

## Dialysis Project: ICICI Bank



### Impact Assessment Report | FY 2020 - 21

Submitted by CSRBOX

April 2022

## Disclaimer for the Impact Assessment Report

- This report has been prepared solely for the purpose set out in the Memorandum of Understanding (MoU) signed between Renalysis Consultants Pvt Ltd (CSRBOX) and ICICI Foundation dated March 2022 to undertake the Impact Assessment of their programme 'Caring Hands' implemented in the financial year 2020 -21.
- This impact assessment is pursuant to the Companies (Corporate Social Responsibility Policy) Amendment Rules, 202, notification dated 22nd January' 2021)
- This report shall be disclosed to those authorized in its entirety only without removing the disclaimers.
- CSRBOX has not performed an audit and does not express an opinion or any other form of assurance. Further, comments in our report are not intended, nor should they be interpreted to be legal advice or opinion.
- This report contains an analysis by CSRBOX considering the publications available from secondary sources and inputs gathered through interactions with the leadership team of ICICI Foundation, project beneficiaries, and various knowledge partners. While the information obtained from the public domain has not been verified for authenticity, CSRBOX has taken due care to obtain information from sources generally considered to be reliable.
- With Specific to Impact Assessment of Project Dialysis under ICICI Foundation (FY 2020 - 2021), CSRBOX has used and relied on data shared by the ICICI Foundation team, implementing agencies, and secondary research through the internet, research reports, and project target beneficiaries.
- **With Specific to Impact Assessment of Project Dialysis by ICICI Foundation (FY 2020 - 21), CSRBOX:**
  - Has neither conducted an audit, due diligence nor validated the financial statements and projections provided by the ICICI Foundation;
  - Wherever information was not available in the public domain, suitable assumptions were made to extrapolate values for the same;
  - CSRBOX must emphasize that the realization of the benefits/improvisations accruing out of the recommendations set out within this report (based on secondary sources) is dependent on the continuing validity of the assumptions on which it is based. The assumptions will need to be reviewed and revised to reflect such changes in business trends, regulatory requirements, or the direction of the business as further clarity emerges. CSRBOX accepts no responsibility for the realization of the projected benefits;
  - The premise of an impact assessment is 'the objectives' of the project along with output and outcome indicators pre-set by the program design and implementation team. CSRBOX's impact assessment framework was designed and executed in alignment with those objectives and indicators.

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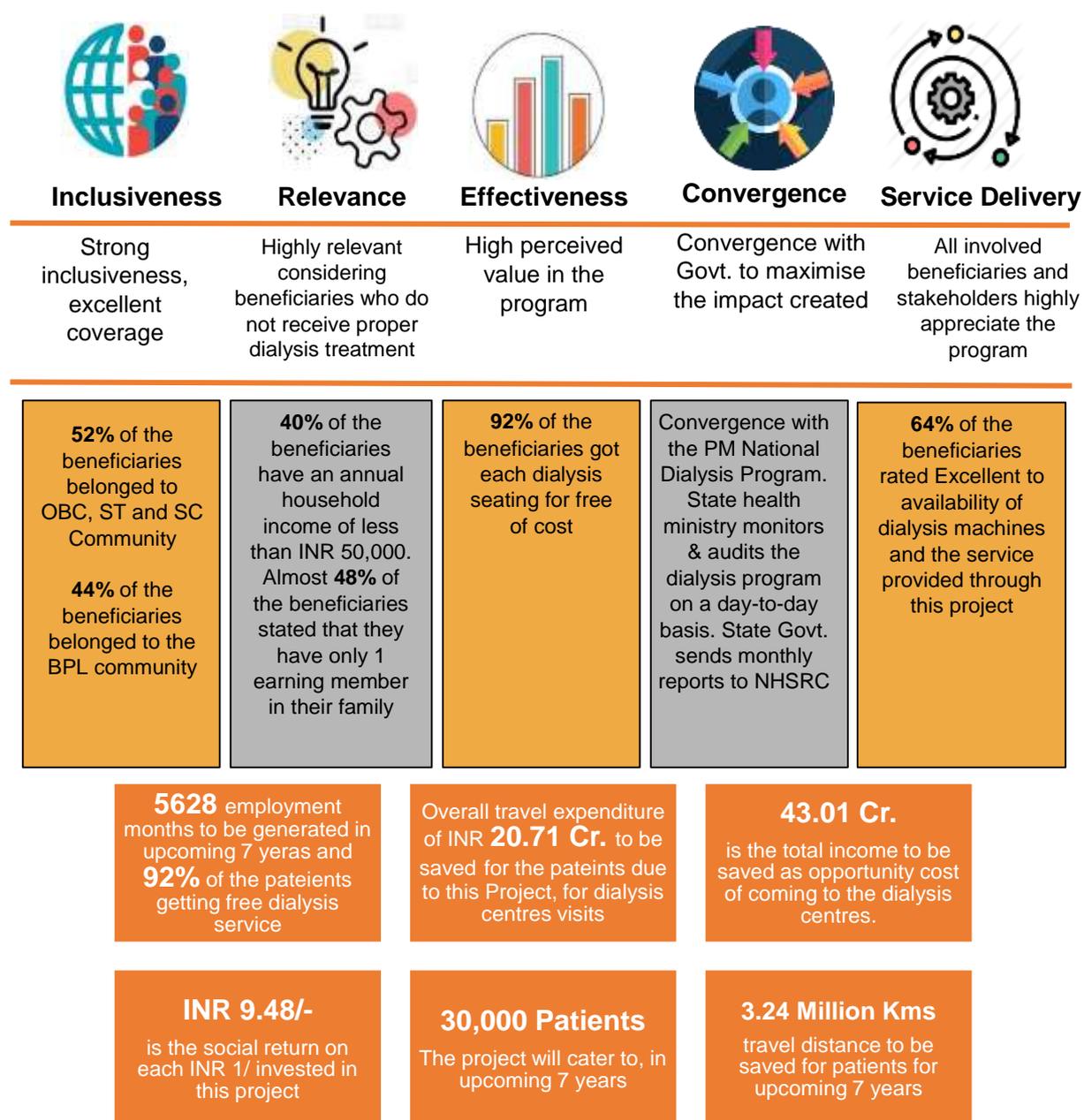
## Acronyms

Acronym	Definition
APL	Above Poverty Line
BPL	Below Poverty Line
CKD	Chronic Kidney Disease
Covid 19	Coronavirus 2019
CSR	Corporate Social Responsibility
ESRD	End Stage Renal Disease
MIS	Management Information System
NHSRC	National Health Source Resource Centre
OBC	Other Backward Classes
SC	Scheduled Castes
SROI	Social return on investment
ST	Scheduled Tribes

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## Executive Summary

The number of deaths due to chronic kidney disease (CKD) in India rose from 0.59 million in 1990 to 1.18 million in 2016 in India. The proportion of patients with kidney failure who have access to treatment and are covered by any insurance scheme is lower than in any other country<sup>1</sup>. In an attempt to solve this major public health concern, ICICI Bank through ICICI Foundation for Inclusive Growth, undertook an initiative to expand the availability and access of dialysis treatment. This report maps the impact created through this CSR project in FY 2020 – 21.



