

Impact Assessment Report

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Supporting Health Care Facilities with Dialysis Machines

Submitted To:



SEVEN ISLANDS

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type text



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Acknowledgement

We, SGS, would like to express our gratitude towards Seven Island Shipping Limited (SISL) for entrusting us with this impact assessment project. We are extremely thankful for their assistance during the course of the study.

We thank everyone who participated in the study and contributed insights. In this regard, we would like to express our gratitude to the medical staff, authorities and beneficiaries at the targeted hospitals across locations for their support throughout the study and their active participation.

We appreciate the Faifax India Charitable Foundation team's cooperation with the SGS team during the primary research. We truly appreciate all the intellectual guidance received from SISL and Fairfax teams throughout the study.

Last but not least, we want to express our gratitude to everyone who spent the time answering the extensive survey.

Ethical Consideration

Informed consent

The interviews were done after the respondents gave their consent. Even after the interviews were completed, their permission was sought to proceed with their responses.

Confidentiality

The information provided by participants has been kept private. At no point were their data or identities disclosed. The research findings have been quoted in a way that does not expose the respondents' identities.

Comfort

The interviews were performed following the respondents' preferences. In addition, the interview time was chosen in consultation with them. At each level, respondents' convenience and comfort were considered.

Right to reject or withdraw

Respondents were guaranteed safety and allowed to refuse to answer questions or withdraw during the study.

Executive Summary

Seven Island Shipping Limited (SISL) is a Mumbai-based liquid seaborne logistics company that has been operating ocean-going tankers for the past 20 years after being incorporated under the Companies Act, 1956, in Mumbai (India).

As part of our Corporate Social Responsibility (CSR) efforts, Seven Islands Shipping Limited engage in various initiatives that benefit the communities in which they operate.

With an intent to strengthen the medical infrastructure and provide critical care services to patients, SISL has extended its support through CSR to Fairfax India Charitable Foundation by providing dialysis machines. The project intends to provide affordable, quality dialysis services to patients in parts of India where there is limited/nonexistent dialysis infrastructure.

Around 1.3 million patients require dialysis 2-3 times a week who suffer Chronic Kidney Disease (CKD). There is a huge gap with the availability of dialysis machines as compared to the number of patients. There are only 25,000 dialysis machines available as against the requirement of 2,00,000 in India which is restricted mainly to urban India. The cost to avail of dialysis is exorbitantly high, making these services almost inaccessible to the poor and marginalized section of society.

SISL has supported health care facilities with 85 dialysis machines across 5 states i.e Assam, Jammu and Kashmir, Odisha, Uttarakhand, and Chattisgarh. The support has reached to 27,000 kidney failure patients so far across these locations. SGS team conducted the impact assessment to understand the efficiency and efficacy of the initiative

1. Setting the Context



Chronic kidney disease (CKD) is a significant health issue in India, with a prevalence of around 17% among the general population. CKD is a long-term condition that can cause kidney damage and reduce kidney function over time. Some of the main causes of CKD in India include diabetes, high blood pressure, and lifestyle factors such as smoking and a high-salt diet.

According to data from the Indian Society of Nephrology, CKD is the eighth leading cause of death in India, accounting for around 4.5% of all deaths. It is estimated that around 230,000 new patients with end-stage renal disease (ESRD) require dialysis or kidney transplantation every year in India, but only a small percentage of these patients receive adequate treatment.

One of the main challenges in managing CKD in India is the lack of awareness and access to healthcare services in many parts of the country. Many patients with CKD are not diagnosed until the disease is in its advanced stages, and access to dialysis and transplantation is limited in many areas.

To address these challenges, there is a need for greater awareness and education about the risk factors for CKD, as well as better access to screening, diagnosis, and treatment services. There is also a need for greater investment in healthcare infrastructure and resources, particularly in rural areas where access to healthcare is limited.

2. About the Project



The current set of challenges require increased investment in healthcare infrastructure as well as greater education and awareness-raising efforts to help people understand the importance of early detection and treatment of kidney disease.

It is evident that there is a significant need for improved access, and affordability of dialysis services in India. Seven Island Shipping Limited along with its implementation partner responded to ever increasing demand on dialysis machines for chronic kidney disease (CKD) patients.

Dialysis is a life-saving treatment that helps remove waste products and excess fluid from the blood when the kidneys are no longer able to function properly. SISL has supported 19 health care facilities across 5 states of India by installing 85 dialysis machines. Through this initiative, 27k free dialysis have been offered to patients, resulting in savings of INR 5 cr.



Overview of Dialysis Machines and Sessions

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| STATE | NUMBER OF DIALYSIS MACHINES | NUMBER OF DIALYSIS SESSIONS |
|-------------------|-----------------------------|-----------------------------|
| ASSAM | 34 | 11,766 |
| CHATTISGARH | 13 | 4396 |
| JAMMU AND KASHMIR | 9 | 1810 |
| ODISHA | 3 | 1202 |
| UTTARAKHAND | 26 | 7817 |



Project Locations

The dialysis machine support has been provided in 19 health care facilities across 5 states i.e Assam, Chattisgarh, Jammu and Kashmir, Odisha and Uttarakhand.



Target Beneficiaries

The targeted direct beneficiaries which are being impacted by the project are rural marginalized kidney failure patients.



Project Objectives



To provide access to free/subsidized dialysis closer to home in Rural India to BPL patients.



To increase savings on dialysis cost for rural marginalized patients.



