SHARE INDIA

Society for Health Allied Research and Education India

ANNUAL REPORT 2023-24

SHARE INDIA Office of Research at MediCiti Institute of Medical Sciences (MIMS) Campus

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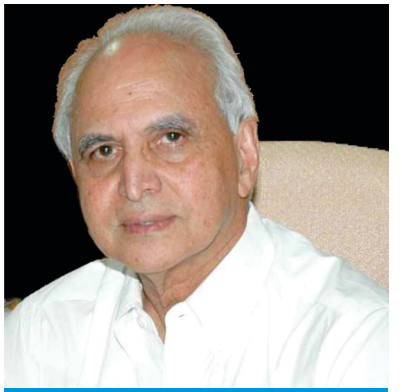
Contents

Message from our Chairman



Dr. P.S. Reddy

It is with great pleasure and a sense of accomplishment that I reflect on the year gone by.

Over the past year, we continued to make significant strides in the field of medical research driven by our commitment to advancing scientific knowledge toward improving healthcare outcomes. Indeed, our relentless investment in intramural research projects, compassionate community engagement and capacity building have helped us stay relevant and contribute effectively in addressing contemporary healthcare challenges.

It's quite heartening to note that we successfully completed two major studies of national importance: (i) a phase III, randomized, double-blind, three arm Placebo controlled trial to evaluate the efficacy and safety of two different vaccines in Preventing Tuberculosis (TB) in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB Patients-sponsored by Indian Council of Medical Research(ICMR) and(ii) a large community based cohort study of over 5000 individuals aged two years and above to estimate sero-prevalence and sero-incidence of COVID-19, Dengue and Chikungunya-funded by Biotechnology Industry Research Assistance Council (BIRAC)/Department of Biotechnology (DBT), Government of India.

Both these studies commenced during the COVID-19 pandemic amidst challenging circumstances. The dedication shown by our research teams in ensuring that these studies were conducted rigorously meeting the comprehensive expectations of the sponsor/funding agencies despite the complex and challenging circumstances is commendable. It is a testimony to our resilience and endurance in fulfilling our commitment to furthering science in the service of mankind. This achievement has reinforced our collective strength and inspires us to work even more confidently and effectively toward solving critical healthcare challenges regardless of the complexity of the situation.

Continuing our commitment to partnering with the government of India and other international agencies such as the CDC(USA) in addressing pressing healthcare challenges, we are currently engaged in capacity building and strengthening laboratory systems to respond efficiently and improve the outcomes of patient treatment in HIV, Tuberculosis, and Antimicrobial resistance. In addition, we are partnering with: (i)the Department of Science and Technology (DST), Government of India on a project aimed at developing innovative point-of-care device for detection of Chlamydia in urine samples, and (ii) ICMR for estimating the burden of still births and its associated maternal factors.

Our other two major biomedical technological innovation projects: 1.the artificial heart project and 2. the 3-D printed lower limb prosthesis project have been making steady progress. The artificial heart project is in an advanced stage and is poised to launch animal trials soon. The 3-D printed lower limb prosthesis project for below knee amputees is undergoing fine refinements and is in the stage of developing liners to enhance the wearing comfort beyond eight hours a day.

It is indeed very heartening to note that apart from the above several other important studies including: (i) assessing the effect of air pollution on multiple health outcomes through a modified life course approach to inform policy interventions, (ii)estimating the incidence of acute febrile illnesses with special focus on incidence of lab confirmed Dengue and Chikungunya, and (iii) identifying the preferred single pill fixed dose combination of two antihypertensive drugs for effective control of blood pressure in Indian patients are ongoing. These studies are large scale, multicentric and have tremendous potential for policy and practice.

This impressive body of research work has been possible due to two major factors: 1.our dedicated team of researchers, clinicians, and support staff who have persevered with unwavering determination and, 2.the steadfast support of our partners, donors, volunteers, and the communities we serve. These two major drivers have enabled and empowered us to push the boundaries of medical science in the earnest hope to improve the health of the people.

Looking ahead, we are filled with optimism as we embark on new research endeavours and collaborations aimed at tackling the most pressing health issues of our time. Together, we will continue to drive progress, promote health equity, and inspire future generations of researchers to join us in our quest for medical excellence.

About SHARE INDIA

Indian American professionals from various medical and non-medical fields, all of whom earned their education from undivided Andhra Pradesh, started a not-for-profit society 'Science Health Allied Research Education' (SHARE) in USA in 1981. To support causes in India and for the purpose of giving back to mother country, two, not for profit societies SHARE INDIA (1986) and SHARE Medical Care (1987), were formed with a similar vision to translate the dreams into action. SHARE INDIA is a research society and recognised as a Scientific and Industrial Research Organisation (SIRO), by Ministry of Science and Technology, Government of India.

SHARE INDIA is the brainchild of Dr. P.S. Reddy, Professor of Medicine, at the University of Pittsburgh, who is also the chairman of SHARE INDIA. He devotes half of his time in India to translate NRIs dreams into reality.

Along with CDC funded projects to the government, a variety of community welfare projects like REACH, LIFE, TETRA, HELP and CSSI are fully funded by generous donors. SHARE INDIA endeavours have brought significant improvements in the areas of pre-natal and post-natal care, TB, pregnancy, birth control, awareness and prevention of HIV, infant care, infant mortality rate, maternal mortality rate, immunization and cancer.

SHARE INDIA is entirely funded by voluntary contributions. Individual philanthropists, NRI's, and the private sector are the organization's primary donors. Donations are tax-exempt under section 35(1) (ii) of the Income Tax Act and 80G.

Vision and Mission

- To provide quality and advanced medical care at lowest possible cost
- To develop a working model of Healthcare Delivery System for rural population
- To promote undergraduate, graduate, postgraduate and Continuing Medical Education
- And above all to promote Research

Philosophy of SHARE INDIA

Nature has created a divided world of those who have the capacity to give and those who have the need to receive. We are the lucky few who are blessed with the capacity to give rather than receive. Let us thank God for giving the capacity and opportunity to give by giving.

Governing Council, SHARE INDIA

Dr. P. Sudhakar Reddy	**- Chairman**
Mr. M.K. Agarwal	**- Vice Chairman and Treasurer**
Dr. Madhu K. Mohan	**- Secretary**
Dr. A. Gopal Kishan	**- Member**
Dr. Prakash N. Shrivastava	**- Member**
Dr. C. Venkata S. Ram	**- Member**
Dr. P. Naveen Chander Reddy	**- Member**
Mrs. G. Nandini Prasad	**- Member**
Dr. Poornima Prabhakaran	**- Member**
Mr. K. Krishnam Raju	**- Member**
Dr. K. Madhava	**- Member**

Executive Team, SHARE INDIA

Dr. Vijay V. Yeldandi	Project Director CDC Projects
Dr. D Shailedra	Director Research
Mr.N. Lakshminarasimhan	Head, Finance and Accounts
Ms. Revina Suhasini Samuel	Head, Human Resource and Administration
Mr. Purushotham Reddy R.	Head, Information Technology
Mr. Nitin C. Desai	Head, Operations

Scientific Research Advisory Members, SHARE INDIA

1. Dr. B. M. Gandhi, Former Adviser, DBT, GOI, CEO, Neo BioMed Services, New Delhi.
2. Prof. Seyed E. Hasnain, Vice Chancellor, Jamia Hamdard University, Hamdard Nagar, New Delhi.
3. Dr. Madhu K. Mohan, Endocrinologist, Maryland, USA.
4. Prof. MUR Naidu, Former Dean Faculty of Medicine and Prof & Head Clinical Pharmacology & Therapeutics, The Nizam's Institute of Medical Sciences, Hyderabad.
5. Prof. Prabhakaran D., Executive Director of Centre of Chronic Disease Control (CCDC) & Vice President, Research & Policy, Public Health foundations of India (PHFI), New Delhi.
6. Prof. Rao B. Sashidhar, Fellow of Telangana Academy of Sciences (FTAS) & Former Professor and Head, Department of Biochemistry, Osmania University, Hyderabad.
7. Prof. P. S. Reddy, Chairman, SHARE INDIA and Professor of Medicine, University of Pittsburgh, PA, USA.
8. Dr. Madhubala Rentala, Director, Indian Institute of Public Health, (IIPH), Hyderabad.
9. Dr. Sesikeran B., Scientist and Former Director, NIN-ICMR, National Institute of Nutrition, Hyderabad.
10. Dr. D. Shailendra, Prof and Head, Department of Pharmacology, Vice Principal Research, MIMS, Ghanpur, Medchal.
11. Dr. Gowri Shankar J., Director, Indian Institute of Science Education and Research, Mohali, Punjab.
12. Dr. D. C. Sharma, Head Technical Operations, MRIDA, Palamur Biosciences Pvt Ltd., Karvina, Madigattla Village, Bhootpur Mandal, Mahabubnagar - 509382, Telangana State.
13. Dr. Vasireddi S.P., Chairman, Vimta Labs Limited, Cherlapally, Hyderabad.
14. Dr. Vijayaraghavan K., Former Dy. Director, NIN, Scientist and former Director Research, SHARE INDIA, Ghanpur, Medchal Mandal and District, Telangana State.
15. Dr. Vijay V. Yeldandi, Clinical Professor of Medicine and Surgery, University of Illinois at Chicago, USA.

Summary of SHARE INDIA Projects

S.No.	Title of the study	Investigators	Designation / Institution Name	Project Exp. 2023-24/ (Unaudited) Project Cost Approved	Funding source	Project status
1.	Artificial Heart Program (AHP)	Dr. P.S. Reddy Premium Institute From USA and India, Engineering Institutions in India, Pre-Clinical GLP facility and Medical Device Manufacturers	Founder, SHARE INDIA and MIMS.	Rs.3.60Lacs (2023-24)	Self-funding by Indian Institutions aided by SHARE INDIA / SHARE USA	On going
2.	Rural Effective Affordable and Comprehensive Health Care (REACH)	Dr. D. Shailendra	MBBS, M.D.	Rs.23.41 Lacs	SHARE INDIA	On going
3.	Longitudinal Indian Family hEalth (LIFE) pilot study	Dr. Kalpana Betha	MBBS, M.D.	Rs. NIL (2023-24)	SHARE INDIA	On going
4.	A cluster randomized trial A cluster randomized trial of an mHealth integrated model of hypertension, diabetes and antenatal care in primary care settings in India and Nepal. (mIRA Project)	Dr. D Prabhakaran Dr. Oona Campbell Dr. Biraj Karmacharya Dr. Kalpana Betha Dr. P. S. Reddy	Vice President (Research & Policy), PHFI Delhi, Professor, Epidemiology, London School of Hygiene & Medicine, UK Professor, Community Programs, Kathmandu University School of Medical Science, Nepal MBBS, M.D. Founder SHARE INDIA -MIMS	Role of SHARE INDIA is facilitating the work in villages when required initially.	Newton Fund	On going
5.	Prosthetics & Orthotics for the Disabled Program (POP)	Dr. Prakash N. Shrivastava Dr. K. Madhava Mr. P. Nikethan Reddy, Dr. Srinivasa Prakash Regalla	Founder Member SHARE INDIA Professor Emeritus, University of Southern California, USA MD surgeon Project Manager Advisor for share India and Professor, Mechanical Engineering, Birla Institute of Technology and Science, Hyderabad.	Rs. 5.33 Lacs (2023-24)	SHARE INDIA / SHARE USA	Ongoing,
6.	Lab on Wheels: an innovative point-of-care test to diagnose Chlamydiales in an One Health setting - InPoChlam	Dr. Kalpana Betha Dr. Rashmi Pant Dr. Vijay V. Yeldandi Dr. Servaas A. Morre Dr. Pierre Paul Michel Thomas	MBBS, MD Consultant, Biostatistician Professor, University of Illinois at Chicago, USA Maastricht University, The Netherlands Institute of Public Health, Genomics, Maastricht University, The Netherlands	Rs. 5.62 Lacs (2023-24)	DBT, Government of India	On going

S.No.	Title of the study	Investigators	Designation / Institution Name	Project Exp. 2023-24/ (Unaudited) Project Cost Approved	Funding source	Project status
7.	Community-based Surveillance to estimate incidence and Sero prevalence of acute febrile illness with focus on Dengue and Chikungunya - A prospective multi - centric cohort Study	Dr. D Shailendra	MBBS, M.D.	Rs. 192.45 Lacs (2023-24)	National Biopharma Mission, Government of India	On going
8.	Human rabies deaths and animal bite burden in India:Cross-sectional survey	Dr. Vijay V Yeldandi Dr. Prashant Vennela Dr. Viswanath	Professor, University of Illinois at Chicago, USA Public Health Specialist, Infection Prevention & Control, SHARE INDIA Consultant Microbiologist.	Rs. 4.59 Lacs (2023-24)	ICMR-NIE	On going
9.	Development of an mHealth Educational Intervention to Improve the Prevalence of Viral Suppression among Persons Living with HIV And Low Literacy in India (mHealth)	Dr. Vijay V. Yeldandi Mark S. Dworkin Casey Luc Sierra Upton Sabitha Gandham	Professor, University of Illinois at Chicago, USA MD, MPH&TM, University of Illinois at Chicago Department of Epidemiology and Biostatistics MPH University of Illinois at Chicago Department of Epidemiology and Biostatistics MS, MPH University of Illinois at Chicago Department of Epidemiology and Biostatistics. MSW, SHARE INDIA	Rs. 1.31 Lacs (2023-24)	UIIC USA	Ongoing ICMR, HMSC and local TSAC approval received
10.	Prevalence and Quality of Life of Skin Disorders in Semi - Urban and Urban Telangana State: A Community-Based Study	Dr. Vijay V. Yeldandi	Professor, University of Illinois at Chicago, USA	Rs. 53.02 Lacs (2023-24)	Pfizer	On going
11.	Treatment Optimisation for blood Pressure with Single-Pill combinations in India-TOPSPIN	Dr. D Shailendra Dr.Tilak Ram	MBBS, M.D MBBS, M.D.	Rs. 7.89 Lacs (2023-24)	CCDC	On going
12.	GEOHealth Health Effects of Selected Environmental Exposomes Across the Life Course (HEALS)-India & US	Dr.Enakshi Ganguly	MBBS, M.D.	Rs. NIL (2023-24)	CCDC	Funding Awaited
			ICMR Funded Projects			
13.	A Phase III, randomised, double blind, three arm placebo controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients-TB Vaccine trial, sub site of BMMRC.	Dr. K. Sailaja	MBBS, M.D.	Rs. 3.48 (2023-24)	ICMR	Ongoing

S.No.	Title of the study	Investigators	Designation / Institution Name	Project Exp. 2023-24/ (Unaudited) Project Cost Approved	Funding source	Project status
13a.	Capacity building for undertaking the A Phase III, randomised, double blind, three arm placebo controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of new pulmonary TB patients	Dr. K. Sailaja	MBBS, M.D.	Rs. 10.83 Lacs (2023-24) Rs. 6. 80 Lacs (2023-24)	ICMR Contribution of SHARE INDIA	Ongoing
14.	Secondary data analysis to build evidence for interventions to prevent stillbirths in India" (ICMR Stillbirth)	Dr. Kalpana Betha	MBBS, M.D.	Rs. NIL (2023-24)	ICMR	On going
Technical assistance to Government of India - Global Fund Project to fight AIDS						
15.	Design and develop comprehensive advocacy, communication strategies and tools for NACP - GFATM	Shikha Dhawan, Dr Vijay V. Yeldandi	Director Programs, SHARE INDIA (GFATM Project) Project Director	Rs. 164.88 Lacs (2023-24)	Global Fund through NACO, Ministry of Health	On going
Technical assistance to Government of India - CDC funded projects						
16.	NISCHIT Plus: National Initiative to Strengthen & Coordinate HIV/TB Response Plus (TREATMENT)	Dr. Vijay V. Yeldandi Dr. Jayakrishna Kurada	Project Director, CDC Projects, SHARE INDIA. Associate Project Director	Rs. 1200.72 Lacs (2023-24)	Centers for Disease Control and Prevention (CDC), Atlanta, USA.	On going
17.	NISCHIT Plus: National Initiative to Strengthen & Coordinate HIV/TB Response Plus (Tuberculosis)	Dr. Vijay V. Yeldandi Dr. Satish Kaipilyawar	Project Director, CDC Projects, SHARE INDIA. Associate Project Director, SHARE INDIA	Rs. 827.47 Lacs (2023-24)	Centers for Disease Control and Prevention (CDC), Atlanta, USA.	On going
18.	LaQSH Plus: Laboratory Quality Systems in HIV (2020-25)	Dr. Vijay V. Yeldandi Mr .S. Lokabirama	Project Director, CDC Projects, SHARE INDIA. Associate Project Director, SHARE INDIA	Rs. 832.99 Lacs (2023-24)	Centres for Disease Control and Prevention (CDC), Atlanta, USA.	On going
19.	BOLSTER - Building systems capacity on Outbreaks Laboratory Surveillance Training Emergency Response and Infection Prevention Control and Anti - Microbial Resistance - IPC/AMR	Dr. Vijay V. Yeldandi Dr Prashant Vennela	Project Director, CDC Projects, SHARE INDIA. Public Health Specialist, Infection Prevention & Control, SHARE INDIA	Rs. 189.92 Lacs (2023-24)	Centres for Disease Control and Prevention (CDC), Atlanta, USA.	On going
20.	BOLSTER - Building systems capacity on Outbreaks Laboratory Surveillance Training Emergency Response and Infection Prevention Control and Anti - Microbial Resistance - Surveillance	Dr. Vijay V. Yeldandi Ms. Richa Keadia	Project Director, CDC Projects, SHARE INDIA. Lead, Public Health Consultant and Program Manager and Surveillance SHARE INDIA	Rs. 416.44 Lacs (2023-24)	Centres for Disease Control and Prevention (CDC), Atlanta, USA.	On going

