



## PROPOSAL FOR REVAMPING OF LABORATORY AND BLOOD TRANSFUSION CENTRE

### Organisational Background

Hindu Mission Hospital is a 250 bed Multi Specialty Tertiary Care Charity Institution serving the underprivileged sections of our society over the last 38 years. The hospital can provide medical relief to more than 5 lakh patients every year. We have been accredited with NABH & NABL for our quality and services.

Statistics show that over 95% of the world population have health problems. With the increase in health concerns in the populace, there is an ever-growing need for medical intervention. There are various reasons ranging from environmental factors, lifestyle, social and economic factors.

Health concerns are faced by all strata of the society. However, the urban poor and the rural population have limited access to quality health care services. Urbanisation has its own disadvantages because modifications in the name of urban lifestyle has done more harm than good with respect to health. Amongst the current generation, hereditary diseases are now becoming common. The sick and the elderly are the most vulnerable sections of the society. Every citizen has the right to quality medical care. Hindu Mission Hospital lays importance to this right and delivers quality medical care to the rural and urban poor of the society.

Our hospital came into existence on Dec 5th 1982, in a small way and has grown to what it is today over three decades. Our focus has always been to provide quality health care services to everyone, especially to patients from the lower socio-economic strata of the society. With this in mind numerous free schemes were introduced.

### **Free Services being offered are:**

- **Incidence of Cardiac disease is rising rapidly.** The demographics of the people being affected is also changing. We are seeing an increase in younger people being affected by this disease in the most productive phase of their life. When patients come to our hospital's emergency and trauma care with a heart attack, it is vital to treat such patients within the golden hour to save the heart muscle and prevent any further damage to the heart. Streptokinase- a lifesaving injection for heart attack patients is administered free of cost as a first step to save the patient. This ensures that there is no further damage to the heart muscle which in turn ensures a good quality of life post cardiac treatment.
- **Free Daily rural mobile service:** An ambulance with a doctor, nurse, paramedical staff provide mobile primary level medical care along two different routes in the villages around Tambaram. Patients assembled at various points along the routes are provided free treatment and free



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medicines are dispensed. This activity has been continuing without a break since its inception in 1995.

- **Free Weekly multi-disciplinary camps:** Consultants from the Multi-Disciplinary team (General physician, Ophthalmologist, Dermatologist, General Surgeon and Dentist) from our hospital conduct camps every Sunday at a pre-determined venue in a village. The consultants screen the patients, prescribe medicines and if required free follow-up treatment is referred to the base hospital. Such patients are taken in our ambulance to the hospital, provided treatment and then dropped back at no cost. Patients requiring surgical intervention are also brought to the hospital. Free surgeries and free food are provided to them.
- **Free consultation and surgery:** Provided to out-patients who are unable to pay.
- **Free Cataract surgeries – 50/week:** Every Wednesday our medical team visits the urban poor around Tambaram to screen patients for cataract growth. They are brought to the hospital for free eye surgery. Last financial year, we had over five thousand patients who were screened and treated.
- **Free nutritious food for In-patient and their attenders:** Our geographical area has diverse demographics. Many in-patients who come to us are from the poorer sections of society. They lack enough nutrition to help them recover from their illness. Also, their attenders who are daily wage earners hesitate to stay back with them during their recovery due to their inability to pay for their own meals. To enable speedy recovery of such patients and to ensure that their attender stays with them during their hospitalisation, Hindu Mission Hospital commenced “Annalakshmi Scheme” a free nutritious meal scheme for in-patients and their attendants. 4 square meals are provided to them.
- **Audiology and Speech therapy for adults and children:** Everyday, we provide free check-up, Audiogram and Speech therapy for adults and special children.  
**In Audiology,** we identify, assess, and manage disorders of hearing, balance and other neural systems.  
**In Speech Therapy,** we treat problems in patients with speaking, articulation, language, and swallowing.
- **Artificial Limb for physically challenged people:** This long-standing service continues to provide free artificial limbs to patients with limb deformities.



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Patients from hundreds of miles away avail of this opportunity and also come to review their prosthesis

Chennai is counted among the fastest growing metropolitan city in the country. It has the fourth highest population of urban poor among major cities in India. The city has been termed India's health capital. But unfortunately, these facilities and healthcare are less accessible to the vulnerable sections of the society. We believe that every citizen has the right to quality health care.