To generate employment opportunities for local doctors and paramedics at district level

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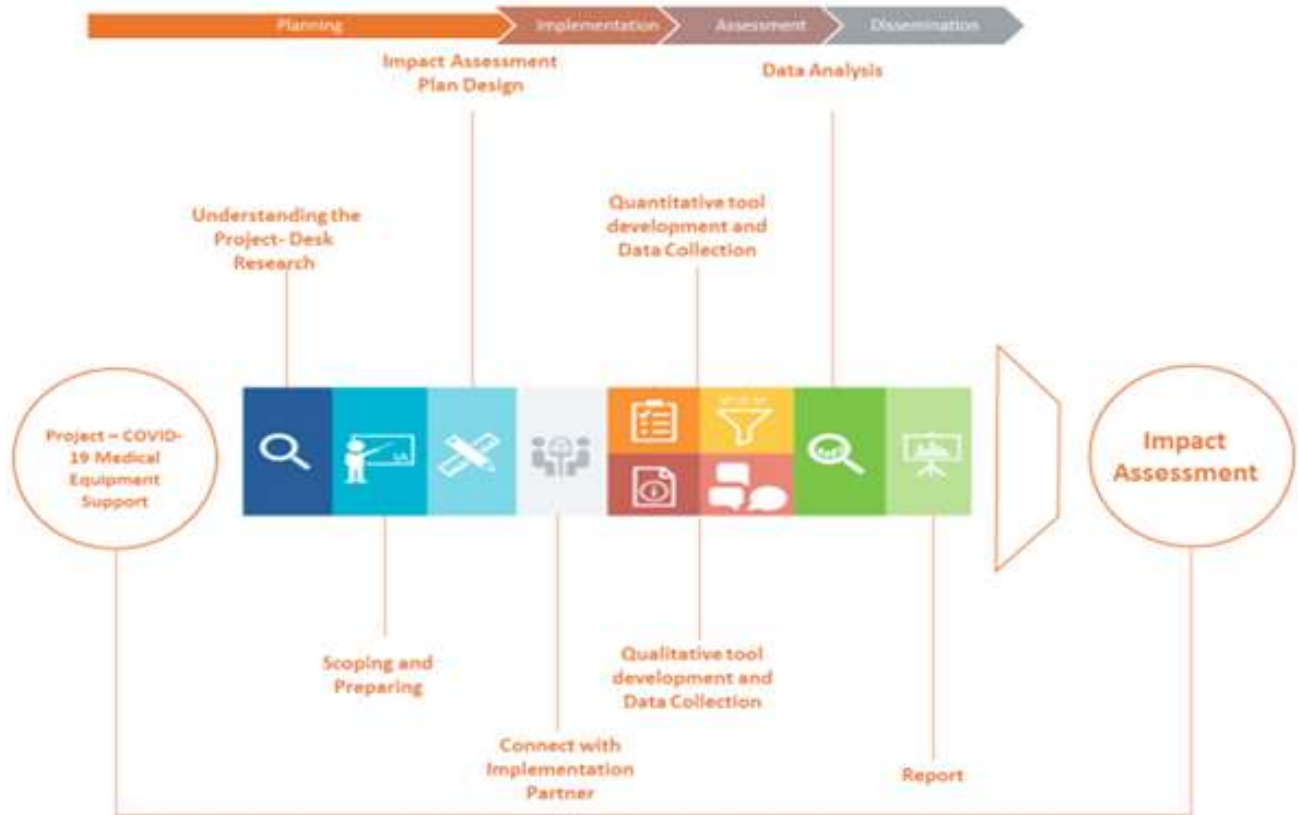
3. Study Design and Methodology

The chapter describes the process adopted and the methodology used to assess the overall impact of the intervention undertaken by Seven Island Shipping Limited. The impact assessment study employed combined data collection methods through participatory assessment tools to obtain all information required to analyse impact comprehensively.

SGS's approach to the study was guided by providing insights to enable SISL to gauge the project's overall impact, understand stakeholder sentiments, and strategise future implementation.

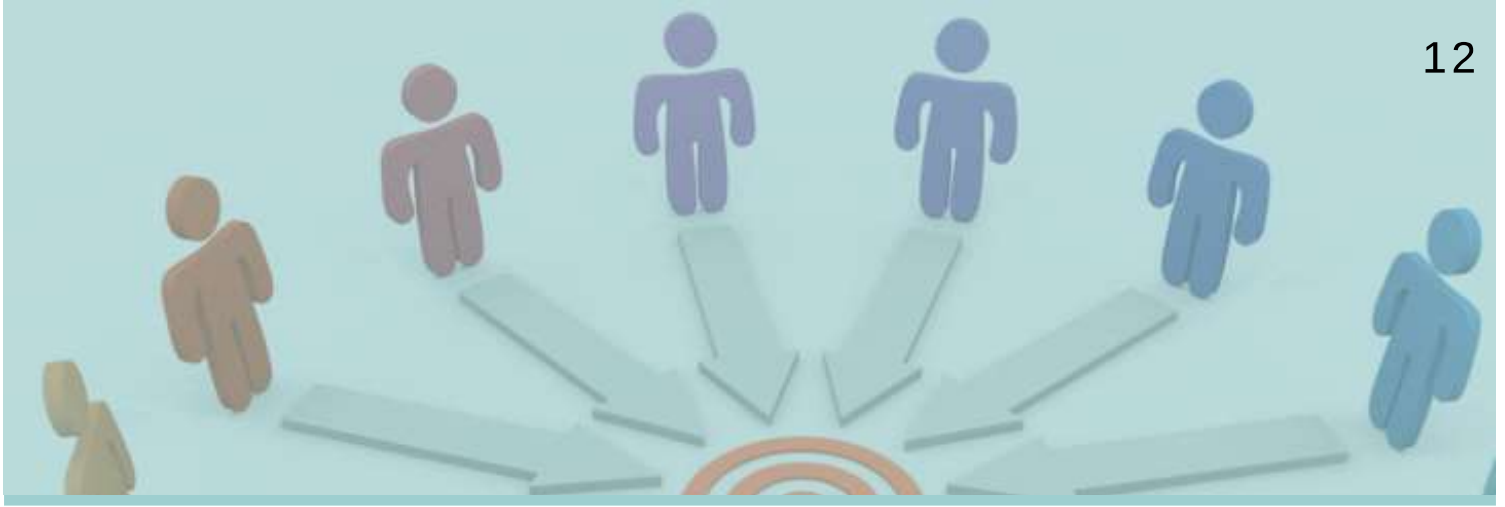


Methodology - SGS's Impact Assessment Cycle



SGS deployed a two-pronged approach for the impact assessment of the project. The study used quantitative and qualitative methods coupled with an in-depth desk review of secondary data. In order to understand the program holistically, different structured questionnaires were prepared for various stakeholders, i.e. doctors/medical officers/ hospital staff and beneficiaries.