Abbreviations:

AIG	Asian Institute of Gastroenterology
ANC	Antenatal Care
APHL	Association of Public Health Laboratories
AMR	Anti-Microbial Resistance
AH	Area Hospitals
AHP	Artificial Heart Program
ARV	Anti-Rabies vaccine
ACE	Angiotensin-Converting enyme
ARB	Angiotensin II Receptor Blocker
ASBP	Ambulatory systolic blood pressure
ABPM	Ambulatory blood pressure monitoring
ADBP	Ambulatory Diastolic Blood Pressure
ART	Anti-Retroviral Treatment
APSACS	Andhra Pradesh State AIDS Control Society
ATT	Anti-Tuberculosis Treatment
BIG	Biotechnology Ignition Grant
BIRAC	Biotechnology Industry Research Assistance Council
BOLSTER	Building systems capacity on Outbreaks Laboratory Surveillance Training Emergency Response
BPHU	Block Public Health Units
CBIT	Chaitanya Bharathi Institute of Technology
CBO	Community-Based Organizations
CCB	Calcium Channel Blocker
CCCC	Centre for Control of Chronic Conditions
CDC	Centers for Disease Control and Prevention
CHC	Community Health Centers
CHFW	Commissioner of Health & Family Welfare
CoE	Certificate of Excellence
CSSD	Central Sterile Supplies Division
cRCT	Cluster Randomized Controlled Trial
CT	Chlamydia trachomatis
CTD	Central TB Division
CVD	Cardio-Vascular Disease
DADH	Department of Animal Husbandry and Dairying
DBP	Diastolic Blood Pressure
DBT	Department of Biotechnology
DMC	Designated Microscopy Centers
DRTB	Drug-Resistant Tuberculosis
DSD	Differentiated Service Delivery
DST	Department of Science and Technology
ECMO	Extracorporeal Membrane Oxygenator
EDSS	Electronic Decision Support System
EVTHS	Elimination of Vertical Transmission of HIV & Syphilis
EQA	External Quality Assurance
FAO	Food and Agriculture Organization
FHWs	Front Line Health Workers
GADVASU	Guru Angad Dev Veterinary and Animal Sciences University
GBP	Great British Pound
GDM	Gestational Diabetes Mellitus
GFATM	The Global Fund to fight Aids, Tuberculosis and Malaria
GHSA	Global Health Security Agenda
GSPH	Graduate School of Public Health
HaALT	Household Contact Active and Latent Tuberculosis Intervention
HCF	Health Care Facilities
HIV	Human Immunodeficiency Virus
HICC	Hospital Infection Control Committee
HMSC	Health Ministry Screening Committee
IAMM	Indian Association of Medical Microbiologists
ICMR	Indian Council of Medical Research
ICAR	Indian Council of Agricultural Research
ICTC	Integrated Counselling and Testing Centre
IDSP	Integrated Disease Surveillance Programme
IGRA	Interferon-gamma release assay
IHC	Integrated Health Campaign
IHIP	Integrated Health Information Platform
IPC	Infection Prevention Control

IPCAF	Infection Prevention and Control Assessment Framework
IPHL	Integrated Public Health Laboratories
KAP	Knowledge, Attitude and Practices
LaQSH	Laboratory Quality Systems in HIV
LCI	Lab Clinical Interface
LIFE	Longitudinal Indian Family health
LVAD	Left Ventricular Assist Device
LSHTM	The London School of Hygiene and Tropical Medicine
LTBI	Latent Tuberculosis Infection
MIRA	mHealth integrated model of hypertension, diabetics and antenatal care in primary care settings.
MIMS	MediCiti Institute of Medical Sciences
MoHFW	Ministry of Health and Family Welfare
MS	Medical Superintendent
NACP	National AIDS Control Programme
NACO	National AIDS Control Organization
NBM	National Biopharma Mission
NCDC	National Centres for Disease Control
NIE	National Institute of Epidemiology
NIH	National Institutes of Health
NISHAD	National Institute of High-Security Animal Diseases
NISCHIT	National Initiative to Strengthen and Coordinate HIV/TB response
NIVEDI	National Institute of Veterinary Epidemiology and Disease Informatics
NGO	Non-Governmental Organiations
NHM	National Health Mission
NTEP	National TB Elimination Program
PA	Pennsylvania
PHC's	Primary Health Centers
PHFI	Public Health Foundations of India
PIH	Pregnancy Induced Hypertension
PIP	Program Implementation Plan
POP	Prosthetics & Orthotics for the Disabled Program
PLHIV	People Living with HIV/AIDS
QI	Quality Indicators
QMS	Quality Management Systems
REACH	Rural Effective Affordable Comprehensive Healthcare
Rs	Rupees
SBP	Systolic Blood Pressure
SIRO	Scientific and Industrial Research Organisation
SME	Subject Matter Experts
SPCs	Single Pill Combinations
STAR	Strengthening TB Action and Response
STI	Sexually transmitted infection
SQAT	State Quality Assurance Team
TAMU	Texas A and M University
TA	Technical Assistance
TB	Tuberculosis
TI	Targeted Interventions
Tos	Technical Officers
TOPSPIN	Treatment Optimisation for blood Pressure with Single-Pill combinations in India
TPT	TB Preventive Treatment
TSACS	Telangana State AIDS Control Society
TVVP	Telangana Vaidya Vidhana Parishad
TWG	Technical Working Group meeting
UIC	University of Illinois at Chicago
UK	United Kingdoms
UOP	University of Pittsburgh
UNDP	United Nations Development Programme
US $	United States Dollar
USA	United States of America
VWF	Von Willebrand Factor
WII	Wildlife Institute of India
WHO	World Health Organization

1. Artificial Heart Program (AHP)

Vision:

Promote bio-engineering research in Engineering Institutes of India in collaboration with Medical Institutions, Engineering Industries and Medical device developers to develop medical devices in India.

Objectives:

Moon-shot: Develop total artificial heart

Immediate: Development of Left Ventricular Assist Device (LVAD) / Extracorporeal Membrane Oxygenator (ECMO).

Key Activities:

SHARE INDIA jump started its activities toward the development of a blood pump suitable for bench testing and pre-clinical readiness. The LVAD has two critical parts, Motor and Pump Head. The commercially available, CentriMag pump is used as a control standard for the development of the blood pump.

The disposable pump head was developed by CBIT, KITS and SNIST. The 3D printed prototype underwent in-vitro hemolysis testing in AIG Hospital using a mock loop testing system developed by our team. It showed minimal hemolysis comparable to similar devices in extensive use. After the successful trials on the prototypes, the pump parts were injection moulded using medical grade polycarbonate. Vasantha Tool Crafts Pvt. Ltd. has collaborated with the team and taken up the task for the design of the moulds and initial manufacturing of the injection moulded pump head and impeller. Final design changes are ongoing with modifications in the mould. To assemble the pump halves, biocompatible adhesive is used. A robotic arm and UV equipment are procured by KITS for high quality assembly of the parts.

The motor is being developed by Laxven Systems. The motor works on Maglev principle, which levitates and rotates the impeller which is inside the pump without any physical contact. The team is also developing a console unit for the motor.

Simultaneously, in-vivo control studies are being performed with existing LVAD/ECMO devices on sheep at Palamur Bioscience Labs. Other animal testing facilities like NARFBR and AMTZ Vizag are being explored for future collaboration.

Collaborators

Organisation	Investigators
SHARE INDIA	Dr. P.S. Reddy Dr. Shikha Dhawan Dr. B. M. Gandhi Dr. A. G. K. Gokhale Mr. Nitin C. Desai
AIG Hospital	Dr. P. Naveen Chander Reddy Dr. Sukesh Kumar Reddy Dr. Naresh Kumar
Chaitanya Bharati Institute of Technology, Hyderabad.	Dr. Ravinder Reddy Mr. Rugveda Thanneeru
Sreenidhi Institute of Science and Technology, Ghatkesar, Hyderabad.	Dr. K. T. Mahhe Ms. Sadia Alvi
Kakatiya Institute of Science and Technology, Warangal.	Dr. Venu Madhav K, PhD Dr. Ganesh Kumar Gampa, PhD Dr. Saikumar Gadakary, PhD
Vasantha Tool Crafts, Hyderabad.	Mr.Dayanand Reddy Mr. Suresh Kumar
Laxven systems, Cherlapalli, Hyderabad.	Mr. Ramesh Reddy,
Palamur BioScience Labs, Mahbubnagar.	Mr. K. Venkata Reddy Dr. DC Sharma
Shree Pacetronix Ltd, Pithampur, Indore, MP	Mr. Atul Sethi Mr. Aakash Sethi

Acknowledgments

We gratefully acknowledge critical voluntary help being provided by the following international experts from the inception of the project:

- Prof. Harvey Borovetz, Professor of Bioengineering, University of Pittsburgh, USA
- Dr. Shawn Bengston, Director of Quality Management Systems, University of Pittsburgh, USA
- Mr.Joseph Hanke, Surgery Supervisor, McGowan Institute for Regenerative Medicine, University of Pittsburgh, USA
- Dr. William R. Wagner, Director of the McGowan Institute for Regenerative Medicine, University of Pittsburgh, USA
- Dr. Edward Klein, Director of Pathology Services at Division of Laboratory Animal Resources, Faculty from University of Pittsburgh, USA
- Prof. James Antaki, Professor of Heart Assist Technology, Cornell Engineering, Cornell University, Ithaca, New York, USA
- Dr. James Long, Cardio thoracic surgeon, Medical Director, Nazih Zuhdi Transplant Institute - INTEGRIS Baptist Medical Center, Oklahoma, USA
- Dr. Kurt Dasse, Co-Founder, President & CEO, Inspired Therapeutics, Florida, USA
- Dr. Barry Gellman, Chief Technology Officer, Inspired Therapeutics, Florida, USA
- Ms. Priscilla Petit, Co-Founder, Director of Quality & Regulatory, Inspired Therapeutics, Florida, USA
- Dr. Tim Kaufmann, Chief Executive Officer, enmodes GmbH, Aschen, Germany
- Dr. Deepanshu Sodhani, R&D Project Manager, enmodes GmbH, Aschen, German

Status of the project:

Motor and Controller: Test rig was designed and fabricated to study 3D properties of the magnet. This setup measures variation in magnetic field due to linear movement (X, Y, and Z) and rotation. Controller unit to also be fabricated at Laxven Systems.

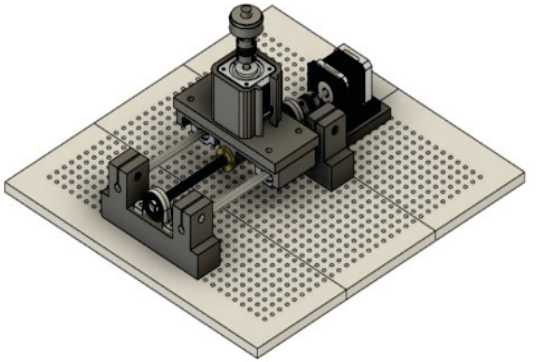


Figure 1 : 3D model of the magnet testing rig

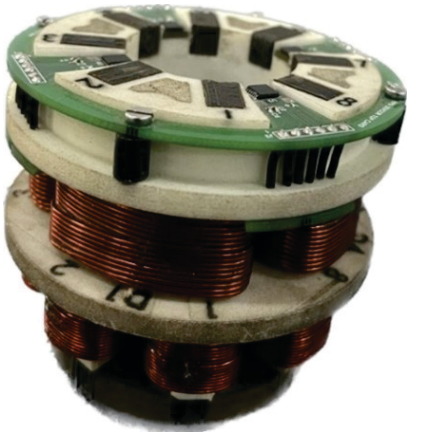


Figure 2 : Motor developed so far at Laxven

Pump casing and Impeller:

- Vasantha Tool Crafts is handling the design and manufacturing of the pump casing and impeller moulds. Medical grade polycarbonate is used for the manufacturing of pump parts.
- Modifications in the impeller and casing designs were made to match the CentriMag. Currently modifications in the mould is being done to incorporate the design changes.
- 3D printing was performed on all the modified versions to finalize the design.
- Leak test and Hydrodynamic tests were performed on the 3D printed prototypes.
- The injection moulded samples are expected to be completed by end of June 2024.

Gluing:

- A specialized glue dispensing robot and UV curing equipment has been purchased at KITS Warangal.
- Biocompatible adhesives for casing and impeller were procured for the gluing operation.

Fig 3 Glue Robot (Left), UV Equipment to Cure the Glue (Right)

Hydrodynamic Test: Hydrodynamic tests are performed to check for leakage of the pump at high pressures (500mmHg) the tests are also done to evaluate pump performance by generating the H-Q curves. It consists of pressure and flow sensors to evaluate the data from the mock loop.

The INDUS and CentriMag centrifugal pumps will be tested for the hydrodynamics and the H-Q curves will be superimposed and compared. The curves aid in evaluating the pump performance and efficiency.

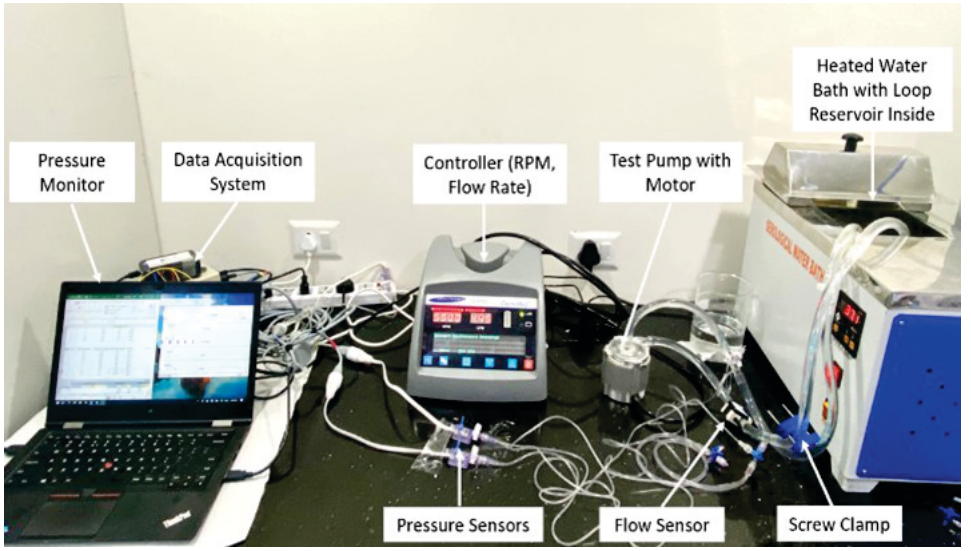


Figure 4 Hydrodynamic Test Setup

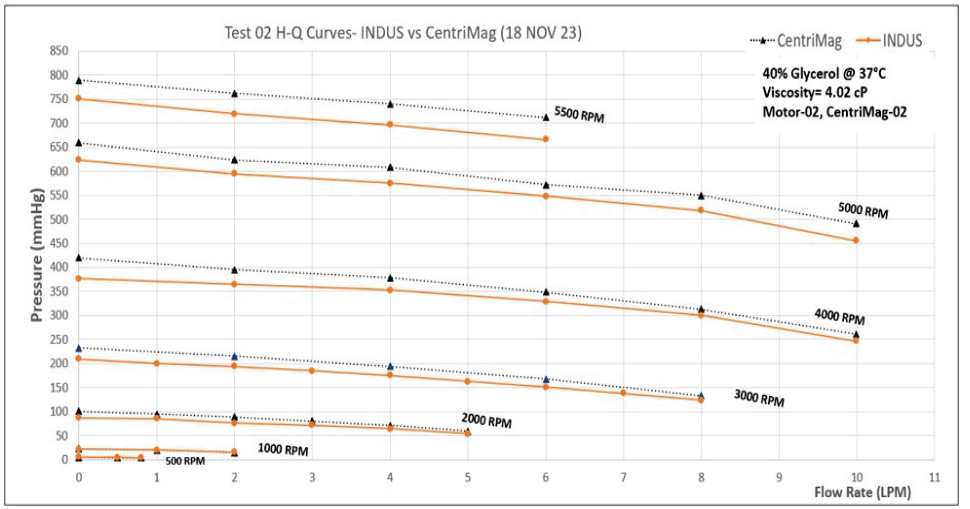


Figure 5 H-Q curves INDUS vs CentriMag

Hemolysis Test: Hemolysis is the rupture of the red blood cells, due to which hemoglobin enters the plasma. In a continuous flow blood pump, the blood undergoes a lot of shear and hence, mechanical damage of red blood cells causes hemolysis. The normalized index of hemolysis (NIH) is calculated which considers all the major hemolysis affecting parameters. The acceptable upper limit of NIH is 0.01. The INDUS prototypes showed minimal hemolysis.

