the time of visit (Yes/No)
1	Defibrillator with ECG monitor	FUJI FILM DRY PIX Smart SYSTEM Scanner – Prima Printer –DPX Smart	1	June 2021	Working	Yes

Source: Rajawadi Hospital

At present Rajawadi Hospital is a major peripheral municipal hospital in the Eastern suburbs of Mumbai, with a capacity of 596 beds, this hospital is having different wards like Obstetrics, Gynaecology, Paediatrics and causal ward. During COVID, 100 beds were arranged for treating COVID patients, and hospital treated more than 4000 patients from 2020–21 to 2022–23. In the middle of the COVID pandemic, the hospital CR system has broken down. It was 13 years old, and spares were not available. At the same time, as per the proposal from the hospital, MDL provided funds to buy one unit of a computed radiography (CR) system. At present, equipment has been used very effectively since the beginning. Nearly 200 patients have benefited, and more than 1.74 lakh x-ray prints have been taken from the equipment. The hospital has spent Rs 18.6 lakhs on buying dry image films from September 2021 to August 2023. The system was well maintained and registered

in the asset register. Earlier, 260 x-rays were taken per day, but with new equipment, 290 or more x-ray prints are taken per day.

4.2.3 Kasturba Hospital

This hospital is located in the middle of the city. It is the largest infectious diseases hospital in the South East Asia, which admits patients of the all the infectious diseases and burned patients. In this hospital, a central analytical laboratory is also established to analyse drug samples received from different hospitals and dispensaries of the Mumbai Municipal Corporation. During COVID, hospitals treated more than 10,000 patients. This hospital has 515 beds, of which nearly 100 are dedicated to COVID patients.

Table 4.4: Number of Health Equipment MDL provided to Kasturba Hospital

SN	Benefit received	Brand	Nos	Year of Commission	Status of machine	Usage at the time of visit (Yes/No)
1	Blood Gas Analyzer	HDC -Lyte Plus (HDCLP-231)	ABG 1	March 2021	Working	Yes
2	Hematology Analyzer (AGD 300 Model)	AGD -300 Blood counter, AGD-300 Make : AGD	Cell 1	October 2021	Working	Yes
3	BD Phoenix M 50 System	BD Phoenix M 50 (AGD Make) SN: 0740325204301	1	May 2021	Minor service needed and is already under process	Yes
4	FTIR Machine with PC and Printer	SHIMADZU(Singapore) Toshvin Analyticals	1	May 2021	Working	Yes

Source: Kasturba Hospital

MDL has supported the hospital to purchase four health equipment, namely: i) FTIR Machine with PC and Printer (01 No.), ii) Blood Gas Analyzer (01 No.), iii) Haematology Analyzer (AGD 300 Model) (01 No.) and iv) BD Phoenix M 50 System (01 No.). All four equipment are placed in different locations in the hospital.

Blood Gas Analyzer: This equipment is placed in the biochemistry lab for investigating the arterial blood gas (ABG) and electrolyte levels of admitted patients, which is very important for critically ill patients who are on ventilator support. Approximately 3–4 samples of ABG and 20–25 samples of electrolyte are tested in this machine per day. Presently, this machine is under a Comprehensive Service Contract (CMC), once CMC is over, AMC will be put in place by the hospital authority. Presently, for maintenance, a daily cleaner kit will be used for cleaning the equipment. One pack of cleaner will be used for 6–8 months; this will cost around Rs 4000–5000 per kit. The equipment is registered in the asset register, and the MDL branding logo and MDL name have been pasted on the equipment. More than 25000 samples have been tested in this machine since the beginning.

- A) **BD Phoenix M 50 System:** This equipment is used in the microbiology laboratory to test and identify the most clinically relevant Gram-negative and Gram-positive bacteria, as well as yeast.
- B) **Haematology Analyser (AGD 300 Model):** This equipment is placed in the clinical pathology laboratory lab for testing the CBC, Hb, platelets, and differential counts of admitted patients. Since its inception, approximately 25000 tests have been done until December 5, 2023. Operation and maintenance costs per test are Rs 3–4; approximately, hospitals have spent Rs 100,000 till now. The service provider makes regular visits to the equipment to provide the service. The equipment is registered in the asset register, and the MDL logo put on the equipment for branding of MDL.
- C) **FTIR Machine with PC and Printer:** This equipment is placed in the Central Analytical Laboratory for the identification and testing of various drug samples received for analysis from various municipal hospitals. This is cutting edge technology offers more distinct graphics. Since its inception, almost 40 different types of drugs have been tested. The hospital spent Rs10000 each year on chemicals as part of its maintenance costs. Currently, the equipment is covered by a two-year warranty and a 5-year CMC. The equipment has been registered in the asset register, and it bears the MDL branding logo and name.