Stakeholders Mapping

Direct and indirect stakeholders were mapped out to assess the project outcomes and beneficiary perceptions through multiple lenses. Beneficiaries were consulted as direct stakeholders. Hospital Authority and staff members were consulted as indirect stakeholders.

| Direct Stakeholders | Indirect Stakeholders |
|---------------------|---|
| Dialysis Patients | Hospital Officers / Doctors / Dialysis Unit Staff |
| Family Members | Implementing Partners |
| | Seven Islands (Donor) / Fairfax |

Table 1: Number of Stakeholders Consulted



Data Collection Tools

The study was carried out using a mixed-method approach. The study deployed both qualitative and quantitative data collection tools to gain a more comprehensive understanding.

Closed-ended, structured questionnaires were designed to understand the community's perception of the impact created by the interventions. The observations were recorded as numbers and analyzed further to gain insights and make informed decisions.

Qualitative research is equally important to understand the community's experiences. Hence, open-ended, focused group discussions were conducted. Respondents can freely express their experiences, thoughts, and feelings without constraint when the open-ended approach is deployed.

Data Analysis

The conclusions and findings in this report are drawn from a mix of sources, including qualitative interviews, publicly available data and information, and existing research, among others. The information collected from the field through structured interviews was systematically coded, validated, analysed, and tabulated.



State wise Figures : Machines & Registered Patients

| State | No. of Machines Supported | No. of Patients Treated |
|-----------------|---------------------------------|-------------------------------|
| Chhattisgarh | 14 | 259 patients |
| Uttarakhand | 28 | 289 Patients |
| Jammu & Kashmir | 9 | 119 Patients |
| Odisha | 3 | 59 Patients |
| Assam | - | - |

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Employment Generation & Ownership of Assets

| State | CG | J&K | OD | UK |
|---|--------------------------------|-----------------------------|-------------------------------|---|
| Generation of Local Employment | 6-10 people , each location | 3-5people, each location | 3-5 people , each location | 10-15 people each location |
| Ownership of Dialysis Machines (Assets) | NHM / Hospital | NHM / Hospital | NHM / Hospital | NHM/ Hospital is the owner of the Assets. However, at Haridwar the Asset Ownership is not clear. |

| State | Chhattisgarh / Uttarakhand / Jammu & Kashmir / Odisha |
|---|---|
| General Observation | At present these machines are adequate to cater the need of the target population. |
| | Number of session (twice or thrice per week) is completely depends on need/condition of patients and doctor (Nephrologist) advise |
| | 1 Machine is separated which is used only for Hepatitis C positive patients |
| | RO water system & Disinfection of Dialyzer is a core part of dialysis system and constant maintenance is imperative |
| | Availability of infrastructure/machines and medicine has made unit staff comfortable in treating patients without any delay |
| Maintenance of Dialysis Machines | The Program implementing partner & Manufacturer / Supplier of the machines are responsible for repair / maintenance (AMC/PMC) and upkeep of the machines. |
| | Each unit is maintaining the required inventory of consumables |
| | As and when required, prompt support is always available from State NHM body and State Nodal officer |
| Visibility of Donor | 85% Patients & People visiting the center are not aware about Donor (Seven Islands / Fairfax Foundation) |

Issues Observed

Chhattisgarh

- At Mahasamund, one Positive Patient is being asked to buy Dialyzers on their own since last few months
- Mahasamund Center is not being properly maintained in terms of cleaning & Hygiene
- Air Conditioners were not working in "Positive Patients" Room at Durg

Jammu & Kashmir

- As stated by few beneficiaries at Anantnag, few machines were not working properly.
- Dialyzer Cleaning area ne was not maintained properly at Anantnag
- At Doda, doctors do not come to the center on time and there is a shortage of skilled staff
- At Kishtawar Center lift was not available, patient had to climb 3 floors to reach the Dialysis Center.

Odisha

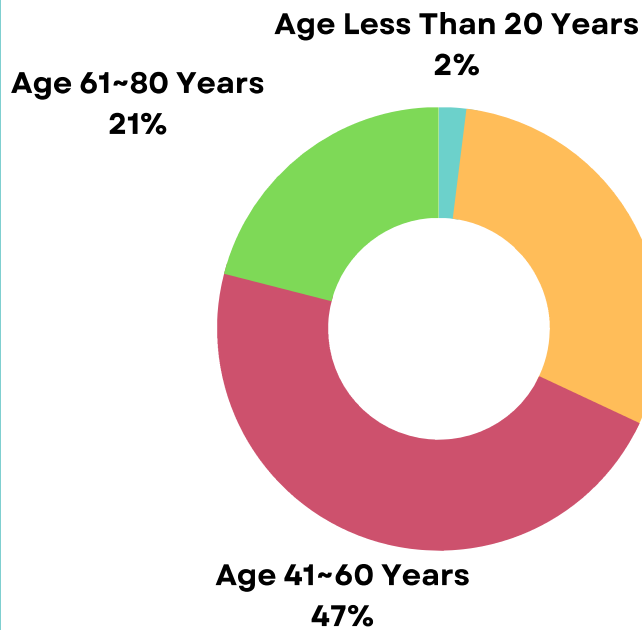
- At Jajapur, It was observed that there is lack of trained staff at the center. At the same time staff is not adequately attentive to the patients
- The space provided by the mangement is not properly maintained / cleaned

Uttarakhand

HARIDWAR

- Only one air Conditioners working for a big size room which was not sufficient.
 - There were frequent clashes took place between Rahi Care and the Hospital management
 - Hospital Management was not satisfied with working style of the implementing partner
 - The space provided by the management is not properly maintained / cleaned by the Rahi Care
 - Hospital was also suspicious about direct financials transactions between Rahi care & Patients (3 Patients currently pay money for the Dialysis Sessions)
 - Several letters were issued by Hospital to Rahi Care head office but according to them no action was taken.
 - Dialyzer cleaning area was not maintained properly.
 - lift was not working, patient had to climb 3 floors to reach the Dialysis Center
 - Official Charges are being Collected per Patient who do not have Aadhaar Card / Uttarakhand Govt Card (Rs 28 - Registration Charges (Valid for 15 Days) , Rs 1028 / Per Dialysis Session , Rs 144 charged if no session attended)
 - Availability of Doctors Deployed by Rahi Care at Haridwar :
9:00 Hours to 14:00 Hours
(instead of 8:00 Hours to 24:00 Hours)
-
- At Rudraprayag Center , availability of water has been a major factor affecting service delivery to patient. A lot of patient return without availing the session

