

# **Impact Assessment Report on**

**"To provide Quality Paediatric  
Cardian services through the  
purchase of medical  
equipment at Sri Sathya Sai  
Sanjeevani centres for Child  
Heart Care"**

**Prepared For**



**Bharat Petroleum  
Corporation Limited  
Mumbai**

**Submitted By**



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## Executive Summary


Physical inspection of the Sri Sathya Sai Sanjeevani Child Heart Care Centre, Khargar Navi Mumbai, which was established and is run as one of three centres of the Sri Sathya Sai Health & Education Trust, reveals that all of the equipment and machinery required to provide advanced medical intervention and cardiac surgeries has been completed and is operational.

The physical verification reveals that all the procurement of equipment and machineries with the support of BPCL has resulted in advanced medical intervention, super specialty cardiac care with the highest quality of care has been done. Patients and children are receiving the most advanced technological services from the centre. All the equipment is well maintained and centre having a biomedical engineer to monitor and train the staff regarding use & care of the equipment.

Interaction with the doctors revealed that most of the patients nationwide come to the Sri Sathya Sai Sanjeevani Centre to receive the treatment of congenital heart diseases free of cost. Having the high-tech and advanced cardiac facilities in the centre resulting in to deliver the success rate of 98 to 99% in surgeries and CATH interventions.

The Central Sterile Supply Department (CSSD) & Laundry Department all these facilities aim to provide high-quality care for all patients. All this medical equipment has aided in providing infection free and sterile equipment for the surgery and infection free care for the patients.

Interviews with the Sri Sathya Sai Sanjeevani Centre various departments revealed that the procurement of equipment and machineries support of BPCL aiding in delivering end to end cardiac services to the patients. Through this support centre, we can now provide all types of cardiac surgical intervention and CATH intervention to children diagnosed with congenital heart diseases. The public health department of the centre runs 2 clinics in the community to screen patients as well as pregnant mothers for early screening of congenital heart disease. Also public health departments are working with the PHC's and ICDS for screening now that their services are spreading through word of mouth across the nation. Some patients travel from abroad to have their surgeries performed at the centre. Once they have been screened. if anyone is suspected of being found in the community, they are summoned for further examination and testing. Patient has been confirmed with the disease they have been given the date for the surgery and further treatment. Medical social workers in the centre counsel the parents about further processes and surgical procedures. A medical social worker from screening to discharge after the intervention provides counselling and support to the patients. Also the centre practices the Impact assessments of the patients which help them to improve the quality of services. The services of the hospital are providing free of cost to the patients also free food and lodging to the 2 members of the



family / guardian. The services are open to all at no cost irrespective of caste, gender, religion, creed and nationality. For the intervention in Congenital heart disease surgical intervention and Cath intervention cost 1.25 Lakh to 4.50 in private hospitals base on the type of surgery.

Interviews with the patients revealed that the majority of the patients are from the socio economically backward section of the society and come from all over India. The parents and guardians of the patients expressed that they underwent serious challenges after being diagnosed with congenital heart disease. Congenital heart disease develops at birth and cardiac intervention is among the most expensive treatments. Diagnosis of the congenital heart condition requires costly tests. Taking care of a child with a congenital disease is difficult and burdensome for the parents, and both parents must suffer emotionally in these cases. After a few visits to in the private or government hospital parents stop visiting as it's requires resources. Parents after knowing about the Sri Sathya Sai Sanjeevani Centre for Child Heart Care come to the centre and take the dates for the surgery. Parents stated that hospital staff counselled them about the disease and the further process in the details. Parents were also provided lodging and food free of cost in the centre. Patients were also given medical advice to be adhered to after the surgery like precautions and medications. Patients also get the follow-up visit dates.

It can be concluded that the equipment and machinery support to the Sri Sathya Sai Sanjeevani Centre by BPCL for developing the centre is equipped with the advanced medical investigation and cardiac surgery services. This has resulted in the cardiac multi facility an end to end pediatric cardiac services centre. From screening of the patients to operation discharge and post operation services are now available at the centre. The CSSD and laundry department are the major departments that contribute to in the sterilization process, increasing the quality of the treatment. Because of all the high tech and advanced equipment and machineries the success rate of the surgeries in the centre is 98 to 99%. This seems to be the highest quality of cardiac care provided by the Sri Sathya Sai Child Heart Care Centre. This will contribute to reducing the global burden of congenital heart disease by providing it free of cost to everyone.

## Project Background

This section discusses BPCL's support for Sri Sathya Sai Sanjeevani Centre for Child Heart Care, and covers the organizational details of Sri Sathya Sai Health Education Trust and the key highlights of the project agreement between BPCL and Sri Sathya Sai Health & Education Trust.

### Organization Profile

#### History :-

Established in May 1970, the Sri Sathya Sai Health and Education Trust is a Public Charitable Trust. Sri Sathya Sai Baba, the Founder and President, was working tirelessly to alleviate the suffering of millions the world over. "Love All, Serve All" was his life message. The trust commenced its services with Sri Sathya Sai General Hospital in Whitefield, in rural Karnataka, serving over two million outpatients and conducting over twenty thousand surgeries in all general specialities in over a thousand villages. To address the global burden of Congenital Heart Diseases Trust has now embarked on a journey through the Sri Sathya Sai Sanjeevani Centre for Child Heart Care.

#### Beginnings/First Steps :-

In 2005, Sri Sathya Sai Sanjeevani established their first completely free of charge centre for child heart care in Raipur, Chhattisgarh. After the success and expected outcomes, the trust decided to start a second centre for child heart care in 2016 at Baghola, Palwal District, Haryana. To serve the population of Maharashtra and nearby areas, the Sri Sathya Sai Sanjeevani Centre for Child Heart Care & Training in Pediatric Cardiac Skills started in 2018 at Kharghar, Navi Mumbai.