4.2.4 CAMA & Albless Hospital

Table 4.5: Number of equipment's and items MDL provided to CAMA & Albless Hospital

S N	Equipment	Units	Cost /Unit (Rs)	Total cost (Rs)	DISTRIBUTION	AMC/ CMC	Approx No. treated DATA (Persons (P) or Samples (S))
1	Binocular Microscope	1	300000	300000	Histopathology		8000(S)
2	Bedside 5 Para Monitor	10	300000	3000000	HDU - 10	AMC	1485(P)
3	03 Lead Electrocardiography	2	100000	200000	Septic-01; PICU - 01		2000 (P)
4	Surgical Trolley	10	26000	260000	Septic-01; ot-01; cancer - 03;HDU - 02; pnc-01;paediatric-02		Daily Use
5	Crash Cart Trolley	2	35000	70000	HDU-02		Daily use
6	Portable Donor Chair	10	15000	150000	Blood Bank-10		Used for blood Bank Camps
7	Surgical Instrument Set	2	125000	250000	Ot-02		1502(P)
8	Cautery Machine Model Ultima with Inseal	1	299000	299000	OT	AMC	26244 (P)
9	Pulse Oximeter	20	49980	996800	HDU-20	AMC	1485 (P)
10	Fogging Machine	4	59976	239904	Ot-01; septic - 01	AMC	10122(P)
11	Suction Machine	10	19992	199920	Ot-02, HDU-02, LABOUR-02, PNC-02, NICU-01, CANCER-01	AMC	26244(P)
12	LED Phototherapy	10	100000	1000000	NICU-10	AMC	6539(P)
13	Infusion Pump	20	39995	799900	HDU - 20	AMC	1485(P)
14	NST Machine	2	299992	599984	OT-01; isolation-01		4586(P)
15	Radiant Warmer	10	99994	999960	Nicu-10	AMC	3589(P)
16	Autoclave Machine	1	249994	249994	Paediatric ward	AMC	26248(S)
17	Binocular Microscope with Accessories	1	300000	300000	Lab		7000(S)
18	Pediatric Manikins with Simulation Unit	1	298000	298000	Nursing School		Use by students for Academic purpose
19	Fowler Cot (BED)	10	55800	558000	HDU-10		2300(P)
20	Blood Cell Counter Model MEK 6420P	1	250600	250600	Lab	AMC	150000(S)
21	V.T.M. Kit (1.50 tube = 1 Box)	40 Box	9778	391104			
	Total	128	Total cost (Rs)	11413166			

Source: Cama & Albless Hospital

Pestonji Cama & Albless Hospital & Jaffer Suleman Dispensary, Mumbai, is the only hospital in Maharashtra exclusively for women and children with an oncology wing. It is a government-run hospital in Maharashtra with well qualified health professionals. During the epidemic, this hospital was also designated as COVID care centre. During this time, as the number of patients increased, and the hospital faced lack of sufficient infrastructure, i.e., necessary equipment and accessories to cope up with the increasing demand. As a result, based on the hospital's proposal, MDL sponsored the procurement of various critical equipment and items needed to treat COVID-19 patients.

MDL's fund was used to procure around 21 different equipment- (128 units). One item, the Paediatric Manikins with simulation unit, is handed over to the nursing school, and a binocular microscope is used in the histopathology lab. Other equipment is used in different sections of the hospital, like the high dependency unit (HDU), paediatric intensive care unit, labour ward, neonatal intensive care unit (NICU), operating theatre (OT), septic ward, and cancer ward. During the survey, the TERI team visited every section of the hospital to inspect the deployment, functionality, and usage of equipment. All the equipment are in good working condition, used as per requirements. All the procured items are under AMC and necessary services are provided by the concerned vendor.

5 Appreciation

Present project got appreciation from hospital heads, doctors and nurses.

5.1 Statements of stakeholders



**Dr Chandrakanth P Pawar, Medical Superintendent ,
Kasturba Hospital, Mumbai**

During 2020-21 and 2021-22 we had a COVID pandemic and Kasturba was the first hospital to admit COVID patients, so we had a tremendous pressure as well as workload because patients were coming from Mumbai as well as outside Mumbai. That time we had machines in our laboratory which were old, so MDL supported us by providing new machines. This has helped us a lot to treat patients. In this regard I thank MDL for support and we wish that it will continue to support us in the future also.