Figure 6: Hemolysis Test Set up

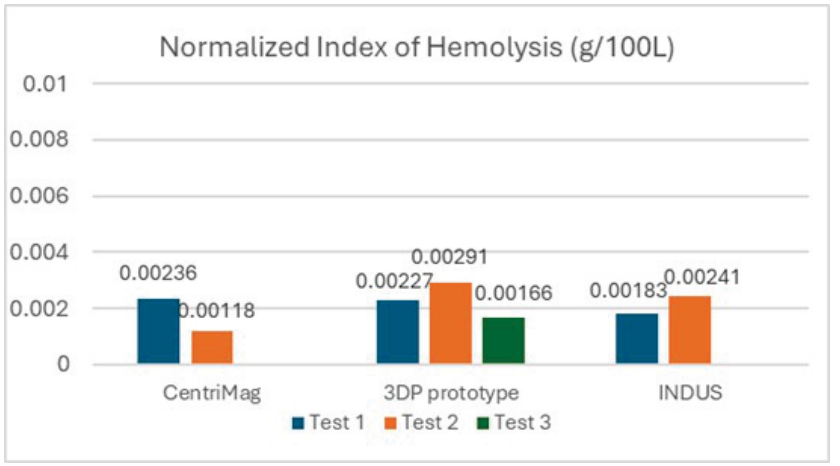


Figure 7 NIH values

Total 18 hemolysis tests have been conducted so far on Centrimag and the 3D-printed prototypes and the injection moulded pump. Once the final injection moulded pumps are delivered; more hemolysis tests will be conducted at different flow rates and pressure conditions to establish the hemocompatibility.

Activated Thrombosis Test: Mechanical blood pumps may cause thrombus formations near static locations like connectors in the form of rings. Activated thrombosis test is done to verify such formations and eliminate them using external barbed fittings. One test with CentriMag was conducted to verify the functioning of the barbed fitting to eliminate ring thrombus. Ring thrombus was observed without the external barbed connectors and no ring thrombus observed when the connectors were used. Further testing is ongoing.

Von Willebrand factor (VWF) Test: VWF is an essential protein in clotting mechanism. Qualitative or quantitative defect of it causes bleeding. Mechanical pumping of blood to result in breakdown of protein. Platelet poor plasma is used to test the pump. The mock loop is prepared, and hourly samples collected from the running loop. These samples are tested for the following.

I VWF Antigen level (ELISA kit)
ii. VWF Collagen binding activity (ELISA kit)
iii. VWF multimer analysis

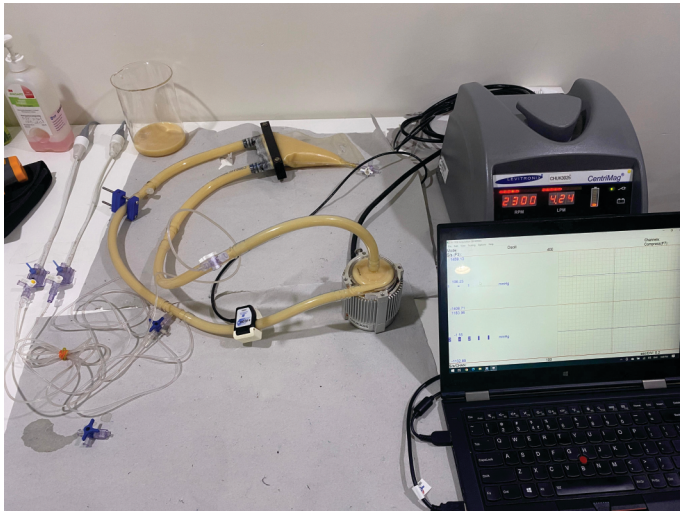


Fig 9: vWF Test with Platelet Poor Plasma

Animal Testing: The preclinical or animal studies are essential for the development of any medical device. Before using INDUS pump in the sheep studies, control studies are conducted with the commercial CentriMag to investigate and understand the surgical methodology and post-operative animal care. The expert cardiothoracic surgeons and perfusionists from AIG Hospitals, along with veterinarians from Palamur BioSciences Pvt. Ltd., have been in close collaboration to conduct these studies. Once the control studies with CentriMag are perfected, the INDUS pump will be used for the studies to validate its performance. Till date, nine sheep studies have been conducted including one study up to 5 days of animal survival with CentriMag. Currently, we seek resources and skills to conduct studies with CentriMag and INDUS for up to 30 days of animal survival. The following Gantt chart shows the tentative plan once the resources are available to conduct the animal studies.

TASK	No. of Studies	Months					
		3	6	9	12	15	18
Sheep study with CentriMag pump as control- 30 Days	2						
Sheep studies with INDUS pump with CentriMag Motor- 30 Days	6						
Development of INDUS motor and controller. Sheep studies with INDUS pump with INDUS Motor and controller- 30 Days	6						
Stand-by animals	6						

2. Rural Effective Affordable and Comprehensive Health Care (REACH)

The project is a working model of Proactive health care delivery system that offers preventive and primary healthcare to rural population. One of SHARE INDIA's remarkable programs REACH (Rural Effective Affordable Comprehensive Health Care). A model of universal, comprehensive rural health care that provides health education, immunizations, antenatal care and primary to tertiary care for a population of about 51,000 in 40 villages in the Medchal Mandal of Medchal Malkajgiri District of Telangana State. Local residents with at least a sixth- grade education are trained. These Community Health Volunteers (CHVs) collect birth and death data and update the demographic details along with our team on need base.

Goals:

- Universal healthcare to rural population
- Effective (not nominal) healthcare
- Affordable (within the economic means of Indian society at large)
- Comprehensive (should include promote, preventive, primary and secondary care)
- Sustainability (accessibility and affordability contribute to substance, growth and development)

Qualitative objectives of the project are:

- Reduction in infant and maternal mortality rates in conformity with national goals
- Stabilization of population growth
- Prevention of vaccine preventable diseases
- Preventing diseases due to nutritional deficiencies
- Control of blindness due to cataract
- Promotion of reproductive and child health

Reach Survey

3. Longitudinal Indian Family hEalth (LIFE) pilot study

Investigators:

- Dr. Kalpana Betha, MBBS, MD
- Dr. D. Shailendra, MBBS, MD

About the Project:

The Longitudinal Indian Family Health (LIFE) pilot Study was established in 2009 with the goal of understanding the link between the environment in which Indian women conceive, are pregnant, and give birth, and the physical and mental health and development of their children. The LIFE pilot study has the potential to pinpoint the root causes of many conditions that are excessively prevalent in India today, including poor pregnancy outcomes (pregnancy loss, low birth-weight (LBW), pre-term birth), and diseases and developmental disorders of childhood.

Aims:

To understand the links between the environmental conditions in which Indian women conceive, become pregnant, give birth, the physical and mental health along with development of their children.

Objectives:

Identify factors which contribute to the causation of low birth weight, maternal, fetal, neonatal, infant, childhood mortality, childhood disorders and diseases. Identify antecedents of cardio-vascular disease from pre-pregnancy through pregnancy and young adulthood in women.

Status of the project:

- 1227 women aged 15-35 years recruited before pre-

conception or within 14 weeks of gestation.

- Baseline data collected from 642 husbands of 642 women.
- 1275 deliveries occurred.
- Women were followed through pregnancy, delivery, and postpartum.
- Couples were followed for 5-6 years to assess health problems.
- Questionnaires were completed for each pregnancy loss and infant or child death.
- Children follow-up is ongoing, with visits from 06 months to 16 years and developmental assessments done at every half yearly (6-24 months) and yearly (36-60 months) and at 6-7 years a detail examination was done.
- Additional follow-up visits between 3-4 years (to know any mental health problem) and from 8-16 years (cognitive function assessment by using WISC-IV modified India scale) was conducted by clinical Psychologist.
- Samples collected at every visit is processed and stored at -80°C.
- Life bio bank has over 27,000 samples.

Cognitive and development function assessment by clinical Psychologist

4. A cluster randomized trial of an mHealth integrated model of hypertension, diabetes and antenatal care in primary care settings in India and Nepal.(mIRA Project)

Investigator:

- Dr. Kalpana Betha, MBBS, MD.

I. Objectives of the study:

In this project we propose to develop and evaluate an Electronic Decision Support System (EDSS) for non-physician Frontline Health Workers (FHWs) that incorporates ANC services with screening, detection and referral of high-risk pregnancies to the existing health system for appropriate clinical management.

We hypothesize that the EDSS enabled FHWs will not only enhance screening, detection and referral for Gestational Diabetes Mellitus (GDM) and Pregnancy Induced Hypertension (PIH), but also improve adherence to National ANC guidelines and provide a continuum of maternal care services to improve glucose and blood pressure control and health outcomes for both mothers and babies.

The research questions are:

1) Does an mHealth EDSS, provided to frontline health workers, enhance ANC by improving adherence to national ANC guidelines, and improve the screening, detection, referral and management of GDM and PIH, compared with usual care inprimary healthcare settings?
2) What are the socio-economic, health-system and political factors affecting the implementation of the enhanced ANC?
3) What is the cost of the enhanced ANC intervention, the change in resource use, and the costs of the

intervention relative to the value of the improved health outcomes achieved?

II. Partners:

The study is jointly funded by Medical Research Council, UK and Department of Biotechnology (DBT), Government of India. Our project will take place in India (Telangana) and Nepal (Kathmandu) and will last 36 months. It will include a multi-disciplinary team of investigators coordinated by the Public Health Foundation of India (PHFI), India, with support from three regional coordinating centers in (a) MediCiti Hospital, Telangana, India (b) Kathmandu University, Nepal and (c) London School of Hygiene & Tropical Medicine (LSHTM), UK.

III. Phases of the project:

The study includes three phases and four components. The three phases are: 1) Developing an EDSS that integrates ANC with screening, detection, referral and management of GDM and PIH, 2) Piloting the EDSS and 3) Evaluating effectiveness through a cluster randomized controlled trial at primary healthcare level in India and Nepal.

The four components comprise of: 1) Formative research to understand the context, intervention development to develop the technology and how to deliver it, and a pilot test, 2) Cluster randomized controlled trial (cRCT) to randomly pick primary health centers to implement and evaluate the intervention and compare them to other centers who give usual care 3) Ongoing evaluation, using qualitative methods to understand the processes of implementation and 4)Economic analysis to see what the intervention costs and how cost effective it is.

IV. Status of the project:

a) Obtained permission from Commissioner of Health & Family Welfare (CHFW), Govt. of Telangana for mIRA trial implementation,

b) Recruited and trained second set of Health Workers for the mIRA Study.

c) Selected "66" Primary Health Centers (PHC's) and two associated Sub centers from each PHC from the five study districts (Rangareddy, Yadadri Bhuvanagiri, Medak, Siddipet and Vikarabad) for the mIRA trial and randomized the facilities into Intervention and Control Arms. In the Intervention Arm total "33" clusters and in the Control Arm total "33" clusters are selected. Each Cluster comprises of one PHC and two associated Sub centers.

d) In the Intervention Arm, Antenatal Care to Pregnant Woman will be provided through mIRA Application and in the Control Arm as usual Paper based records will be maintained as part of provision of Antenatal Care to Pregnant woman.

e) Obtained Inform Consent from the "66" PHC's to participate in the mIRA trial.

f) A redcap database application has been created for entry of Baseline Facility Survey and Audit of Record Keeping Data collected before the starting of trial mIRA trial. Training to Health Workers has been given on Redcap database.

g) Data collection and entry into Redcap data base application for Baseline Facility Survey and Audit of Record Keeping tools has been completed. Presently data cleaning process is in progress.

h) A user manual has been designed with details of operation of mIRA Application.

i) Training to Medical Officers, Staff Nurses and ANM's of

Selected Primary Health Centers and Sub centers under Intervention Arm in five districts with subject experts regarding Quality Antenatal Care, Screening and Management of Anemia, Gestational Diabetes, Hypertension and demonstration of mIRA App has been completed.

j) Post training to Medical Officers, Staff Nurses and ANM's, the leading period which includes Healthcare Providers (MO/Staff Nurses/ANMs) hands on experience of mIRA APP in the Intervention health facilities is completed.

k) Total "1320" pregnant woman will be recruited into mIRA trial which includes "660" pregnant woman from "33" Intervention Arm Clusters and "660" pregnant woman from "33" Control Arm Clusters.

l) Presently in discussion with the Department of Biotechnology, Government of India, the funding agency about the release of remaining funds to start the trial and the meeting is scheduled in first week of June-2023. The remaining funding from DBT did not materialize.

m) Bill & Melinda Gates Foundation has agreed to fund the project and project has restarted in January-2024.

n) Presently refresher training on mIRA App for the healthcare providers is being carried out in the first batch of Ten Intervention Facilities. The First batch of Ten Control Arm Facilities are also being contacted explaining about the start of the mIRA trial. The trial will be conducted in three batches in the intervention and control arm facilities.

o) During March & April-2024, the refresher training for Healthcare providers in first batch of Intervention Facilities namely PHC Shankerpalle, PHC Hafeezpeet, PHC Dandumailaram from Rangareddy district, PHC Athamakur from Yadadri Bhuvanagiri district, PHC Sirigirpally from Siddipet district and PHC Shivampet from Medak district have been provided. For other four facilities refresher training was provided in February-2024.

p) The First batch of Control Arm Facilities (PHC Kondurg, PHC Balapur PHC Rachaloor from Rangareddy District, PHC Narsingi, PHC Yeldurthy from Medak district, PHC Varkatpally & PHC Motakondur from Yadadri Bhuvanagiri district) are being contacted and explained about the start of the mIRA trial to the Healthcare providers. The remaining three control Arm facilities will be contacted in the last week of April-2024.

q) The trial in the first batch of intervention and control arm facilities is expected to start to in first week of May-2024.

PHC Dandumailaram_Rangareddy District Refresher training

PHC Shivampet_Medak District Refresher Training

5. Prosthetics & Orthotics for the Disabled Program (POP)

Investigators:

- Dr. Prakash N. Shrivastava, Member, SHARE INDIA, Professor Emeritus, University of Southern California, USA.
- Dr. K. Madhava, MD surgeon, Member, SHARE INDIA.

Team:

- P. Nikethan Reddy, M.Tech, Project Manager
- G. Harish Reddy, B.Tech, Project Associate

Advisor:

- Dr. Srinivasa Prakash Regella, Professor and Head, Department of Mechanical Engineering, BITS PILANI, Hyderabad.

Aim:

Develop, test and validate. Customized 3D printed Below Knee Prosthetics and Orthotics that can be made at affordable cost in India.

Objectives:

1. To Make, Field Test and Validate an innovative, hi-tech, customized, 3D printed, below knee prosthesis (BKP) that meets the specifications and needs of professional prosthetists.
2. Maximize the patient comfort so that a person can wear it for more than 8 hours/day, hold a regular job, and become a productive member of society.
3. Develop other accessories like Liners, insoles etc. that are necessary to make our products acceptable to patients and prosthetists around the world.
4. Develop a Rehabilitation Center at MediCiti/ SHARE INDIA to advice, train and enable patients to handle daily jobs to achieve their highest potential.

Key technologies used:

- 3D printing, Photogrammetry, Remote Digital Patient Data Collection Cad/Cam, Image processing,
- Physiotherapy, exercise, and training for rehabilitation

Work done:

- Made New Portable Work benches for Digital data collection from patients.
- Modified the socket design (with Ribs, Ridges and other reinforcements so that the safety factor has increased from 10 to 14. Also the socket shape is made appealing to local Prosthetists.
- New socket designs are tested using FINITE ELEMENT ANALYSIS and ANSYS programs. The Static Analysis Results for 80 kg person show Max. Stress reduction from 3.5 to 2.12 MPa and Safety factor Increase from 10 to 14.

Future Developments:

Liners: The new improved liner is under development, our design proposes to replace the foreign made and expensive silicone socks (>INR 20k). Liners are used to improve safety and comfort by adding a cushioning layer between the residual limb and the prosthetic socket. Liners also absorb some of the sudden shocks or loads applied on prosthetic limb while walking thus increasing the safety of the socket.

Insoles: Insoles are used to provide comfort while walking and reduce foot pain. We made Insole from MCR and

reinforced silicone rubbers with and without Arch support. Trails of testing them on patients are under progress.

3D PRINTED PROSTHETIC HAND: We also made a 3D Printed Prosthetic hand by 3D Printing technology. This Prosthetic hand serves as an artificial limb for the amputees. These devices are appealing because 3d printing allows for fast, and accessible manufacture, and because the CAD-modeled designs are easily scalable and can be readily customized patient-to-patient for aesthetics or functionality. This model works by with and without using electronics.