Hindu Mission Hospital is committed to continually providing world class treatment to its patients at an affordable cost in Medical and Surgical care under a single roof with absolute care and compassion in all areas of treatment. The hospital has committed, skilled and experienced doctors and nurses as well as state of the art technology in all departments.

Our hospital being a multi-speciality hospital and centrally located on the National Highway, has seen significant demographic change from rural to semi urban. Our hospital receives patients round the clock with different paying capacities. Such patients not only seek medical help but also concessions/waivers on their medical bills. Our hospital being a charitable institution with an objective to serve the society in the best possible way, provide health care at an affordable cost. We address the need of the community on medical grounds as every individual has the right to access quality health care.

The hospital has a state-of-the-art ICU, 9 operation theatres out of which 6 are modular operation theatres, critical care block, neuro surgery unit, accident & trauma care, NICU and 7 ambulances.

In the field of medicine, obsolescence in technology is inevitable. Quality health care can be provided only if the hospital is up to date with medical technology. The frontiers of social service in the field of healthcare keeps constantly expanding. Hence, our hospital has now taken up the logical course of upgrading and acquiring requisite equipment that will fulfill the needs of the patients in tune with technological advancement.

In India, gainful employment is a cause for concern. In the field of medicine, hospitals are either understaffed or lack expert doctors and nurses. Quality health care requires a team of well-trained doctors and nurses. Assessing this need and to provide gainful employment to qualified doctors and nurses, Hindu Mission Hospital considers education as an important part of the hospital and commenced its Nursing College and Nursing School.

The hospital also has Allied Health courses in affiliation to Tamilnadu Dr MGR Medical University to provide practical education and better employment prospects to the youth.



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Our Allied Health courses were commenced in the academic year 2018-19. We offered 2 Degrees courses and 5 Diploma courses. In the current academic year, we offer 8 Degree courses and have upgraded the Diploma courses to Degree course.

Rural and semi-urban communities have limited access to healthcare facilities. Some of the health care facilities have limited resources to address many health-related needs. Research and needs assessments can help determine where and how resources may best be targeted, and program evaluations can indicate whether a particular intervention or approach works well in a rural and semi-urban context.

Research is considered an important aspect in the field of medicine. It is essential to gain valuable information for the medical community and to scale up clinical research. Some of the common aims for conducting research studies are to:

- Diagnose diseases and health problems.
- Prevent the development or recurrence of disease and reduce the number of people who become ill.
- Treat illness to improve survival rates or increase the number of people who are cured.
- Learn about the cause of a disease and its effects on the patient.
- Find effective treatments to improve quality of life for those affected.
- Determine if a medicine used for one condition could benefit another condition

Hindu Mission hospital has a vibrant research department that provides clinical research services for pharmaceutical and biopharmaceutical companies from Phase I to Phase IV clinical trials. The service of the department covers the entire study process from feasibility, preparation of the protocol, submission of documents to the institutional ethics committee, data collection, statistical analysis, and writing scientific manuscripts for publication in peer-reviewed journals. We also have a registered Institutional ethics committee as IEC-HMH (Institutional ethics committee-Hindu Mission Hospital) accredited by NABH (National Accreditation Board for Hospitals & Health Care Providers). The committee meets regularly to review the clinical research projects.

Committees have the authority to approve, reject or stop studies or require modifications to research protocols. The main responsibility of a research ethics committee is to protect potential participants in the research, but it must also consider potential risks and benefits for the community in which the research will be carried out. Its goal is to promote high ethical standards in research for health.



