



UNITE
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GOOD

Rotary
Club of Bangalore



Transforming Transplants

**Improving Deceased Organ Donation Program along with HLA
(Histocompatibility & Immunogenetics) Lab Support in Mangalore**

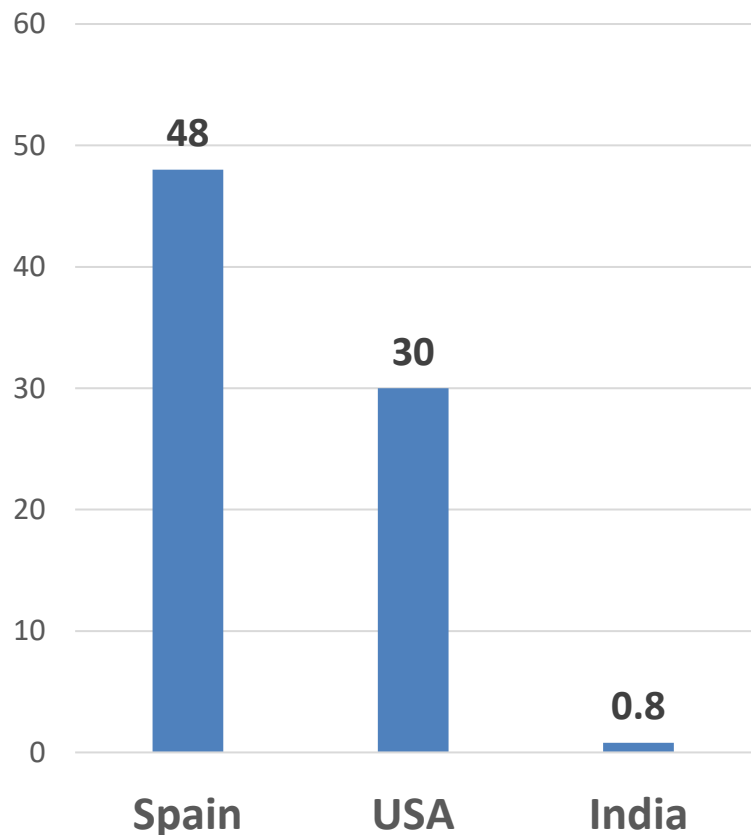
A Rotary Global Grant Initiative by Rotary Club of Bangalore

in association with

Bangalore Medical Services Trust (BMST) &

State Organ & tissue Transplant Organization (SOTTO), Karnataka

India's Organ Transplant Crisis



- 500,000+ patients waitlisted for transplants
- Only ~16,000 transplants conducted in 2022
- Deceased donation rate per million:
Spain **48**, USA **30**, India **0.8**

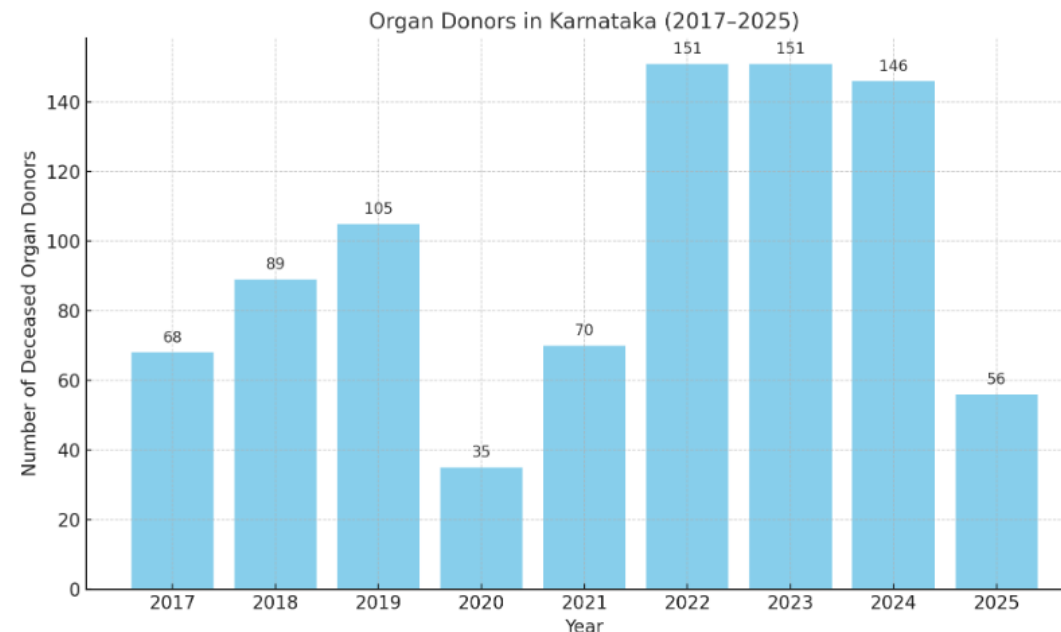
India faces a huge mismatch between organ demand and actual transplants. Awareness, infrastructure, and testing access are major hurdles.