#### Sri Sathya Sai Sanjeevani Centre for Child Heart Care has five verticals :

1. Super Speciality Cardiac Care.
2. Public Health
3. Training & Capacity Building
4. Research Foundation & Genomic Lab
5. Nutrition

#### 1. Super Speciality Cardiac Care

In this vertical center, we provide tertiary level interventions related to pediatric heart disease. All the services under this vertical are fully free of cost for children in the age group of 0 to 18 years old.

**A. Diagnostics** :- For congenital heart disease. They mainly do ECHO, ECG, X-Ray, Foetal Echocardiography, Diagnostic Angiography, and Medical Management.

**B. Cath Intervention** :- The diagnostic child referred to the CATH intervention as per the requirement of the heart disease. In this section, they provide PDA device closure, ASD device closure, Balloon dilations, VSD device closure, EP Study, and RF Ablations of SVTs.

**C. Surgical Spectrum :-** In this section, they provide surgical intervention as per the requirement of the disease. In congenital heart disease, some diseases require surgical intervention. A total 34 types of surgeries are provided by the centre at no cost.

**D. Pediatric Intensive Care :-** Centre has a paediatric intensive care unit to monitor the stability of the patients after surgery and cath intervention. To stabilise the patient in this section, take care of the medication and all the required medical and monitoring support.

## 2. Public Health

In this vertical centre, we work with PHC, UPHC, ANM, & ICDS. The centre is partnering with the government of Maharashtra, working with 3 PHC and 33 ICDS centres to provide preventive health care. The centre runs an Antenatal Clinic & Well baby clinic in the community to diagnose and antenatal care of the mother and child. In this vertical centre, they are doing their outreach and screening people with congenital heart disease. This aspect mainly focuses on the preventative aspect of heart diseases.

## 3. Training & Capacity Building

Centre providing fellowships and training program to the doctors and nurses. Aim behind this vertical is to human resource in the sector of cardiac should be highly skilled. For this vertical they have partnership with Maharashtra University of Health Sciences (MUHS). Fellowship in public health practices, Pediatric Cardiac Surgeries, Pediatric Cardiac Anaesthesia, Pediatric Cardiology these four fellowships are given by the centre.

## 4. Research

Trust has Genomic Lab to do research on the tissues of the heart to unravel the possible causes of congenital heart diseases. The lab procures the samples from across the centres and does the research. It is also largest biobank in the country for congenital heart diseases.

## 5. Nutrition

In this area they have some nutrition supplement they provide to the marginal section of the society. In this they have supplement like Sai Sure pregnant mother, Sai sure Toddler, Sai sure pre-school. They mainly focus on pregnant mother and children for this in some states they have partnership with government and they provide supplement along with the mid-day meal in the school.

## Program Impact

Since the year 2005, Sri Sathya Sai Sanjeevani Centre for Child Heart Care. It is the only hospital for congenital heart disease without the cash counter. Across the three centres they have given the life to many. From 2018 through Sri Sathya Sai Centre for Child Heart Care, Kharghar they are working in the area of Maharashtra and allied states.

- Approximately, 1000 Surgeries have been done so far by the Kharghar centre.
- Per day, 3 to 4 surgeries are held in the centre
- Every year, patients from across gender, caste, and religion are treated. They have treated patients from abroad also.
- They have screened approximately 14,000 children and 3,500 pregnant mothers to date.
- The centre has a success rate of 98 to 99% in surgeries and cath intervention.
- For the treatment of congenital heart disease costs around 1.5 lakh to 4.5 lakh, approximately, per surgery, they are helping in saving 2.5 lakh rupees.

### The Principal objectives of the project of Infrastructural Support of Sri Sathya Sai Sanjeevani Child Heart Care Centre are :

- Centre will serve children who are in need of advanced medical investigation and cardiac surgeries. All the services including surgeries will be provided free of cost by the centre. The target group will be 0 to 18 years old children suffering from Pediatric Cardiac Ailments and Congenital Heart Defects.
- Centre will aim to cater over 600 patients who will operate/conduct surgeries in first year of the project and numbers would subsequently increase to 1200 patients in following years. In addition, about 9000-12000 patients will be screened at OPD in a year.
- All services will be free of cost including food & lodging for maximum 2 family members/ guardian of a child.

### Project Impact

This section discusses the impact of BPCL's infrastructural support project for Sri Sathya Sai Centre's start-to-finish equipment support. To perform and deliver high-quality cardiac services to needy people at no cost.

SRI SATHYA SAI SANJEEVANI CENTRE FOR CHILD HEART CARE- PATIENT DATA ( FOR BPCL CSR PROJECT)				
Sr.No.	Period	No.of Patient in OPD	No.of Surgeries	No.of Cath Intervention
1	01-11-2020 to 31.03.2021	864	140	29
2	01-04-2021 to 05.02.2022	3314	578	209
		4178	718	238
			Grand Total = 956	
STATE WISE BREKUP		COUNT		
MAHARASHTRA		581		
Madhya Pradesh		37		
Bihar		89		
Uttar Pradesh		156		
Odisha		32		
Jharkhand		33		
Rajasthan		6		
West Bengal		9		
Karnataka		6		
Kurdistan (Irak)		4		
Nigeria		2		
Tanzania		1		

## Highest Quality of Paediatric Cardiac Care Services

Based on the interviews with the doctors and parents of the patients and the quality of the equipment and machineries, it is observed that the services provided by the centre are the highest quality services.

## Early stage screening of congenital heart disease for better treatment

Discussion with the public health department and medical social worker it has been found that early stage screening has been done by the community clinics of the centre.

## End to End Services for the Paediatric Care

From the screening, surgical intervention, post-operative care all the services has been provided by the centre and in each service is provided by the equipment/machineries supported by the BPCL.

