



Address: 3<sup>rd</sup> Floor, Mulla House, 51, MG Road, Fort, Mumbai 400001, India

Phone: +91 2266657876 • Email: [contact@indiahealthfund.org](mailto:contact@indiahealthfund.org) • Website: [indiahealthfund.org](http://indiahealthfund.org)

Twitter: [@indiahealthfund](https://twitter.com/indiahealthfund) • LinkedIn: <https://www.linkedin.com/company/ihf-indiahealthfund/>





# Progress Report

August 2019

Fight it Right: Innovate and Unite to  
End TB and Malaria





# Contents

Message from the CEO	1
Background	3
Mission and Goal	5
Strategic Objectives and Core Values	6
Focus on TB and Malaria	9
Programs – TB and Malaria Quest	13
Portfolio of Innovations	19
Partnerships	29
Future Directions	33



---

# Message from the **CEO**




---

The India Health Fund (IHF) was conceived with a very clear and well-articulated vision to accelerate India's progress towards the elimination of Tuberculosis (TB) and Malaria through a focus on identifying and fostering innovations working in these areas. While the organisation's current focus is only on TB and Malaria and other Vector-borne diseases, we aim to expand our work to cover other neglected communicable diseases in the coming years. We chose to focus on TB and Malaria first as India bears a large proportion of the global burden of these two diseases. We believe that decisive, focused and convergent action in the TB and Malaria space can produce rapid results. The IHF's mission is aligned with the Sustainable Development Goals. This is exactly what the Prime Minister pinpointed when he announced the bold target of eliminating TB from India by 2025 at the End TB Summit in March 2018. The Government of India announced a similar deadline for Malaria, aiming to eliminate it in 2027, well before the global deadline of 2030. While the targets are ambitious and will require concerted efforts, they are not impossible and can be accelerated with innovative solutions. Though there has been an exponential growth of startups across many sectors including healthcare, these are tough problems to solve with little investment capital available for innovations and their transition from the laboratory to the last mile.

Identifying pressing public health challenges and translating prototypes into path-breaking and viable solutions require focused investment and

multi-stakeholder support and the IHF was conceived to bridge this gap. It establishes a case for fresh investments in innovations to catalyse the fight against TB and Malaria. It has been almost a year since we activated IHF and this Report sets out our key accomplishments and achievements thus far. 2018 proved to be an important year as we built our core team, started to curate a pipeline of innovations and geared up to mobilise resources to support these innovations financially. The IHF also held a series of expert stakeholder consultations on TB and Malaria during the past year to identify, select and prioritise the problem areas which need to be addressed by the larger innovation ecosystem. These consultations culminated in the launch of the IHF's TB and Malaria Quests which will work on these identified gaps.

We look forward to your continued support, as we search and enable innovators to catalyse our fight to eliminate Malaria and TB from India.



**Manoj Kumar**  
CEO, India Health Fund





# Background

The India Health Fund (IHF) was announced by the Tata Trusts in partnership with The Global Fund to Fight AIDS, Tuberculosis and Malaria in 2016 with the goal of advancing investments towards India's fight to eliminate Tuberculosis (TB) by 2025 and Malaria by 2027.

The IHF was incorporated in June 2017 as the Confluence for Health Action and Transformation Foundation (CHATF), a Section 8 Company registered under the Companies Act 2013.

The Tata Trusts seeded the IHF with an initial corpus of USD 15 million, with a target of raising an additional USD 135 million over the next five years to invest in innovations to eliminate TB and Malaria.