India performs less than 4% of the organ transplants required annually

Karnataka's Transplant Challenge

- 6,000+ patients on waitlist in Karnataka
- Only one HLA Lab (BMST, Bengaluru) serving entire state
- 80 transplant centers but limited testing capacity

Karnataka is ahead of most states, but the centralised lab in Bengaluru is stretched thin. Patients in North and Coastal Karnataka are especially disadvantaged.



Key Insights:

- Significant drop in 2020 due to COVID-19.
- Strong recovery seen in 2022 and 2023.
- 2025 data is partial and likely to increase.

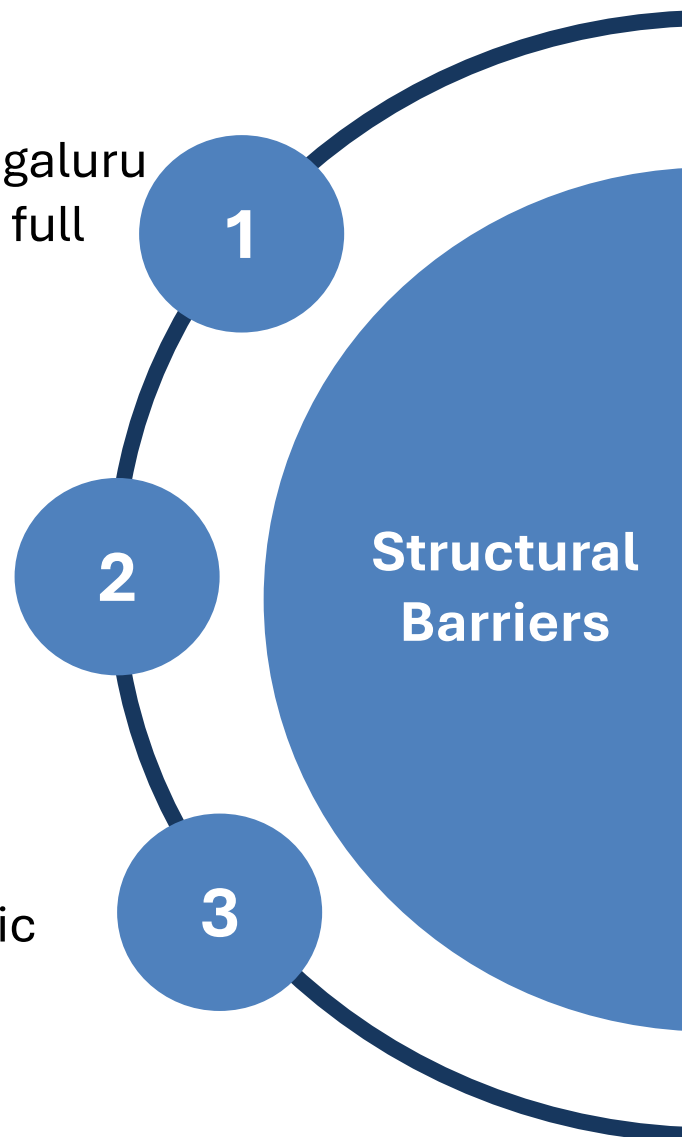
Source: <https://www.organdonor.gov/learn/organ-donation-statistics> (2025 data is up to March 2025.)