<sup>1</sup> <https://kidney360.asnjournals.org/content/1/10/1143>

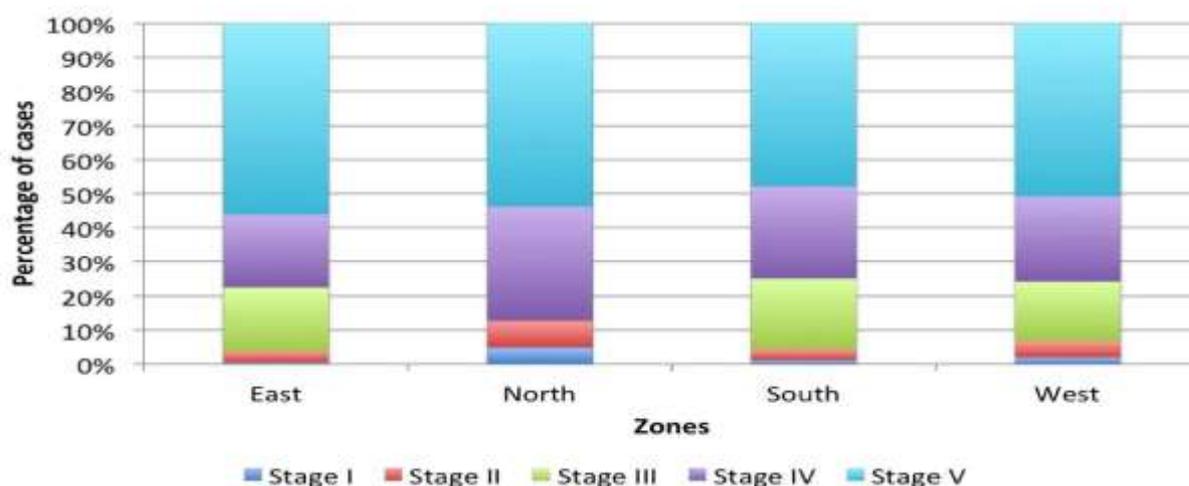
## Chapter 1: Program Overview

Kidneys are natural filtration system of human body. Failure of kidneys has significant impact on well-being and hampers day to day activities. The only permanent solution is to have a kidney transplant or go on dialysis for the rest of the life. Though kidney transplantation is the treatment of choice for many patients, the long wait, limited donor organ availability, presence of disqualifying co-morbid conditions, and low transplantation rates in an aging ESRD population means that dialysis will continue to be the primary method of therapy till further medical advances are achieved.

Dialysis is a treatment that replaces the function of the kidneys. The treatment eliminates waste products and excess fluids from the bloodstream while maintaining the right chemical balance of the blood by the use of a blood filter and a chemical solution known as dialysate. Dialysis is required for people with end-stage renal disease (ESRD), and chronic kidney disease (CKD) is a precursor to ESRD. Diabetes and high blood pressure, among other things, are key contributors to CKD, and these diseases are spreading at an alarming rate across the country. In 2025, India's hypertension population is expected to reach 213.5 million people. With 19.3 million cases in 1995 and projected growth to 57.2 million by 2025, India is the world's diabetes capital.

The problem of chronic kidney disease in India has reached epidemic proportions, and disease rates are anticipated to continue to rise in the future. Due to a lack of accessibility and price, just 10% of patients in India receive dialysis. The demand for home dialysis is increasing as middle-class income levels rise and it becomes more affordable. A major source of concern is the high initial cost of machinery and the operational cost of consumables.<sup>2</sup>

In a study conducted by BioMed Central Ltd. (BMC) on CKD in India, it was confirmed that the emergence of diabetic nephropathy was the pre-eminent cause in India, and patients with CKD of unknown aetiology are mostly younger, poorer, and are more likely to have advanced CKD. The table below explains the geographical variations and common patterns across 4 zones. In this study, 52,273 adult patients were considered, out of which 35.5%, 27.9%,



<sup>2</sup>[https://www.researchgate.net/profile/SandeepKudtarkar/publication/332143414\\_Dialysis\\_healthcare\\_delivery\\_in\\_India\\_Dialysis\\_healthcare\\_delivery\\_in\\_India/links/5ca321b845851506d73ae8c4/Dialysis-healthcare-delivery-in-India-Dialysis-healthcare-delivery-in-India.pdf](https://www.researchgate.net/profile/SandeepKudtarkar/publication/332143414_Dialysis_healthcare_delivery_in_India_Dialysis_healthcare_delivery_in_India/links/5ca321b845851506d73ae8c4/Dialysis-healthcare-delivery-in-India-Dialysis-healthcare-delivery-in-India.pdf)

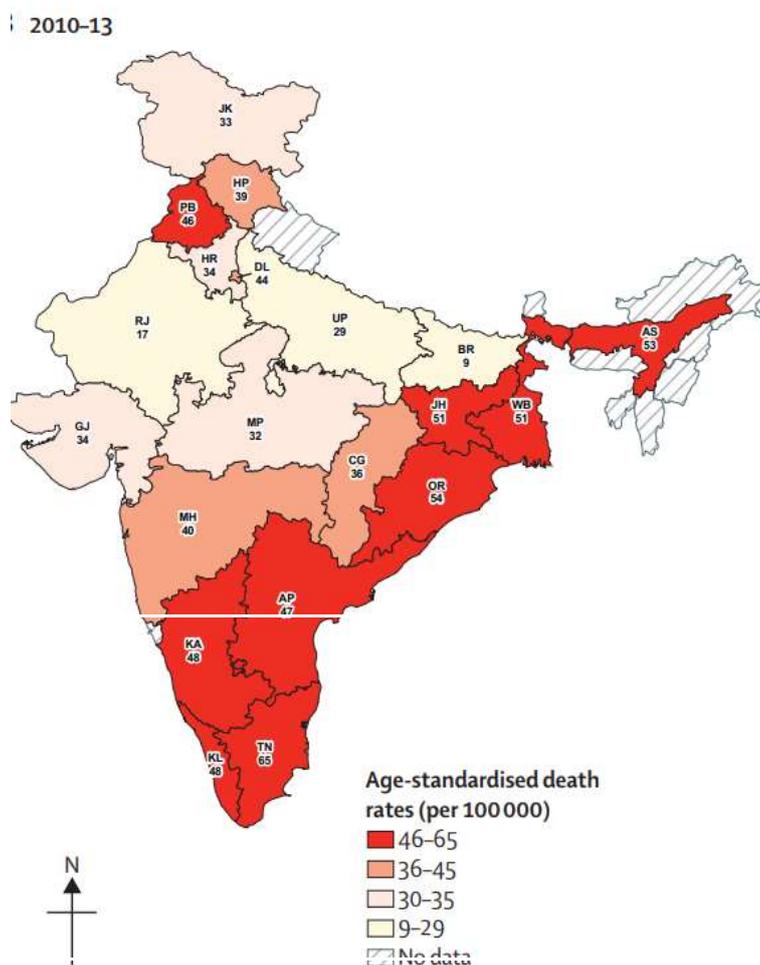
25.6%, and 11% of patients came from South, North, West, and East zones, respectively. <sup>3</sup> In the map on the right, a survey conducted in 2010 – 13 points out the age-wise renal failure

deaths across various states, the majority being 46 – 65 years of age in Punjab, Assam, West Bengal, Odisha, Tamil Nadu, etc.<sup>4</sup>

### Effect of Covid 19 on CKD Patients in India

In a recent study, Covid 19 affected the care of many non-communicable diseases in the country, including the ones with CKD and other kidney ailments. The lockdown not only affected transportation and commute but also access to health care facilities, availability of medicines and consumables as well as outpatient and inpatient

services. The study concluded that lack of preparedness before lockdown resulted in an overall interruption of healthcare services and posed an immediate adverse effect on the outcome of dialysis patients with kidney ailments. The Impact also included dropping in patient numbers, patients missing dialysis sessions or stopping reporting for dialysis, and some were confirmed to have died. <sup>5</sup>



### Workforce Shortage

India has one of the lowest nephrology workforce densities in the world. There are only about 2,600 nephrologists (1.9 per million people), and dialysis nurses and technicians are in short supply. In comparison, there are roughly 72 nephrology training programmes in the United States, with an annual intake of approximately 150 trainees who complete a three-year programme. In addition to regular nursing training, nurses must complete a 6-month practicum in a dialysis unit, and dialysis technicians must complete a certificate course in dialysis technology. Some dialysis centres are administered by dialysis technicians and are not supervised by nephrologists regularly. Sanitation, machine cleaning, and dialyzer

<sup>3</sup><https://link.springer.com/content/pdf/10.1186/1471-2369-13-10.pdf>

<sup>4</sup> <https://www.thelancet.com/action/showPdf?pii=S2214-109X%2816%2930308-4>

<sup>5</sup><https://reader.elsevier.com/reader/sd/pii/S2468024920313577?token=218EC5ADA72F3F6E1F977F1016F299EBDC54C240C0DAABDEDA8B63BCA492DDD237099EC9EF841EED5B78246E2E6A6843&originRegion=eu-west-1&originCreation=20220314045211>

reprocessing are all provided by other multipurpose staff. Renal dieticians are only available in a few centres.<sup>6</sup>

### ICICI Foundation's Program-Providing Dialysis Machines in Government Hospitals

The project provided dialysis machines to support the dialysis centres across India, in order to provide free and affordable quality dialysis to the patients who have limited or no access to these facilities. ICICI Foundation has been working relentlessly to improve the well-being of citizens and as a step to promote healthcare, is providing dialysis machines in towns of various districts, closer to home for the patients, so that they do not have to travel to big cities for dialysis. Further, there is a severe shortage of dialysis machines in the country and the available machines are also concentrated in larger cities and towns and are primarily with private healthcare institutions.