*Image Courtesy: IIH*

## Genesis

### TB & Malaria

India has nearly 27% of the global burden of TB, while nearly 68% of Malaria cases in South East Asia occur in India

### Need of the Hour

To create a platform to aggregate philanthropic capital and allocate resources to the most impactful innovation

### India Health Fund

Tata Trusts under the leadership of Mr. Ratan Tata announced the IHF in 2016

### Partnership

A partnership between Tata Trusts and the Global Fund is formalised with a goal to attract investments for eliminating Malaria and TB

### Funding

IHF funding target: USD 150 mn over 5 years

Tata Trusts commitment: 10% seed commitment

### Incorporation

Confluence for Health Action and Transformation Foundation is set up in 2017

### Activation

In 2018, on-boarding of CEO and team; initiation of operations; gaining visibility on a national and international platform

## Why is IHF Relevant?

### Dearth of funding and technical support

on mid-stage and late stage innovations

### Untapped opportunities

which can bring non-linear impact and value for money

### Neglected tropical infectious diseases

are not a global priority

Fragmented and disjointed efforts leading to

### sub-optimal prioritization and resource allocation

on these diseases

Lack of open source science and technology for **addressing neglected infectious diseases**



# Mission

To accelerate India's progress towards the elimination of Tuberculosis, Malaria and other neglected communicable diseases through innovations.

# Goal

To be an aggregator of resources (from the public and private sector, global philanthropic foundations and aid agencies) and ensure efficient resource allocation towards identifying and nurturing innovations through their journey from the lab to the last mile, catalysing the mission to end Tuberculosis by 2025 and Malaria by 2027.