Graphical Representation of Data



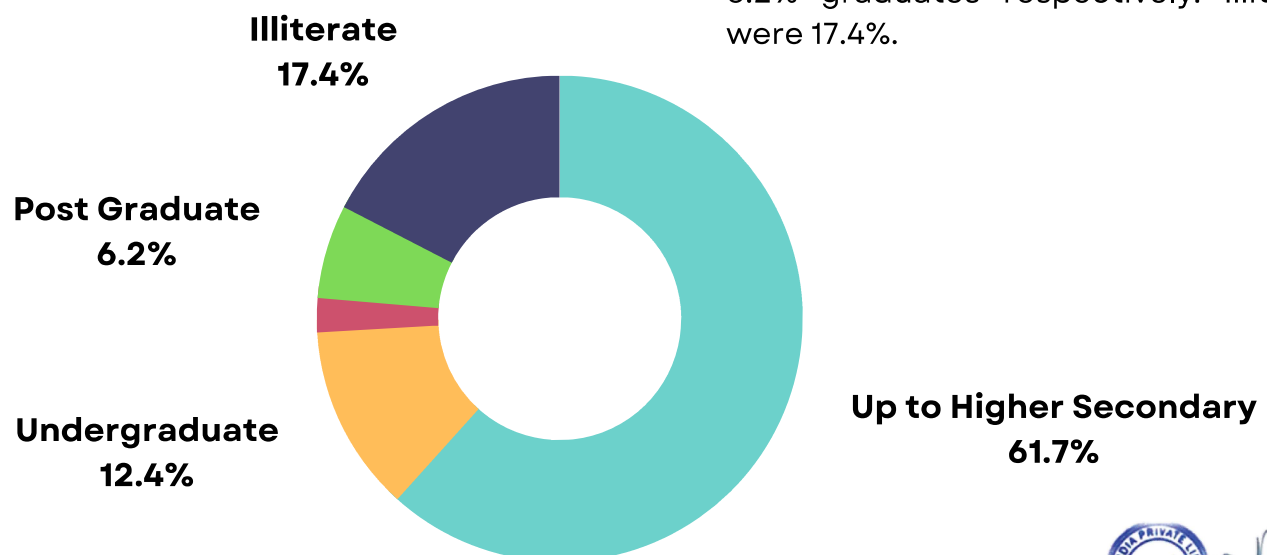
Graph 1. Age Range of Dialysis Patients

Age 21~40 Years 30%

During visit, research team interacted with patients availing free dialysis services and their family members. Data analysis shows that 47% of the patients belong to the age group of 41-60 years followed by 30% in the age group of 21-40 years, 21% in the age group of 61-80 years, Only 2% belongs to the age group of less than 20 years.

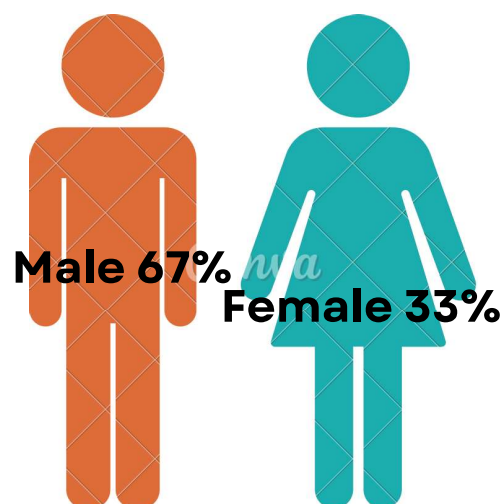
Graph 2 : Education Level of Patients

Education level shows that patients upto higher secondary education were 61.7% followed by 12.4% undergraduate, 6.2% graduates respectively. Illiterate were 17.4%.

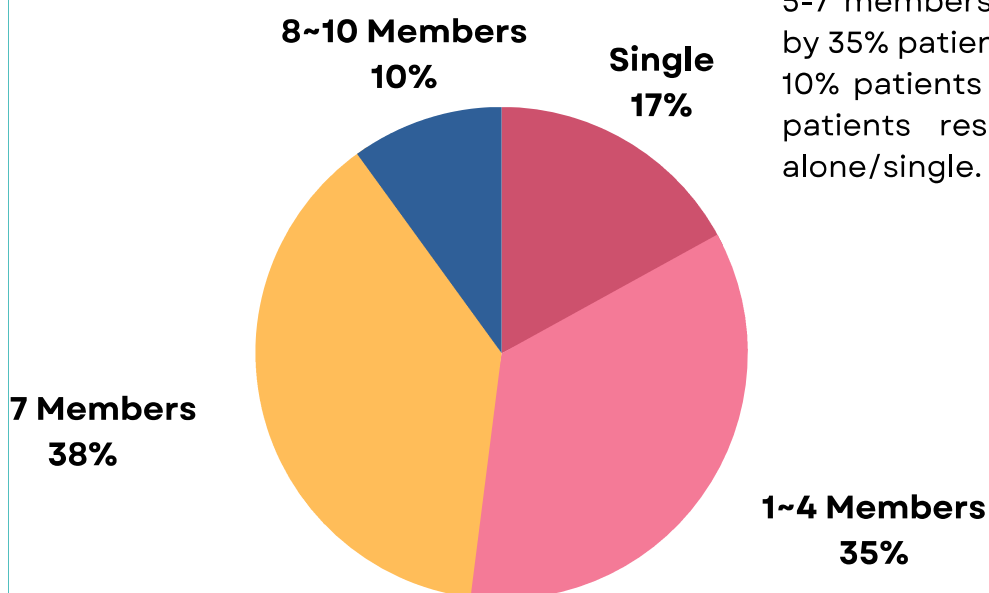


Graph 3, Male / Female Ratio of Patients

67% patients were male and 33% female. It indicates that percentage of kidney failure found more in males as compared to females.