## Maintenance Mechanism

A biomedical engineer was hired by the centre to maintain and train on the use of equipment and machinery. Engineer ensures the use and functioning of the equipment on a daily basis.

## Increase in the quality of the intervention

The CSSD Department and laundry department ensure the sterilization and provide a secure environment to increase the quality of the intervention.

## Physical Verification

Physical verification of the infrastructural development was done at the Sri Sathya Sai Sanjeevani Centre by BPCL and was carried out by the SoulAce Research Team. The SoulAce Research Team, Mumbai, visited the Sri Sathya Sai Sanjeevani Centre, on 14.03.2022. Following are the observations made by the team :

### Syringe Pumps

Syringe pumps are used for delivering a small amount of medication by mechanically moving the piston of a syringe to send medication into IV tubing. Syringe pumps are mostly used when vital organs require a specific amount of medication within a specific time frame. Pump monitors the dosage of medication and, once set by the operator, delivers it automatically to the patients by adjusting the dosage and timeline set by the operator. In the cases of children with heart surgery, it requires lots of infusions at a time by different dosages of it at various times. A syringe pump is required by all the child patients going through heart surgery. A syringe pump is required before and after surgery when starting medication. Currently, the centre has 100 syringe pumps which are in use in the ICU, MICU, Pre -Operation Ward, and Post -Operation Ward.

All syringe pumps are well maintained and regularly in use. These pumps are operated by nurses and doctors who have received extensive training in the use and care of the syringe pump. Mechanically moving the piston of a syringe to send medication into IV tubing. Syringe pumps are mostly used when vital organs require a specific amount of medication within a specific time frame. Pump monitors the dosage of medication and, once set by the operator, delivers it automatically to the patients by adjusting the dosage and timeline set by the operator. In the cases of children with heart surgery, it requires lots of infusions at a time by different dosages of it at various times. A syringe pump is required by all the child patients going through heart surgery. A syringe pump is required before and after surgery when starting medication. Currently, the centre has 100 syringe pumps which are in use in the ICU, MICU, Pre-Operation Ward, and Post-Operation Ward.



**Syringe pump in use**



## Central Sterile Service Department (CSSD)

CSSD is a department with devices for the sterilisation of surgical equipment. Pre -operation and after the operation, the CSSD department sterilised all the equipment and provided clean and sterilised equipment to the doctors to do the surgeries. The CSSD department has all the digital and technical compatible automated devices. The CSSD department is headed by the professionals in sterilization.

All the devices in the CSSD department are well maintained and in daily use as they require daily usage depending on the surgery. The CSSD department is directly connected with OT through a separate elevator to ensure disinfected equipment is handed over to the surgeons. All the devices are handled by the professionals in sterilisation and are well trained with professional qualifications.



**Washer Disinfector in CSSD  
Department to Sterilization of  
Surgical Equipment**

## Laundry Department

Laundry department sterilize all the linen, clothes for the patients and parents, Doctors and hospital staff clothes, and clothes used in OT. This department ensures that the linen and clothes provided in the hospital are disinfected and clean. So the environment of the hospital can stay disinfected and clean.

All the device, in the Laundry department are well maintained and specially handled by the team of this department. This department has skilled staff in handling the machines, and this department everyday washes and irons the clothes and linens of the hospital.



**Machines in Laundry Department to Sterilization of Linen and clothes of staff and patient**

## Ventilators

A ventilator is a device that supports or recreates the process of breathing by pumping air into the lungs. The ventilator is the most important and frequently used device in the OT and ICU. Patients undergoing general anaesthesia require ventilators as they are not able to breathe on their own. Also, during the surgery, patients require ventilators. It is a life-saving device for patients without ventilators, since doctors can't perform surgery.

A total of eight ventilator centres have been placed in the ICU, MICU, and OT. It's also a mobile ventilator, so it can move easily as per the requirement. All the ventilators are well maintained and handled by the staff, who are well aware of the usage and cautions.



**Ventilator in ICU, ready as required**

## Temporary Pacemakers

Temporary Pacemaker is very important device in cardiac surgeries. This device helps the heartbeat get back to a normal pace if it has been temporarily out of the rhythm. After the surgery patients required the temporary pacemakers. As patients in ICU after the surgery requires outer support for their heart and in some case heartbeat takes time to get at normal pace in such cases this device is life saving device and it helps heart to keep functioning at a regular pace.

Temporary Pacemakers were found in very good positions and well maintained. A total of 10 temporary pacemakers are in place, most of them in ICU and MICU as they are required there.



Temporary Pace  
Maker

## Anaesthesia work station

Anaesthesia is a crucial part of every surgery. In every surgical intervention, anaesthesia is required. Without anaesthesia, no operation can be performed because the patient must undergo anaesthetic intervention prior to the operation and be monitored throughout the procedure. Anaesthesia can cause a critical situation if not given properly or monitored properly. Anaesthesia work station delivers the mixture of anaesthesia and respiratory gas and monitors the patient's anaesthetic condition. At the anaesthesia work station, make sure that throughout the surgery, patients are stable and have proper anaesthetic and respiratory gas.

Anaesthesia work station found in use. Workstation is well maintained and operated by the anaesthetists.



**Patient in ICU with Ventilator, Monitoring system, Syringe pump and Pace maker installed**

## Ultra Sound Scanners

They are used in cases of abdominal, cardiac, maternity, gynaecological, urological, cerebrovascular examination, breast examination, and small pieces of tissue, as well as in paediatric and operational review. Ultrasound helps in scanning the heart condition of the foetus inside the womb. Ultrasound machines provide a view of the heart of a baby inside the womb as well as a clear picture of the human heart by ultrasonic waves. BPCL provided two ultrasound scanners, one of which is kept in the public health department of the centre and the other one is in the consultation 1 department. With the help of an ultrasound machine, they provide a clear picture of the heart and help in the diagnosis of congenital heart disease. Ultra sound scanners in Sri Sathya Sai Sanjeevani centre are the most modernized and advanced providing free of cost services to the beneficiaries. Modern scanners like this are not in the Government hospitals in the nearby area.