This project is in line with the vision of the 'Pradhan Mantri National Dialysis Programme', under the National Health Mission, for providing free dialysis to the poor. The Project took off in April 2021 and covers a total of **14 states and 30 districts with 67 machines installed.**<sup>7</sup>

S. No.	State	District	Total Dialysis Machine Installed
1	Assam	Sivsagar (1), Silchar (1)	2
2	Chhattisgarh	Surguja (4),	4
3	Gujarat	Kutch (1), Mehsana (5), Morbi (3), Surat (3), Valsad (3)	19
4	Jammu & Kashmir	Jammu	2
5	Madhya Pradesh	Jabalpur (1), Jhabua (1), Khargone (1), Mandla (1), Shahdol (1), Shivpuri (1), Ujjain (1)	7
6	Maharashtra	Nasik (2),	2
7	Manipur	Tamenglong (3), Ukhrul (3)	6
8	Meghalaya	Shillong (2), West Garo Hills (3), West Jaintia Hills (3)	8
9	Mizoram	Aizawl	1
10	Nagaland	Dimapur (3), Tuensang (1)	4
11	Odisha	Jajpur (4), Sundergarh (2)	6
12	Rajasthan	Jodhpur (2),	2
13	Sikkim	East Sikkim	1
14	Tamil Nadu	Chennai	3
<b>Total</b>			<b>67</b>

Table 1

<sup>6</sup><https://kidney360.asnjournals.org/content/kidney360/early/2020/08/19/KID.0003982020.full.pdf?withds=yes%3Fversioned%3Dtrue>

<sup>7</sup> <https://www.icicibank.com/managed-assets/docs/about-us/2021/donate-over-100-state-of-the-art-dialysis-machines.pdf>

## Total Project Outreach

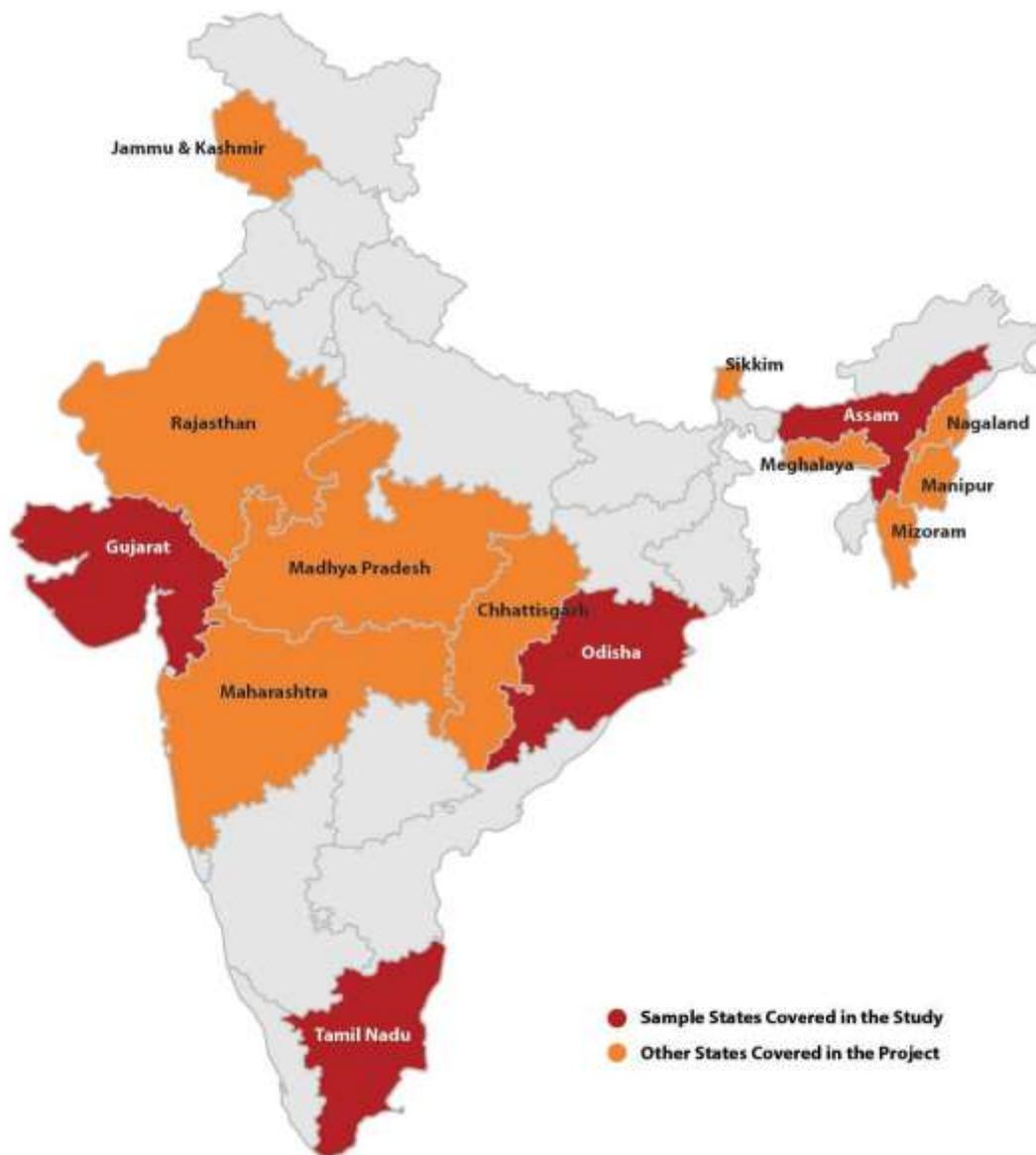


Figure 4

## Chapter 2: CSRBOX's Impact Assessment Design and Approach

### Objectives

- Understanding the need of the intervention
- Assessment of the program implementation approach
- Assess the impact of the program as per goals and objectives
- Recommendations and insights to improve the intervention
- Documentation of Impact stories

### Pillars of Impact Assessment

**Inclusiveness:** The program covers beneficiaries across all zones, in the south, East, West, with almost good presentation of both gender beneficiaries, ages, and different socio-economic backgrounds.

**Relevance:** The program focused on beneficiaries belonging to the marginalised societies who cannot afford quality CKD care. The program was also highly relevant, especially during the covid lockdown times, as CKD healthcare was affected due to increased lockdown restrictions across India.

**Expectations:** The project also ensured free-of-cost dialysis treatment while also hiring local manpower to manage the dialysis machines, boosting economic opportunities for the local people and mitigating workforce shortage.

**Convergence:** The program involved the installation of dialysis machines in some govt. hospitals. The state along with Central Govt. has a firm commitment to paying the service provider the cost of offering free dialysis to the underprivileged. The state health ministry monitors & audits the dialysis program on a day-to-day basis. The state government sends monthly reports to NHSRC.

**Service Delivery:** This year, the program was implemented across 14 states, 30 districts and 67 dialysis machines covering a wide range of populations of different age groups.

### Methodology

The project was assessed by adopting a mixed-method approach of qualitative and quantitative data collection, using primary and secondary data, that helped in gathering valuable impact-related insights from a 360-degree perspective involving all the stakeholders.

**Primary Sources of Data:** The data collected from various stakeholders during the study using data collection tools designed for this study is treated as primary data.

**Secondary Sources of Data:** ICICI Foundation records and MIS data of the coverage at Hospitals or other literature available and various other secondary sources for impact assessment framework.