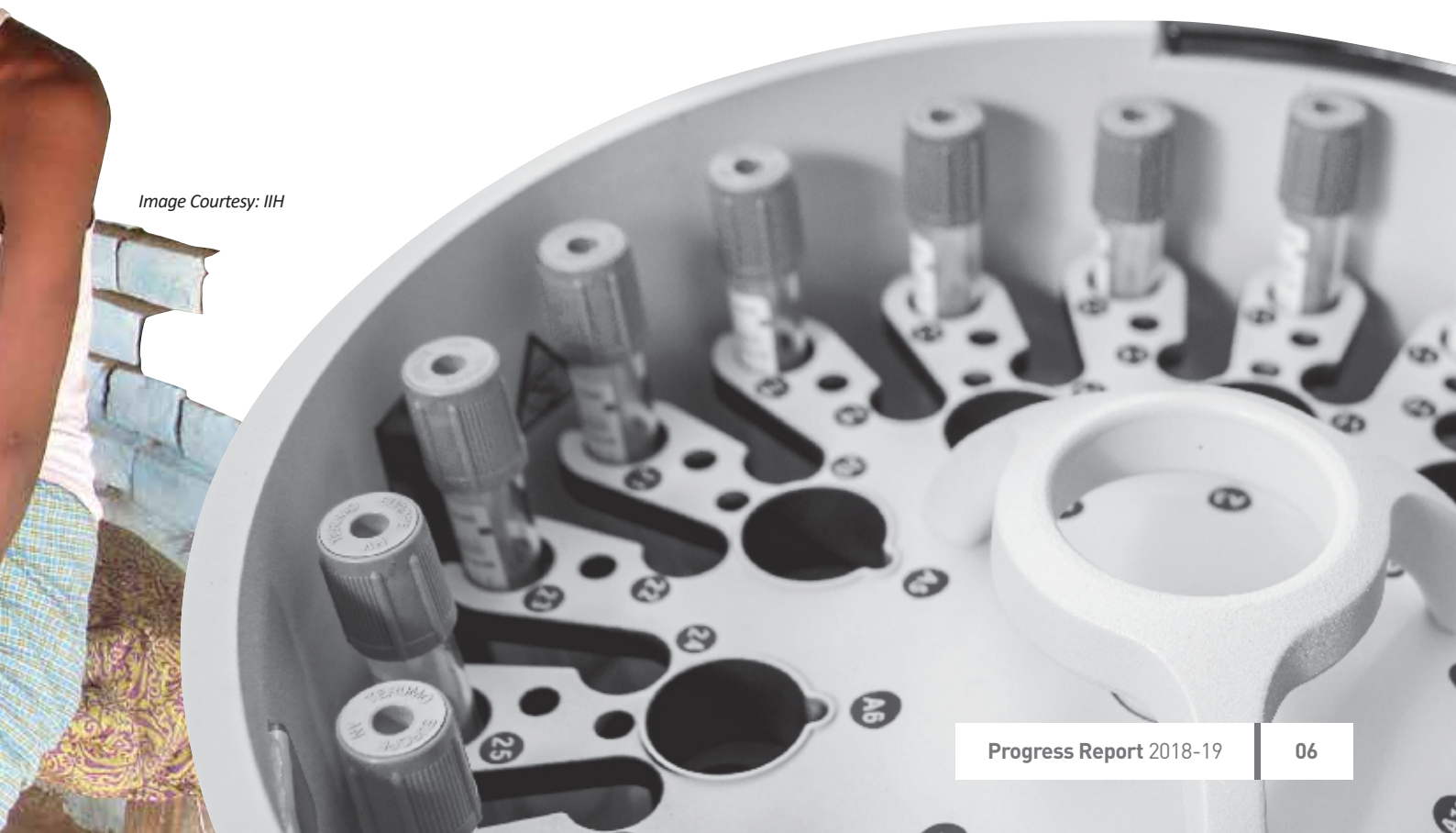
# Strategic Objectives

The IHF aims to address the impasse in effective management of communicable diseases like Tuberculosis and Malaria by promoting and supporting cutting-edge innovations through validation and translating innovations into adoptable and usable solutions. The IHF aims to supplement the Government of India's efforts to eliminate these diseases, partnering with philanthropists and international as well as local donor technical agencies, by exclusively anchoring innovations.