Graph : 4 Members in the Patient's Family



Data reveals that 38% patients stated 5-7 members in their family followed by 35% patients with 1-4 members and 10% patients with 8-10 members. 17% patients responded that they are alone/single.

Graph 5 : APL / BPL Category of Patients

98% patients mentioned that they belong to BPL category. This indicates that this free of cost dialysis service reaching to needed patients.

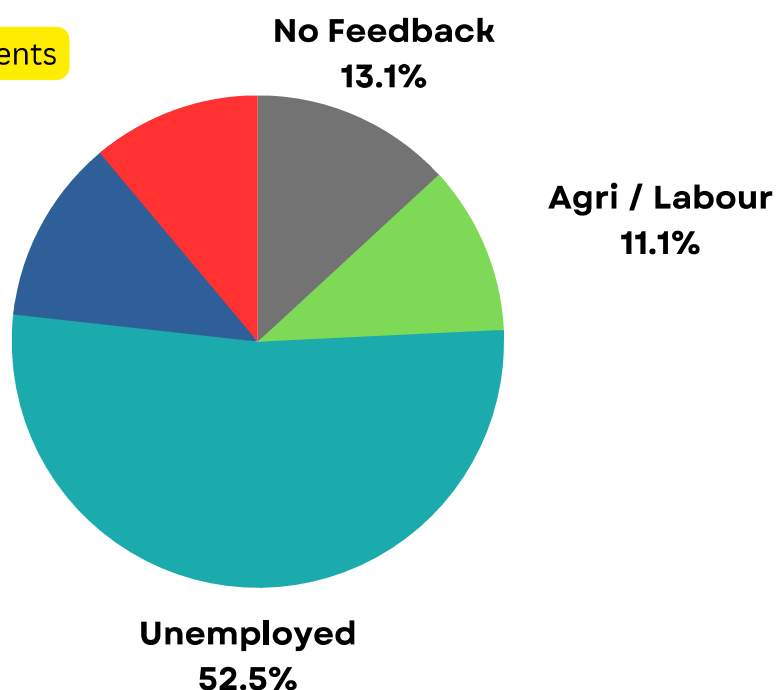
BPL Category

98%

Graph 6 : Employment Pattern of Patients

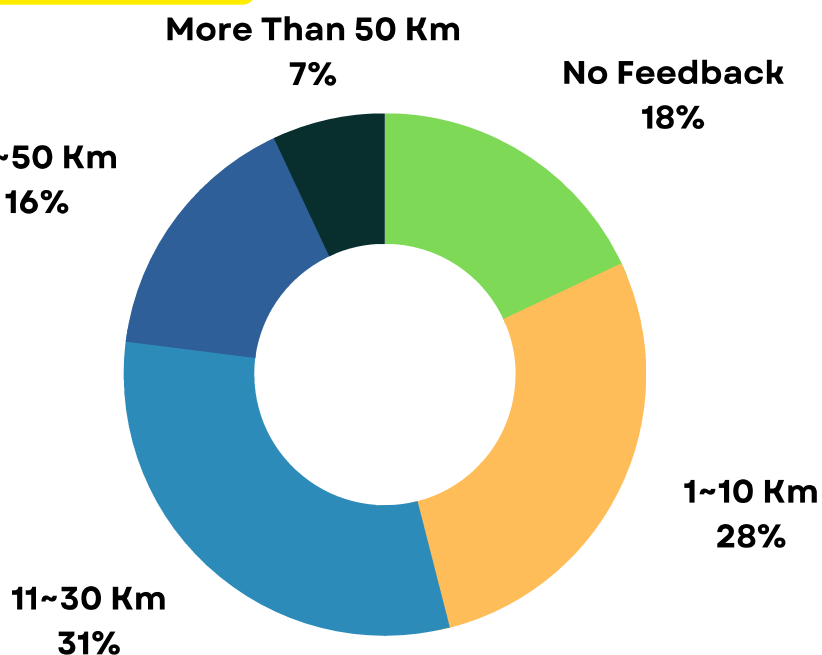
**Self Employed
12.1%**

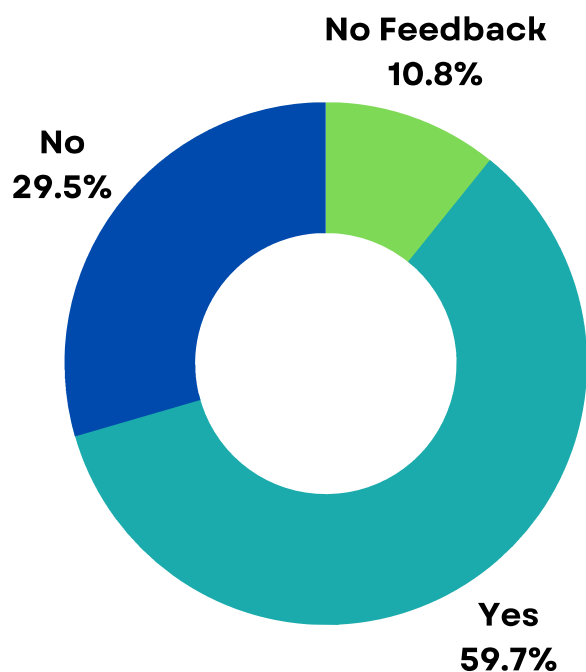
12.1% are self employed and 11.1% are engaged in agriculture and its allied activities. Majority i.e., 52.4% patients stated as unemployed and 13.1% with no feedback. Employment data shows that the % of unemployment rate is more as against education level is good among patients. It may be because of less employment opportunities in the area.



Graph : 7 Distance to Dialysis Center for Patients

31% patients stated that they travel 11-30 km distance to avail dialysis services followed by 28% patients travel 1-10km, 16% patients travel 31-50km, 7% patients travel more than 50km, respectively.