**Dr Thushar Tatyaba Palve, Medical Superintendent,
CAMA & Albless Hospital, Mumbai**

I like to thank MDL for making donation of liquid oxygen, medical equipment for SDU and NICU and construction of SDU and other things in CAMA and Albless hospital. MDL donation and their care really helped us in managing poor and needy patients,
Thank you.



Dr Sarika Patil, AMO, BYL Nair Hospital, Mumbai

First of all thank you MDL for Donating Defibrillator with ECG monitor. This machine will be used in emergency situation during SOS. This machine kept in recovery room and when ever required we will use the machine.



Ms Dyaneshwari, Deputy Director, MDACS, Mumbai

MDL is always supporting MDACS in many ways, during COVID-19 pandemic there was need to distributing N95 masks to the patients, as it was very compulsory to wear the masks, the patients whom we treat comes from socially economically comes from lower background. So purchasing mask big difficult for them, so we decided to distribute the masks and approached MDL for support and they have provided 8350 masks, this has helped in avoiding spreading of COVID in HIV patients.



Mr Manish Doshi, Medical Officer, Rajawadi Hospital, Mumbai

This is BMC run hospital having 600 beds and we have good amount of patient flow in to this hospital two to three thousands of patients every day. We had CR machine which was old and broke down during COVID time and we were in trouble and looking forward to purchase a new one and during that MDL has supported us to buy new CR machine, we have utilised the machine in right direction and helped many patients. So I thank MDL for this great support.

6 Evaluation of implementation agency and effectiveness of implementation

During the Corona pandemic, MDL had considered four BMC hospitals and one non-profit charitable hospital to provide various medical equipment, accessories, and N-95 masks in response to the request proposals submitted by them. The hospitals that were chosen are COVID-19 treatment centres with a sufficient number of beds located in Mumbai. The project was carried between 2020-21 and 2021-22. Below are the names and addresses of the hospitals.

1. BYL Nair Hospital, Topiwala National Medical College, RTO Colony, Mumbai Central, Mumbai, Maharashtra 400008
2. Kasturba Hospital, Sane Guruji Marg, Arya Nagar, Chinchpokli, Mumbai, Maharashtra 400011
3. CAMA & Albless Hospital, WRRJ+RVQ, BMC office Mahapalika Marg opp. Azad Maidan, Dhobi Talao, Chhatrapati Shivaji Terminus Area, Fort, Mumbai, Maharashtra 400001
4. Rajawadi Hospital, 3WH2+FFG, Rajawadi Colony, Ghatkopar East, Mumbai, Maharashtra 400077
5. Mumbai District Aids Control Society, 2V96+V4P, Acworth Complex, R.A. Kidwai Marg, Wadala West, Mumbai, Maharashtra 400031

All the five hospitals implemented the project according to a set of rules and regulations mandated to them. The hospitals first requested financial aid from MDL in the form of a brief proposal in order to purchase various medical accessories, equipment, and N-95 masks. After reviewing of the proposal, MDL gave its approval. In accordance with the hospital's transparent procurement procedures, hospitals called tenders to choose competitive vendor to deliver the proposed equipment in accordance with accepted proposals. Post commercial procedures, price negotiations were carried out with lowest cost supplier. The hospitals finally submitted the completed list of suppliers and the equipment cost to MDL for final approval before submitting the work order.

The MDL procurement negotiation team approached the short-listed vendors for further negotiating and finalise the equipment cost. Following discussions with the nominated vendors, MDL finalised and the total cost of the equipment, including the equipment's warranty and AMC, so that the hospitals could place an order. Following the purchase order, supply, installation and certification was done by the supplier. Following the final review of the functional certificate, the hospital authorities sent MDL a communication requesting to pay the amount to the vendor directly. Hospitals were also given the responsibility of overseeing and evaluating the project as well as efficiently completing it within the allotted time frame.

7 Further community needs and way forward

7.1 BYL Nair Hospital

Overall, project intervention shows a positive connotation. MDL has supported BYL Nair Hospital in the purchase of a defibrillator with an ECG monitor to treat patients who are having the ophthalmic complications. This equipment is procured with a guarantee and a CMC for sustainable system maintenance. The equipment is presently not in use, however it would be useful in the future during medical emergencies. All that is required for the system to be operational in the long-term is proper maintenance support from the hospital administration.