The Ultra-Sound Scanners were found to be well maintained and operated by professional doctors. They provide diagnosis of the heart to the patients.



**Ultra Sound Scanner in  
Public Health Department  
of the Centre is the first  
step of screening**

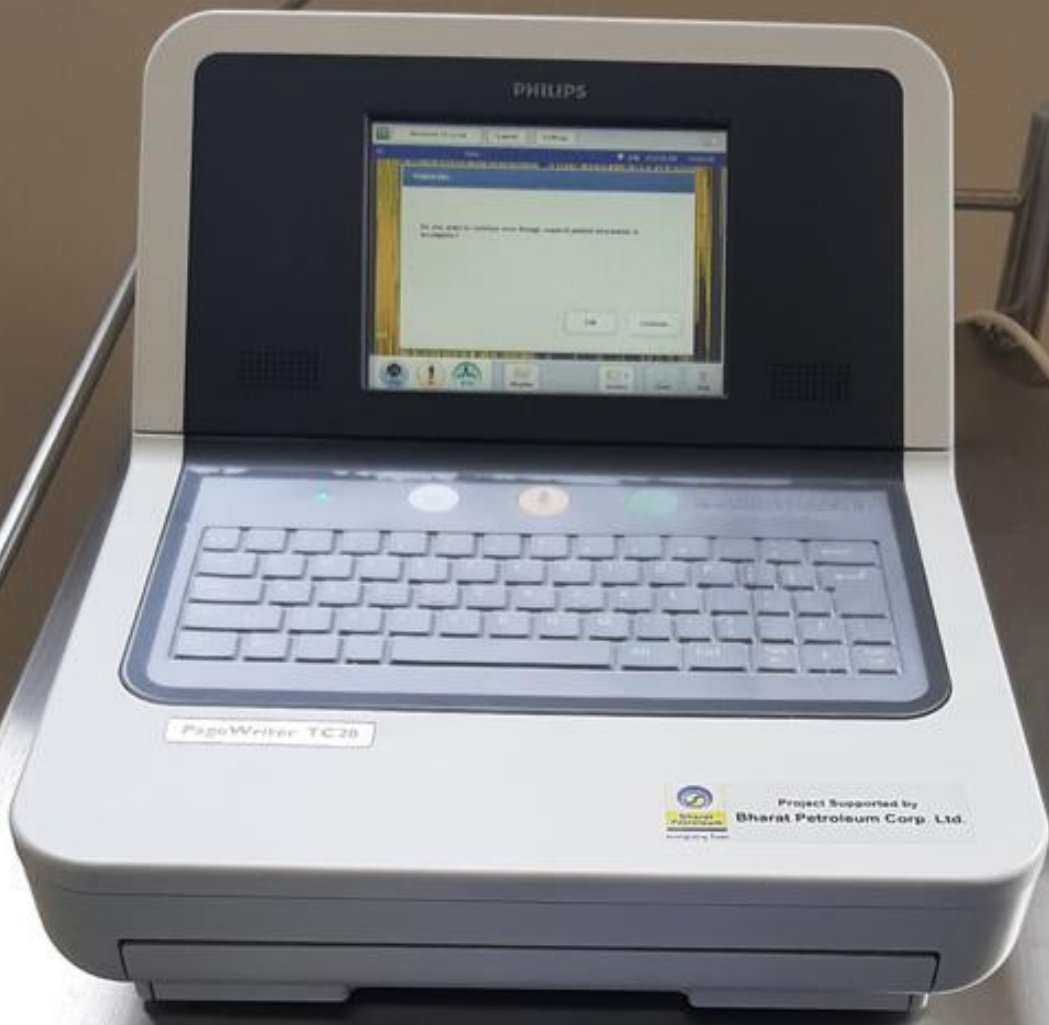
## Critical Monitoring Systems

Critical Monitoring systems are collections of equipment useful for constantly monitoring patients through various vital signs and warning systems to detect and record changes in patient wellbeing. From admitting patients to discharge after surgery this equipment is required at various stages to monitor the overall patient status. During the surgery, the critical monitoring system help doctors observe the movements and changes in the vitals. These systems alarm the doctors if they detect any malfunction or inappropriate movement in the vitals. A critical Monitoring System is a life-saving device that detects and inform.

Monitoring system equipment is placed throughout the IPD and used according to the needs of the patient's condition. The ICU and MICU are fully equipped with monitoring Critical Monitoring systems because they are needed the majority of the time. All the nursing staff at the hospital are well trained in the usage of this equipment.



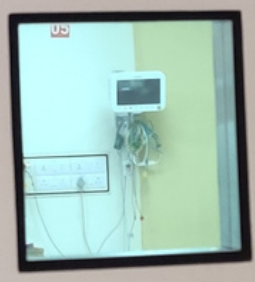
**Critical Monitoring System Installed and monitoring the vitals of the patient**