Barriers to Transplant Access

Lab Capacity in Bengaluru already operating at full capacity

Geographically inconvenient for North / Coastal Karnataka

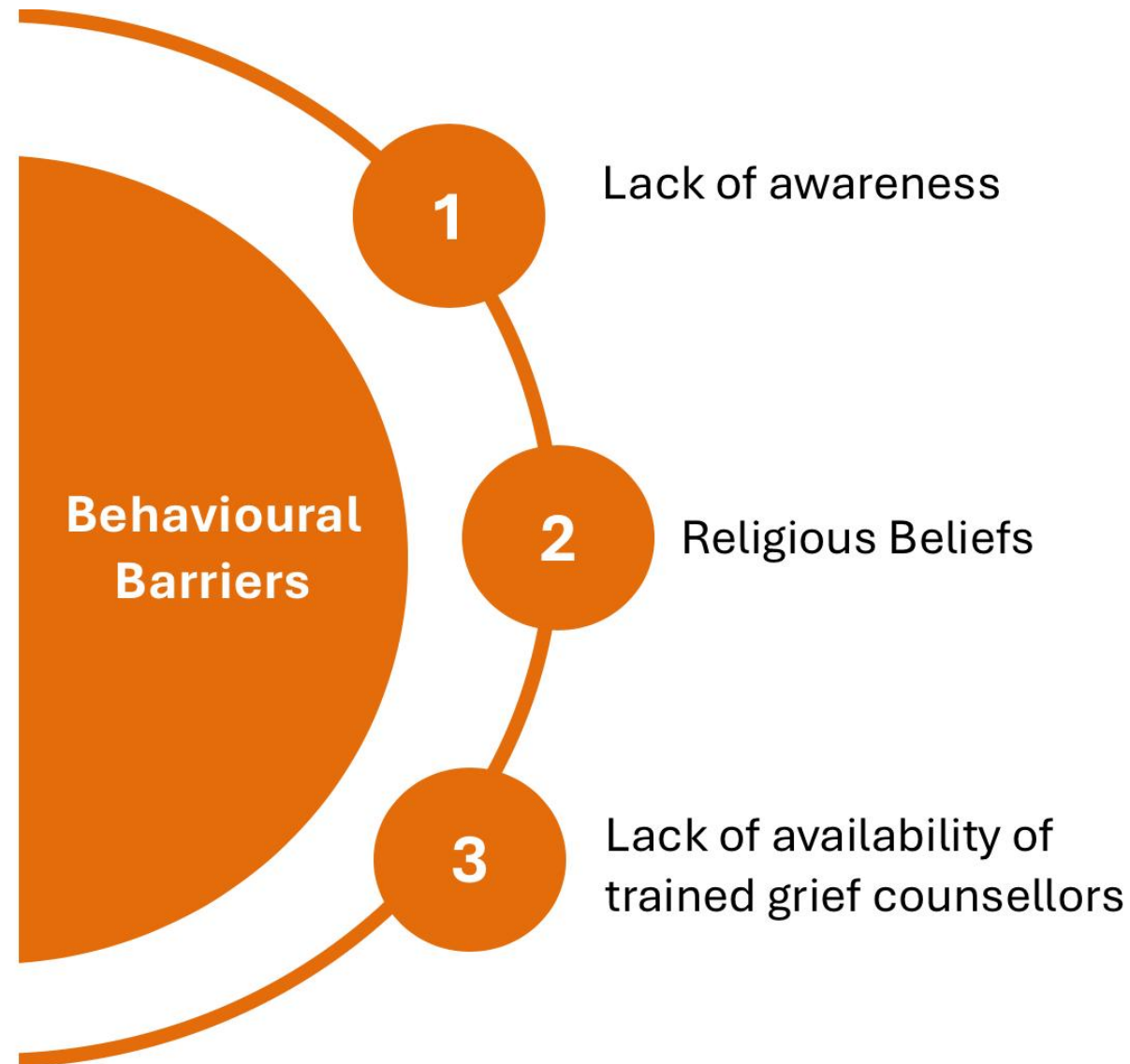
Poor access to patients in the public hospitals