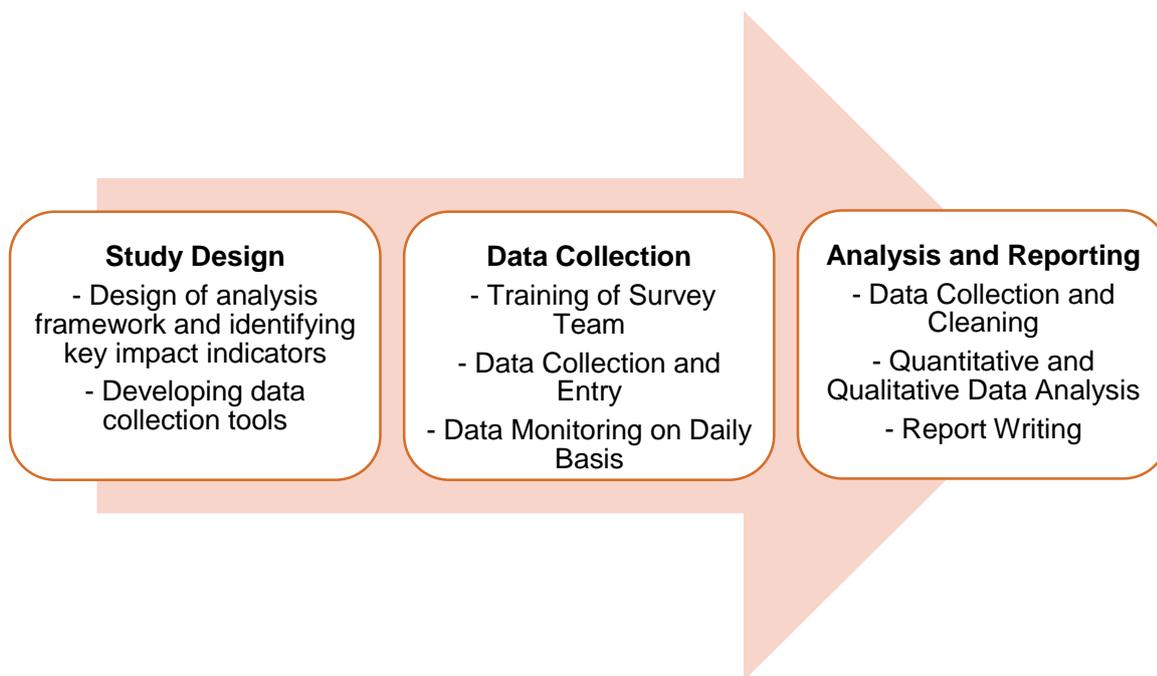


Figure 5

## Mapping the Theory of Change

Implementation of the programme		Effect of the programme
Key activities 	Output 	Outcome 
Mapping of locations needing dialysis machines	Installation of dialysis machines	Reduced commuting time for patient beneficiaries and patient waitlist
Delivering quality Dialysis machines and care, careful selection of these machines, trained staff	Installation of best machines, quality staff stationed at these locations	Automated monitoring, Regular maintenance, Less breakdown of the machines, high quality care for patients
Price negotiation through state tenders, strict monitoring of dialysis delivery fee/negotiated price	Monitoring of free of cost dialysis to BPL and reduced subsidised prices for non BPL category	Reduced out of pocket expenditures for patients & Govt.

Table 2

## Sampling Approach\*



Figure 6

\*Due to the very different nature of the project where interaction and data collection need to be done with the patients, we have followed the minimum sample requirement approach (for validation and deriving major outcomes) to **avoid any inconvenience to the patients, hygiene and safety protocols at the centres** and to maintain the data privacy.

## Execution of Data collection

Stakeholder	Data Collection Tool		Sample Size & Distribution
	Quantitative	Qualitative	
 Patient Beneficiaries		Survey	25
 Doctor	Semi Structured Interview		5
 Caregiver (Technical Staff)			5
 Caregiver (Nurse/Ward boy)			5

Table 3

**Demographic Profile of the Beneficiaries covered in the study**

In the table below, the majority (32%) of the beneficiaries were above the age of 55 years, while younger aged individuals from 20 – 40 years (20%) constituted smaller fractions, comparatively.

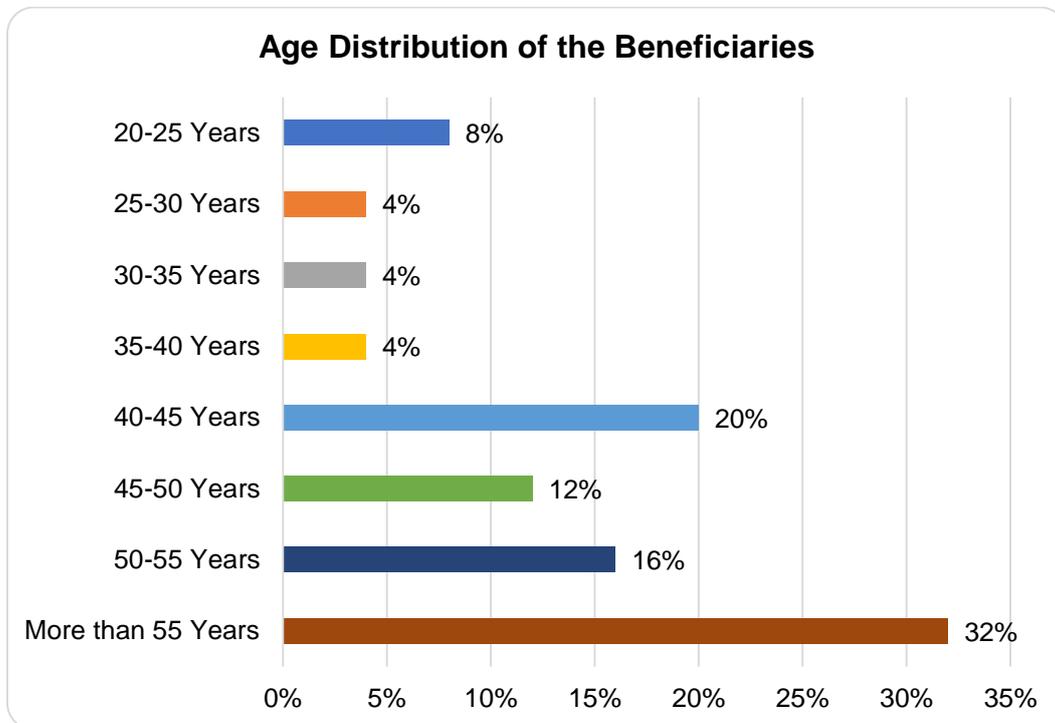


Figure 7

The Project caters to 48% of the general beneficiaries, and the remaining 52% belong to OBC, ST, and SC communities. The Project also included patients where 44% of the beneficiaries belonged to the Below Poverty Line (BPL) section of the community, and 20% of the beneficiaries did not receive any formal education or only completed primary education. Among the beneficiaries, it was also noted that most of them lived in a household that had more than 6 members in the family (36%), followed by 32% of them with 4-6 members in the family.<sup>8</sup>



<sup>8</sup> Refer to Annexure

The annual income of the entire household of the beneficiaries was majorly less than INR 50,000 (40%).