6. Lab on Wheels: an innovative point-of-care test to diagnose Chlamydiales in an OneHealth setting – InPoChlam

Investigator

- Dr. Kalpana B, MBBS, MD

Affiliation: SHARE INDIA-MediCiti Institute of Medical Sciences

Funding source: Department of Science and Technology, (DST), GOI, New Delhi

Background & Impact on Society

Female reproductive health is greatly affected by Chlamydia trachomatis (CT), which is the major causes of common sexually transmitted infection (STI) caused by bacteria. Sexually transmitted infections are among the most common communicable conditions and affect the health and lives of people globally. The World Health Organization (WHO) periodically generates estimates to gauge the global burden of four of the most common curable sexually transmitted infections which includes chlamydia species trachomatis, gonorrhoea (Neisseria gonorrhoeae), trichomonas (Trichomonas vaginalis) and syphilis (Treponema pallidum). The estimates give evidence for program improvement, monitoring and evaluation. Based on prevalence data from 2009 to 2016, the estimated pooled global prevalence of chlamydia in 15–49 year old women was 3.8% and in men 2.7%. Chlamydia can cause serious short and long-term complications, including pelvic inflammatory disease, ectopic pregnancy, infertility, chronic pelvic pain and arthritis, and they can be transmitted during pregnancy or delivery if untreated.

One Health is the collaborative effort of multiple disciplines, working locally, nationally and globally, to attain optimal health for people, animals and the environment. The transmission from micro organisms form the environment and animals to humans (zoonosis) is supported by few studies. It is also known that Chlamydiales infections in poultry is very prevalent and can be transmitted to humans. And in general, women who have sexually transmitted infections (STI) could be suspected to be infected with Chlamydia species.

Despite of the fact that there are many detection methods available, still its high occurrence rate and untreated cases worldwide indicates need of other detection techniques with better out come in terms of ease of operation, rapid and point of care applications along with high specificity and sensitivity; as most of the methods in practice are time consuming, need sophisticated labs and skillful technicians to perform the tests while indirect antibody based tests suffers from low sensitivity and can't be used as true point of care.

The present invention by Fast Sense Diagnostics known as "CTE-Sens (C. trachomatis Electrochemical Sensing) technology" is a quick diagnostic tool and a protocol that would be helpful for rapid diagnosis of C. trachomatis. This technology is based on molecular biology and on chip detection principals. This is a unique combination first of its kind to be applied for C. trachomatis for rapid and specific detection in a cost-effective manner useful in resource poor settings.

The main objective of our site is the collection of urine and serum samples from women who have infertility and STIs. Samples will be used for identification of Chlamydiales in a variety of biological samples in order to fully validate the Lab on Wheels (the Point Of Care-POC test kit) and show its market potential in India, and possibly other developing countries.

Doctor interacting with the study participant

Aliquoting of the study samples

Status of the project:

Total subjects screened= 282

Total samples collected =282/300 urine and serum samples (150 Infertility+ 132 STI)

7. Community-based Surveillance to estimate incidence and Sero prevalence of acute febrile illness with focus on Dengue and Chikungunya – A prospective multi-centric cohort Study.

Investigators

- Dr. D. Shailendra, MBBS, MD
- Dr. Rajsekhar, MBBS, MD
- Dr. Preethi Sekeran, MDS, MPH

Funding source:

National Biopharma Mission; Biotechnology Industry Research Assistance Council; Department of Biotechnology; Government of India

Objectives:

Primary objectives

1. Estimate Prospectively:

a. Incidence rate of acute febrile illness episode during 12 months of follow-up

b. Incidence rate of symptomatic laboratory-confirmed Dengue infection episodes during 12 months of follow-up

c. Incidence of Sero positivity based on IgG, IgM, and neutralizing antibodies at 12 months (Sero Negative for IgG, IgM, or Neutralizing antibodies at baseline at enrollment).

Secondary objectives

1. Incidence rate of symptomatic laboratory-confirmed Chikungunya infection episodes during 12 months of follow-up
2. Determine the etiology of AFI due to other common causes of AFI (based on rapid diagnostic or ELISA-

based laboratory diagnosis) a. Malaria b. Scrub typhus c. Leptospirosis d. Typhoid

3. Describe the proportion of symptomatic versus asymptomatic or subclinical infections of dengue and Chikungunya based on data obtained from primary objectives.
4. Identify and describe the circulating serotypes of dengue and chikungunya in the general population over a period of one year.
5. To assess the spatiotemporal trend of Dengue and Chikungunya infection over a period of 12 months.
6. Determine the durability of IgG, IgM, and Neutralizing antibodies in symptomatic individuals who tested positive for Dengue and Chikungunya infection.
7. Estimate the economic burden of dengue and chikungunya fevers based on information about:
   a. Patients with severe illness requiring hospitalization and/or ICU care
   b. Patients managed on an outpatient basis.

Methodology: SHARE INDIA will implement the common protocol of the study. A total of 752 participants above 2 years will be recruited and followed up for 52 weeks. Two rounds of serosurvey (Baseline-Month 0 and Endline – Month 12) will be conducted. Active and passive acute febrile illness surveillance will be done to obtain the incidence rate of dengue and chikungunya infections in the cohort

Community engagement meeting

Processing of the sample in the Laboratory

AFI study follow up visit by team

Current status and baseline findings:

- Participant Baseline enrollment commenced on 4.9.2023 and was completed on 27.9.2023.
- Cohort is established with 769 participants.
- Seroprevalence of Dengue and Chikungunya at baseline are 90% and 48.9% respectively.
- As of 30.05.2024, acute febrile illness surveillance is ongoing with 267 fever cases recorded, of which 113 fulfilled the definition of acute febrile illness.
- 112 samples were tested to find the incidence rate of dengue; 5 laboratory-confirmed cases of Dengue and 2 cases of chikungunya were recorded.
- 11 hospitalizations and 7 deaths were reported.
- There was no loss to follow-up or drop-outs.
- All technical milestones achieved as per timelines.

8. Human rabies deaths and animal bite burden in India:Cross-sectional survey

Investigator

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA, Clinical Professor of Medicine and Surgery, University of Illinois at Chicago, USA

Funding source: ICMR-NIE

Objectives:

1. Primary objectives
   - Estimate the incidence of animal bite
   - Estimate human rabies deaths by decision tree model
2. Secondary objectives
   - Estimate the proportion of animal bite cases received post exposure prophylaxis
   - Describe anti rabies vaccine supply chain at different levels of health care system
   - Estimate direct and indirect costs associated with animal bite cases

Project implementation Timeline: 1 year (July 2022-August 2023)

About the Project:

Study design: cross-sectional survey of individuals

Study plan: The study had three components

a. **Community based survey:** The project has been implemented across 4 districts (1. Kamareddy 2. Mahabubabad 3. Hyderabad and 4. Narayanpet) and surveyed 6400 houses to identify dog and animal bite cases.

b. **Facility based survey:** The project surveyed 9 facilities (4-PHCs, 2-DHs, 1 Medical college, 2- Private hospitals) to understand Animal bite and human rabies death reporting system and Anti-Rabies vaccine (ARV) supply chain at different level of health care system and costs associated with animal bite cases

c. **Modelling approach:** The project conducted interviews with concerned State and district nodal officers for Rabies program to understand the program management aspects.

All the work related to Rabies study has been completed and the entire project data has been submitted to ICMR-NIE team in the month of October 2023. In coordination with SHARE INDIA, ICMR-NIE's team has worked on manuscript preparation and has submitted for publication to a reputed journal.

Rabies Study - cross-sectional survey of individuals

9. Development of an mHealth Educational Intervention to Improve the Prevalence of Viral Suppression among Persons Living with HIV And Low Literacy in India (mHealth)

Investigators

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA
- Sabitha Rani P Gandhamalla, MSW
- Mark S. Dworkin, MD, MPH & TM, University of Illinois at Chicago
- Casey Luc, MPH University of Illinois at Chicago Department of Epidemiology and Biostatistics
- Sierra Upton, MS, MPH University of Illinois at Chicago Department of Epidemiology and Biostatistics

Funding source: The University of Illinois at Chicago (UIC) School of Public Health

Project period: one year

Objectives / Aims of the Project:

1. Explore the acceptability and feasibility of a mobile phone application developed in the U.S. for ART medication adherence in a global health setting (South India).
2. Identify factors associated with adherence and detectable viral load during the COVID-19 pandemic among a population of women living with HIV who have low literacy in South India.
3. Identify factors associated with adherence and detectable viral load during the COVID-19 pandemic among a population of MSM living with HIV who have low literacy in South India.

Brief study profile: Participants will be recruited from a combination of non-governmental organizations (NGO), community-based organizations (CBO), and HIV patients enrolled with practitioner. There are four main sub-populations in this study, including HIV-positive MSM, HIV-positive women, HIV-negative MSM, and ART Centre staff. All potential recruits and participants must be ⩾ 18 years old and be able to speak either English or Telugu but will not be required to read or write in these languages. Participants living with HIV will be required to bring their Green Book (a booklet that persons living with HIV keep and present at ART Centre visits) to verify HIV diagnosis, ART prescription, and date of last viral load test.

Sites of the study:

- DARPAN CBO
- HOPES+ Positive network
- NHP+ Positive Network
- MASS & ROSE CBO

Status of the project:

S.No	Target Group	Total sample Size	Type of interview	No.of interviews
1.	*HIV Positive MSM*	*210*	*Universal Interviews*	*45*
2.	*HIV Positive Women*	*125*	*Universal interviews*	*50*
3.	*HIV Positive MSM*	*200*	*Extended Interviews*	*Not yet started*
4.	*HIV Positive Women*	*118*	*Extended Interviews*	*Not yet started*
5.	*HIV Negative MSM*	*20*	*PrEP interview*	*Not yet started*
6.	*HIV Positive MSM & Women*	*10 & 10*	*Usability interviews*	*Not yet started*
7.	*ART staff*	*10*	*Usability Interviews*	*Not yet started*

10. Prevalence and Quality of Life of Skin Disorders in Semi-Urban and Urban Telangana State: A Community-Based Study

Investigator:

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA

Funding source: Pfizer

Objectives:

1. Measure the prevalence of skin disorders in the selected geographical areas.
2. Assess the impact of skin disorders on the quality of life.
3. Determine the relationship between demographics and geography and the prevalence of skin disorders.

Methods:

Study Design: Ongoing community-based cross-sectional study.

Location: Medchal Mandals of Medchal Malkajgiri District, Telangana State, India.

Population: Approximately 50,000 residents across 40 villages.

Recruitment: Enrolled 1,080 participants (50% of target) using demographic data from the REACH program.

Data Collection: Field investigators visited households, obtained consent, and collected data using a semi-structured questionnaire via the REDCap mobile application.

Screening and Follow-up: Conducted initial screenings and two follow-up visits with dermatologist referrals as necessary.

Data Analysis: Descriptive analysis, chi-square tests to examine the impact of demographics on prevalence rates, with a significance level set at $p \leqslant 0.05$.

Ethics Approval: Institutional ethics committee of the MediCiti Institute of Medical Sciences.

Results/Conclusion:

Prevalence: 21.6% of the population had dermatologic disorders.

Gender Differences: Significant demographic differences between males and females in education, employment, and marital status.

Top Diagnoses: Radiation-related skin changes in females (23.4%), dermatophytosis in males (16.8%).

Quality of Life Impact: Psoriasis had the highest mean DLQI scores in both genders, indicating a significant burden.

Conclusion:

Need for community-level education to reduce stigma and improve diagnosis and treatment of skin disorders. The digital data collection methods facilitated efficient study progress and data quality.

Screening and Follow-up

11. Treatment Optimisation for blood Pressure with Single-Pill combinations in India - TOPSPIN

Investigators:

- Dr. D. Shailendra, MBBS, MD
- Dr. Tilak Ram, MBBS, MD

Introduction:

Globally, high systolic blood pressure (SBP) was reported as the leading risk factor for morbidity and mortality. Hypertension is also a leading cause of death and disability in India with a prevalence of 30%. Significant variation was noted in hypertension prevalence among rural (28%) and urban (34%) patients in India. More importantly, hypertension control rates in India are low at 11% and 20% among rural and urban patients respectively.

Reducing BP to target levels is a major priority in preventing cardiovascular events in patients with hypertension, and typically, this requires more than one BP lowering medication in the majority of patients. Single BP lowering drug therapy may help only around 30% of hypertensive patients to achieve the optimal BP control as recommended in recent guidelines. Current guidelines therefore recommend the use of combination therapy as first-line treatment or early in the management of hypertensive patients with co-morbidities that require prompt BP reduction. The latest European guidelines for treating hypertension in adults recommends initiating treatment for most patients with two anti-hypertensive drugs. The combinations recommended in these guidelines are an angiotensin-converting enzyme (ACE) inhibitor or angiotensin II receptor blocker (ARB) with a calcium channel blocker (CCB) or a thiazide/thiazide-like diuretic for management of high blood pressure in people without other comorbidities such as cardiovascular disease or chronic kidney disease. The latest Indian hypertension guidelines recommend combining low doses of two or more drugs in order to achieve the target BP control. In addition, initial treatment with two anti-hypertensive medications was suggested for those with BP greater than 20/10 mmHg above the goal pressure by international guidelines.

Objectives:

To compare the efficacy of three single pill combinations (SPCs) of two antihypertensive agents on 24-hour ambulatory systolic blood pressure (ASBP) among individuals with hypertension in India.

Study design: A multi-centre, individual randomized single-blind, parallel group, three-armed superiority trial.

Sample size: 1968 patients in total, and 656 patients per arm.

Inclusion criteria:

Male or female patients aged 30-79 years with a sitting systolic blood pressure (SBP) $\geqslant$ 140 mmHg and <160 mmHg on one antihypertensive agent or sitting clinic SBP $\geqslant$ 150 mmHg and <180 mmHg on no antihypertensive treatment.

Exclusion criteria:

History or evidence of congestive heart failure, renal impairment, coronary heart disease, cerebrovascular disease, contraindications to the SPCs of investigational product studied, secondary hypertension or other significant illness likely to interfere with the effective

conduct of the study, pregnancy or women of childbearing age not taking reliable contraception.

Treatment regimens:

Patients will commence treatment at the starting doses of the 3 combinations of "Amlodipine+ Perindopril" or "Perindopril + Indapamide" or "Amlodipine + Indapamide (sustained release)". These doses will be increased to full doses at the two month's visit, using forced titration if SBP ⩾120 mmHg (consistent)

Treatment Arm	Number of Participants	Treatment Period 1: Enrolment 2 months	Treatment Period 2: 2 months – 6 months (if SBP 120mmHg)
1	656	Amlodipine 5mg and Perindopril 4 mg once daily	Amlodipine 10mg and Perindopril 8mg once daily
2	656	Perindopril 4 mg and Indapamide 1.25 mg once daily	Perindopril 8mg and Indapamide 2.5 mg once daily
3	656	Amlodipine 5mg and Indapamide 1.5 mg sustained release once daily	Amlodipine 10 mg and Indapamide 1.5 mg sustained release once daily

If after four months, clinic SBP is >160mmHg or DBP >100 mmHg, a commonly available beta-blocker (bisoprolol 5mg, which will be provided to the trial sites) will be added to the trial therapy unless contraindicated, in which case an alternative agent that is not a thiazide or thiazide-like diuretic, ACE inhibitor or CCB such as 12.5 mg of spironolactone or 2 mg of doxazocin will be added at the investigator's discretion.

Primary endpoint:

ASBP at 6 months adjusted for baseline ASBP

Ambulatory blood pressure monitoring (ABPM) is a better reflection of true overall BP and thereby a stronger predictor of adverse cardiovascular events than routine clinic BP readings.

The primary measurement will be 24-hour ABPM. Patients will wear the ABPM device for a minimum of 24 hours with automatic readings every 30 minutes both in the daytime and at night-time. Daytime will be defined as 9 AM through 9 PM, and night-time as 12 midnight through 6 AM. Small, medium or large blood pressure cuffs will be utilized as appropriate on the non-dominant arm. ABPM recordings will only be accepted if at least 70% of expected readings are included. ABPM recordings which do not meet this requirement will need to be repeated.

Secondary endpoints:

1. 24-hour ambulatory diastolic blood pressure (ADBP) at 6 months adjusted for baseline ADBP
2. Clinic SBP and diastolic blood pressure (DBP) at two, four and six months adjusted for baseline values
3. Daytime and night time blood pressure (BP) at six months adjusted for baseline values
4. BP variability measured by ABPM and within-visit clinic BPs
5. Proportion of patients who achieve BP control (primarily

defined as clinic BP <140/90 mmHg) at two, four and six months and ABPM measured control (<130/80 mmHg) at six months. In addition to reflect more contemporary guidelines control of clinic BPs will also be evaluated as <130/80 mmHg.