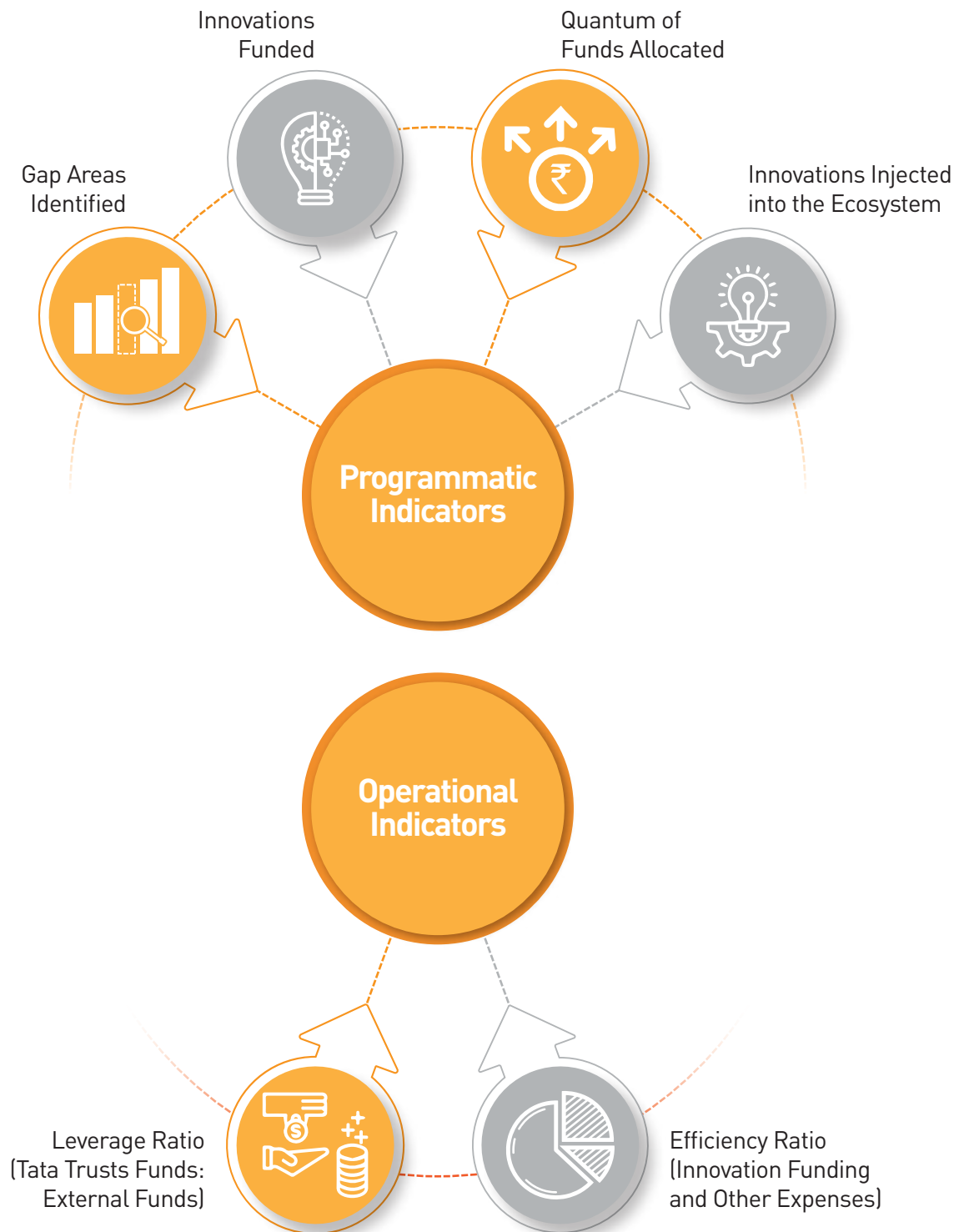
## Core Values

- Equity – leaving no one behind
- People centric approach
- Efficient use of resources
- Collaboration