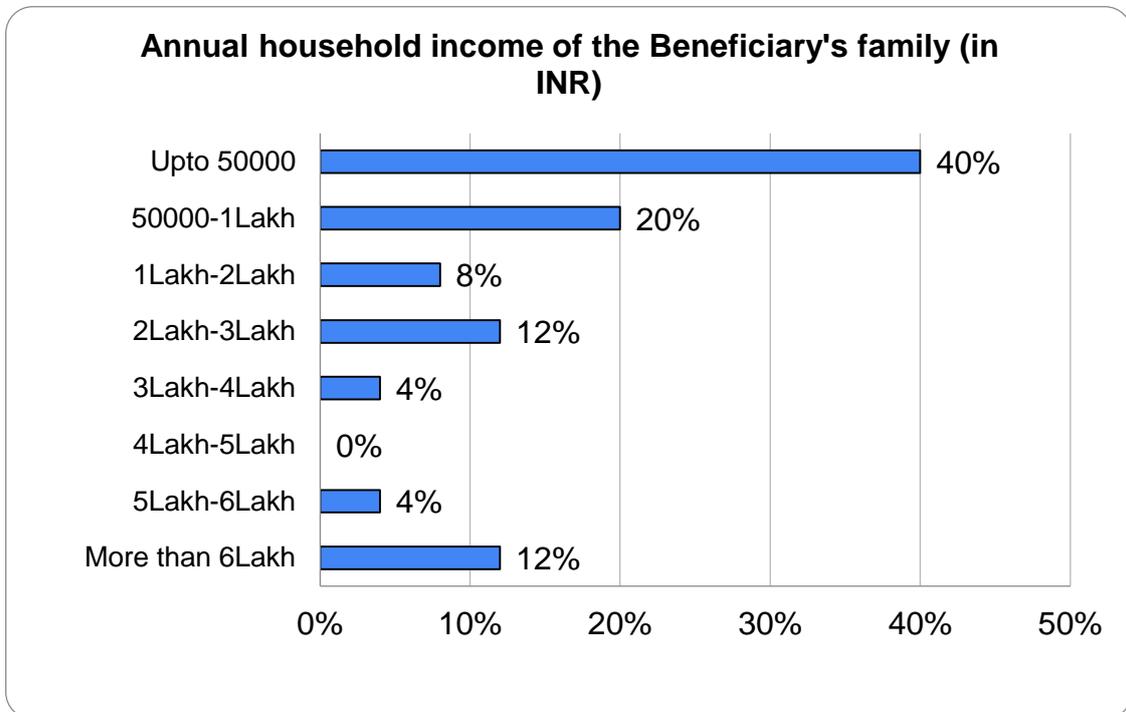


Figure 8

Among the beneficiaries, a common observation was that many households had only 1 primary breadwinner in the family where the majority worked as daily wage labourers (28%).

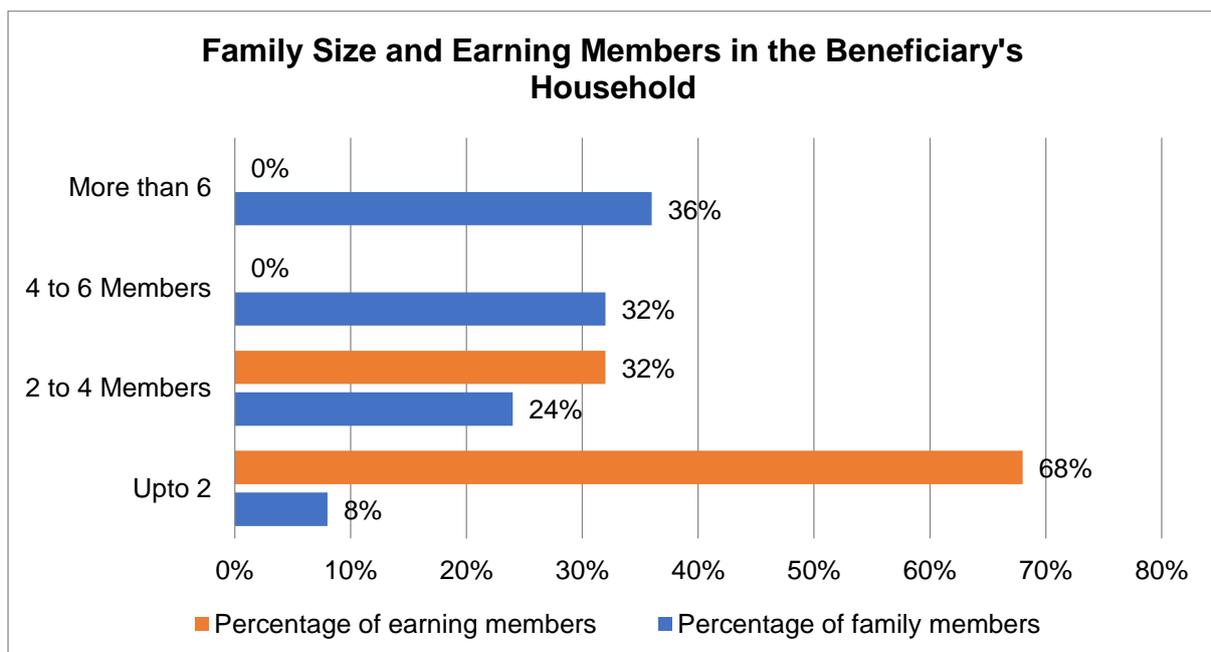


Figure 9

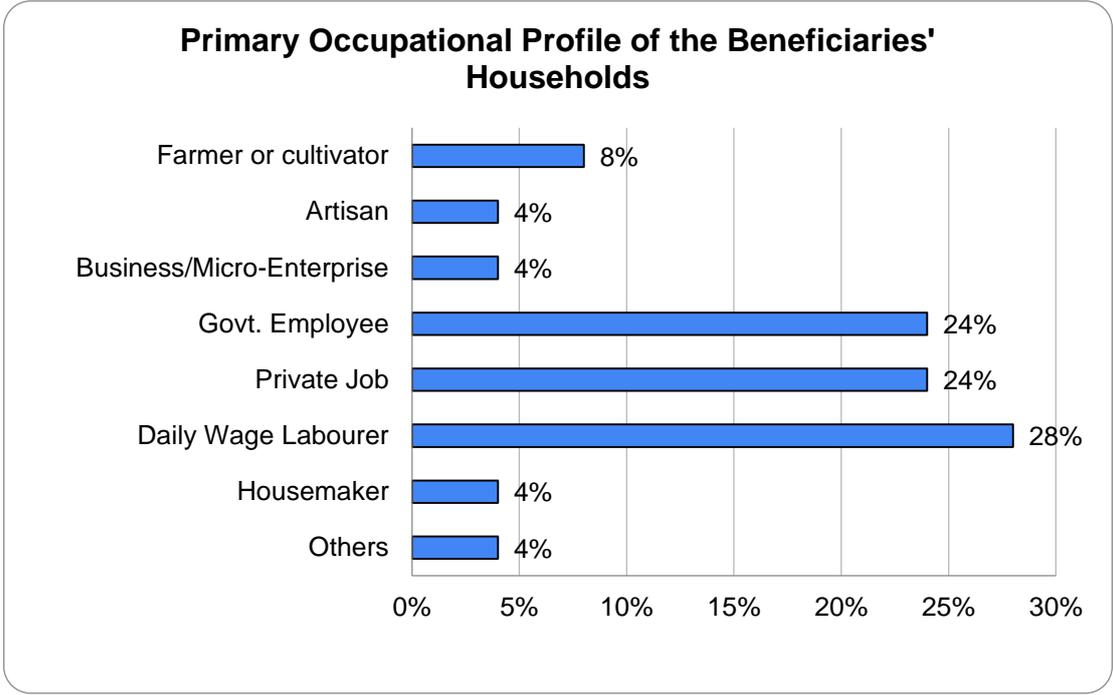


Figure 10

When asked if the beneficiaries were enrolled in any health insurance schemes, 58% (majority) had no enrolment, while (19%) were enrolled in state health insurance schemes.

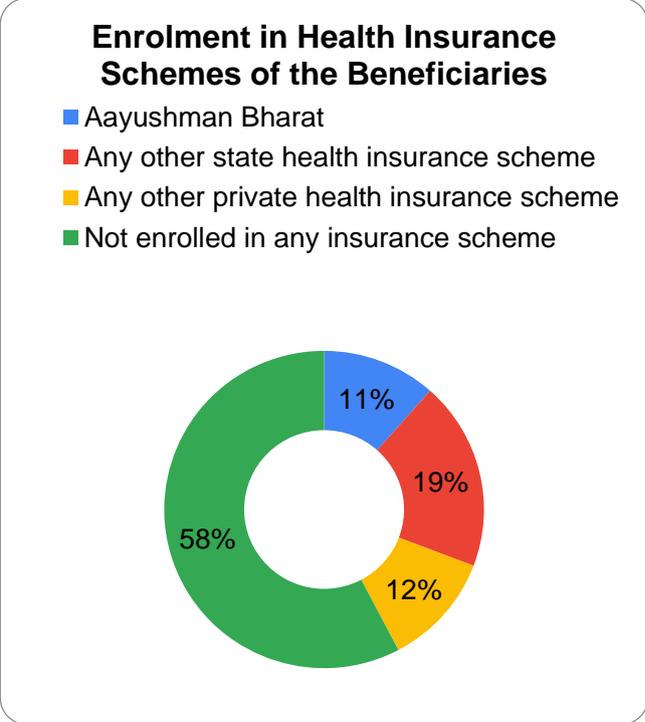


Figure 11



Dialysis Machine in Civil Hospital, Vapi

## Project Impact Canvas of the Dialysis Machines installed in FY 20-21

Majority of the beneficiaries in the study stated that 3 seatings were taken per week for the dialysis procedure (52%), followed by 44% beneficiaries who stated that they took only 2 seatings per week and spent about 3-4 hours per seating.