Lack of awareness

Religious Beliefs

Lack of availability of trained grief counsellors



One Four-Part Solution

One Four-Part Solution



Expand Access

Establish a fully equipped HLA Lab in Mangalore with trained staff and infrastructure.



Improve awareness

Conduct organ donation awareness drives, CMEs for ICU staff, and grief counselling training programs



Train counsellors

Certify and deploy grief counsellors at Govt. Hospitals to increase donations



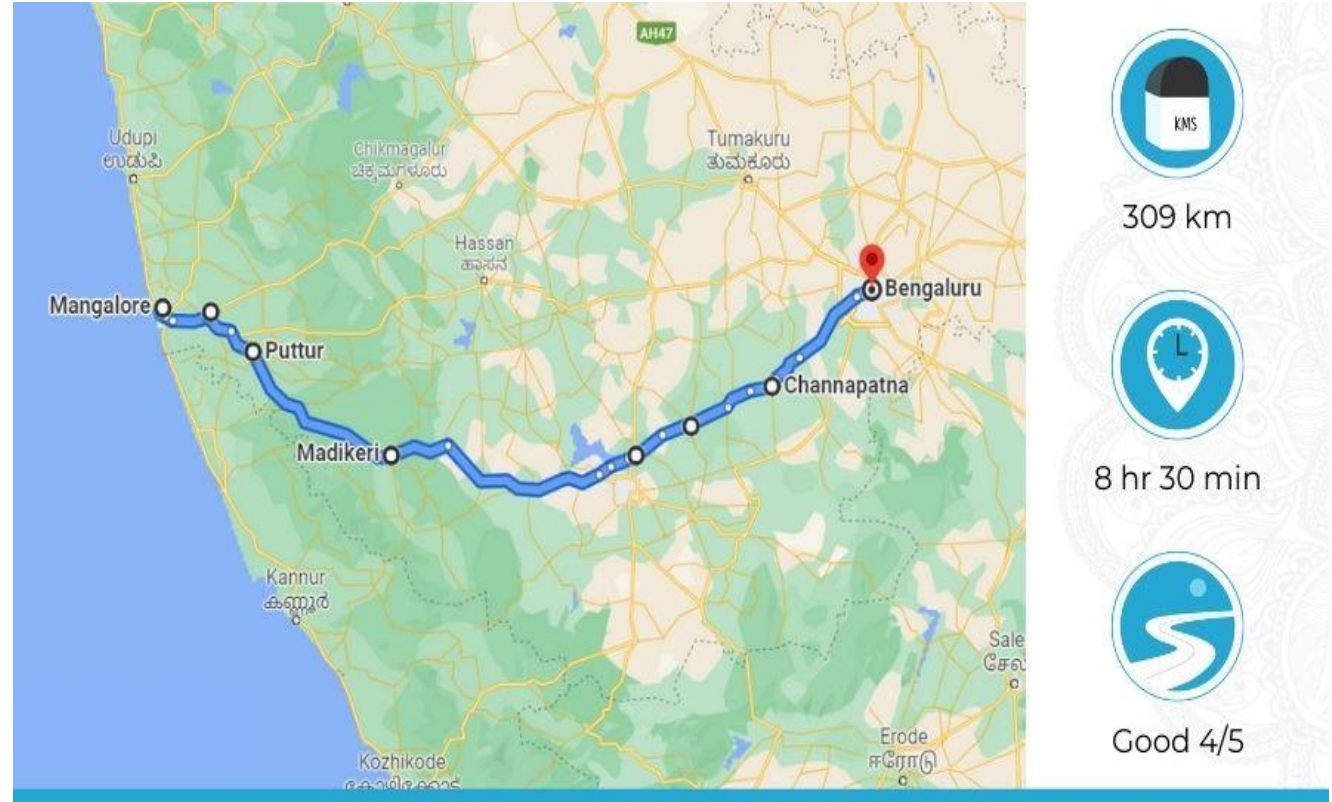
Empower public hospitals

Provide public-sector transplant centres with access to quality testing and training, reducing dependency on private hospitals

A comprehensive program—not just a lab, but building an ecosystem

Why Mangalore?

- 1 of 5 transplant zones in Karnataka
- Patients are travelling 300+ km to Bengaluru for HLA testing
- Northern / Coastal regions underserved despite rising ESRD burden
- Reduced travel burden and carbon footprint
- Mangalore is a logical second hub to decentralise testing.



Travel time saved = Faster transplant decisions = Lives saved

Where in Mangalore?

Wenlock District Hospital, Hampanakatta

- **Historic Legacy:** One of the oldest Govt. hospitals, established during the British era.
- **Tertiary Care Center:** Serves as a major healthcare hub for Dakshina Kannada and surrounding regions, offering a wide range of medical services.
- **Medical Education:** Functions as a teaching hospital, training future healthcare professionals.
- **Public Service:** Known for providing affordable and accessible treatment thereby playing a crucial role in delivering public health services in coastal Karnataka.
- **SOTTO designated hospital:** SOTTO has allocated a space for setting up HLA lab.