**ECG Machine**



 PEDIATRIC CARDIAC INTENSIVE CARE UNIT



**SoulAce Representative Visiting ICU**



**Anaesthesia Work Station**

## Analysis

### Section A : Interviews with the Doctors



**Dr. Sai Sujana**

Dr. Sai Sujana, Pediatric Cardiologist, has been serving at the Sri Sathya Sai Sanjeevani Centre for 4 years. She said there are so many children out there suffering from congenital heart disease. At the Sanjeevani centre, we are treating patients every day. Heart diseases are the most crucial diseases. If they are not treated in time, they will cause the end of a life. At the Sanjeevani Centre, we are providing cardiac services free of cost to every child in the age group of 0 to 18. No hospital caters to pediatric services free of charge. I have seen the parents of children who were helpless, and once they entered the hospital, they got a new hope for their children. During COVID, I saw people who were not able to afford food for their families. One parent was crying after seeing the plate filled fully with food. The Sanjeevani centre serves the people with care and love. If you have a hospital, you need to have equipment. Without equipment, there is no hospital. A doctor can't do anything. "If you want to provide excellent services, you need excellent equipment." The equipment provided by the BPCL is a main part of the hospital. Without the equipment support, running the hospital is not possible. This equipment is not only useful for patients; it is useful for everyone in the hospital. It also helps the staff and doctors. With this equipment, we are able to serve children with congenital heart disease. And we are providing all these services free of charge to everyone. By treating the heart of their child, we are fulfilling the hopes of the parents.



**Dr. Rishikesh Wadke**

Dr. Rishikesh Wadke, HOD Public Health, The BPCL -supported CSR Project at Sri Sathya Sai Sanjeevani Centre for Child Heart Care, Kharghar, which is a unit of Sri Sathya Sai Health and Education Trust, is one of the most comprehensive, exhaustive and impactful projects in which I was fortunate to be involved as part of planning and implementation along with our internal stakeholders and BPCL team. The spectrum of BPCL support is very wide and ranges from screening, to supportive services, to clinical services. BPCL has indeed helped our centre get a head start in operationalizing our pediatric cardiac services in record time. We are also working with PHC, ICDS Centre, and ASHA to increase the reach of our centre. We have adopted 33 ICDS centres and are providing them with services like early screening services. It's indeed a learning experience for me as the protocols and compliances of PSUs like BPCL are very meticulous and well defined. It gives a sense of enormous joy to plan and implement this BPCL CSR project along with the wonderful and supportive BPCL team.



### Interview with Dr. Sonal Raut

Dr. Sonal Raut, Program Manager, Public Health, Dr. Raut has been with the Sri Sathya Sai Sanjeevani Centre for 2.5 years and is honoured to be serving the people on the ground. She said, "The team of public health workers worked at the grassroots level with the PHC and weekly clinics by the Sanjeevani Centre in the community. We can address congenital heart disease at its earliest stage by screening people in the community. By screening pregnant women, we are screening the congenital heart disease of the baby inside the womb itself. It is preferable to operate and treat congenital heart disease as soon as it is identified. With the ultrasound scanner, we are able to do the screening. Till now, we have screened 2453 pregnant mothers and 100+ people got early intervention. The ultra-sound scanner is a boon to the patients. During the COVID time, the ultrasound machine was very helpful for the mothers, and mothers are receiving these services free of cost. It all became possible because of the BPCL's support. Because this is the major aspect of our heart care centre where we identify and screen patients, the ultrasound machine is our companion in this.

## A.i. Highlights of the Discussion with the Doctors

- Congenital heart disease is a life-threatening disease and requires early intervention to cure the disease with fewer complications.
- The surgical equipment, critical monitoring unit, anaesthesia work station all contribute significantly to the best possible outcomes and high success rate of the surgery.
- The equipment and machineries procured by the support of BPCL are helping in the screening and curing the pediatric cardiac ailment.
- Without the equipment delivering the pediatric cardiac services is not possible.

## Section B : Interviews with nursing Staff

This section deals with the role of nursing staff as they form a crucial part in allaying the concerns of patients towards treatment and surgery. Their main role is to provide support to both patients and doctors. They are the main link between the doctors and patients. Nurses from different departments got interviews as the role of nurses varies as per the department they are part of. Interviews with some of the nursing staff from the ICU and post-operation ward are presented here.



### **Interview with ICU Team Leader Ms. Subaranyani N.**

Ms. Subaranyani N., Team Leader in ICU, said, "I have been with Sri Sathya Sai Sanjeevani Centre for the past 5 years. I am working in the most critical unit, the ICU. After the surgery, patients come into the ICU and stay under observation till they get stabilized. As we do the surgery with the children, we need to be more aware. The equipment support we got from the BPCL is life-saving equipment. The GE Companies ventilator, which we got from the BPCL, is high-tech, upgraded and very useful in the case of new-born babies. I am thankful to the BPCL because of this equipment; we are able to save the lives of many. We also need more equipment for further support. "



### Interview with Sister In Charge Ms. Gireeja Shankar

Ms. Gireeja Shankar Satam, Sister In-Charge said I am very glad that I have been associated with Sri Satya Sai Sanjeevani heart care centre. Here, we offer free life-saving services to those in need. We mainly work with children aged between 0 and 18 years old. Patients here come from various different backgrounds and different areas of the country. Parents are mostly from the socially and economically deprived class, so I have to explain all the procedures to them. Because they can become panicked and concerned when they see their child in a critical condition. The equipment from BPCL is really helpful for us to treat the patients and in caretaking after surgery. We wouldn't be able to treat and admit patients at this level without the equipment support from BPCL. Now we are seeing more patients and treating them, saving lives every day.





### Interview with Ms. Mary Bhalerao

Ms. Mary Bhalerao, Staff Nurse, Operation Ward, said I've been at this centre for the past 2.5 years. Every day I take care of the patients after the operation and monitor their status and medication. Prior to that, there was a manual injection we were using to give medicine to the patients. In the case of children, it is very critical to give the dosage of medicine by manual injection into an IV. In the case of pediatric heart disease, medicine needs to be given in measured quantity and on time. The syringe pump, which is given by the BPCL, is very helpful for us to give the medication to the patient from time to time and at a particular dosage. We only have to fill the medicine and set the time and quantity on the pump. These syringe pumps calculate the time automatically and deliver the medication properly. This equipment not only helps staff, but also helps the patients receive proper dosages of medication in critical scenarios. Proper dosage of medication covers the risk and helps in recovery.