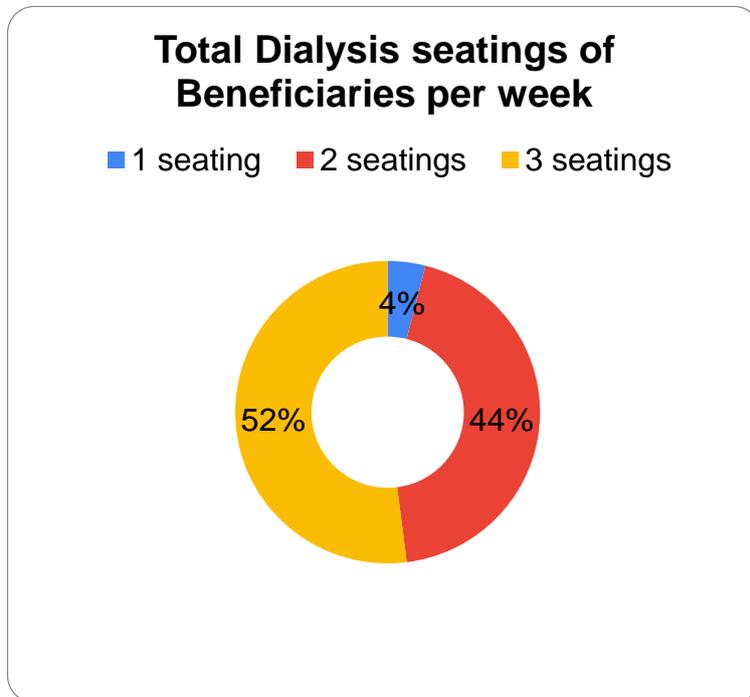


Figure 12

92 percent of our respondents said that they were getting their dialysis done completely free of charge whereas 8 percent reported that they had to pay a minimum charge<sup>9</sup>

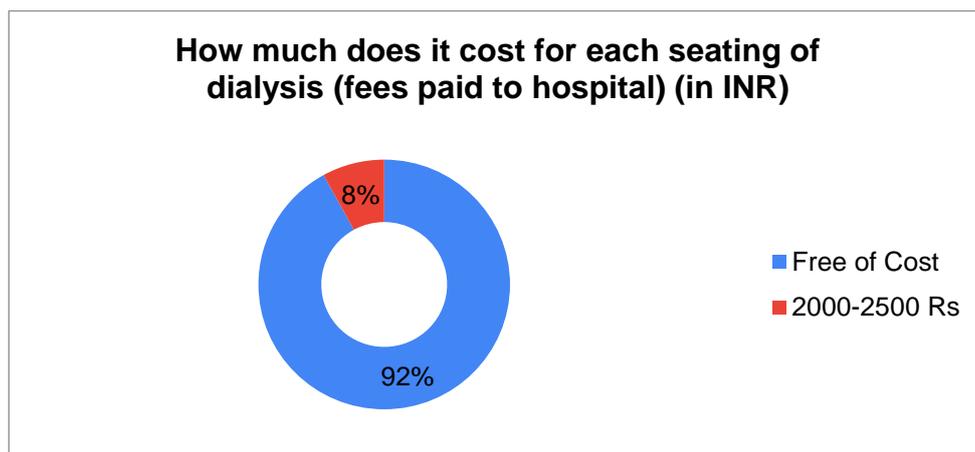


Figure 13

<sup>9</sup> The 8% constitutes beneficiaries in the APL Category who have paid a subsidized cost of Medication, dialysis procedure and Dialyser.

The study also noted 2/3<sup>rd</sup> of the beneficiaries found the dialysis centres to be less than 25 km from their resident town/village.

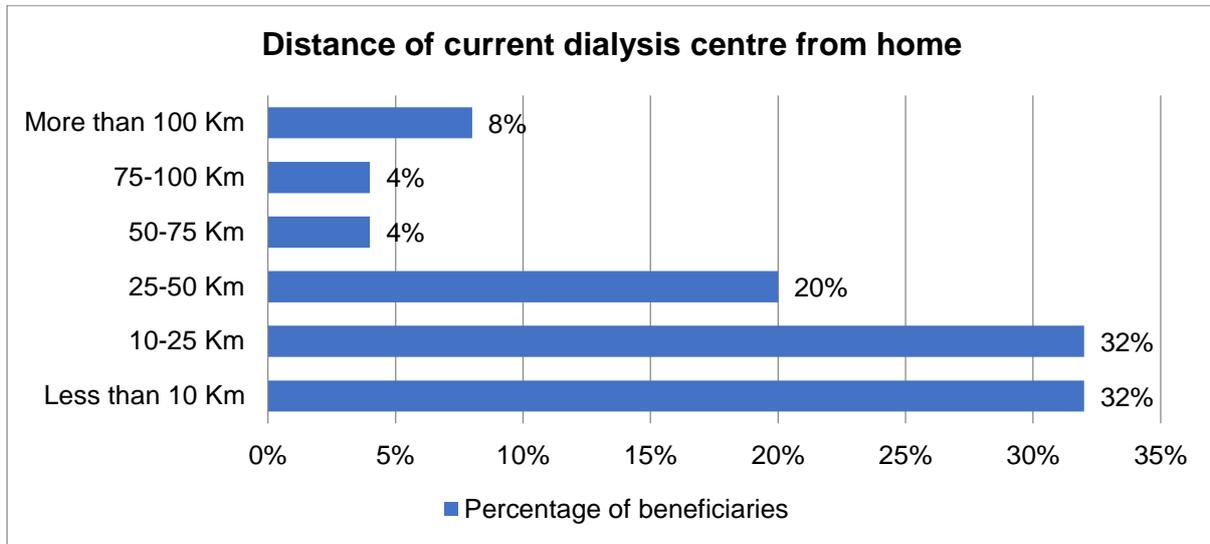


Figure 14

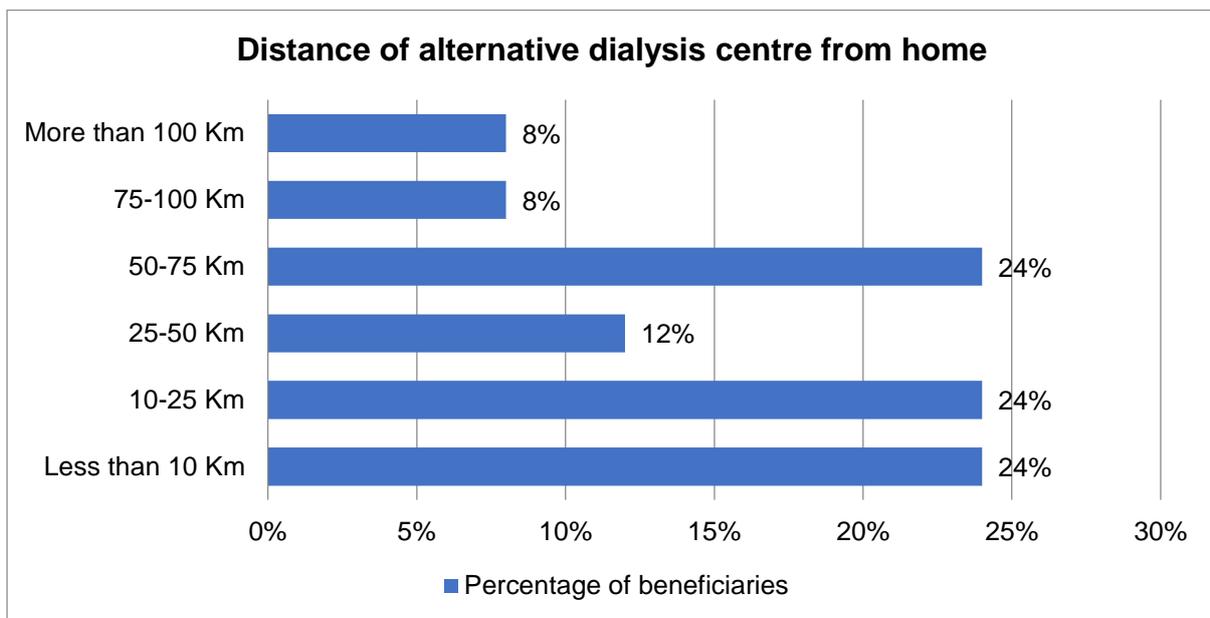


Figure 15

Distance	Average distance of current dialysis centre from home	Average distance of alternative dialysis centre from home	Average increase in travel distance between both centres
Less than 10 Km	5	40	30
10-25 Km	17.5	140	105
25-50 Km	37.5	187.5	112.5
50-75 Km	62.5	62.5	375
75-100 Km	87.5	87.5	175
More than 100 Km	100	200	200
<b>Average Travel Distance Per Patient Per Visit (in Km)</b>		<b>28.7</b>	<b>39.9</b>

Table 4

The Figure 17 reflects that almost **50% of the beneficiaries would have spent over INR 1500 or more for each dialysis** if the ICICI Foundation's supported initiative would have not been there. Whereas now **only about 8% patients** spend more than INR 1500 per visit on travel. Total travel expenditure reduced per patient per dialysis visit is **INR 736**.