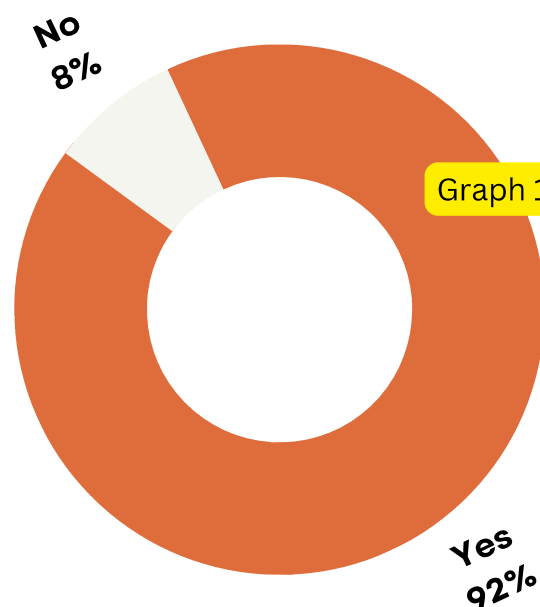
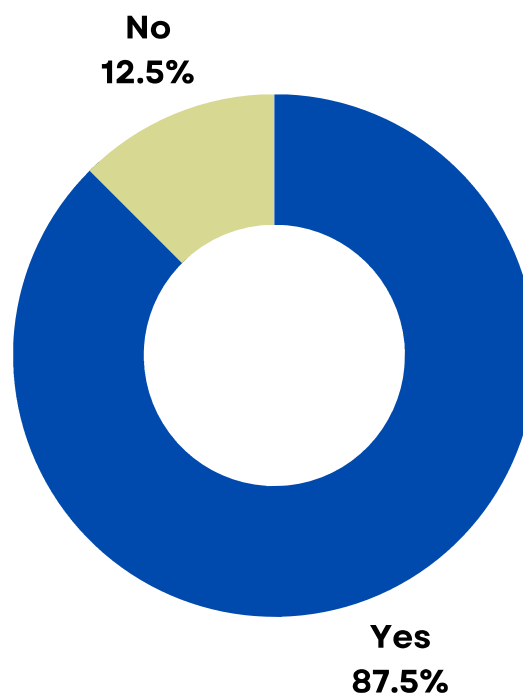


Graph 8 : Easy Access to Dialysis Center

59.7% patients mentioned easy accessibility to dialysis center and 29.5 % patients have no easy access to the center from their location as they need travel a lot of distance..10.8% patients did not respond towards query.

Graph : 9 Ease of Getting Appointments

87.5% patients getting appointment from doctor and staff easily and 12.5% patients did not get easily as they wish to visit the center as per their convenience.

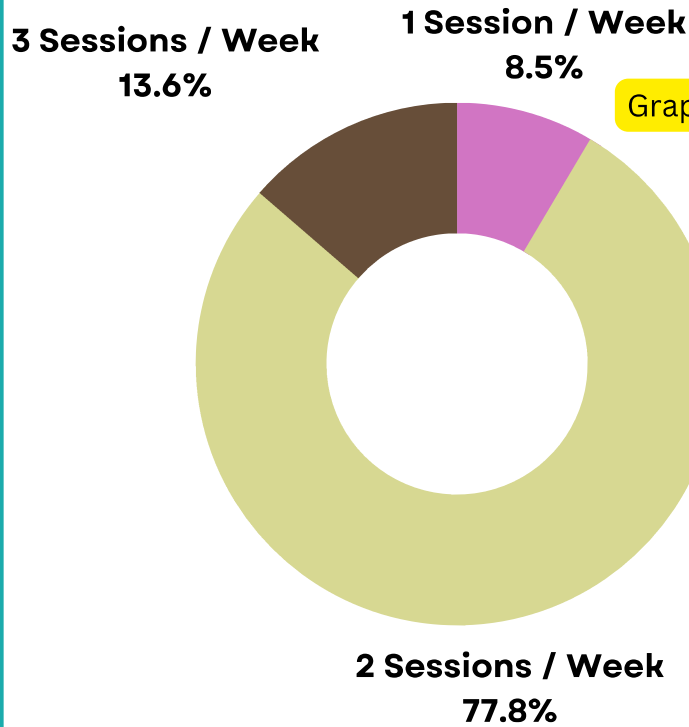


Graph 10 : % of Patients require Dialysis Session in Future

92% patients require to continue dialysis session in future. However, 8% patients responded that they don't need to continue session as suggested by nephrologist.

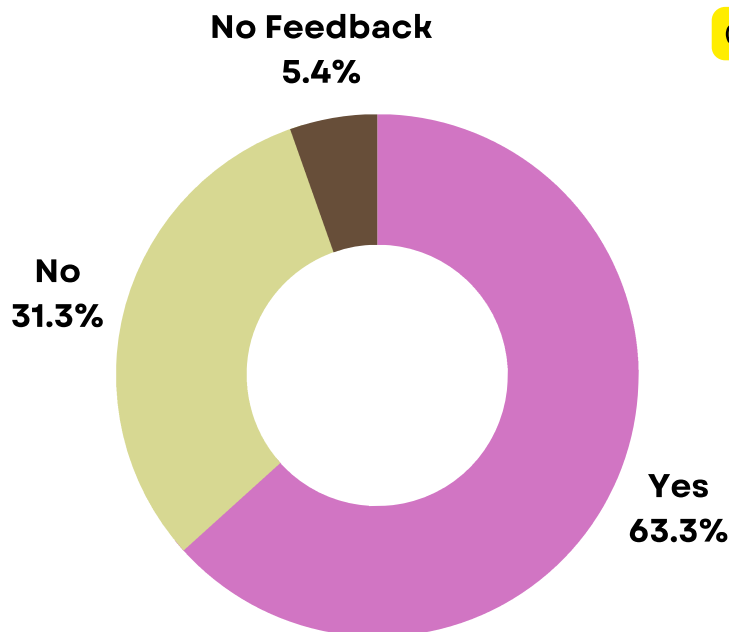


Prabhu



Graph : 11 , Patient's Dialysis Requirement Per Week

Majority i.e., 77.8% patients require 2 dialysis session per week followed by 13.6% are in need of 3 session per week, 8.5% patients require 1 session per week. Patients mentioned that requirement of number of dialysis sessions is completely depends on advice given by nephrologist.