6. Proportion of "responders" (defined as clinic BP reduction ⩾20mmHg SBP and ⩾10 mmHg DBP) at any of the clinic visits (two, four and six months).
7. Micro- and macro-albuminuria at six months adjusted for baseline values
8. Fasting blood glucose at six months adjusted for baseline values
9. Fasting blood lipid profile at six months adjusted for baseline values
10. Serum sodium, potassium, urea, creatinine and estimated glomerular filtration rate at six months adjusted for baseline values
11. Adverse events causing trial withdrawal

Status of the Project:

- ❖ No. of participants recruited and randomised: 86
- ❖ No. of participants completed 2nd month visit :82
- ❖ No. of participants completed 4th month visit: 69
- ❖ No. of participants who completed the study: 39
- ❖ Dead participants: 01

12. GEO Health Health Effects of Selected Environmental Exposomes Across the Life Course (HEALS)-India & US.

Investigators:

- ❖ Prof. D. Prabhakaran, Prof. K. Srinath Reddy, Dr. Nancy Sieber, Prof. Joel Schwartz

Co-investigators:

- ❖ Dimple Kondal, Vipin Gupta, Siddhartha Mandal, C. S. Yajnik, Ruby Gupta, Sailesh Mohan, Gagandeep K. Walia, Poornima Prabhakaran, Enakshi Ganguly

Funding source: Centre for Chronic Disease Control, New Delhi (Fogarty International Centre, National Institutes of Health grant)

Project period: 08/01/2022 (proposed start date)-07/31/2027 (Proposed end date)

Aims and Objectives:

1/2 - GEO Health Health Effects of Selected Environmental Exposomes across the Life Course (HEALS) - India Objectives:

The present project aims to study the effect of environmental exposomes: PM2.5, NO2, O3, and extremes of temperature on multiple health outcomes through a modified life course approach to inform policy interventions. The study aims to assess the exposomes at fine spatiotemporal resolutions across different locations in India (Delhi, Chennai, Sonipat, Vizag, Pune, Hyderabad, and Bikaner).

2/2 - GEO Health Health Effects of Selected Environmental Exposomes across the Life Course (HEALS)- US Objectives:

The proposed project will focus on training early career faculty and researchers and recent post-docs in designing a research study, writing up a proposal, and carrying out research on topics related to the research aims.

Brief study profile:

Study Setting: This is a multi-center study with the following study sites at Bikaner, Pune, Chennai, Hyderabad, Vizag, Delhi and Sonipat in following cohorts- **LIFE & MILES (Hyderabad),** GARBH (Bikaner), PMNS (Pune), CARRS (Delhi & Chennai) and UDAY (Sonipat & Vizag).

Study Variables to be assessed: Environmental exposures such as air pollutants like fine particulate matter (PM2.5), nitrogen dioxide (NO2), ozone (O3), and particulate matter (PM) speciation analysis for metals, ionic species, elemental and black carbon, personal monitoring for air pollution (subset of participants) and ambient temperature.

Study Outcomes: The proposed project will investigate multiple health outcomes in the respective cohorts (Pregnancy related health outcomes (Cohorts: LIFE & GARBH) including preeclampsia, gestational diabetes, still birth, gestational period; Child health outcomes (Cohort: PMNS) includes birthweight, preterm birth, anthropometry, neurodevelopment/cognitive function; Cardio metabolic risk factors (Cohorts: CARRS & UDAY) includes anthropometry, fasting plasma glucose, HbA1c, blood pressure, lipid markers, HOMA-B, HOMA-IR, Disposition Index, blood pressure and arterial stiffness, adiposity, growth trajectories; CVD Incidence includes incidence of Heart disease; Stroke; type 2 diabetes mellitus; hypertension, CVD mortality and all-cause mortality; Age related & Neuro- degenerative outcomes (Cohorts: CARRS, UDAY & MILES) including physical function, cognitive decline, bone and muscle quality) using a modified life course approach.

Status of the project:
For SHARE INDIA site, training in environmental monitoring, and hands on training in setting up and data collection from MHC and smaller monitors completed. The sites for environmental monitoring have been identified and consent from participating households has been obtained. The data collection is due during November- December 2024 (winter cycle) and March-May 2025 (summer cycle). Personal speciation monitoring will be done simultaneously during both cycles.

ICMR Funded Projects

13. A Phase III, randomised, double blind, three arm placebo controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients

Investigator:
- Dr. K. Sailaja, MBBS, MD

Funding source: ICMR

Indian Council of Medical Research (ICMR), the apex governing body in India forthe formulation, coordination and promotion of biomedical research, selected SHAREINDIA-MIMS as a sub site of Bhagwan Mahavir Medical Research Centre (BMMRC) for a vaccine study entitled ''A phase III, randomized, double-blind, three arm placebo controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and lmmuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients" (July2020-June2023).

The primary objective of the trial was to evaluate the efficacy of VPM1002 and Immuvac by comparing the reduction in incidence of TB over 3-year period among Indian healthy household contacts of newly diagnosed

sputum positive PTB patients vaccinated with VPM1002 and Immuvac in comparison to placebo.
SHARE INDIA site was initiated on 13th July 2020. 219 participants were enrolled who were followed up for 38 months (Mar 2024) as per the protocol timelines with a retention rate of 97%.
The project will conclude in April 2024.

13a. Capacity building for undertaking the "A Phase III, randomised, double blind, three arm placebo controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of new pulmonary TB patients"

Investigator:
- Dr. K. Sailaja, MBBS, MD

Funding source: ICMR

ICMR has sanctioned Capacity Building Grant to undertake the activities of the trial. The objective of this grant was to support the training of study site personnel about the protocol, GCP, biosafety and risk benefits, to develop site specific recruitment and retention strategies and to understand the community preparedness or willingness for participation in the trial for the benefit of the household contacts of Index TB patients. Sensitizing community peers and creating awareness about the TB vaccine trial.

Status of the project:
Funding was upto 31/12/2023.

14.Secondary data analysis to build evidence for interventions to prevent stillbirths in India " (ICMR - Stillbirth)

Investigator:
- Dr. Kalpana B., MBBS, MD.

Funding Source: ICMR -
Stillbirths are a hidden tragedy that impacts millions of women and families across the globe daily. The stillbirth rate is one of the indicators of the quality of a country's healthcare system. Stillbirths are a significant public health problem in India. Therefore, aligned with the national priority of ending preventable stillbirths and neonatal mortality, ICMR undertook a project aimed at consolidating existing data from multiple cohort studies. The objective is to collate individual datasets and examine the determinants, risk factors and potential impactful interventions to develop national guidelines and policies for reducing preventable stillbirths and neonatal mortality, to prioritize the use of emerging evidence from published studies and clinical trials as well as identify gaps to inform prospective studies. ICMR planned to create a pooled database from ten cohort studies including LIFE study for secondary data analysis.

Secondary data analysis of Stillbirths in LIFE study

Research Questions to be addressed are:

1. What is the stillbirth rate across different geographical regions of India and what is the trend over the past decades?
2. What are the modifiable risk factors of stillbirth, which upon intervention can potentially prevent stillbirth?
3. Can we develop a risk stratification framework using clinical, ultrasound and biological predictors that can identify pregnant women a risk of stillbirth?

Code dictionaries and other required documents were shared. Funds are allotted to SHARE INDIA for conducting the analysis.

Technical assistance to GOI-Global Fund Project to Fight AIDS

15. Design and develop comprehensive advocacy, communication strategies and tools for NACP–GFATM

Investigator:

- Dr. Shikha Dhawan
- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA, Project Director

Funding Source:

The Global Fund to Fight AIDS, TB, and Malaria (GFATM)

Introduction:

SHARE INDIA is selected as a Sub-Recipient under the National AIDS Control Organization (NACO), Ministry of Health and Family Welfare, Government of India for The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) funded project to "Design and develop comprehensive advocacy, communication strategies and tools". The project is designed to develop a new age communication and advocacy strategies to meet the 95-95-95 fast track targets by 2025 and provide a way for elimination of HIV/AIDS as a public health threat by 2030. Under the project, community-based behavior change communication tools are being developed to achieve the targets set under National Strategic Plan (2017-24). The National and State Communication Digital Repository with standardized content is under development for equitable access to general population, NACO and SACS. Tools for reach, recall and impact of communication activities are under different stages of development. Strategies are being implemented currently to address stigma and discrimination issues related to HIV and effective implementation of the HIV and AIDS (Prevention and Control) Act, 2017. It is proposed to use communication as a tool for improving gains across all program components with an overall aim to support NACO's IEC and Mainstreaming Division in a 360-degree multimedia approach encompassing advocacy and communication strategies.

Objectives:

- To develop a new age communication and advocacy strategy to meet 95-95-95 fast track target by 2025 and provide a way for elimination of HIV/AIDS by 2030.
- To develop need and community-based behavior change communication tools to achieve the targets set under National Strategic Plan.
- To develop maintain and utilize National and State Communication Digital Repository.
- To develop and execute tools for reach, recall and impact communication activities.
- Strategy development for addressing stigma and discrimination related to HIV and effective implementation of the HIV and AIDS (Prevention and Control) Act, 2017.

Key highlights:

National Capacity Building Workshop on social media: SHARE INDIA supported NACO to concluded a highly impactful two-day National Capacity Building Workshop on #Social Media. In this workshop we gathered 100+ participants from 26 States and 6 UTs in Jaipur, Rajasthan to empower them with valuable insights and strategies for harnessing the power of social media. The event was a remarkable opportunity for networking, learning, and sharing experiences. Together, we explored the latest trends, best practices, and innovative approaches to leverage social media effectively.

World AIDS Day 2023: SHARE INDIA supported NACO to organize an event to observe World AIDS Day 2023 at Guwahati, Assam. By aligning with the global theme of the World AIDS Day 2023 "Let Communities Lead", the event emphasized on how community-led interventions are central to achieving the end of AIDS and to sustaining the gain into the future. A large number of community members participated in the event from across the country. Several programmatic stalls were made part of the exhibition showcasing the achievements of the National AIDS Control Programme (NACP).

National Communication Strategy: On World AIDS Day 2023, SHARE INDIA and NACO successfully launched a National Communication Strategy. This document serves as a roadmap for effectively communicating key messages, raising awareness, and fostering behavior change to prevent new HIV infections, ensure access to quality treatment and care, and eliminate stigma and discrimination associated with HIV/AIDS.

Year Calendar 2024: On the occasion of the World AIDS Day, the Year Calendar 2024 was launched by Prof. S.P. Singh Baghel, Minister of State for Health & Family Welfare, Government of India.

Red Ribbon Quiz Competition: We were honored to support the National AIDS Control Organisation for the Grand Finale of the National Red Ribbon Quiz Competition. This event, dedicated to empowering youth about HIV and

STI, is a crucial step toward creating awareness. We extend our heartfelt gratitude to our esteemed Director Programs, Dr. Shikha Dhawan, whose remarkable expertise and leadership shone brightly as the quiz master, leaving an indelible mark on the audience with her profound knowledge of HIV and STIs.

Prison Intervention (IEC Material): SHARE INDIA supported NACO to develop campaigns for the Prison Intervention for HIV prevention among people living in prison. People living in prisons are particularly vulnerable to increased risk of HIV infection. Low access to preventive and care services, overcrowding and poor prison conditions, neglect and denial, gang violence and lack of protection for younger inmates significantly increases the vulnerability of prison inmates to HIV transmission. Over-representation of key populations contributes to making these settings a high-risk environment for HIV transmission. A SBCC package was developed to increase knowledge among inmates (especially most-at-risk population) on safe sexual behavior and sustain behavior change in at risk inmates.

Technical Assistance to Government of India – CDC funded Projects

16. NISCHIT Plus: National Initiative to Strengthen & Coordinate HIV/TB Response Plus (TREATMENT)

Investigators:

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA, Project Director
- Dr. JayaKrishna Kurrada, Associate Project Director

Source of Funding: Centers for Disease Control and Prevention (CDC), Atlanta, USA

Cooperative Agreement # NU2GGH002312: NOFO RFA GH20-2038

Background:

SHARE INDIA has been awarded a five-year Cooperative Agreement by PEPFAR through CDC, to provide technical assistance (TA) to National AIDS Control Program to accelerate HIV epidemic control. SHARE INDIA, a key partner of the CDC, collaborates with the National AIDS Control Organization (NACO) to deliver evidence-based, person-centered HIV services in Andhra Pradesh. Through the 'National Initiative to Strengthen and Coordinate HIV-TB' (NISCHIT Plus) project, SHARE INDIA supports the Andhra Pradesh State AIDS Control Society (APSACS) to improve care quality, enhance retention and adherence to Antiretroviral Therapy (ART), manage HIV-TB, and develop the workforce. These efforts aim to achieve viral load suppression in over 95% of PLHIV on ART.

Key accomplishments:

1.Expanding differentiated service delivery models with focus on Key and priority population

During the reporting period, the project continued to support the implementation and expansion of differentiated service delivery models of care, with a specific focus on key populations.

a. Patient - Centric Care Package of Services:

Triage of patients for tailored treatment and care as per their needs and provide standardized yet differentiated service delivery across all ARTCs (57). In 20% of the sites (11 out of 57), patient triaging was successfully completed, while in 24 sites, 90-99% of patients were categorized through triage. In a few sites, the triage process is in progress.

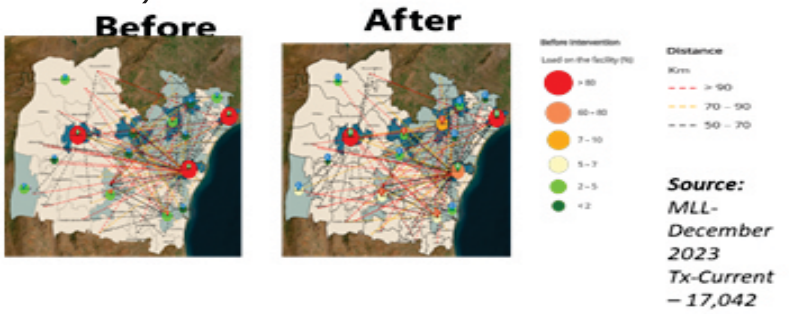
b. Family centric care:

Across two high-load sites, KGH in Vizag and OGGH in Vijayawada, a total of 1,708 families were enrolled. There was a notable increase in the six-month retention rate from 94% to 96% for those enrolled in care. Building on these outcomes, APSACS intends to expand this approach to five additional high-load centers. The project staff has trained the staff at these new sites.

Fig: Patient centric care , stickering of cards

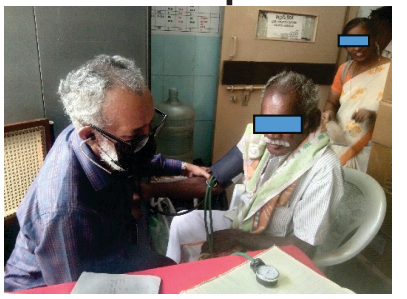
Fig: Family centric care , Folders

c. Proximity of care (>50km): To minimise travel time related wage loss and out of pocket expenditure, patients availing ART from far off centers are offered the options of Link ART/LAC+ under proximity of care (n= 5200 PLHIV beneficiaries).



d.Decentralized comprehensive health camps:

During the reporting period, project has facilitated more than 172 camps with 9,348 beneficiaries (includes 150 CLHIV, 225 KP PLHIV, 15 ANC, 14 bed-ridden PLHIV)



Blood Pressure monitoring at camp by ART MO

2.Scaling up ART initiation at testing sites (through public health facilities): The project successfully demonstrated ART initiations at testing sites, employing a person-centric care model to ensure prompt ART initiation at high-load testing sites, thus averting losses in the care cascade. ART initiations were facilitated at seven high-load testing sites, with further expansion to the Kanigiri LAC plus center, Prakasam.

Previously, newly diagnosed PLHIV had to travel approximately 90 kilometers from Kanigiri LAC plus center to Ongole ARTC for initiation. A comprehensive training program was conducted for hospital staff on ART initiation

protocols, treatment guidelines, 4S Screening, and OI management, with a total of 30 staff members (including those from the General Health System) attended the training.

3.Re-engagement in care: The project consistently supports state by proactively identifying and re-engaging patients with treatment interruptions. The project outreach staff has supported systemic tracking and re-engagement of patients through intensive phone follow-up, physical outreach, Other interventions includes HR optimization, and treatment literacy through group counseling sessions.

4. Improving Viral load coverage: To ensure optimal VL coverage, intensive phone follow up of those due for routine VL test, decentralized VL sample collection and viral load camps for priority population such as KPs, CLHIV were facilitated by the Project. Site level TA was provided to ART centers in line listing and mobilization of eligible patients due for test, prioritizing never tested, unsuppressed cases, patients on DTG based regimens who have completed 6 months.

Viral load surge initiative for enhanced VL coverage: Project supported SACS in VL drive to process 91,319 samples over three months Viral Load (VL) by ARTCs. The strategy included procurement of essential supplies for demand generation, patient mobilization, additional HR from CDC Lab Partners, and 39 decentralized VL camps at LACs. As a result, 88,229 tests were conducted, boosting VL coverage from 74% to 81% between September and December 2023.

TA to CoE and ART Plus centers in strengthening SACEPs: Project continues to support CoE in strengthening SACEPs and building capacities of ART Plus centers in providing comprehensive care. During the Jan – March 2024, 12 SACEP meetings were conducted by CoE, where 230 patients with multiple NRTI failure and suspected treatment failures (2nd and 3rd line) were reviewed. Out of these, 60 cases were recommended for switch/alternate treatment regimen. A total of 226 PLHIV on 3rd line were reviewed and linked out to ART plus centers, which enhanced treatment adherence.