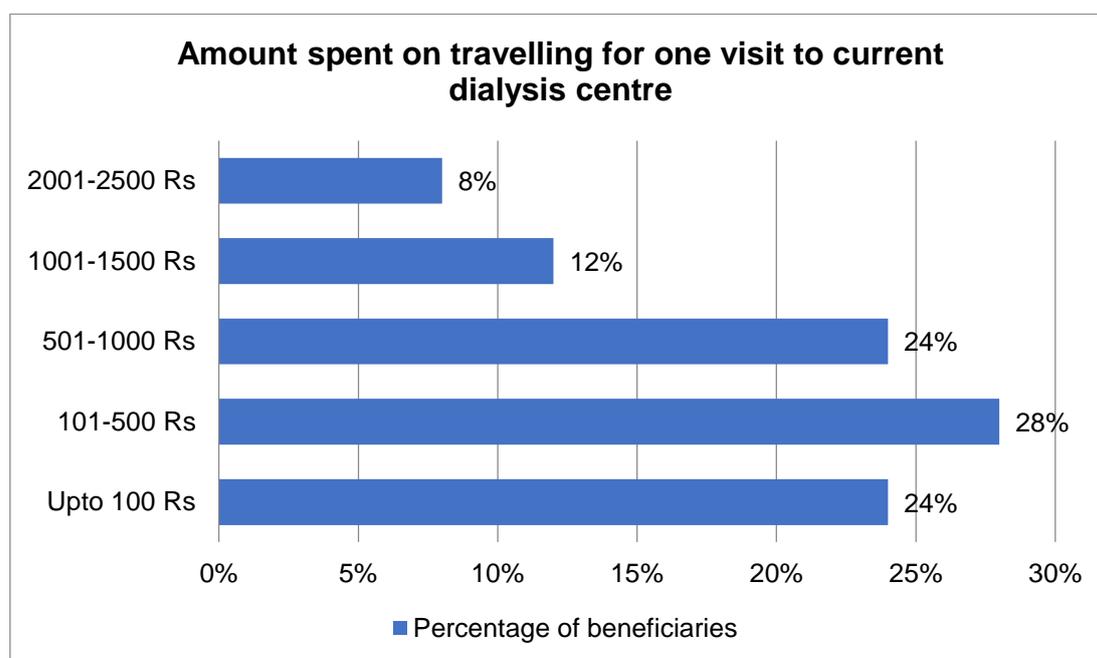


Figure 16

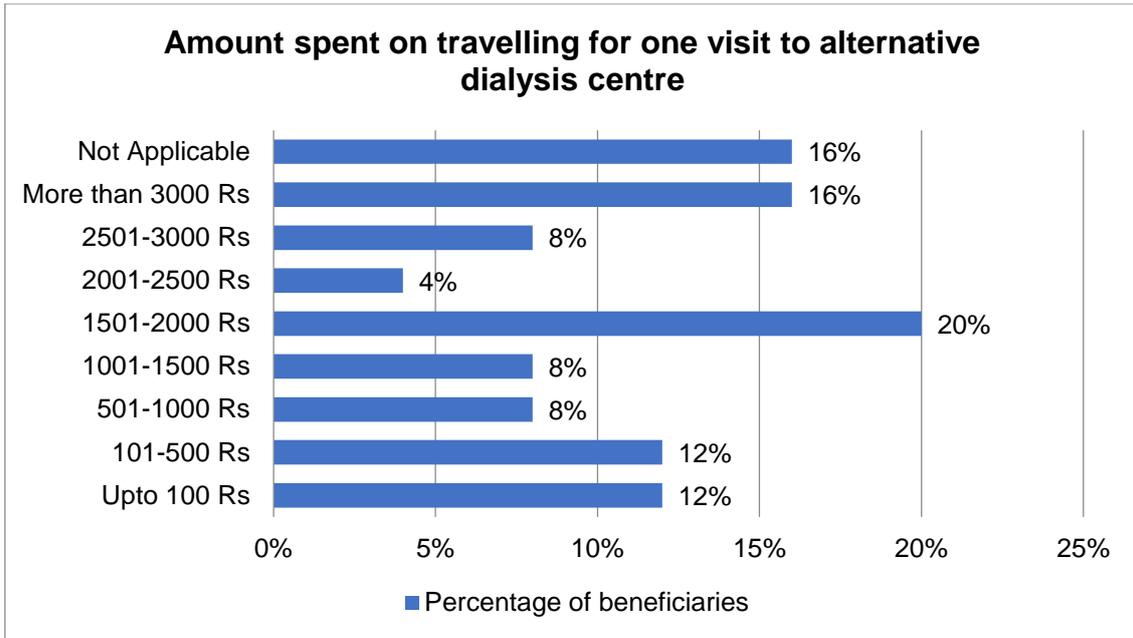


Figure 17

The Beneficiaries also rated the services excellent in terms of documentation, registration, cost-effectiveness, Technical expertise, availability of the machines, and the overall service.