*Image Courtesy: IIH*

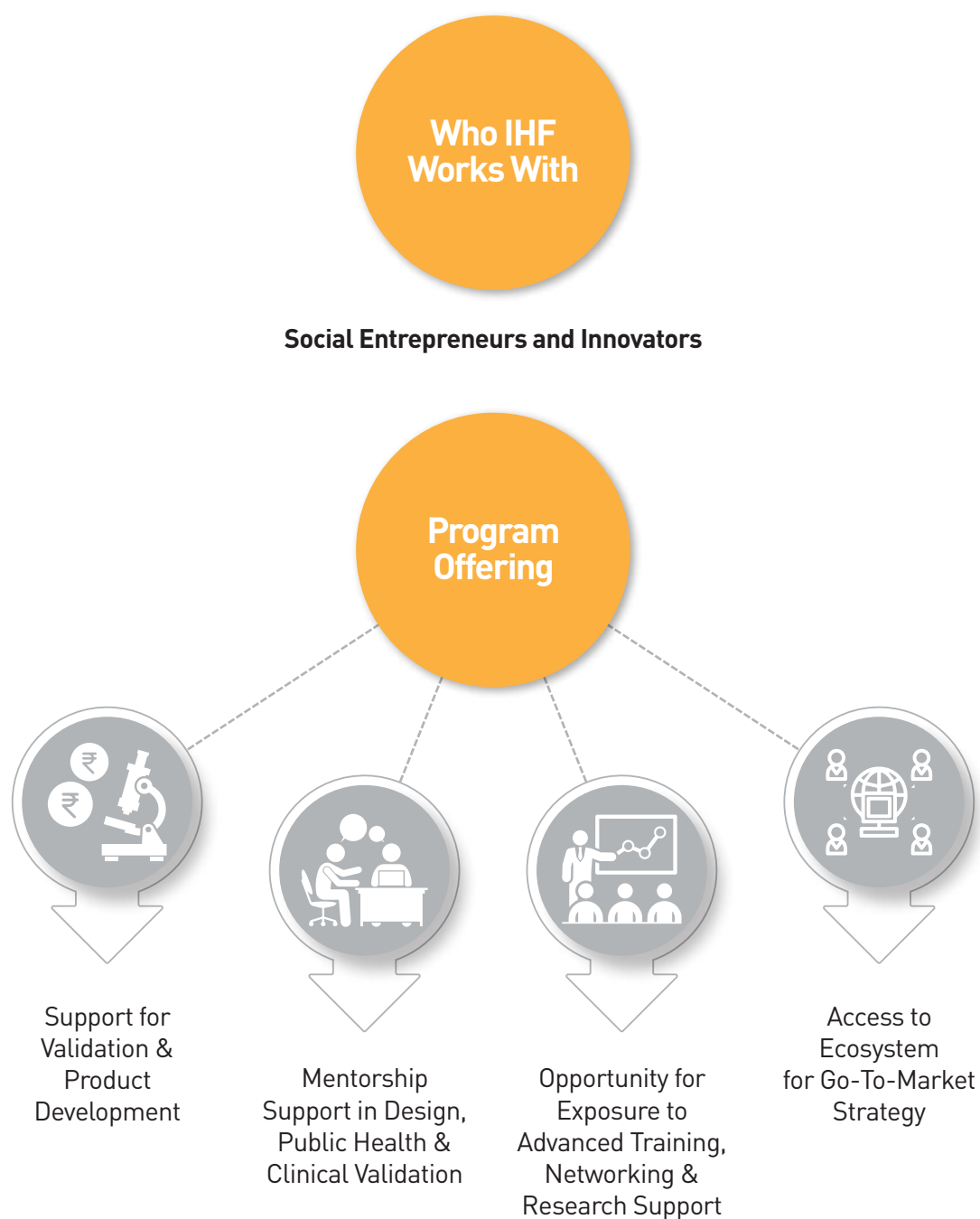


## Success Indicators for the India Health Fund





## What Does the India Health Fund Offer?



# Focus on TB and Malaria

TB and Malaria are ancient infectious diseases, which have historically claimed many lives but have surprisingly attracted little capital to foster and support innovations.

## Tuberculosis

One of the biggest health challenges faced by India is combating TB, which accounts for 421,000 deaths annually. Out of 10.4 million cases reported worldwide every year, 2.4 million or nearly 27 percent, of the global burden are reported from India. The Government of India has set a target of eliminating TB by 2025. Although India has managed to scale up TB care, bold and innovative steps are required to eliminate the disease from the country by 2025. However, disruptive, innovative and focused efforts will be needed to realize this vision of eliminating the disease from India by 2025.

### These key challenges demonstrate the scale of the problem:

Nearly a million TB cases in India remain **undetected and untreated** each year.

At the **current rate of decline of TB cases at 1.5 percent**, India will be unable to eliminate TB even by the year 2100.

India has nearly **24 percent** of the world's multi-drug resistant TB cases.

The annual economic costs of TB to India is nearly **USD 3 billion**.

In alignment with the national efforts of eliminating TB by 2025, the IHF has been promoting innovations which address the gaps and challenges in the TB program. It aims to bring together resources to engender transformative change by supporting innovations that will effectively address the rapidly changing and complex landscape of TB. The IHF aims to conduct a search for innovations through a structured Quest towards addressing the 'leaky cascade' of TB care in India. It aims to support and catalyse innovations to solve these key challenges in combating TB in India and to help eliminate this ancient disease within the next decade.





## Malaria

India accounts for 68 percent of South-East Asia's Malaria burden and about 95 percent of India's population reside in Malaria endemic areas. Tackling a complicated and historical disease such as Malaria, touted to be one of the largest killers of humans, will require innovations which go beyond current interventions. In 2018, India witnessed an exemplary decline of Malaria prevalence by 24 percent and in the state of Odisha alone, it had reduced by 80 percent. While this has been a commendable achievement, sustaining and moving towards elimination will require multi-pronged approaches and collaborative action and commitment towards injecting innovations into the healthcare system. Persistent efforts are required as Malaria has repeatedly shown the ability to resurge in areas where elimination efforts are not followed through.

### These key gaps demonstrate how Malaria is still a problem that needs focused attention from all the relevant stakeholders:

In remote areas, the proportion of households with at least one long-lasting insecticide net (LLIN) per two persons was only **39 percent.**

According to the WHO, only **8 percent** of the estimated Malaria cases in India are reported, revealing that incomplete data is being recorded.

Malaria affects some of the most vulnerable populations in the country; nearly **80 percent** of Malaria cases are diagnosed among only about **20 percent** of the population living in the tribal areas.