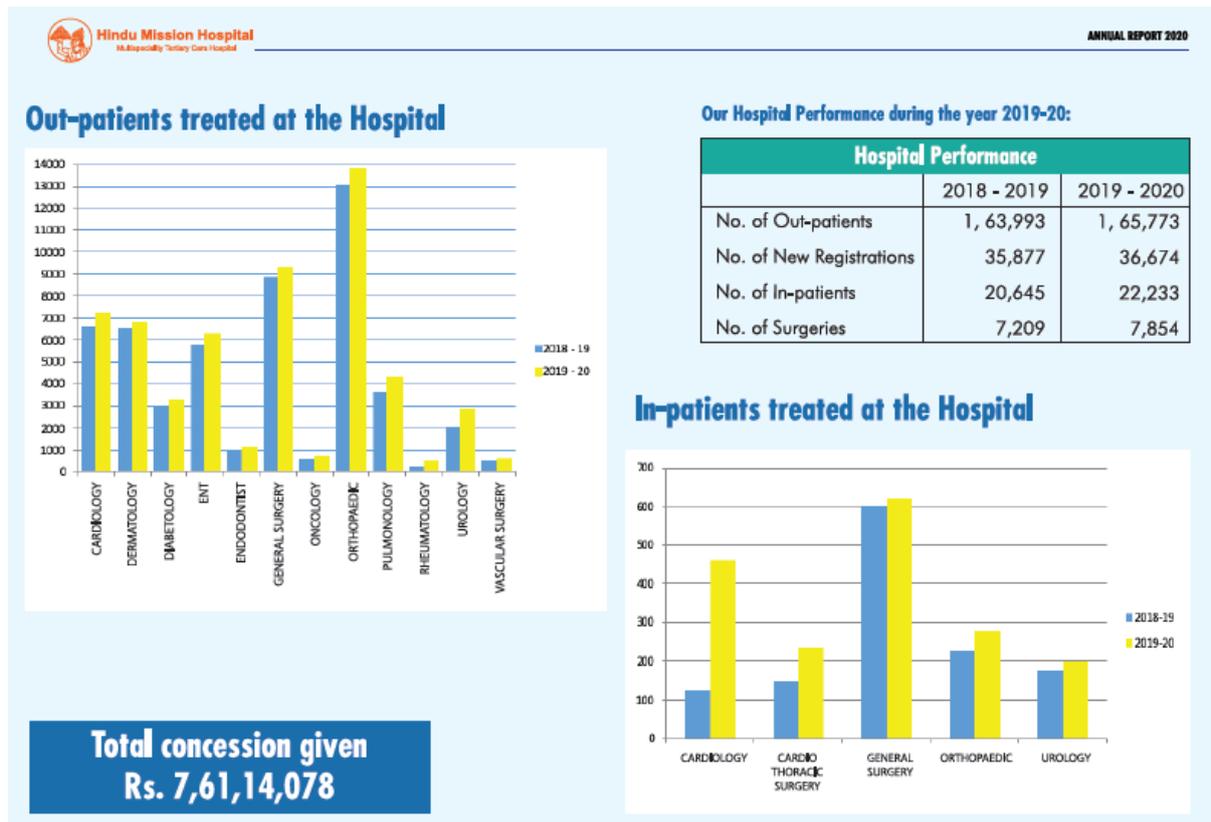
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### PROPOSAL FOR REVAMPING OF LABORATORY AND BLOOD BANK

#### PROJECT DESCRIPTION:

The clinical laboratory plays a vital role across the entire continuum of health care. Clinical laboratory testing heavily impacts clinical decision making by providing physicians, nurses and other health care providers with important information needed for the prevention, diagnosis, treatment, and management of disease. Up to 85 percent of diagnosis and treatment decisions are based on laboratory results. Laboratory test results comprise about 70 percent of the average patient's medical record. Virtually every practicing physician depends upon the clinical laboratory for the care of his or her patient.

#### Impacted Beneficiaries:





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### PROBLEM STATEMENT:

Hospital and physician practice models are moving to fully integrated services. Inpatient, outpatient, and outreach test results will need to be fully integrated within these new practice models. An integrated health system laboratory will play an increasingly important role in decreasing unnecessary testing and its associated downstream medical costs.

Our hospital's current set-up does not support a fully integrated diagnostic service. Besides, due to lack of space we are unable to bring in advanced equipment that could meet the quality delivered through fully integrated laboratory service and in fetching accurate results and reducing the turnaround time.

**Hence Hindu Mission Hospital Tambaram plans to set-up a fully integrated laboratory and blood transfusion centre as a sustainable project model**

### PROJECT BUDGET: (ANNEX 5)

S.No	Particulars	Unit Cost in Rs	Qty	Units	Cost in Rs
1	Renovation Cost	12,500	400	M2	50,00,000
2	Mechanical, electrical, and plumbing cost	16,500	400	M2	66,00,000
3	Workstation-Furniture and fittings	Detailed list and costs are available			28,00,000
4	IT Equipment	Detailed list and costs are available			12,00,000
	<b>Grand Total</b>				<b>1,56,40,000</b>

**Quotations and cost break up for the above can be shared in the next stage of the proposal as required.**

**\*IT Equipment: Interfacing Hardware with LIS (Laboratory Integrated Systems), Printers, Bar Code Printer, Bar Code Readers and Desktops**



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### PROJECT RATIONALE:

More than 4000 different laboratory tests are available today for clinical use, of which approximately 500 are ordered daily. Today physicians, other health care workers and patients are finding it increasingly difficult to keep up with the tremendous amount of information being generated by clinical laboratories. This trend is expected to continue with the implementation of genomic testing and personalized medicine. Esoteric lab tests are projected to increase at an annual rate of 12%. Optimal turnaround time for laboratory tests and accessible clinical pathologist consultations are essential components of a successful, fully integrated clinical practice.