Integrating Viral Hepatitis prevention and management into routine HIV care at ART centers – a holistic approach at the ART centers

The project, in collaboration with APSACS and the National Viral Hepatitis Control Program (NVHCP), has successfully integrated HIV and HBV services using existing service delivery systems. As of March 2024, State managed to screen 98% (219,674 out of 235,356) of PLHIV for hepatitis B, with 3,889 (1.8%) testing positive. 78% for Hepatitis C (177,544 lakhs) with 280 testing positive.

Hepatitis B vaccination: As a preventive measure, Hepatitis B vaccination was provided to Hepatitis B negative cases at the ARTCs. Between February 2023 and January 2024, 89% of the 206,571 individuals who tested negative received the first dose. Additionally, 81% of KP PLHIV and 83% of ANC patients were screened for Hepatitis B, and 84% of KP PLHIV and 83% of ANC patients were given at least one dose of the vaccine.

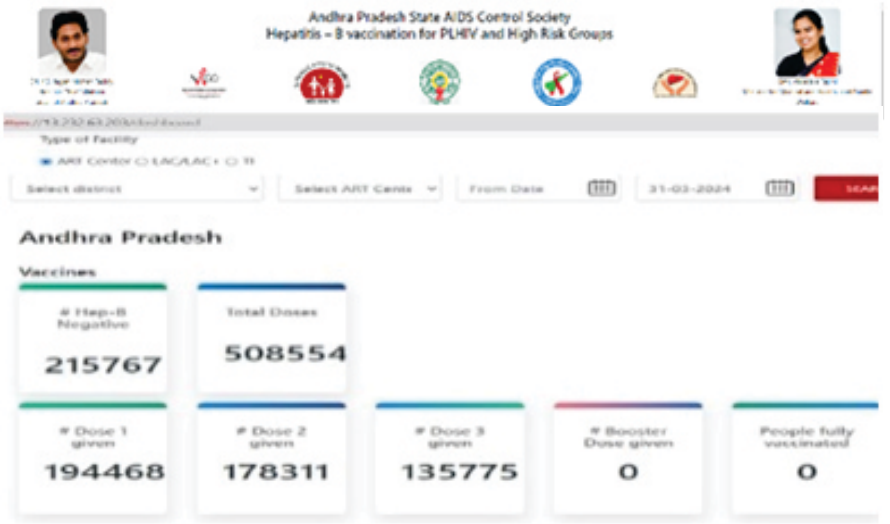


Fig: Dashboard illustration showing Hepatitis screening and vaccination coverage

Treatment: Those co-infected cases are referred to nearby medical college hospitals for further evaluation, including liver function tests and USG abdomen. PLHIV undergo basic investigations such as CBP, LFT, RFT, and USG abdomen before referral to NVHCP treatment sites for HBV DNA/HCV RNA Viral load testing. All PLHIV line lists with investigation results are simplified into an Excel sheet (as shown in figure below)

Center of Excellence (CoE) reviewed these line lists and has provided probable recommendations to each PLHIV, including their complete investigation profile. PLHIVs whose investigations show abnormalities, or a high HBV DNA or HCV RNA viral load are highlighted. This facilitates specialists' quickly giving their final review recommendations, saving time and streamlining the process. CoE's provision of probable recommendations expedited treatment linkage, also saving patients' time.

Supporting SACS in real-time data for better clinical monitoring and policy decision making

Project continues providing TA to SACS in continuous quality improvement of data, data management, dashboards for monitoring Hepatitis Vaccine coverage.

State Level Consultation with Faith-Based Organisations

A one-day state-level consultation workshop was organized with the Catholic Health Association of India (CHAI) and its affiliated member institutions. The event facilitated dialogues and interactions among 45 representatives from CHAI. The primary objective was to advocate for the involvement of Faith-Based Healthcare Institutions in enhancing access to comprehensive HIV testing, prevention, care, and treatment services. The consultation yielded valuable insights and actionable strategies for a more effective response to the HIV/AIDS epidemic.

Sensitisation of Faith-Based Organisations in HIV Care and Treatment Services

A three-day training (25-27th September, Vijayawada) on the National ART technical and operational guidelines was organized to sensitize CHAI member institutions. Dr.

Ramesh from CDC India and project technical experts facilitated the sessions. The training, attended by 28 staff members from various CHAI institutions, aimed to engage faith-based organizations in delivering HIV services, enhancing access, and strengthening the community's response to the HIV epidemic.

Capacity building of ARTC Staff on Revised National ART Operational Guidelines -2021: The project has spearheaded the capacity building of ARTC staff in Andhra Pradesh in line with the revised National ART Operational Guidelines of 2021 by the National AIDS and STD Control Programme. This initiative aims to ensure that uniform standards of care are followed according to these guidelines. A total of 346 ART staff, comprising 98 Medical officers, 114 counsellors, 69 Staff Nurses, and 65 Data Managers, have been trained on the revised National technical and operational ART guidelines. The training process commenced with a comprehensive Training-of-Trainers (ToT) session, followed by seven subsequent regional trainings.

Fig: ART Review by Sri. J. Nivas, IAS, PD APSACS, Dr. Koteswari, APD, Dr. Subramanyam JD-CST, Dr Florence

To promote collaboration among different roles within the ARTC, capsular trainings involving all cadres were introduced. The curriculum and training materials were developed under the guidance of CDC India. These sessions were led by a team of experts, including technical experts from CDC India, subject matter experts from government departments, and division heads from SACS (State AIDS Control Society).

Before the regional training sessions, extensive review meetings of ARTCs were facilitated. These reviews were overseen by the leadership of APSACS to assess their performance and address any gaps.

State level training of LAC Plus Staff on Revised National ART Operational and Technical Guidelines – 2021:

Project has facilitated one-day training for the staff of Link ART Plus centers (LAC decentralized healthcare facilities) in Vijayawada on March 27th. A total of 35 participants, primarily newly recruited staff nurses, attended the training. The training focused on the revised ART Operational and Technical Guidelines, emphasizing recent updates within the National Program.

e-NISCHIT: The "ECHO hub-and-spoke model for HIV-TB," - being implemented through National Initiative to Strengthen Collaboration between HIV-TB through e-Learning "e-NISCHIT" initiative, began in 2018 to enhance the capacity of ART Centre staff through tele-mentoring. NITRD leads this effort with NACO and CTD, supported by the U.S. CDC, SHARE INDIA, and ECHO India. Over the course of the past five years, as part of the e-NISCHIT program a remarkable series of over 100 sessions have been successfully completed, providing training on 74

different topics related to HIV-TB comorbidity and guidelines. The sessions conducted in English and Hindi on the 2nd and 4th Thursdays each month, have seen participation from an average of150-200 healthcare staff for each session. Through e-NISCHIT, approximately 1,500 staff members across 178 ART Centers have been trained on HIV-TB comorbidity and guidelines, fostering standardized care and contributing to improved treatment outcomes for PLHIV co-infected with TB

Fig: CDC Leadership team interaction with ARTC Staff Tirupati

Fig ; Dt. Steve CDC Atlanta Visit to Vizag GGH

Fig: Commemoration of WAD , 2023

17. NISCHIT Plus: National Initiative to Strengthen & Coordinate HIV/TB Response Plus (Tuberculosis)

Investigators:

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA, Project Director
- Dr. Satish Kaipilyawar, Associate Project Director

Source of Funding: Centers for Disease Control and Prevention (CDC), Atlanta, USA
Cooperative Agreement # NU2GGH002312: NOFO RFA GH20-2038
NISCHIT PLUS (TB) is supported by the Centers for Disease Control and Prevention (CDC) to provide technical assistance to the National TB Elimination Program (NTEP) under the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI). **NISCHIT PLUS (TB) implemented projects in 16 states** namely Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Odisha, Rajasthan, Sikkim, Tamil Nadu, Telangana and West Bengal across the country to support the country's accelerated efforts to eliminate TB in India by the year 2025. Through its activities, SHARE INDIA supports the four pillars PREVENT, DETECT, TREAT, & BUILD components of the National Strategic Plan.

Key Activities:

PREVENT
Infection Prevention & Control (IPC):
SHARE INDIA with the U.S. Centers for Disease Control (CDC) is supporting the Central TB Division (CTD), Government of India's 'TB Mukt Bharat' campaign to

accelerate efforts to achieve the ambitious goal of ending TB by 2025. Through **the 'Germ-free TB Mukt Bharat Infection Prevention and Control project',** SHARE INDIA is working with the state NTEPs to strengthen the IPC practices at four levels: healthcare facilities, healthcare workers, household members of persons with TB, and the general community in 10 states of India. Viz Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Maharashtra, Gujrat, Madhya Pradesh, West Bengal, Manipur, Himachal Pradesh. The state TB IPC team has implemented and expanded these IPC measures in 180 health facilities across 60 districts: three levels of the health care system, 41 tertiary health care (medical colleges), 80 secondary care district hospitals/area hospitals and 58 primary health centers. Through this project, more than 2500 healthcare workers, including hospital infection control committee members at selected primary, secondary, and tertiary Health Care Facilities (HCF), are trained in TB in TB IPC guidelines.

The state TB IPC team has built the capacity of local staff to conduct baseline and follow-up assessments (every three months) in coordination with regional health authorities and has completed assessments in more than 173 healthcare facilities. The TB facilities, diagnostic centers, outpatient departments, patient waiting areas, chest clinics, pediatric OPDs, bronchoscopy suites, chest X-ray facilities, laboratories, wards, Drug-Resistant Tuberculosis (DRTB) facilities, HIV-TB collaborating centers like Anti-Retroviral Treatment (ART) centers and Integrated Counselling and Testing Centre (ICTC) were assessed using a 61-indicator checklist pretested in various pilot projects. A simple IT platform to plot the responses is used in the field during assessments. The responses were categorized into red (not implemented) and green (implemented) at the end of the evaluation, along with the percentage compliance and a plan of action for improvement, were generated, and the dashboard was provided to the facility in charge. The dashboards are available for all the states with quarterly IPC compliance and progress. Quarterly follow-up assessments are being conducted through the HICC members at these facilities. Several measures to strengthen IPC compliance were implemented, including standard precautions, administrative controls, environmental controls, biomedical waste management practices, providing staff training, conducting healthcare worker surveillance, and educating patients in the local language through Information, Education, and Communication (IEC). IEC posters for Cough Hygiene and Do's and Don'ts have been developed in 11 regional languages and distributed to health institutions during the assessments in 10 states.

The project, **'Prtham'** (**Pr**eventing **T**uberculosis among **H**ealth workers **a**t **M**GIMS Sevagram),was launched on 1st July 2023 with support from Govt. of Maharashtra in collaboration with MGIMS Sewagram under the 'Going Germ-free for TB free India' under the TB Mukt Bharat campaign. 1306 Nursing students, doctors, attendants, MBBS, postgraduate doctors and other health staff from MGIMS, Sewagram, were trained in TB-IPC since February 2023. A total of 1649 participants were enrolled, of which 1450 healthcare workers consented to interferon-gamma release assay (IGRA) & Cy-TB skin testing, and 180 were initiated on TB preventive treatment (TPT). The 'Prtham' team was awarded the prestigious CDC Global TB Elimination Champion 2024 for contributing to TB elimination efforts on World TB Day 2024.

Detect:

Latent TB Infection: The Staying on Track to End Tuberculosis in India with TB/Covid innovations was initiated to improve TB notification, treatment outcomes, and preventive services at three sites: Gangtok in Sikkim, Bengaluru in Karnataka, and Nehru Nagar TB district, Delhi. The project supported the preventive pillar of the National Strategic Plan and was approved by CTD on 6th March 2023. Activities will support NTEP in identifying missing TB cases and providing Tuberculosis preventive treatment to all close contacts based on the test & treatment policy. The team recruitments, preparatory activities, hot spot area mapping and field visits have been completed for the project launch.

Simultaneously, the **Household Contact Active and Latent Tuberculosis Intervention (HaALT) project in Nagpur** continued to support NTEP Nagpur and Indira Gandhi Government Medical College (IGGMC) to detect and cure active TB and LTBI in household contacts through a package of interventions in programmatic setting and to improve diagnosis of pediatric TB through enhanced diagnostic techniques. A total of 1039 HHCs underwent the IGRA test, of which 44% were IGRA positive, and 283 HHCs completed the TPT regimen. As a follow-up to the activities, 1305 household contacts (HHC) were provided six monthly follow-ups through which 22 TB cases have been identified and linked to NTEP for TB treatment.

In Mumbai, the experience from the previous Latent TB prevalence study has paved the way for the PaTHway for DR TB prevention in Mumbai project, which aims to Prevent TB among household contacts of fluoroquinolone-resistant drug-resistant TB patients. The team has supported Mumbai NTEPs TPT implementation in five districts and has provided counselling to 886 household contacts for IGRA testing and 324 for TPT initiation.

Treat

Treatment & patient care: TheEnd MDR-TB project in Dharavi Mumbai paved the way for a newer project in collaboration with Brihanmumbai Municipal Corporation (BMC) to improve tuberculosis diagnosis and link to TB treatment in Indian Children. **The End TB in Children/Paediatric** Project activities are spread across five districts; the team has visited 185 Anganwadi and 77 schools and mapped the pediatric patient pathways with the population, high-burden pockets, pediatric pockets, slums, existing public and private health & TB diagnostic and treatment facilities through transect walks. The team has supported NTEP in conducting TB awareness activities, referrals, and linkages in 43 Anganwadi and 19 schools and has reached out to 1208 beneficiaries through various reach-out activities.

Build

Data support & capacity building: The Expand ELEVATE E2 (Engaging Local Experts in Validating and Analysing TB-data to End TB in India) was launched in collaboration with CTD and MoHFW in 2021. Through this project, technical support is being provided to strengthen the management capacity of NTEP program staff in 11 states across India to improve the quality of local TB data and data-driven decision-making to achieve TB elimination in India by 2025. 783 NTEP staff from the intervention states at district and sub-district levels were trained in data management. Regular supervision/ mentoring sessions/ visits are conducted to support the district and sub-district

NTEP staff in translating the data to develop district-specific programmatic actions to improve the program indicators. A booklet documenting project achievements, learnings, and success in the intervention states was developed as the project transitioned w.e.f.1st April 2024.

Fig: TB awareness activity in Anganwadi at Parel & Paediatric & with parents in BMC school at Parel

Fig: Expand Elevate: Facilitating session in state level workshop 6th March 2024

SHARE INDIA & CDC Team conducting a Staying on Track to End TB project introductory meeting with NTEP Team-Nehru Nagar Delhi

18. LaQSH Plus: Laboratory Quality Systems in HIV (2020-25)

Investigators:

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA
- Mr. S. Lokabiram, Associate Project Director

Source of Funding: Centers for Disease Control and Prevention (CDC), Atlanta, USA
Cooperative Agreement # NU2GGH002271: NOFO CDC-RFA-GH20-2037

CDC-SHARE INDIA, through project LaQSH, has supported HIV laboratories in India under the National AIDS Control Program. Key TA includes quality testing, workforce development, improved result utilization, and robust epidemiology platforms for informed public health response.

Key accomplishments:

Objective 1: Scale-up of routine viral load test capacity in the public sector through optimization of all VL labs, innovative approaches to improve access to VL services.

1.1. Technical Assistance (TA) for expansion of routine viral load test capacities at national level

The project supported the national efforts for scaling up viral load testing across India by providing TA for operationalizing labs under reagent rental models and leveraging covid-19 labs for quantitative HIV-1 VL testing. The nature of TA provided were completion of readiness assessments, developing technical specifications for ancillary equipment and consumables, training on national guideline for VL lab, Lab Clinical Interface (LCI), hands-on support for initial assays and documentation.

Operationalization of VL labs leveraging of Non-NACP labs and reagent rental models:

- Increasing VL Test Capacities: TA for agreements with 12 non-NACP COVID-19 labs and reagent rental model labs for HIV-1 testing.
- COVID-19 Lab Assessment: Readiness assessments of labs in Tripura and Madhya Pradesh.
- Operationalizing COVID-19 Labs: Hands-on training for staff at NIMS Hyderabad and IRL Bengaluru.
- Reagent Rental Model Labs: Hands-on training for new VL labs in Aizawl, Mizoram, and Kohima, Nagaland.

1.2. Differentiated Service Delivery Model for VL sample collection in NE: To increase access to VL testing in NE, Differentiated Service Delivery (DSD) models for VL sample collection were implemented in coordination with SACS and treatment partners. Through community led camps and hub & spoke models, over 3000 PLHIV had undergone VL in community setting, Targeted Interventions (TI) sites, shelter homes and prison.

1.3.VL surge model to address gap in VLC in Andhra Pradesh: In Andhra Pradesh, the project in coordination with SACS, ARTC, VL labs along with treatment partner implemented VL surge activity to address the testing gap of 91,319 in September 2023. Around 97% (88,229) of the targeted PLHIV had undergone VL testing between Sep'23-Dec'23, due to which the overall VLC increased to 81% in the quarter ending Dec'23 from 74% in the previous quarter.

1.4. Ensuring uninterrupted VL testing: Due to machine breakdowns and surge in sample inflow, some of the labs had issues in performing assays and reporting

results. The project provided TA in these instances to the VL labs and SACS. The activities included, identification of VL labs for testing the samples, planning logistics, orientation on tools for tracking and results upload, roles & responsibilities of SACS, transport agency and VL labs. The project provided TA in 4 such instances for sample relocation from Viral load labs located in Patna (9800 samples), Varanasi (1200 samples), and Indore (4000) to other VLLs for testing and reporting at the shortest possible time. The complete process right from identification to result release to the VL labs was monitored and guided by the project team.