## B.1. Highlights of interviews with nursing staff

- After the surgery in the ICU & MICU, all the patients are totally dependent on the equipment that is supported by the BPCL.
- Nursing staff is the closet stakeholder to the equipment.
- Equipment is highly advanced and makes the work convenient as well as helps the patients in recovery.

## Section C : Interviews with head of the department and Outreach Staff



### Interview with Mr. Dnyaneshwar Sutar

Mr. Dnyaneshwar R. Sutar, CSSD Technician, says, "Our department is an essential department of the hospital. We look after the sterilisation of the surgical equipment. We are in charge of preventing infection during the surgery. In our department, we have 3 technicians working. We are all specialised in sterilisation and also trained in handling the equipment. Equipment provided by the BPCL is our companion in the sterilisation process. We are all well trained and take proper care of the equipment. The whole sterilisation process depends on this equipment and machines. These machines are upgraded and the latest ones can sterilise the equipment frequently, so surgery should be on time and in a day, doctors can do as much surgery as they can. CSSD department machines and equipment are an important part of the surgical procedure."



### Discussion with Ms. Jyoti and Dr. Rishikesh

Ms. Jyoti S. Gaikwad, Biomedical Engineer, said, "I am the person having the responsibility for all the equipment and machineries in the centre. BPCL provided the equipment and machinery required at every stage. All the equipment we have received from the BPCL is high-tech and advanced, which delivers accurate results and functions way more effectively. All the equipment we got is technically sound and meets the requirements. For screening we are using ultrasonic machines, for diagnosis we are using ECHO machines and ultra-sound machines. We are using monitors for monitoring the patients' vitals. During operation, all the surgical and digital monitoring equipment, post-operator ventilators, syringe pumps, etc. are supported by the BPCL. I am very thankful to the BPCL for providing us with end-to-end equipment and machinery support. I take care of all the equipment and its maintenance.

I assured each and every member of the staff who was in charge of the equipment that they were well-trained and safe. In my previous job, I worked in other hospitals where staff carelessly used equipment, but at Sri Sathya Sai Sanjeevani Centre, all staff handled machines and equipment with care and used them correctly. The laundry unit and CSSD department have equipment that is supported by the BPCL. These departments are the major parts of the centre. I check each and every piece of equipment in the centre on a daily basis to ensure that it is working properly and handling properly. We are using the equipment supported by BPCL. After the surgery, the doctors stand for 12 hours in front of the monitors to watch the condition of the patients and wait for stability. I can say we are doing the surgery because of the equipment and we are having the patient because of the surgery. Without equipment, doctors wouldn't be able to do the surgery and save the lives of needy people every day. "



### Discussion with Medical Social Worker

Ms. Rupali S. Gaikwad, Medical Social Worker, said “I have been working with Sri Sathya Sai Sanjeevani Centre from last one year. I am working at three different levels. First, I do the outreach at community level to spread the word about our centre and mobilise the needy people at our community clinic. Secondly, I counsel the parents of children in the ward regarding the procedure of the hospital and also help them to cope up with the situations. I am also working in the impact assessment section of the centre, where we assess the impact on the family and their current situation. Due to the congenital heart disease of their child, how their lives were affected and what their situation of was after the surgery and intervention. As a medical social worker, I measure the impact of Sri Sathya Sai Sanjeevani Centre on people’s lives, and how the intervention of the centre changes the lives of the people by giving new life to children. Through the outreach clinic, well baby clinic, and antenatal clinic we are able to screen the patients at early stages with the help of equipment. If the equipment support had not been there, then we would not have been able to treat the patients.”

## C.1. Highlights of interviews with head of the department and Outreach staff

- The centre caters to children falling in the age group of 0 to 18 having congenital heart diseases. All the pediatric cardiac services and surgery are free of cost for all people from all castes, religions, genders, creeds and nationalities. Which would cost a minimum of Rs. 1.25 lakh to Rs. 4.50 lakh based on the surgery done.
- List of the Doctors handle the ultra sonic machine
- List of the Doctors handle the ultrasonic machine
- Outreach teams and public health department is organising community clinic in the rural area to screen the patients twice in a week.
- Centre is aligning with the Government Schemes Like Maharma Jyotiba Phule Jan Arogya Yojana & Ayushman Bharat Yojna for covering the expenses. Those who are not eligible for this schemes their expenses covered by the Sri Sathya Sai Baba Trust.
- Centre is also working with the government of Maharashtra for training and screening of the cardiac issues.
- Centre also provide free accommodation and food for the guardian/parents of the children.
- CSSD department and laundry department are the department ensure the sterilizing which leads in to increase the quality of services and provide infection free environment.
- Centre also does the Impact assessment of each and every patient to measure the qualitative aspects.
- Centre is also running some initiatives like Gift of Life and Khushi ka Pitara for spreading the happiness amongst the parents and children.



## VISITING HOURS OF DOCTORS FOR SONOGRAPHY CLINIC

Name of Doctor	Days of Visit	Visiting Hours
<b>Dr. Sarika Mhatre</b> MBBS,DGO Consultant Obstetrician	Tuesday (Afternoon)	1.30 pm to 5.30 pm
<b>Dr. Manisha Matkar</b> MBBS,DGO Consultant Obstetrician	Thursday (Afternoon)	1.30 pm to 5.30 pm
<b>Dr. Bolisetti Pallavi</b> MBBS,DMRE Consultant Radiologist	Saturday (Morning)	9.00 am to 1.00pm
<b>Dr. Hemant Pakhale</b> DNB(Radio),DMRD Consultant Radiologist	Saturday (Afternoon)	1.30pm to 5.30pm
<b>Dr. Bolisetti Suprabhat S</b> MD(Radio),DMRD Consultant Radiologist	Saturday (Afternoon)	1.30pm to 5.30pm

List of the Doctors handle the ultra sonic machine

All Doctors are available on call all days of the week

## D. Interviews with the Parents / Guardian of the Patients.

This section deals with the case studies of the patients. These patients had been diagnosed with congenital heart diseases at birth. All of them come from socio-economically backward sections of society and have gone through surgical and cath intervention in the centre.