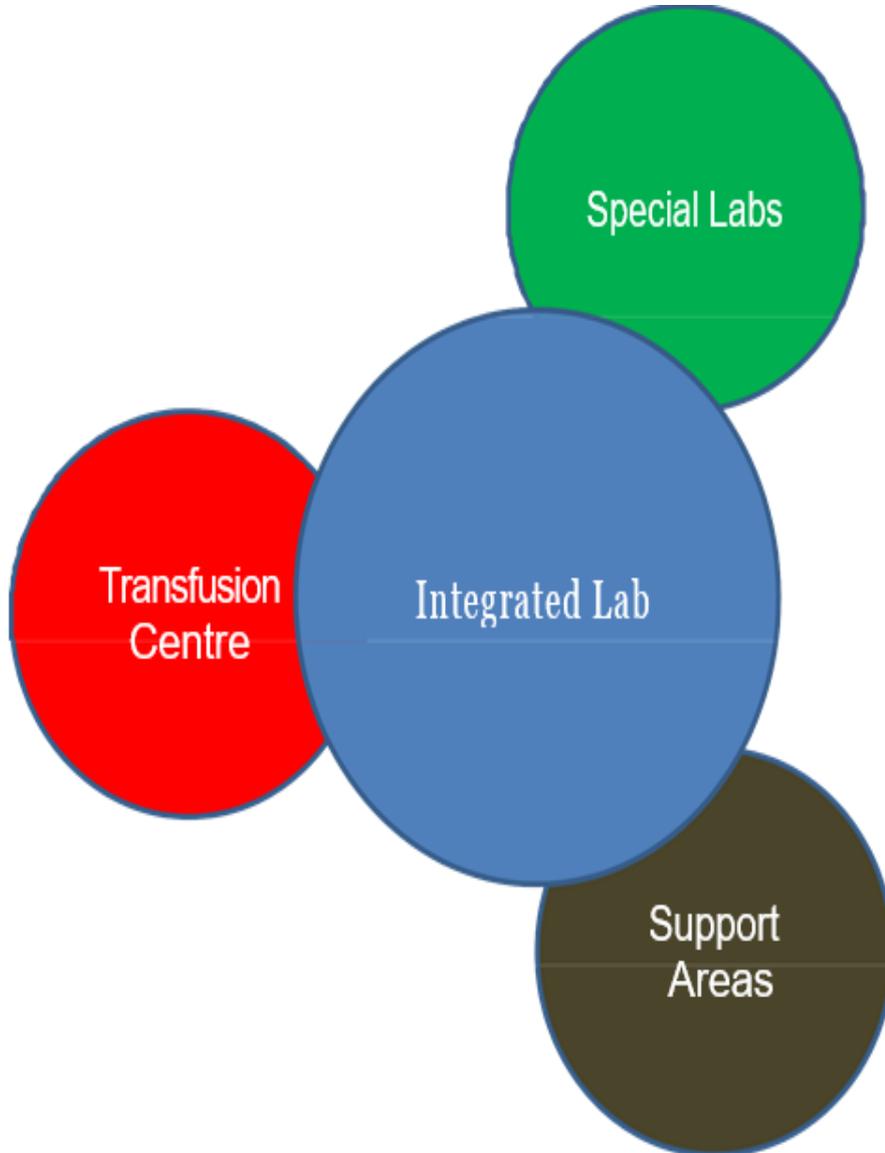
### OBJECTIVES OF THE PROJECT:

- Provide State of Art Diagnostic Laboratory service
- Speedier diagnosis, reduced incidence of complications due to delays in diagnosis
- Improved ability of the diagnostic system to respond to health needs of the people
- Increased confidence of the Clinical Practitioners (Doctors and Surgeons)
- Increased access of people to improved quality of diagnostic services at affordable costs
- Reduction in upstream treatment costs of complicated conditions resulting in financial savings
- Mobilize CSR capital to speed up the delivery of infrastructure and services
- Enable regular maintenance and upgrades
- **Provide Laboratory and Blood transfusion services at grossly subsidised rates**