1.5 Dashboard for monitoring VL lab performance on Quality Indicators (QI): The project developed QI dashboard using excel and power BI for viral load labs in consultation with CDC and NACO. All 66 VL labs & representatives from 35 State AIDS Control Societies were trained on the revised reporting indicators and on using the dashboard for tracking and implementing QI measures for improvement. The QI dashboard supports decision making through data visualizations on trends at lab and state level such as, % sample rejections during pre and analytical phases, lab utilization, sample backlog, assays performed, number of valid tests & results and reporting on national MIS as per TAT.

1.6. Hands-on Training to ARTC LTs in 16 States: Following virtual training on VL sample collection, handling, and transportation for 700+ ARTCs, hands-on training was given to 256 ARTC LTs from 16 states with high pre-analytical rejections or new VL sample collection plans. Post-test scores increased by an average of 24%, with scores ranging from 15% to 36%. A significant drop in pre-analytical rejections was observed.

1.7. Refresher Wet-Lab Training for VL Labs: In collaboration with Abbott, wet-lab training was provided to 34 VL labs in select states. The training covered operational guidelines, LCI, and reporting. Focus was on labs due for annual refresher training and those facing operational and technical issues.

1.8. ESRMs for VL Labs: TA was provided to design and implement ESRMs to address operational issues, assess performance, improve VLC and VLS, and share best practices. Four ESRMs were conducted in Bengaluru, Vijayawada, Kolkata, and Delhi, involving 180+ participants from 45 VL labs and 20 SACS. Inputs were given to enhance compliance with NACO guidelines.

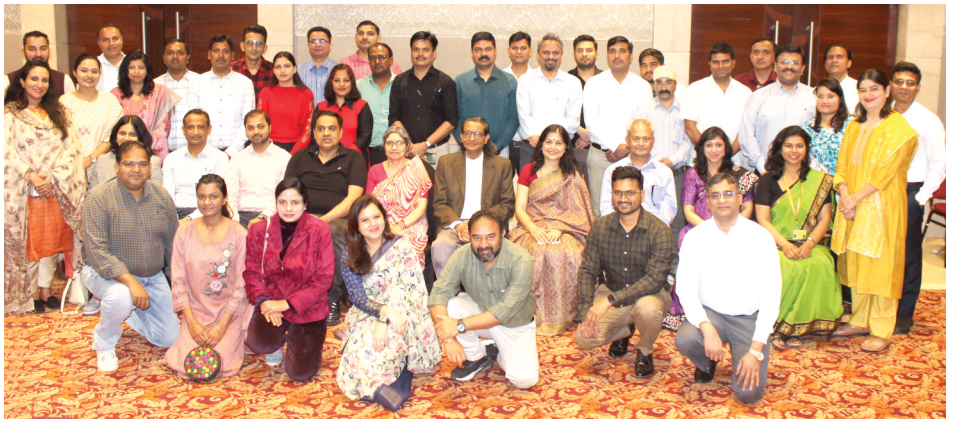


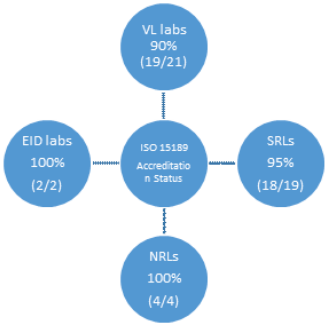
Fig: ESRM Delhi Meeting

Objective 2: Strengthen EQAS for HIV Laboratories

Accreditation of HIV labs: Accreditation of HIV labs: In February 2023, the national program aimed for 100% accreditation by March 2024, targeting 45 labs. NACO, with CDC and SHARE INDIA, conducted a two-day workshop on accreditation requirements, with the project developing content and facilitating sessions. The project implemented a step-wise process to develop capacities for ISO 15189 compliance, including regular online TA sessions, onsite TA

for struggling labs, and workshops to address documentation gaps.

The TA resulted in 25 of the 45 targeted HIV labs (56%) being accredited or having applied, with 10 more labs (22%) set to apply by May '24. LSD, NACO conducts regular follow-ups to address bottlenecks. It is estimated that 80%-90% of targeted labs will be accredited by June '24. In PEPFAR focus states, over 90% of HIV labs are accredited. Accreditation will be initiated for the newly established 2 VL labs under the reagent rental model and one non-NACP lab once they pass the proficiency testing in 2024.



Accreditation Status in PEPFAR focus states

NACO Certificate of Excellence (CoE) Program: The project provided TA for the CoE program targeting HCTs performing over 100,000 tests annually. TA activities included training Technical Officers (TOs) from SRLs, Lab Technicians from HCTs, and SACS personnel on the implementation process, QMS checklist, guidance during online assessments, and updating the e-QMS checklist on NACO Prayogshala. During the reporting period, 204 HCTs received the NACO Certificate of Excellence.


Capacity Building on CoE: Training on the e-QMS tool was provided to 11 SRL TOs from Andhra Pradesh and Punjab, and 40 ICTCs, 4 SRLs, and 2 SACS officials in Maharashtra

Objective 3: Develop and strengthen diagnostic services for identification and management of HIV/STI among priority population

NCD & Cancer Screening for WLHIV: The program, launched in Nov '22 in Andhra Pradesh, expanded to 9 districts and 10 sites by Dec '23. It involves NHM, APSACS, CDC, SHARE INDIA, CSOs, and the private sector to screen WLHIV for NCDs and cancers (Oral, Breast, Cervix). The project uses the VIA method for cervical cancer screening and provides TA through capacity building, QA, mentoring, competency assessments, and monitoring. 7233 women were screened, with 116 pre-cancer cases treated and 17 cancer cases linked for treatment.

In Mumbai, PATH India and MDACS launched the screening program across three sites in Dec '23. The project focused on advocacy, readiness assessments, and training for screening and ARTC staff. Over 90 WLHIV were screened by March '24.

Elimination of Vertical Transmission of HIV & Syphilis (EVTHS): The national program targeted 7 states: Rajasthan, Uttar Pradesh, Bihar, Mizoram, Nagaland, Maharashtra (including Mumbai), and Karnataka. Nagaland launched the Integrated Health Campaign (IHC) model first, followed by Mizoram and Mumbai. The project provided TA in developing training content, hands-on training, and QA. Targeted testing of HIV+ pregnant women through HCTs was recommended, with the project developing SOPs for VL sample collection, handling, and transportation, included in the national manual.

TA to PEPFAR Focus States on EVTHS:

North East: Proposed using HCTs as decentralized sample collection sites with a hub & spoke model. After consultation with Nagaland and Mizoram SACS, hands-on training reached 100% of LTs in Nagaland (52 HCTs) and 71% in

Mizoram (29 HCTs). Plans for decentralized sample collection targeting HIV+ pregnant women and other vulnerable populations will be developed with NACO and SACS.

Mumbai: Hands-on training for 60 NACP and 30 Non-NACP cadre on HIV & Syphilis rapid test kits was conducted in 4 batches. Follow-up QA will be provided at select screening sites.

Monthly performance dashboard for CD4 labs: The project provided TA to the national program to review and modify the CD4 lab performance indicators. The project developed reporting format and dashboards MS-Excel and Power BI. The project provided virtual training to 34 LSD SACS, LTs from 745 ARTCs and 485 CD4 labs on data entry and analysis. Follow-up support for review of lab and state level data and refresher training is being provided by the project.

Objective 4: Strengthen STI laboratories for etiological testing, EQA and surveillance

The Laboratory Services Division in NACO had taken over the management of network of STI laboratories across the country. The STI laboratory network consists of an APEX laboratory, 10 Regional STI Training, Research & Reference Laboratories (RSTRRLs), 45 State STI training and Reference Laboratory (SRC) and around 1133 designated STI/RTI clinics situated at government healthcare facilities at district level and above. The State STI training and Reference Laboratory (SRC) were set up with the objective of providing evidence-based inputs to STI/RTI control program by conducting high quality etiologic testing for STI/RTI, monitoring gonococcal antibiotic resistance patterns and external quality assurance. Each SRC is linked with a RSTRRL. The RSTRRL supports the SRC through performing confirmatory tests, periodic capacity building, supervisory visits and conduct external quality assurance programs.

The project provided TA for modifying the checklist for baseline assessment of RSTRRLs and SRCs, constituting multiple assessment teams, scheduling virtual & onsite assessments, data collection, compilation and cleaning, analysis, dissemination and report development. Baseline assessment for all the 10 RSTRRLs and 45 SRCs were conducted between May'23 to Nov'23 in two phases, wherein RSTRRLs assessments were initiated first followed by a gap of 2 months for analysis and report writing followed by SRC assessments. Dissemination of findings to all labs, supervisory labs and SACS were completed by Dec'23.

The national program intended to assess the feasibility of using pooled urine samples for extended STI surveillance program. The project provided TA to the national program for developing protocol for verification of NG, CT urine samples. The same was discussed in the TRG, where it recommended modifications due to the limited availability of approved kits in India for open platforms.

NACO Prayogshala (Online tool for QMS/EQAS reporting for RC/PT)

This unique web-based platform for management of proficiency testing and rechecking testing data was developed in-house in collaboration with NACO, ICMR-NARI and CDC. The platform has four modules for EQA program, such as Viral Load, HIV serology (HCTs), CD4 and e-QMS checklist for HCTs. Around 5500 HIV labs are registered on this platform and 100% of the VL & CD4 labs and more than 70% of the HCTs upload data during the PT and RT rounds. The platform is under the process of migration to NACO and the major activities in the reporting period is:

- ❖ Online refresher training to 300 plus CD4 labs, 40 SRL

staff trained on NACO Prayogshala CD4 module, readiness form submission, entering PT data, RCA/CAPA

- Application cleared multiple rounds of security audits by empaneled agencies and NIC, thereby certified to be hosted in National Government provided server.

Fig: Orientation on NACO Prayogshala at NRL NIB Noida

19. BOLSTER - Building systems capacity on Outbreaks Laboratory Surveillance Training Emergency Response and Infection Prevention Control and Anti-Microbial Resistance- (IPC/AMR)

Investigators:

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA
- Dr. Prashant Vennela, Public Health Specialist, IPC

Source of Funding: Centers for Disease Control and Prevention (CDC), Atlanta, USA

Cooperative Agreement # NU2HGH000006: NOFO GH 20 - 2091

SHARE INDIA with the support of Centers for Disease Control and Prevention (CDC) – India has collaborated with Commissioner of Health and Family Welfare (CHFW) and National Health Mission (NHM), Government of Telangana has initiated Project BOLSTER (Building systems ability on Outbreaks Laboratory Surveillance Training Emergency Response) to work on build capacities of health institutions on infection prevention control (IPC) and Anti-Microbial Resistance (AMR). Based on the request received form CHFW and Mission Director – NHM, Project BOLSTER - Infection Prevention & Control (IPC) was initiated in July 2022 with approvals from Commissioner, Telangana Vaidya Vidhana Parishad (TVVP), Hyderabad, Telangana, Ethics committee MediCiti Institute of Medical Sciences, Ghanpur and Indian Council of Medical Research (ICMR) - Health Ministry Screening Committee (HMSC) for international collaboration.

In coordination with State Quality Assurance Team (SQAT), the project was implemented across 21 (15 Area Hospitals

(AH), 4 Community Health Centers (CHC) and 2 District Hospitals) hospitals with a team of one Project director, one Public Health Specialist, six Project Officers and one Documentation and Knowledge management specialist.

The details of the activities implemented in the reporting period are as follows:

Technical support to the state on IPC:

- Facilitated formation and functioning of **"IPC - Technical Working Group meeting (TWG)"** in the month of August 2023.TWG was envisaged to serve as a significant platform for addressing critical healthcare challenges, sharing insights, and formulating strategies to enhance IPC practices and combat AMR across Telangana's healthcare facilities.
- Facilitated **assessment of 21 project facilities thrice** using World Health Organization (WHO) – Infection Prevention and Control Assessment Framework **(IPCAF) tool** to understand the situation of IPC practices.
- **Facilitated initiation of "Joint visit by CDC-SHARE INDIA staff, State quality team and TVVP staff to 2/21 project facilities** to monitor the implementation of the IPC practices in the facility.
- Provided **technical assistance** in achieving **Kayakalp award to 17/21 project facilities, NQAS certification to 8/21 project facilities, LaQshya certification to 15/21 project facilities and MusQan certification to 05/21 project facilities.**

- Identified **"17 IPC - Master trainers"** from21 project facilities to support the support the state in conducting trainings related to IPC at state level.
- Identified and trained **"118 Link IPC nurses"** from 21 project facilities to support the facility IPC teams
- Conducted **"competency assessment" for the healthcare workers** including doctors, nurses, house-keeping staff, lab technicians and others working across **21 project facilities** who were a part of capacity building activities done by SHARE INDIA-CDC since the inception of project to understand the enhancement levels with regards to **IPC - Knowledge, attitude and Practices (KAP)** and share the results with state health authorities

- Prepared and submitted a **"comprehensive gap analysis report and recommendations on Hand Hygiene adherence rates across 21 facilities"** in the month of September 2023 to the state health authorities to take necessary policy level decisions on improving the hand hygiene compliance across secondary care health facilities in the state of Telangana
- Streamlined the functioning of Hospital Infection Control Committee meetings **(HICC)** across **21/21 project facilities** regularly every month

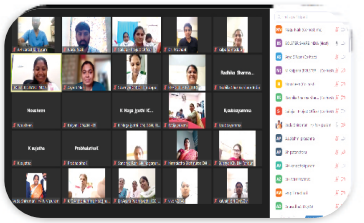
Trainings/Capacity building activities:

- Provided supervisory and mentoring support pertaining to implementation of IPC programme and practices across **21/21 project**

facilities regularly every month.

- Facilitated **observation of important IPC related events as days** such as International Infection Prevention Week, World AMR awareness week, World Hand Washing day and others across all the 21/21 project facilities
- Institutionalized preparation and **implementation facility-specific monthly IPC action plan** were across **21 project facilities** as per the national IPC guidelines
- Facilitated IPC teams in conducting **bedside and classroom IPC trainings across 21/21 project facilities**

- Conducted **42 weekly virtual trainings** on various aspects of IPC. A total of approximately **220 ICNs, ICOs and other HICC members** have attended these virtual trainings.



- Facilitated **initiation and implementation of**
  - Hand hygiene audits across 20/21 project facilities
  - Bio-medical waste management audits across 17/21 project facilities
  - PPE audits across 07/21 project facilities

- Environmental cleaning audits across 11/21 project facilities
- Streamlined Documentation of **IPC activities** in **registers related to Kayakalp, NQAS, MusQan and LaQshya** across **21/21 project facilities**
- Continued monitoring and following-up on **health check-ups, screenings and vaccinations** of facility staff across all 21 project facilities.

- Initiated **quality improvement projects in 14/21 project facilities** on different aspects of IPC
- Provided Technical support to the State Quality Assurance Team for preparation and inclusion of **specific budget request for IPC in NHM- Annual Program Implementation Plan (PIP).**
- Supported strengthening of sterilization and decontamination practices in 21/21 project facilities. In coordination with facility IPC teams, the activities that have been implemented/in the process of implementation are as follows:
  - Conduct in-house trainings for the CSSD/TSSU technicians on appropriate ways of pre-cleaning, cleaning, drying, packing and sterilization techniques
  - Facilitate zoning of Central Sterile Supplies Division (CSSD)/ Theatre Sterile Supplies Unit (TTSU)
  - Streamline the usage of Chemical Indicators (Signal lock tape) in terms
  - Using the indicator with every instrument set each autoclave cycle
  - Appropriate placement of chemical indicator on the instrument set

  - Support streamlining of documentation CSSD activities by facilitating the maintenance of registers such as Autoclave register, Instrument receiving register and Instrument dispatch registers

  - Identified autoclaves which had calibration and repair issues and advocated with the Medical Superintendent (MS) to sort those issues
  - Provide information on usage of appropriate instrument cleaning tools and conduct advocacy meetings with MS to ensure the availability of those tools in CSSD/TSSU

- Conduct in-house trainings on appropriate usage of disinfectants to achieve effective disinfection of heat and moist sensitive instruments

- **Shared hard copies of National IPC guidelines as well as soft copies of updated IPC guidelines and resource** material received from CDC Subject Matter Experts (SME) with 21/21 project facilities

20. BOLSTER - Building systems capacity on Outbreaks Laboratory Surveillance Training Emergency Response and Infection Prevention Control and Anti-Microbial Resistance- Surveillance

Investigators:

- Vijay V. Yeldandi, M.D., FACP, FCCP, FIDSA, Clinical Professor of Medicine and Surgery, University of Illinois at Chicago, USA
- Ms. Richa Kedia, Lead Public Health Consultant and Program Manager, Surveillance

SHARE INDIA, through its project BOLSTER Surveillance provides technical assistance (TA) to the Union government, National Centres for Disease Control (NCDC), Indian Council of Medical Research (ICMR), and National Health Mission (NHM) as well as selected state governments in strengthening public health systems to sustain and continue advancement of Global Health Security Agenda (GHSA) priorities of lab-based disease surveillance and outbreak response.