7.2 Kasturba Hospital

MDL has supported the hospital to purchase four health equipment-, namely: i) FTIR Machine with PC and Printer (01 No.); ii) Blood Gas Analyzer (01 No.); and iii) Haematology Analyzer (AGD 300 Model) (01 No.). iv) BD Phoenix M 50 System (01 No.). Currently three of them are in use, except the BD Phoenix M-50 System. All four types of equipment- have a warranty and CMC for smooth maintenance.

7.3 CAMA & Albles Hospital

The different equipment and items provided are being used, and the hospital authorities feel that they can manage the sustainable operation without any hurdles. There are about 21 items (128 units) purchased with the financial assistance from MDL. One item, Paediatric Manikins, is given to the nursery school, and a binocular microscope is used in the histopathology lab. Other items are used in different sections, like high dependency unit (HDU), paediatric intensive care unit, labour ward, neonatal intensive care unit (NICU), operation theatre (OT), septic ward, and cancer ward. Each and every item was checked physically during the impact assessment study carried out by TERI. All the equipment and items are in order, however there is a need to put the logo of MDL on the equipment purchased under the MDL project.

7.4 Rajawadi Hospital

The computer radiography (CR) system purchased with the financial support of MDL is being used regularly and the hospital staff opine that they are confident of long-term and sustainable use of the equipment.

7.5 Mumbai District Aids Control Society

MDACS purchased 8,350 N95 masks from financial assistance received from MDL and distributed them to fourteen clinics and hospitals. This Intervention was very effective and benefitted to 8350 HIV patients during the Corona pandemic.