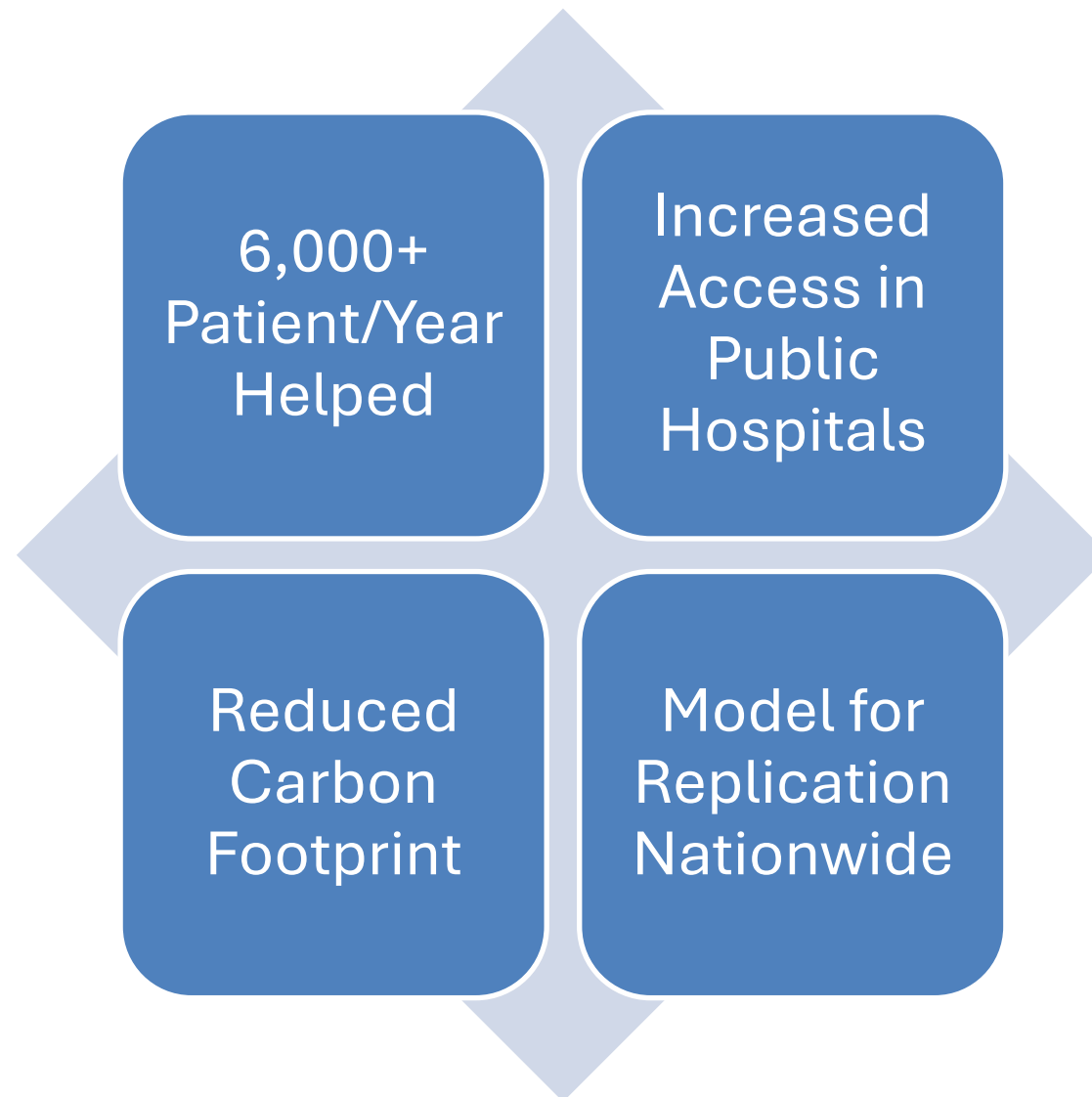


Wenlock History

Wenlock District Hospital Mangalore, established in 1848, was acquired by the Madras government in 1891. The hospital was named after the governor, **Beilby Lawley, 3rd Baron Wenlock**, during the British Raj, when Mangalore was a part of the Madras Presidency. After India's independence, the hospital came under control of the Madras State. Mangalore became a part of the Mysore state in 1956. As of 2021, it contains more than 1000 beds.

The Ripple Effect: Project Impact

- **A Small Investment**
- **A State-wide Impact**



Our State Partner: SOTTO

Who is SOTTO?



State level body under National Organ & Tissue Transplant Organization

Manages:

- Organ Donor Registry
- Transplant waitlists
- Awareness Campaigns
- Hospital & Transplant Center co-ordination

What they do?



Promote deceased organ donation



Ensure ethical & transparent organ allocation



Manage donor-recipient matching



Run Awareness Programs & incentivise families who donate

Why Partner with SOTTO?



Government recognised authority



Credibility & Legal Compliance



Statewide hospital & donor network



Enables large-scale impactful outreach

Cooperating Organisation: BMST

Who is BMST?



A charitable trust and NGO based in Bangalore

Operates one of the few standalone HLA typing labs in India

Supports:

- Tissue typing (HLA) for transplant compatibility
- Blood and stem cell donor registry
- Counseling, outreach, and donor education

What They Do



Perform advanced HLA tissue typing



Maintain donor-recipient compatibility records



Support transplant clinicians and hospitals



Promote voluntary blood, stem cell and organ donation awareness

Why Partner with BMST?



Lab designated by SOTTO for centralised testing



NGO with strong ethical, humanitarian focus



Experience in donor registries and compatibility testing



Project Cost

Total Project Cost	Total Amount (in Rs.)*
Capex	96,84,791
Opex for 3 years	1,49,92,912
Total Project Budget	2,46,77,703
(In USD)	2,90,326