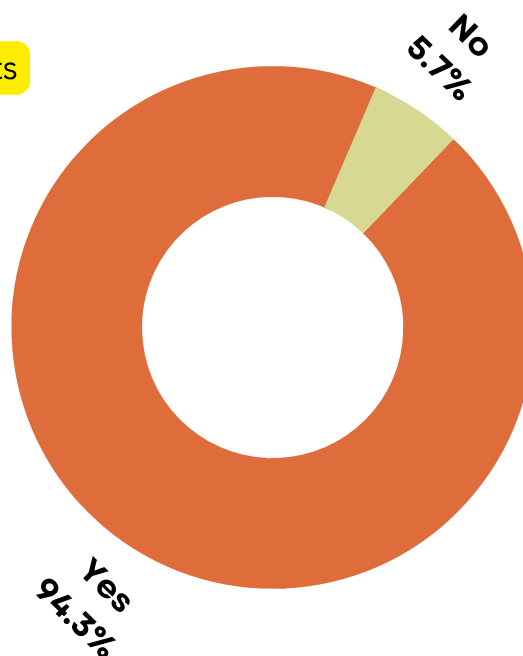


Graph : 12 , Skills of Medical Staff

63.3% patients stated that dialysis center have skilled medical staff to operate dialysis machine and patients but 31.3% patients mentioned that lack of skilled staff at few center. 5.4% patients are with no feedback.

Graph : 13, Benefits of Dialysis Sessions for Patients

94.3% patients mentioned that they are benefitted by undergoing dialysis session. Only 5.7% patients responded that they are not benefitted with session completed till now.



Graph 14: Any Fee Charged by the Dialysis Center

It is noteworthy that 99% patients stated that no fees charged by dialysis unit staff for weekly session.

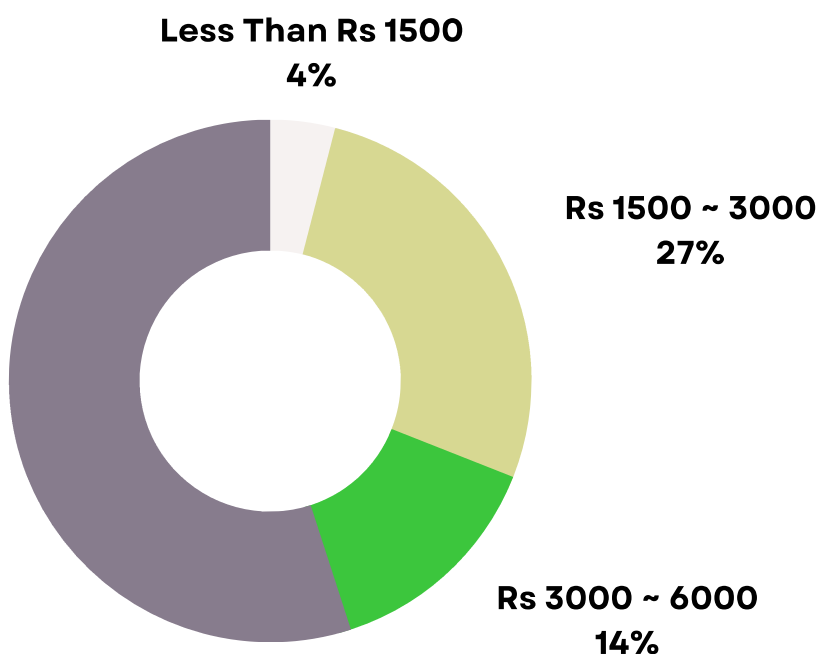
No Fee Charged

98.9%

27% patients stated that private hospitals charged Rs.1500-3000 per dialysis session followed by 14% patients charged Rs.3000-6000 per session, 4% patients charged less than Rs. 1500 per session, respectively. 55% respondents were not aware about charges of dialysis session at private hospitals.