Failures in the existing diagnostic kits lead to a miss of **2-4 percent** in the diagnosis of potentially fatal severe Malaria cases.

While consistent efforts by the global health fraternity have helped in the reduction of cases and mortality, much needs to be done to finally eliminate the disease from India.



# Programs - TB and Malaria Quest

In the past year, the IHF has identified thematic areas for programmatic focus. These areas were identified by IHF in consultation with leading experts from the government, research institutions, civil society, healthcare providers and survivors in the hope that these innovations will offer optimum solutions.

The IHF's strategy is to identify mid- and late-stage innovations which are potentially ground-breaking with a high probability of non-linear impact rather than incremental change. The IHF has strategized to exclude *de novo* research which are purely foundational, proof of concept and unvalidated prototypes. It does not incubate innovators or their innovations. It targets those innovations which have prototypes requiring support to translate beyond laboratories to the last mile.





## Multi-Stakeholder Consultations

### Tuberculosis

The first step in this direction was to identify the most pressing and relevant problems within TB care that necessitate pioneering solutions and approaches. With this in mind, the IHF organized a multi-stakeholder consultation, “Identifying Problems for Prioritizing Actionable Innovations in TB Elimination” on 8 October, 2018 in New Delhi. The consultation brought together eminent experts, leading TB practitioners, national and international donors as well as representatives of the patient community to identify pivotal gap areas within TB care that have remained unaddressed or inadequately addressed till date. The deliberations at the consultation shaped the problem statements for the TB Quest 2019 and have informed the IHF’s future investments in the TB elimination space.

### Malaria

The IHF organized a consultation on Malaria, “Accelerating and sustaining pathbreaking innovations for ending Malaria” on 18 March, 2019 in New Delhi which brought together government officials, technical institutions and experts, community-based organisations, healthcare providers and health rights’ activists under one umbrella to prioritise the problems in eliminating Malaria. The consultation aimed at identifying key gap areas in Malaria prevention, care and control, where innovations are needed.

The TB and Malaria Consultations in October 2018 and March 2019 were crucial in order to identify, strategise and prioritise the thematic focus of the IHF’s program and subsequently to determine the direction in which the IHF’s investments would be made.



Image Courtesy: IIH

## Thematic Focus under TB:

- **Latent TB Infections:** Screening and identification for Latent TB Infection (LTBI) among all identified high risk population groups in India.
- **Active Case Finding:** Bringing the 'missing million' TB patients within the purview of care.
- **Supply Chain:** Addressing gaps in the supply chain of anti TB drugs and consumables.
- **Airborne Infection Control:** For reducing TB infections across various settings.

## Thematic Focus under Malaria:

- **Surveillance:** To develop risk prediction tools, strengthen data management systems for mapping the disease burden, monitoring, tracking of undiagnosed cases, improving early detection and treatment modalities.
- **Diagnostics:** Development of quality, affordable and effective diagnostics and treatment.
- **Logistics and Supply Chain:** Improving supply chain, infrastructure and capacity building.
- **Data Management:** Rapid and timely transfer of actionable data to policy-makers is a key gap in the current scenario which the IHF would aim to address through innovations.



## TB Quest

On 8 February, 2019, the IHH announced the Quest for Innovations towards eliminating TB in India in partnership with the Central TB Division, the Ministries of Health and Family Welfare (MoHFW), Science and Technology, and the Centre for Cellular And Molecular Platforms (C-CAMP), an initiative of the Department of Biotechnology, Government of India, the Tata Trusts, the Global Fund, the Stop TB Partnership, and Social Alpha. The TB Quest is a nationwide search for innovators working on solutions to accelerate progress towards the elimination of TB and catalyse innovation and entrepreneurship to solve key challenges in combating TB in India. It is a means to fast-track adoption and scale up previously validated product and process innovations in the focus areas delineated above.