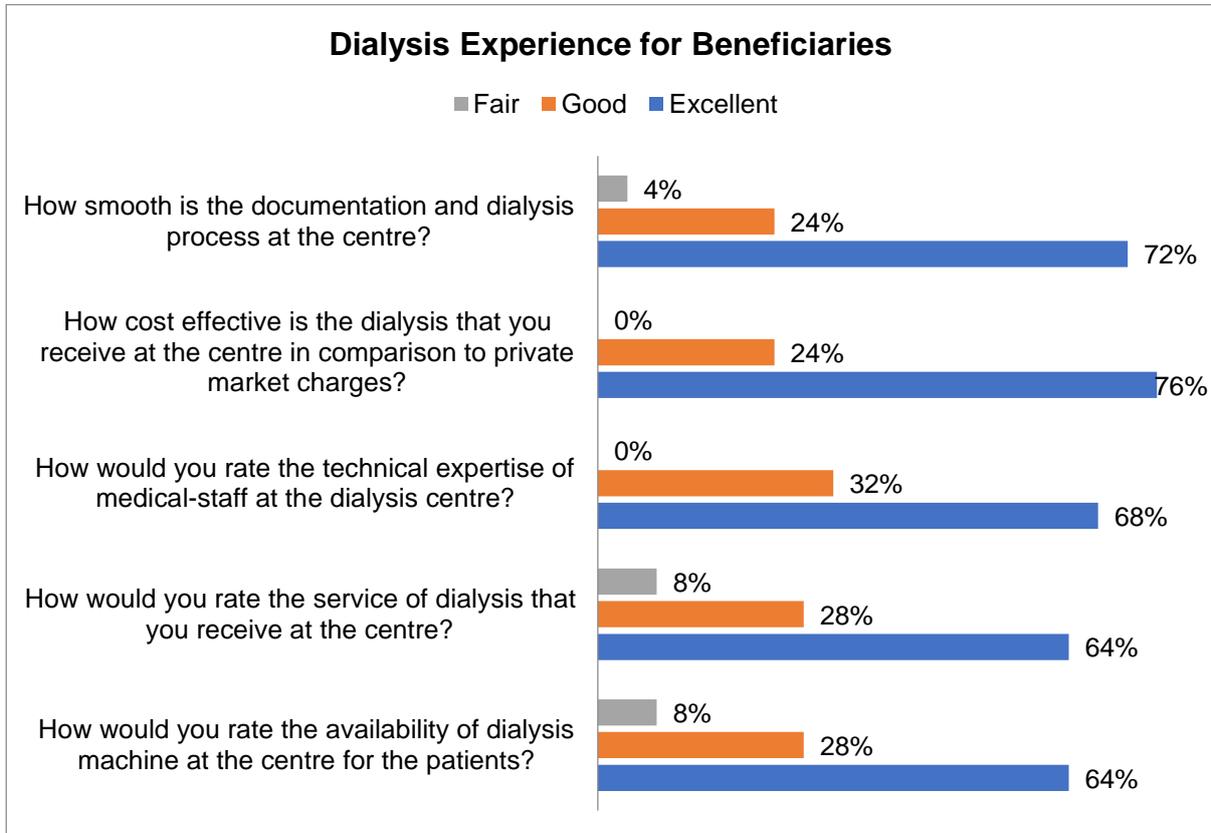


Figure 18

Last 3 Months Count in Hospital					
	Vapi	Vadnagar	Sivasagar	Rourkela	Chennai
APL patients	15	8	0	140	205
BPL patients	31	78	134	0	521
Total patients in 3 months	46	86	134	140	726
APL Dialysis seating	69	42	0	957	980
BPL Dialysis seating	247	717	1002	0	1200
Total Dialysis seating in 3 months	316	759	1002	957	2180
<b>Number of Machines in Hospital in Total</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>11</b>	<b>42</b>

Table 5

Monthly Average Count in Hospital Per Machine					
	Vapi	Vadnagar	Sivasagar	Rourkela	Chennai
APL patients	1	1	0	4	2
BPL patients	2	5	7	0	4
Total patients per Month per machine	3	6	7	4	6
APL Dialysis seating	5	3	0	29	8
BPL Dialysis seating	16	48	56	0	10
<b>Total Dialysis seating per Month Per Machine</b>	<b>21</b>	<b>51</b>	<b>56</b>	<b>29</b>	<b>17</b>

Table 6

	Average Number of Hours Spent Per Visit Per Patient	Number of Hours Spent Per Year Per Patient	Number of Hours Spent by total Patients in a Life Span of Machine
Current Dialysis Centre	4.96	595.2	18111340
Alternative Dialysis Centre	7.00	840.0	25560360
Number of Hours Saved	2.04	244.8	7449019

Table 7

	Percentage Composition of Patients through Primary Data	Average Income Per Day	Average Income Per Hour Considering 8 Hours of Work Per day	Hours Saved	Opportunity Cost (in Cr.)
APL	0.33	1000	125	2458176	30.72
BPL	0.44	300	37.5	3277568	12.29
<b>Total Amount Saved (in Cr.)</b>					<b>43.01</b>

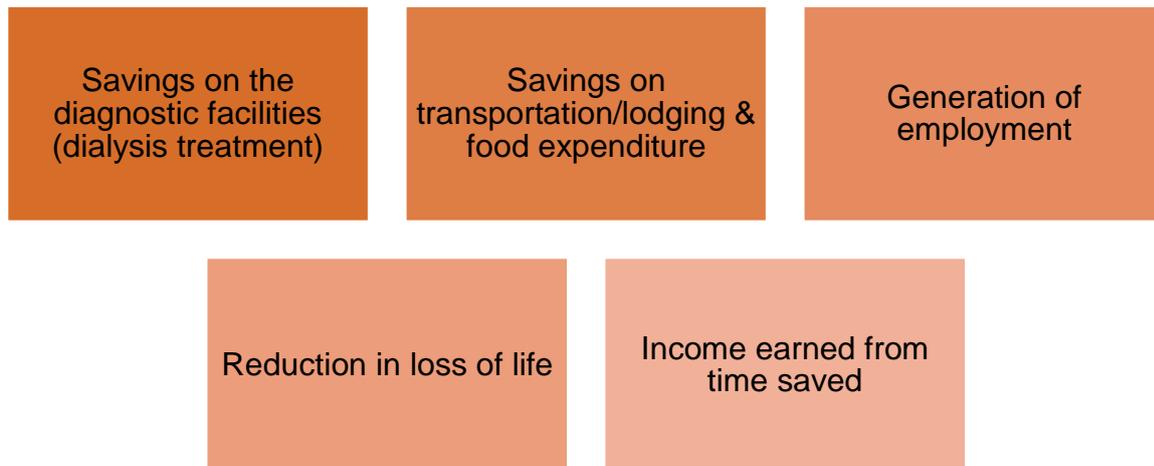
Table 8

<b>Travel cost savings through this program</b>	
Sessions per machine per month	50
Sessions per machine per year	600
Sessions for 67 machines per year	40200
Sessions in life span of 7 years	281400
Travel cost savings @736 INR per session	20.71

Table 9

## Chapter 4: SROI

Social Return on Investment (SROI) is a process and a method that quantifies the value of the social impact of projects, programmes, and policies. This helps funders to know the monetary value of the social and environmental benefit that has been created by the initiative. It takes standard financial measures of economic return a step further by capturing social as well as Financial value. Here we have computed the value based on the actual outcomes of the programme. The data has been sourced from the primary survey, MIS, and standard industry benchmarks.



**INR 9.48/- social return generated from the program on every investment of INR 1/-<sup>10</sup>**

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<sup>10</sup> The SROI captures the input values of (a) savings on the diagnostic facilities (dialysis treatment) (b) savings on the transport, lodging and boarding, (c) employment opportunities created (d) income earned from the time saved due to availability of the services nearby.

## Chapter 5: Way Forward and Recommendations

- **Outreach and Awareness:** Given that the dialysis machines have been set up in the recent past and most of the period has been under pandemic, currently, machines are underutilized. Hence, intensive outreach and awareness about the dialysis facility in the government hospital will help in reaching more needy patients at the hospital.
- **Messaging and Communication in Local Language:** All messaging, awareness campaigns, and other communication about the outreach, kidney care, etc. should be done in the local language to ensure community people are able to connect with the messages.
- **Use of Local Media:** Local media should be involved to create awareness about the facility so that more and more BPL patients can use the facility.
- **Proper Management of Database:** At a few facilities it was observed that the patient database is not managed properly, in terms of categorisation, historical records for past dialysis, etc. It is recommended to manage a unique database management system for the patients and record all dialysis records accordingly.

## About CSRBOX

CSRBOX is a social impact strategy practice and implementation organisation. We work with companies and philanthropic organisations for better CSR program design, pre-project to post-project handholding and impact assessment, and embedding technology solutions for responding to problems at a scale. We are the largest knowledge platform with [www.csrbox.org](http://www.csrbox.org) having mapped over 30,000 CSR projects in the past 7 years. We work at the pan-India level with our Teams in Delhi, Gurgaon, Mumbai, Pune, Ahmedabad, and Bangalore. We are also an executive committee member of Bharat Digital Platform under the aegis of the Principal Scientific Adviser to the Government of India. We spearhead two collaborative platforms; India Livelihoods Collective and IMPAct4Nutrition. Visit us at <https://csrbox.org/about-CSRBOX>

## Annexure

### Demographic Profile of the Beneficiaries

Gender of Beneficiary	Gender of Beneficiary	Percentage
Male	14	56%
Female	11	44%

Table 11

Caste of Beneficiary	Caste of Beneficiary	Percentage
General	12	48%
OBC	5	20%
ST	6	24%
SC	2	8%

Table 12

Type of Ration Card	Type of Ration Card	Percentage of beneficiaries
APL (Above Poverty Line)	8	32%
BPL (Below Poverty Line)	11	44%
AAY (Antyodaya) Ration Card	2	8%
Do not have ration card	4	16%

Table 13

Education Status of Beneficiary	Education Status of Beneficiary	Percentage of beneficiaries
Illiterate	5	20%
Informal Education	2	8%
Primary Education	5	20%
High School Education	3	12%
Intermediate (12th) Education	3	12%
Graduation	6	24%
Post-Graduation	1	4%

Table 14

Number of family members	Number of family members	Percentage of beneficiaries
Upto 2	2	8%
2 to 4 Members	6	24%
4 to 6 Members	8	32%
More than 6	9	36%

Table 15

END