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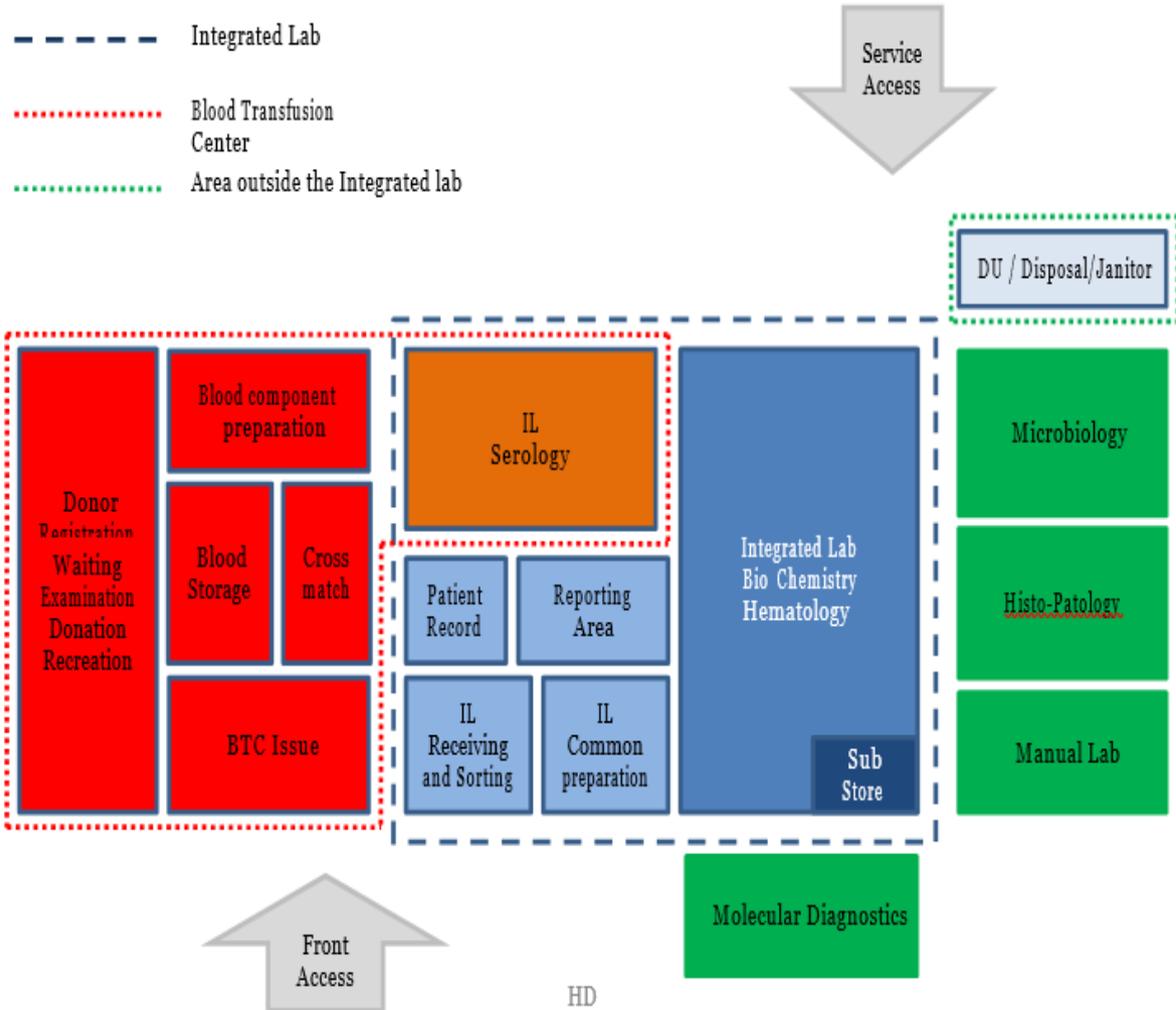
### CONCEPT:





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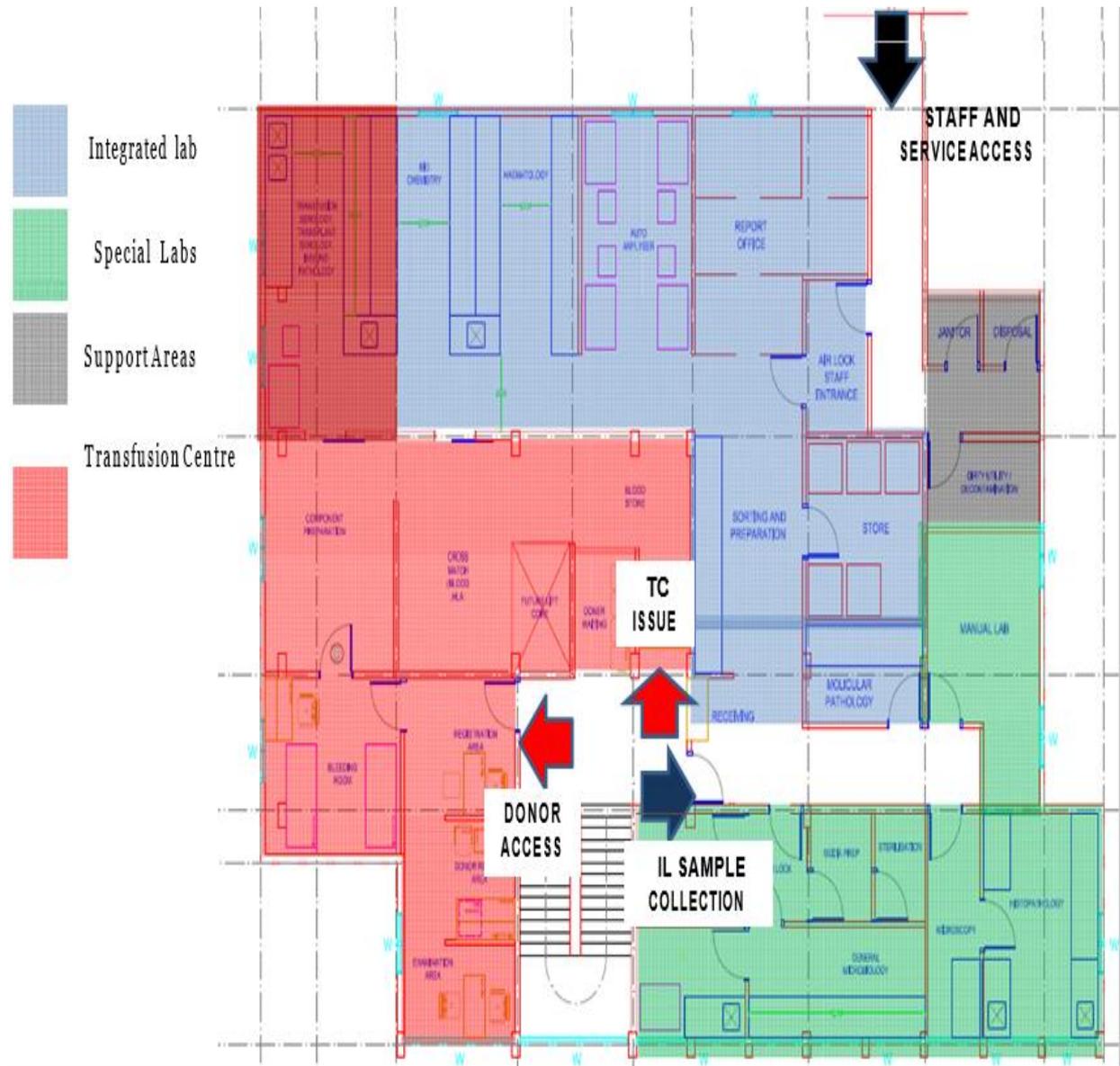
### RELATIONSHIP DIAGRAM:





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### PRELIMINARY LAYOUT (NOT TO SCALE):





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### SCHEDULE OF ACCOMMODATION (SUMMARY)- TOTAL AREA IN SQUARE METERS

**PROPOSED STATE OF ART INTEGRATED LABORATORY SERVICES AND BLOOD TRANSFUSION CENTRE**

**@ HINDU MISSION HOSPITAL, TAMBARAM, CHENNAI**

**SCHEDULE OF ACCOMMODATION (SUMMARY)**

#	Area Description	Area
1	Integrated Lab	120
2	Specialized Labs	90
3	Transfusion Center	95
4	Common Lab (IL and TC)	24
5	Support Areas	16
6	Circulation	50
<b>7</b>	<b>Total Area</b>	<b>400</b>