** Including GST*

**Together, we can give 6,000+ patients
a fighting chance—every year**

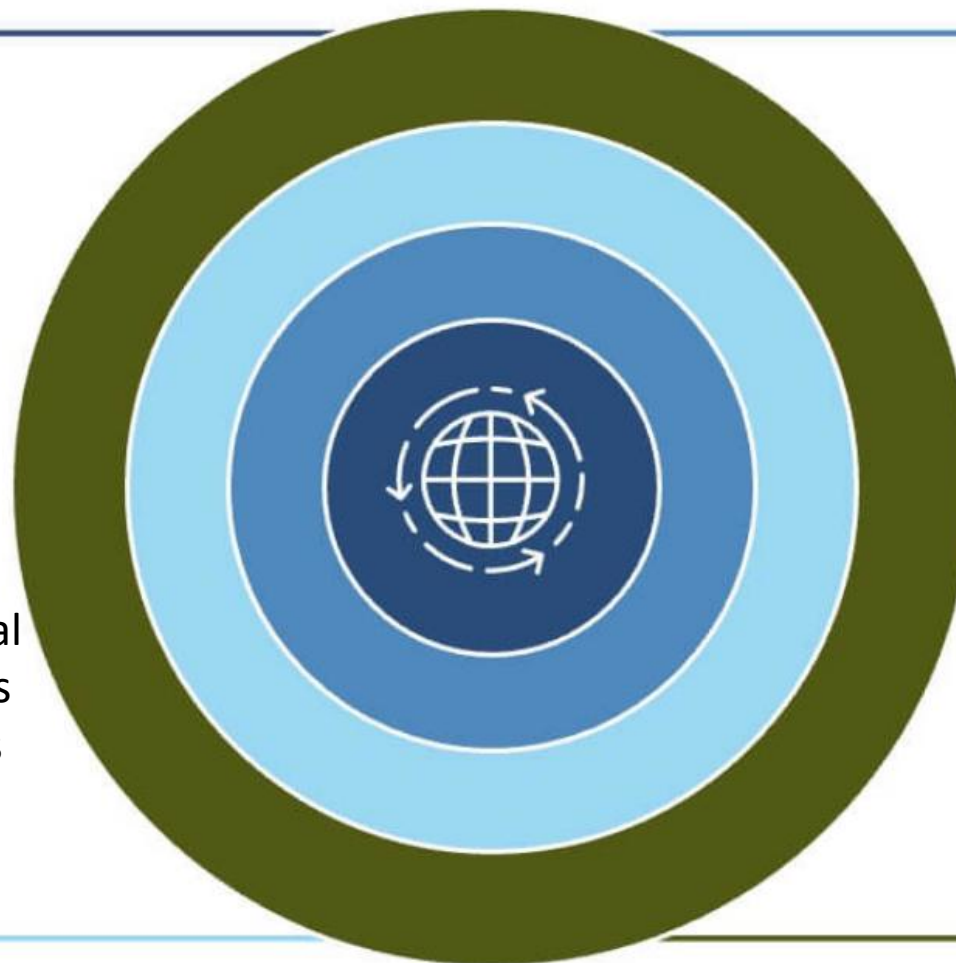
Project Sustainability

Tiered based pricing for HLA Tests

- ✓ Subsidised rates for public hospitals
- ✓ Affordable services for private institutions

Proven track record

- ✓ Accredited lab with national and international standards
- ✓ Quality assurance, rigorous reporting & compliance



CSR Partnerships

- ✓ Ongoing financial support for operations
- ✓ Funding for equipment AMC post 3 years

Post-Grant Continuity

- ✓ BMST to provide regular reporting to stakeholders
- ✓ Continue to carry out annual audits ensuring transparency

Self-Sustaining Structure for long term financial viability!



Thank you!