**Baby Atharv with his Mother**

Nitin Kumar, the father of Baby Atharv, a three-year-old male, is from the Uttar Pradesh district of Allahabad. Nitin Kumar is a daily wage worker working as an electrician in his village. Atharv has congenital heart disease, a hole in the heart and valve blockage by birth. Nitin has been working hard to treat his son's disease. But for the treatment of this condition, it requires 3 to 4 lakh rupees. Meanwhile, before the surgical intervention, Nitin spent around 20000 to 25000 rupees on the treatment and medication of his son. He does not have the condition of continuing the medication as well as irregularity in work. He was not getting work. Because of the ailment and taking care of his son, his livelihood was also compromised. He lost all his hopes of treating his son. One day, Nitin got to know about the Sri Sathya Sai Sanjeevani Child Heart Care Centre from his in-law member. Nitin took his son to Mumbai, where they did all the scanning procedures and got the date for the surgery. Atharv has been through the surgery and his ailment has been treated at no cost. Nitin Kumar also got free food and lodging from the centre for the days they had to stay in the hospital for treatment. After discharge, they received proper information regarding care and precautions and the next follow-up date. Nitin Kumar stated that the Sri Sathya Sai Sanjeevani Centre gave new life to my son, and I am very grateful to the centre and the people behind this institution, who gave new life to my children".



**Baby Purohit with his Mother**

Manohar Singh Purohit, father of Prince, a 9-month old baby, has congenital heart disease by birth. He has a hole in his heart and valve blockage. Manohar Singh is from Rajasthan and came to Mumbai in search of a livelihood. He started a snack stall in the area of Nalasopara and lived there with his wife and children. One day, the prince got sick, and they took him to the doctor, who roamed around the hospitals till the condition was diagnosed. Finally, in Wadia Hospital in Mumbai, he finally got to know about the congenital heart disease, and he was shocked after knowing the cost of the treatment. Wadia hospital informed him that surgery would cost between 3 and 3.5 lakh rupees. Manohar was tense and in fear of losing his son. They had already spent some of their money prior to the diagnosis. While enquiring and seeing in the hope that one day, Manohar Singh would get to know about Sri Sathya Sai Sanjeevani Child Heart Care Centre., He immediately came to the centre with the prince and consulted the doctor. At the centre, it took one month for all the procedures and surgery. Now the prince is fine and has been cured of the disease. The centre also informed them about precautions and further follow-up. Manohar Singh says, "I was living with stress and hopelessness, but now I am very happy and I saved my prince's life. The Sri Sathya Sai Sanjeevani Centre is filling the happiness gap in needy people's lives. All the staff at the hospital are very cooperative and polite."





**Baby Satyam with his mother**

Sanjit Kumar Paswan, father of Satyam Kumar, a 2.5 -year-old male baby with a hole in his heart., Sanjit Kumar and his wife are farmers from the Bhagalpura District of Bihar. They were marginal farmers, and farming was their livelihood. They dealt with so many agricultural issues. Satyam was fine and had not had any difficulties since the age of 2 years. One day, suddenly, Satyam fell down while playing and his body colour changed to blue. Sanjit took him to the hospital in Patna, Bihar. Doctors at the hospital in Patna diagnosed him with congenital heart disease. Sanjit came to know that curing his child required 3 lakh rupees for treatment, and he had already spent around 80 to 1 lakh rupees till then. He doesn't have that much money, and for the previous treatment he had already borrowed money from relatives and moneylenders in his village. In Patna, the doctor gave him information about the Sanjeevani centre in Raipur, Chattisgarh. Sanjit Kumar went to Raipur and the doctors there referred Satyam to the Mumbai centre as this centre is well equipped with the required resources. Sanjit Kumar, along with Satyam, came to Mumbai for the treatment. Sanjit Kumar's village is 2600 km away from Mumbai. At the Sri Satya Sai Sanjeevani Child Heart Care Centre, Satyam underwent surgery and was treated for his disease. Prior to the surgery, Sanjit Kumar got all the information about the procedure, and after the surgery, they also got the information on preventive measures and follow-up. Because Sanjit Kumar lives 2600 kilometres away, the centre provided logistics in the ashram for the required days until the stitches needed to be removed. Sanjit said, "Me and my wife are crying and living with the fear of losing our baby." I was seeing my child in front of me dealing with the disease that made me feel helpless. I am very thankful to the Sri Sathya Sai Centre. They are a saviour for us.



**Sukhada with her Baby Sai**

Sukhada Polshettiwar Mother of Sai Polshettiwar's mother, 5 months Male, Sukhada is a housewife and mother of one childrenchild from the Yavatmal District of Maharashtra State. Father of Sai's father went to Pune for the job and is working as an electrician in Pune. Father of Sai is a breadwinner for the family and needs to do his job, so Sukhada is taking care of her baby. Since the Sukhada, who is five months pregnant Sukhada got to know about , learned that her upcoming baby is having the unborn child has congenital heart disease. From the birth of the Sai, his parents were dealing with the situation and looking for treatment everywhere. They took the Sai to the doctors in the Nagpur for the treatment purposes. After the diagnosis Doctor, the doctor of the Nagpur informed them that the surgery will Sukhada with her Baby Sai would require 2.5 to 3 lakh rupees. As they were not in the state of spending that much amount, they started for looking for a place where they could get the surgery at a low cost. One doctor from Nagpur informed them about the Sri Sathya Sai Sanjeevani Child Heart Care Centre. They took the Sai there and got the appointment for the surgery. Sai got the treatment free of charge, and they didn't need to pay anything. As they are eligible for the Mahatma Jyotiba Phule Jan Arogya Yojna, their expenses gotare covered under the scheme. Sukhada Stated "stated, "My experience with the hospital is very good all. All the staff are very cooperative. For only a short time, it took a time for getting the appointment for the surgery we have waited for the one month" .