SHARE INDIA works on surveillance activities in terms of (i)baseline assessments of public health laboratories (ii) Enhancement of lab based surveillance and outbreak response by integrated training, strengthening specimen referral network, laboratory support, quality assurance, real time reporting with stakeholders in select states (iii) Advocacy with various states for intervention (iv) Perform situational assessment on supporting the NHM, NITI Aayog, and state governments (v) Provide logistic support to identified public health laboratories to establish lab based syndromic surveillance system (vii) Collaborate with various national level institutions to accelerate laboratory strengthening.

Activities undertaken during the period between April 2023 to March 2024:

1. Supported the Center for One Health, National Centre for Disease Control (NCDC), Ministry of Health and Family Welfare (MoHFW) in conducting hands-on training for zoonotic disease diagnostics for sentinel surveillance sites.

The training was held in four rounds:

First two rounds: April 25-26, 2023 and April 27-28, 2023. There were 32 participants from 16 sites (eight sites in each round). The participants represented the following regions:

- Northeast: Tripura, Assam, Mizoram, Manipur, Sikkim
- East: West Bengal, Jharkhand, Chhattisgarh
- South: Andhra Pradesh, Puducherry, Kerala, Karnataka
- West: Rajasthan and Gujarat

Next two rounds: 20 – 21 June 2023 and 22 – 23 June 2023. There were 26 participants from 15 sites. The participants represented the following regions:

- South: Kerela
- North: Haryana, Punjab, Uttar Pradesh
- North-east: Sikkim, Nagaland
- Central: Goa, Madhya Pradesh
- West: Rajasthan

The trainings were conducted by the School of Tropical Medicine, Kolkata, West Bengal, the Eastern Regional Coordinators for the National One Health Program for Prevention and Control of Zoonoses.

2. Mentoring and Monitoring: A collaborative effort was undertaken with state governments like Madhya Pradesh and Rajasthan aimed to strengthen the capacity of their Microbiology labs in district hospitals. Through joint planning and technical expertise, the program focused on improving laboratory practices and implementing quality control measures. By mentoring lab personnel and regular monitoring, the collaboration strives to deliver faster, more accurate diagnoses for patients, ultimately leading to better healthcare outcomes in these districts.

3. Trained 23 pathologists/ medical officers/ laboratory technicians at IPHL Kotputli, Rajasthan, on laboratory procedures and Quality Management System (QMS) for Assuring Optimal Technical Standards and Good Lab Practices in clinical diagnostic laboratories in accordance with ISO 15189 and Indian Public Health Standards IPHS 2022 in June, 2023.

4. 60 Microbiologists from 30 districts across Odisha state were trained on laboratory-based disease surveillance. The hands-on wet lab ToT took place at AIIMS, Bhubaneshwar in two sessions, from June 25-26 and June 28-29, 2023. It was jointly organized by the National Centre for Disease Control (NCDC), the Directorate of Health Services, Odisha, and AIIMS, Bhubaneshwar.





5. At the request of the Rajasthan government, SHARE India delivered a **specialized training program on laboratory design.** This program targeted architects, civil engineers, laboratory managers (lab in-charges), and state program officers. The training aimed to equip them with the technical expertise needed to upgrade district public health laboratories. These improvements will allow the labs to serve as specimen collection centers for sentinel surveillance sites for zoonotic diseases.




6. Supported the HCT Division of NHSRC, MoHFW in development of list of diagnostic testing to be conducted at the block public health level laboratories and also the equipment required.

7. Supported NHSRC in development of list of available Sickle cell anemia testing, their methodologies and costing.

8. Participated in meeting and supported NHM in development of list of tests and equipment for NQAS certification of district hospitals.

9. SHARE India consultants participated in **a Lab Design Workshop** organised by the Association of Public Health Laboratories (APHL) **in Nairobi, Kenya.**

10. Development of State One Health Action Plans in collaboration with CDC and NCDC:

a. Supported Directorate of Medical and Health Services of the state of **Rajasthan** to conduct a multistakeholder workshop for the development of India's first One Health Action Plan.

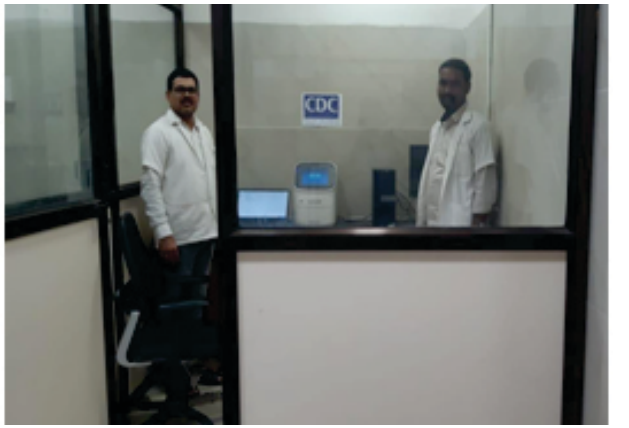
b. Also supported Directorate of Public Health and Directorate of Health Services **Odisha** to conduct a multistakeholder consultation workshop for the development of a comprehensive State Action Plan for One Health.

c. Organizations such as World Health Organization (WHO), Food and Agriculture Organization (FAO), United Nations Development Programme (UNDP), PATH, Jhpiego, Department of Animal Husbandry and Dairying (DADH), National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Wildlife Institute of India (WII), the National Institute of High-Security Animal Diseases (NISHAD), and the Indian Council of Agricultural Research (ICAR) were actively engaged.

11. Supported CDC in collaboration with the Indian Association of Medical Microbiologists (IAMM) in conducting a **National level meeting to enhance awareness on one health and integrated public health approach** at the Atal Bihari Vajpayee Scientific Convention Center, Lucknow on the theme Role of Microbiologists in Disease Surveillance and Outbreak Investigation where over 1000 Microbiologists from various parts of the country participated.

12. Providing **technical support for successful execution of Integrated Public Health Laboratories (IPHL) and Block Public Health units (BPHU) as part of PM-ABHIM and XV-FC** schemes in states like Jharkhand, Rajasthan, Maharashtra, Sikkim, Chhattisgarh to strengthen disease diagnostics and lab-based disease surveillance at all levels.

- Participated in the inauguration of **model IPHLs** in Nashik and Nanded, Maharashtra; Hazaribagh, Jharkhand; Kotputli, Rajasthan; and Namchi, Sikkim
- **IT assistance** is being provided to the states of Rajasthan and Madhya Pradesh for the **integration of laboratory data** from various sections of IPHL into the Integrated Health Information Platform (IHIP).
- SHARE INDIA aided equipment standardisation, organized operational training on RT-PCR Machine, and facilitated disease surveillance initiatives at IPHLs in Maharashtra and Jharkhand.



13. Supported CDC in collaboration with FIND organization and the **Integrated Disease Surveillance Program of GOI, to pilot training of trainers for 40 microbiologists and technicians from 10 medical colleges of Bihar.** There were two rounds of trainings (2-5 April and 8-10 April 2024). The training was conducted at the Indira Gandhi Institute of Medical Sciences in Patna. Bihar state health department plans to conduct further wet lab trainings for the district and subdistrict hospitals which will be conducted by the microbiologists trained in these two sessions. The training modules developed by CDC and NCDC were also piloted in these training sessions and will be used for all future IDSP lab trainings across the country.

Publications:

1. Manjula Singh, Pankaj Ghatbandhe, Gaurav Mehta, Farida Khatun, Seevan Asad, Himshweta Tyagi, Pankaj Bansal, Arbaz Khan, Farah Mohammed Aamir, Sonali Kar, Pooja Priyadarshini MPharm, Pritina Samal, Mahmud Hanif , Zeeshan Sidiq, Shalini Puri, Rama Bhat, Ngilang Taley, Sooman Sundaray, Abdus Samad Khan, Ranjan Kumar Singh, Himadri Bal, Prasanta Kumar Hota, Paresh Nath Mohanty, Dasarathi Das, Kamal Kishore Chopra, Bhagirath Kumar Vashishat, Ashwani Khanna, Manjeet Singh Chalga, Kuldeep Singh Sachdeva, Nishant Kumar, Raghuram Rao, Rajendra P Joshi, Vijay Yeldandi, Shikha Dhawan. **Baseline Assessments of Tb Detection Centres in Selected Public and Private Laboratories in India and Need for Introducing Quality Management Systems.** Clinical Research and Clinical Trials February 23, 2023, DOI:10.31579/2693-4779/122. Auctores Publishing LLC – Volume 7(2)-122 www.auctoresonline.org. ISSN: 2693-4779.

2. Mangala D. Gomare, Sampada Bhide, Rajesh Deshmukh, Satish Kaipilyawar, Varsha Puri, Patrick K. Moonan, Dilip K. Khetade, Melissa Nyendak, Vijay Yeldandi, Jonathan P. Smith, James L. Tobias, Anand Date, Rajendra Joshi, Ravinder Kumar, Christine S. Ho. **Retaining Patients with Drug-Resistant Tuberculosis on Treatment During the COVID-19 Pandemic — Dharavi, Mumbai, India, 2020–2022.** US Department of Health and Human Services/Centers for Disease Control and PreventionMMWR / March 24, 2023 / Vol. 72 / No. 12. gtb9@cdc.gov.

3. Sailesh Mohan, Monica Chaudhry, Ona McCarthy, Prashant Jarhyan, Clara Calvert, Devraj Jindal, Rajani Shakya, Emma Radovich, Dimple Kondal, Loveday Penn-Kekana, Kalpana Basany, Ambuj Roy, Nikhil Tandon, Abha Shrestha, Abha Shrestha, Biraj Karmacharya, John Cairns, Pablo Perel, Oona M. R. Campbell and Dorairaj Prabhakaran. **A cluster randomized controlled trial of an electronic decision-support system to enhance antenatal care services in pregnancy at primary healthcare level in Telangana, India: trial protocol.** Mohan et al. BMC Pregnancy and Childbirth (2023) 23:72on26 January 2023 https:// doi.org/ 10. 1186/ s12884- 022- 05249-y.

4. Casey Morgan Luc, Kara Herrera, Ramesh Allam, Sabitha Gandhamalla, Ramkishan Dharmakari, Manjunath Dinaker, Vijay Yeldandi. **The prevalence of metabolic syndrome and its components among South Indian Chenchu tribal adults.** International Journal of Noncommunicable Diseases / Volume 8 / Issue 2 / April-June 2023. https://journals.lww.com/ijnc.

5. Shrikala Acharya, Ramesh Reddy Allam, Vijay Kumar Karanjkar, Dhirubhai Rathod, Raman Mahajan, Prashant Deshpande, Amol Palkar, Shashikant Todmal, Sagar Koli, Sachin Dhande, Jayesh Dale, Vijay V Yeldandi, Amit Harshana, Reshu Agarwal, Sunita Upadhyaya, Melissa Nyendak. **Implementation of point-of-care testing and prevalence of cryptococcal antigenaemia among patients with advanced HIV disease in Mumbai, India.** BMJ Open 2023;13:e070500 on 22 June2023 (http://dx.doi.org/10.1136/bmjopen-2022-070500).

6. Ke Pan, Lydia A. Bazzano, Kalpana Betha, Brittany M. Charlton, Jorge E. Chavarro, Christina Cordero, Erica P. Gunderson, Catherine L. Haggerty, Jaime E. Hart, Anne Marie Jukic, Sylvia H. Ley, Gita D. Mishra, Sunni L. Mumford, Enrique F. Schisterman, Karen Schliep, Jeffrey G. Shaffer, Daniela Sotres-Alvarez, Joseph B. Stanford, Allen J. Wilcox, Lauren A. Wise, Edwina Yeung, and Emily W. Harville. **The Preconception Period Analysis of Risks and Exposures Influencing Health and Development (PrePARED) Consortium.** American Journal of Epidemiology, Vol.192, No.12 https://doi.org/10.1093/aje/kwad153, Am J Epidemiol. 2023;192(12):2033-2049, accepted June 29, 2023.

7. Prashant Vennela, BDS, MBA, Edwin Sam Asirvatham, Ph.D., Pankaj Bansal, M.Sc., Nikunj Fofani, M.D., Himshweta Tyagi, M.Sc., Md Faheem MSW, LLB, Karan Prasad, Satish Kaipilyawar, MBBS, MHA, Vijay Yeldandi, M.D., Shikha Dhawan, Ph.D. **Viral Zoonotic Diseases in India: A one Health Saga of Human, Animal, and Environmental Confluence.** Journal of the American Association of Physicians of Indian Origin – JAAPI 3(1):24-34, accepted: July 20, 2023.

8. Edwin Sam Asirvatham, Varsha Ranjan, Chhavi Garg, Charishma Jones Sarman, Mahalingam Periasamy, Vijay Yeldandi, Sunita Upadhyaya, Bhawna Rao. **A review of Tenofovir Disoproxil Fumarate associated nephrotoxicity among People Living with HIV: Burden, risk factors and solutions.** Clinical Epidemiology and Global Health 25 (2024) 101462 on 18 November 2023 https://doi.org/10.1016/j.cegh.2023.101462.

9. Kalpana Basany, Sirshendu Chaudhuri, Lakshmi Shailaja P, Varun Agiwal, Neelima Angaali, Nirupama A. Y, Shailendra D, Catherine Haggerty, P. S. Reddy. **Prospective cohort study of surgical site infections following single dose antibiotic prophylaxis in caesarean section at a tertiary care teaching hospital in Medchal, India.** PLoS ONE 19(1):e0286165 on January 25, 2024 https://doi.org/10.1371/journal.pone.0286165.

Posters / Oral Presentations in International and National Conferences 2023 - 2024

1. Rugveda Thanneeru, Sadia Alvi, Sai Kumar Gadakary, Ganesh Kumar Gampa, James Antaki, Harvey S.Borovetz, Naveen Chander Reddy, P.S.Reddy. **INDUS: Economical Maglev Centrifugal Blood Pump for Developing Countries- Preliminary In-Vitro Hemolysis Testing.** 68th Annual Conference on "American Society of Artificial Internal Organs (ASAIO), June 14-17, 2023", at San Francisco, California, USA.

2. Dr.P. Mahalingam Periasamy, Dr.Vijay Yeldandi, Mahesh Kumar Suryadevara. **Unveiling the impact of skin disorders: Insights from a Novel Community-Based Study in urban area in India.** 52nd National Conference of Indian Association of Dermatologists, Venereologists & Leprologist, DERMACON Skinception to Skinnovation, February 22-25, 2024, HICC & HITEX Exhibition Centre, Hyderabad.

Financials

Society for Health Allied Research and Education India
SHARE INDIA
Ghanpur Village, Medchal Mandal, Medchal Malkajgiri District-501401. Telangana.

BALANCE SHEET AS AT 31 st March, 2024

	SCH. NO		As At 31.03.24		As At 31.03.23
			Amount (Rs)		Amount (Rs)
Source of Funds					
Capital Fund	1		2,66,19,478		2,17,14,745
Total			2,66,19,478		2,17,14,745
Application of Funds					
Fixed Assets	2				
Gross Block		3,23,67,963		4,60,13,315	
Less: Depreciation		2,51,48,701		3,76,29,951	
Net Block			72,19,262		83,83,364
Current Assets:					
Cash and Bank Balances	3	11,33,38,251		8,01,99,765	
Loans and Advances	4	17,27,826		25,80,498	
Other Current assets	5	45,58,644		43,89,644	
		11,96,24,721		8,71,69,907	
Less:					
Current Liabilities and Provisions	6	10,02,24,505		7,38,38,526	
Net Current Asset			1,94,00,216		1,33,31,381
Total			**2,66,19,478**		**2,17,14,745**

INCOME AND EXPENDITURE ACCOUNT AS AT 31 st March, 2024

	SCH. NO	31.03.24	31.03.23
INCOME:		Amount (Rs)	Amount (Rs)
Donations		5,00,000	75,00,000
Grants		39,12,93,563	41,16,39,287
Other Income	7	28,49,486	30,42,708
Total		39,46,43,049	42,21,81,995
EXPENDITURE:			
Personnel Expenses	8	13,74,29,431	15,02,50,348
Power & fuel	9	8,70,802	6,41,537
Program expenses	10	23,55,56,052	25,61,75,498
Other Expenses	11	1,26,72,069	1,31,87,953
Total		38,65,28,354	42,02,55,336
Excess of Income over Expenditure before Depreciation		81,14,695	19,26,659
Less: Depreciation		32,09,962	35,41,549
Excess of Income over Expenditure Transferred to Capital Fund		49,04,733	(16,14,890)
Notes to Accounts & Significance of Accounting Policies	12		
As Per our report of even date attached			

For LUHARUKA & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN 01882S

CA Rameshchand Jain
Partner
M No. 023019

Place: Hyderabad
Date: 28-08-2024

For Society for Health Allied Research and Education India - SHARE INDIA

Dr. Madhu K Mohan
Secretary

Dr K Madhava
Member

Lakshminarasimhan N
Head Finance & Accounts

SHARE INDIA TEAM

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