For more information, you can contact:

Rtn. Aria Ohri

International Service Chair

Rotary Club of Bangalore

ariaohri@yahoo.co.in

+91 9833097171



Backup Slides

Project Cost : Part I (Capex Cost)

Capex - One time investment	Unit Cost (in Rs.)	No of units	Total (in Rs.)
Civil and electrical work, if any to align with the requirement (Appx)	1,00,000	1	1,00,000
Fridge	50,000	1	50,000
Mobile	18,000	1	18,000
Furniture	19,352	1	19,352
Inception and installation	1,00,000	1	1,00,000
Airconditioners	60,000	2	1,20,000
Microscope	3,50,000	1	3,50,000
Centrifuge	3,00,000	1	3,00,000
Stabilizer	15,000	1	15,000
Multi dispense Pipettes Eppendorf	40,000	1	40,000
Pipettes - (Hamilton - 8 nos)	20,000	8	1,60,000
Computer, printer	1,07,439	1	1,07,439
UPS 2 KVA	50,000	1	50,000
Luminex (Equipment needed for the Advanced lab)	50,00,000	1	50,00,000
Freezer – 20	5,00,000	1	5,00,000
Freezer – 80	8,00,000	1	8,00,000
Pipettes Set with stand	75,000	1	75,000
Multi Channel Pipettes	50,000	1	50,000
Washing Pump	2,50,000	1	2,50,000
Vortex	10,000	1	10,000
Rotary Shaker	75,000	1	75,000
High Spin Centrifuge	75,000	1	75,000
Dry Bath	20,000	1	20,000
Thermal Cycler	4,50,000	1	4,50,000
Nano Drop for DNA quantification	2,50,000	1	2,50,000
Laminar Air Flow	2,00,000	1	2,00,000
Mis Equipment	5,00,000	1	5,00,000
Total Capex	94,84,791		96,84,791

Project Cost : Part II (Opex Cost for 3 yrs)

Sr. No.	Running Costs	Unit Cost (in Rs.)	No. Of units	Year 1 (in Rs.)	Year 2 (in Rs.)	Year 3 (in Rs.)	Total (in Rs.)
A	Manpower:						
1	Grief Counsellor	30,000	1	3,60,000	3,96,000	4,35,600	11,91,600
2	Lab Technician	30,000	2	7,20,000	7,92,000	8,71,200	23,83,200
3	Doctor (Part time)	20,000	1	2,40,000	2,64,000	2,90,400	7,94,400
	Total Manpower Costs			13,20,000	14,52,000	15,97,200	43,69,200
B	Training (one-time):						
1	Grief Counsellor	50,000	1	50,000			
2	Lab Technician	50,000	2	1,00,000			
3	Doctor	46,400	1	46,400			
	Total Training Costs			1,96,400	-	-	1,96,400
C	Equipment Maintenance:						
1	CAMC (20% of Capex)	1,61,413	1	19,36,958	21,30,654	23,43,719	64,11,332
	Total AMC Costs			19,36,958	21,30,654	23,43,719	64,11,332
D	Administration:						
1	Other expenses (courier, internet billing, travel etc)	20,000	1	2,40,000	2,64,000	2,90,400	7,94,400
	Total Admin Costs			2,40,000	2,64,000	2,90,400	7,94,400
E	Miscellaneous:						
1	Incentive for GC	3,000	36	1,08,000	1,18,800	1,30,680	3,57,480
2	Lab Certification	1,10,000	1	1,10,000	1,21,000	1,33,100	3,64,100
3	IEC Material	25,00,000	1	25,00,000		-	25,00,000
	Total Misc Costs			27,18,000	2,39,800	2,63,780	32,21,580
	Total Opex			64,11,358	40,86,454	44,95,099	1,49,92,912

HLA Lab Tests at Mangalore

Sr. no.	HLA Testing	Amount (in Rs.)
1	CDC Cross Match*	3,500
2	Cadaver CDC Cross Match*	6,000
3	Luminex DSA Cross Match	6,000
4	Cadaver DSA Cross Match	8,500
5	HLA Typing – SSO (per sample)	9,680
6	Panel Reactive Antibody Testing	26,000
7	Single Antigen Test	28,000
8	HLA Antibody Screening Test	6,600

Notes:

1. The test charges are subject to periodic revision.
2. CDC Cross Match will be offered free to all patients from government hospitals and to the sensitized patients
3. *The tests that can be performed by a basic lab.
4. The funds generated through these tests will take care of the opex costs thereby making it sustainable.