## D. 1 Highlights of the Interviews with Patients

- The patients are from socio-economic backgrounds ranging from all castes, creeds, genders, and religions.
- The parents of the children expressed that they underwent serious challenges and struggled to get the treatment as it disturbed their lives.
- The parents are waiting to have the treatment as it requires capital and huge expenses. All the parents visited the hospital so many times in search of affordable treatment for their child. But the surgery and treatment were necessary for them, so they were kept roaming from hospital to hospital.
- The parents stated that they were given counselling about their child's ailment. The course of treatment and surgery.
- All the services given to them are free of charge, including logistics and food for the parents during the treatment of the child.
- Parents were also given medical advice to be adhered to after the surgery, like precaution and follow up schedule.
- Parents expressed their happiness and gratitude towards Sri Sathya Sai Sanjeevani Child Heart Care Centre and attribute that their surgery is possible due to the free services provided by centre.


## Conclusion

This research study concludes on the note that all the procurement of machinery and equipment was undertaken to be done by Sri Sathya Sai Sanjeevani Centre for Child Heart Care with the financial support of BPCL, which has resulted in the super specialist cardiac services available along with the CSSD and laundry department machineries, as envisaged in the M.O.U between both organizations, being completed in accordance with the best possible standards. Because of the high-tech and latest equipment and machines, the hospital is now well equipped with all the necessities required to deliver a high-standard pediatric cardiac service and can treat any congenital heart disease. This all became possible due to the above mentioned support. People from all castes, creeds, religions, genders, and nationalities can avail of these services at no cost. The centre doesn't have a cash counter, and BPCL's CSR support has contributed to this in a good measure and covered all the aspects of the centre.

Discussion with the doctors reveals that the availability of equipment is not only beneficial for the patients, but for the doctors also. High tech and advanced equipment are the second hands of the doctors because they can perform critical surgeries. Congenital heart disease requires critical care and very crucial surgical interventions. To deliver the best results requires the best equipment, and because of this equipment, the centre has a success rate of 98 to 99% in surgeries, and every day there are approximately 3 to 4 surgeries and CATH interventions happening in the centre. This equipment helps the doctors save the lives of patients.

Interaction with nursing staff revealed that equipment support is given by the BPCL. Nurses in the hospital are using the equipment daily and are taking care of the patients with the help of the equipment. All the nursing staff are well trained and aware of the usage of the equipment. The equipment supported by the BPCL is lifesaving equipment and helps the patients recover quickly after surgical intervention. It is difficult to work without the support of the equipment in the ward, and equipment like syringe pumps and critical monitoring systems is the companion of the nursing staff.

Interaction with the administration staff and various departments of the centre revealed that support from the BPCL contributed to building the pillars of the centre. CSSD and the laundry department are the backbone of the centre. These two departments are fully functional because of the machineries supported by the BPCL they have. These are working towards providing a sterilised and infection -preventive environment to the patients and minimising the risk. Also, the public health team, which is the face of the centre in the community and the main outreach arm, is screening the patients on the ground. Screening is the most important part in cases of congenital heart disease. This team, along with screening, prevents the children from having the serious issues of congenital heart disease. Early intervention is best for congenital heart disease, and for that needed strong



screening, they are running two community clinics for screening patients, an antenatal clinic and a well-baby clinic, with the help of the BPCL-supported ultra sound machine. BPCL's support also made the screening part more effective and strong, and with the help of that centre, we are diagnosing and conducting more surgeries. Community clinics are purposefully running to identify congenital heart diseases as early as possible so the centre can minimise the risk and increase the rate of success in surgical and CATH interventions. For the procurement of the equipment and machinery, the centre has formed a tendering committee, including doctors and technical people. I invited two quotations from each supplier; one is technical and one is financial, by post, in two different sealed envelopes. After shortlisting the suppliers on the basis of technical res, they called all the representatives of the suppliers and opened the financial quotation in front of everyone. On the basis of the lowest financial quotation, they released the PO and signed the terms and conditions. To maintain transparency, they followed this process and documented it well.

Interaction with the patients revealed that the patients were from all over India, from different states. Most of the patients are from marginal backgrounds and come from socio-economically deprived parts of society. The parents or guardians of the children were facing a challenge in their day-to-day life, financially as well as emotionally, and were living with the fear of losing their loved one. All the treatment is fully free of cost and they don't need to pay for anything, including food and logistics for the parents/guardians of the child. Except for the screening center, which is well-known in the community, the majority of patients came here after hearing about it from others. Doctors from different parts of the country referred the patients to the centre. The Centre reach is spreading by word of mouth as they are offering the costly services at no cost. After the screening, on the basis of the severity and requirement of the intervention centre, schedule the surgery and give the dates. The medical social worker team helps the parents cope with the situation and enlightens them about the procedure.

Thus, the study finds that the support for pediatric cardiac medical equipment will go a long way towards catering to BPCL's commitment towards society as manifested through its various socially responsible initiatives. Such CSR initiatives will aid BPCL in converting its vision of identifying and supporting programmes aimed at developing and advancing communities into a reality. These programmes will undoubtedly improve the lives of those at the bottom of the social pyramid who are unequally endowed and enabled.