8 Photos feature

8.1 BYL Nair Hospital



Photo 8.1: Entrance of BSY Nair Hospital



Photo 8.2: Meeting with Hospital staff



Photo 8.3: Equipment –Defibrillator with ECG Monitor

8.2 Rajawadi Hospital



Photo 8.4: Meeting with Hospital staff



Photo 8.5: Meeting with Hospital staff



Photo 8.6: Equipment –Computed Radiography (CR) System

8.3 Mumbai District Aids Control Society



Photo 8.7: MDACS Entrance



Photo 8.8: Meeting with project in charge



Photo 8.9: N95 Masks

8.4 Kasturba Hospital



Photo 8.10: Meeting with project in charge



Photo 8.11: Staff operation Blood Gas Analyser,Bio-chemistry lab



Photo 8.12: Meeting with Bio-chemistry lab team



Photo 8.13: Blood Gas Analyser located in Bio-chemistry lab



Photo 8.14: Blood Gas Analyser cleaner



Photo 8.15: Meeting with Micro-biology lab team



Photo 8.16: BD Phoenix M-50 in Micro-biology lab



Photo 8.17: Blood Cell Counter AGD-300, Clinical Pathology lab



Photo 8.18: Meeting with Clinical Pathology lab team

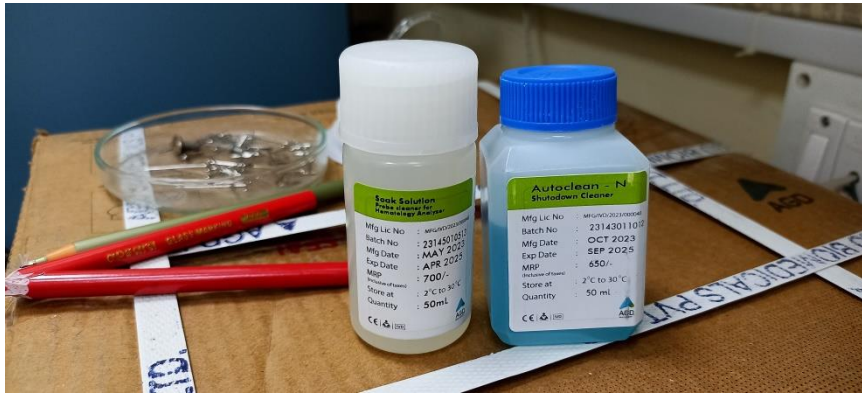


Photo 8.19: Cleaning solution for Blood Cell Counter AGD-300,



Photo 8.20: Meeting with Central Analytical Laboratory team



Photo 8.21: FTIR equipment at Central Analytical Laboratory

8.5 CAMA & Albless Hospital



Photo 8.22: Meeting with project in charge



Photo 8.23: Bed side 5 Para monitor



Photo 8.24: Crash cart trolley



Photo 8.25: Syringe/Infusion pump



Photo 8.26: Pulse oximeter



Photo 8.27: Meeting with High dependence ward team



Photo 8.28: Auto-clave



Photo 8.29: NST Machine



Photo 8.30: Radiant warmer



Photo 8.31: Radiant warmer



Photo 8.32: NST machine



Photo 8.33: Surgical trolley



Photo 8.34: Channel ECG machine



Photo 8.35: Fogging machine



Photo 8.36: Surgical instrument set



Photo 8.37: LED phototherapy machine



Photo 8.38: Electro cautery machine



Photo 8.39: Suction machine



Photo 8.40: Meeting with Labour ward staff



Photo 8.41: Binocular Microscope



Photo 8.42: Portable donar chairs



Photo 8.43: Mannequin used in Nursing college

Annexure-1

Impact Assessment of MDL CSR Projects Implemented in Health Sector During COVID-19 (2021-2022)

Project-1: Supply of different medical equipment's, accessories and distribution of N-95 masks in 5 different hospitals in Mumbai

Questionnaire for Key Informant Interview – Implementing agency (Hospital)

Basic Information	
1.	Name of the hospital
2.	Address and Contact number
3.	Type of hospital (Government or Private)
4.	Year of establishment
5.	Number of Beds
6.	Hospital services/Treatment
7.	Criteria for selection of hospital
8.	Nodal officer of project implementation.
	Name:
	Designation:
	Contact Number:
9.	Number of years' of service in the Hospital
10.	How many COVID-19 patients have been treated by hospital
	2020-2021 Nos:
	2021-2022 Nos :
	2022-2023 Nos:
11.	Population and Area covered by the Hospital
	Population:
	Area :
12.	Health equipment purchased under MDL CSR project
	Name :
	Brand:
	Capacity:
	(Collect brochures if any)

13.	Application of equipment			
14.	Reason for purchasing particular health equipment			
15.	Project duration (✓)	2020-2021 / 2021-2022		
16.	Year of commencement and Completion of project (Month/Year)	Start: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table> End: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table>		
17.	Total project cost	Proposed (Lakhs) <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table>		
		Sanctioned (Lakhs) <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table>		
Actual (Lakhs) <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr></table>				
18.	Benefit of the health equipment	Number patients treated: 2020-2021 (Nos): 2021-2022 (Nos): 2022-2023 (Nos):		
19.	Is Registered the medical equipment details in Asset Register (✓) (If Yes, please take of photo of register)	Yes/No		
20.	Please collect the photographs of equipment with patient			
21.	MDL Branding (✓) (Collect copies of documents)	1. Display Banners 2. Hand bills 3. Social media 4. Hospital website		
22.	Project reports	1. Project completion report 2. Project progress report		
23.	How has this project contributed to tackle COVID-19 pandemic in project area	Before project : ----- After project : -----		
24.	Is there a potential for future implementation (✓)	Yes/NO		

Signature of Investigator:

Signature of officer

Date:

Office seal

Date:

Annexure -2

Project-1: Supply of different medical equipment's, accessories and distribution of N-95 masks in 5 different hospitals in Mumbai

Check list for Medical equipment - Equipment operator in the Hospital

Basic Information	
1.	Name of the hospital
2.	Name and contact number of equipment operator Name: Contact number:
3.	Qualification
4.	Number of years' of service in the Hospital
5.	Name of the health equipment
6.	Year of equipment commissioned (month/year)
7.	Present condition of health equipment (✓) Functioning /Not Functioning
8.	Appearance 1. Clean 2. Dusty 3. Intermediate
Training on equipment	
10.	Have you undergone training to operate equipment (✓) Yes/No
11.	Are you comfortable with operating the equipment (✓) Yes/No
System Service and maintenance	
13.	Is there any service back up system (✓) Yes /NO
14.	If yes who is providing service
15.	How many times service provided (Nos) so far. 2020-2021 (Nos): 2021-2022 (Nos): 2022-2023 (Nos):
System operation	
17.	Operating cost of health equipment per month or sample testing
18.	Number of samples/patients treated so far 2020-2021 (Nos): 2021-2022 (Nos): 2022-2023 (Nos):
19.	Usability and Convenience
20.	What are the advantages of using the machine
21.	Any suggestions for improving the program
22.	Any remarks

Signature of Investigator:

Signature of operator

Date:

Office seal

Date:



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