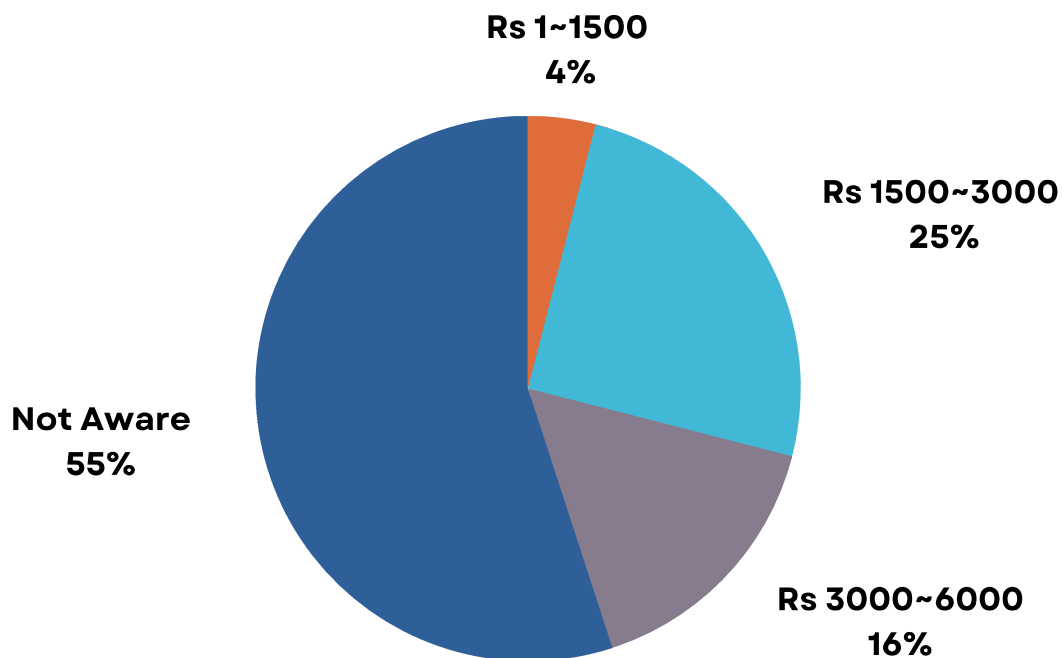
Not Aware
55%

Graph 15 : Dialysis Charges at Private Hospitals

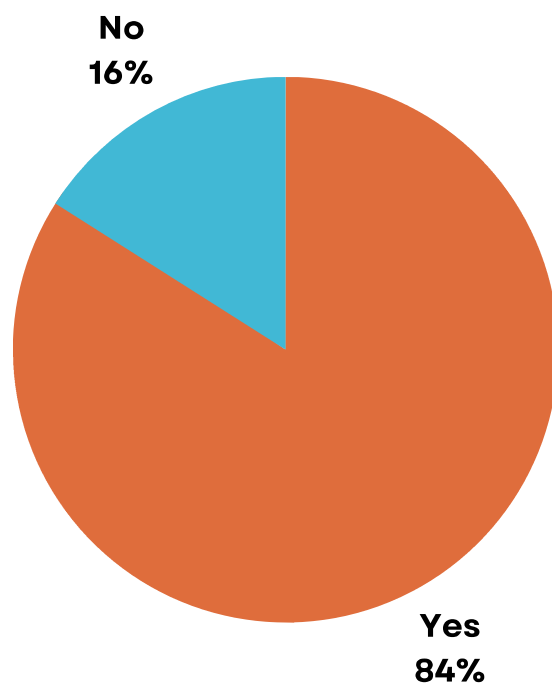


Graph 16 : Money Saved by Patients Per Week

16% patients stated that they saved Rs. 3000-6000 per week by availing the session with free of cost in dialysis center, 25% patients saved Rs. 1500-3000 , 4% patients saved Rs 1-1500 , and 55% patients either unaware of the savings or they dont want to disclose it.

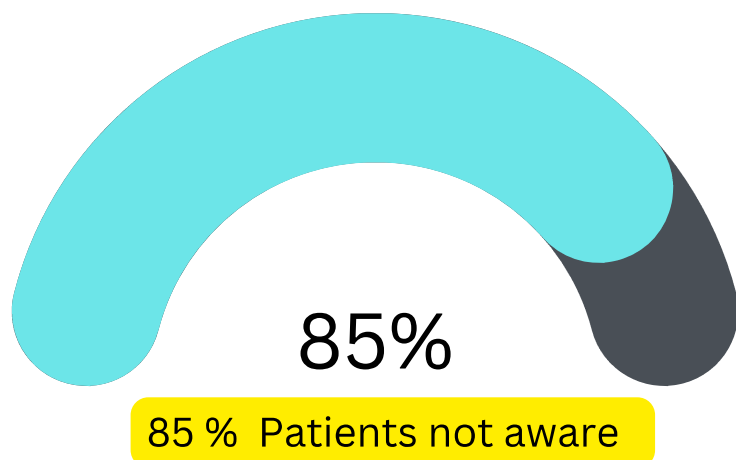
**Graph 17 : Satisfaction of Dialysis Unit**

84% patients responded that they are satisfied with services of dialysis unit. However, 16% patients shown dissatisfaction towards services given at center/unit



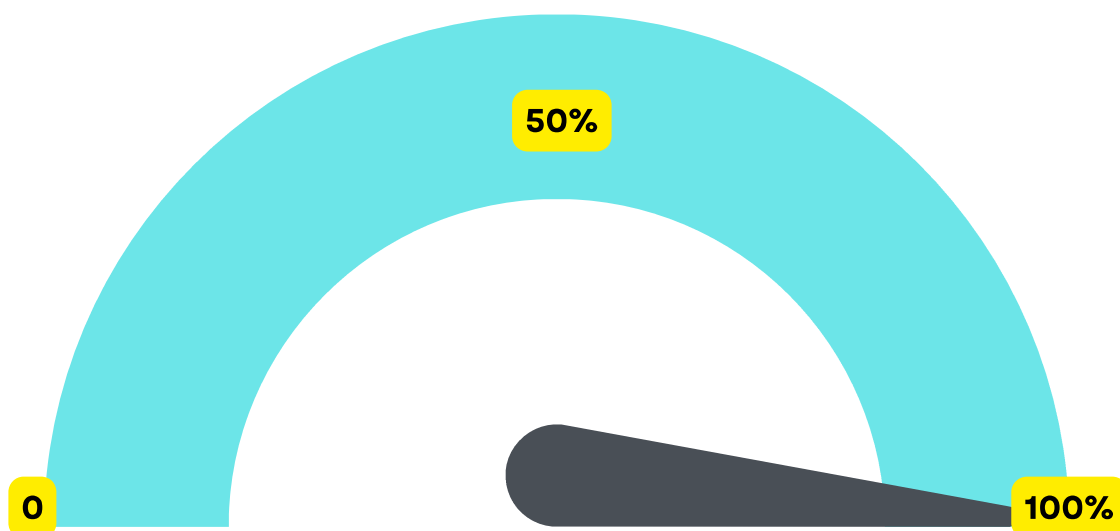
Graph 18 : Awareness About Dnoor among Beneficiaries

85% patients were not aware about donor agency who donated dialysis machines at respective locations. Merely, 15% patients were Seven Islands/fair Fax india Foundation



Overall Benetis of the Dialysis Unit

100% patients stated positively about overall benefits of free dialysis sessions and its impact on their social, economic status and on their personal as well as professional life.



5. Recommendations

Below are the recommendations/suggestions based on observations made during site visit at dialysis centers:

- The dialysis area should be air conditioned wherever it is not available
- It is recommended that timings of the Dialysis Center and services provided should be displayed outside the Dialysis Center which would be useful for patients and family members.
- It is recommended to also display Important contact numbers such as Blood Banks, Fire Department, Police and Ambulance Services at Dialysis Center for easy reference.
- It is advisable to the Implementing Partners to provide clean and hygienic environment for patients, their attendants, staff and visitors.

- It is expected to store all Consumables and inventory separately.
- The center shall have 24 hour provision of potable water for drinking & hand hygiene.
- The "Dialysis unit" shall be placed at easily accessible location in the hospital building OR if it is placed at upper floors then lifts should be in working condition.
- The center shall have waiting area with sufficient seats for patients and visitors.
- The center shall have qualified and/or trained medical staff as per the scope of service provided and the medical care shall be provided as per the requirements
- It is expected to do regular cleaning of all areas with disinfectant and as per prescribed & documented procedure.
- Dialyzer cleaning area should be well maintained to avoid infections among fellow patients.
- All one time used medical consumables (Syringe / Needles / Gloves should be properly disposed off as per medical guidelines.
- Center should maintain patients monitoring sheet that includes record of important basic health indicators.