The TB Quest received a total of 59 applications, which were screened and evaluated by a panel of Indian and international domain experts. The evaluation consisted of an online review and evaluation workshop where shortlisted applicants presented their innovations to the expert panel. The final list of winners will be announced at the end of 2019. Selected applicants stand to receive comprehensive support, including milestone-based funding. The awardees will benefit from collective engagement with Indian and global stakeholders and gain access to the global ecosystem working towards TB elimination. They will also have the opportunity to present their innovations to the National TB program.



*Image Courtesy: IHH*



## Malaria Quest

India's National Vector Borne Disease Control Programme (NVBDCP) through its National Strategic Plan for Malaria 2017-22 plans to focus on specific indicators, including ensuring universal coverage of case detection and parasitological diagnosis, strengthening surveillance and case notification and to investigate, classify and respond to cases in all districts, achieve universal coverage of vector control interventions, provide effective program management and coordination at all levels to achieve Malaria elimination.



Aligned with the national efforts, the IHF aims to promote innovations which potentially addresses present gaps and challenges. It aims to bring together resources to engender transformative change by supporting innovations that will effectively address the rapidly transforming and complex challenges posed by Malaria and help in eliminating this ancient disease within the next decade.

The Malaria Quest was launched in July 2019 and received a total of 50 applications. The applicants will undergo a two-phase online and in-person evaluation and the awards will be announced in early 2020.



*Image Courtesy: IHF*

# Portfolio of Innovations

The IHF is currently supporting four promising innovations across TB and Malaria. These were identified in 2018, through a nationwide call for proposals. IHF has also ambitiously identified a pipeline of prototypes which will transition into mid-stage candidates, eligible for IHF funding support over a period of time.

## SenseDose Technologies

The lack of treatment adherence is a major cause of multi-drug resistant TB and lower cure rates. Nearly 55 percent of the patients in the public sector do not complete the proper treatment regimens. Moreover, adhering daily to a highly taxing, draining drug regimen is also hard for many TB patients, a large proportion of who are poor. Tuberculosis Monitoring Enhancement Adherence Drive (TMEAD) is a solution for this problem, aiming to create a seamless, easy-to-use device which monitors and ensures patient adherence, while also creating a detailed, automated adherence dashboard of all patients for health workers and policymakers to prioritize their resources towards patient adherence.

The TMEAD device is hence a solution for both the patients and the TB control officers. The device acts as a valuable tool to

reduce the burden of TB health visitors (TBHVs), who are government employed field workers who ensure treatment adherence. TMEAD streamlines patient adherence monitoring, while also optimizing the use of TBHVs to monitor cases where personal monitoring is especially necessary. TMEAD can potentially integrate seamlessly with a private healthcare provider as well, allowing clinicians treating TB patients to monitor patient adherence with an app or an online dashboard.

Completing the treatment for TB is one of the most resource intensive phases in the TB value chain, and TMEAD has the potential to provide a seamless, simple and easily implementable solution for it.

“



Our project with the IHF will help us to evolve from a small team working in limited primary health centres to an organisation with multi-district deployments. Helping patients win the battle against TB is our core mission at SenseDose, and the India Health Fund has only strengthened our ability to do so.

**Nishad Halkarni**  
Co-founder,  
SenseDose Technologies

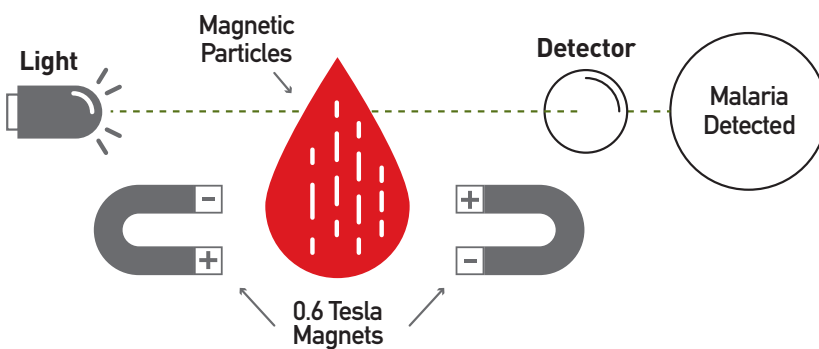
”



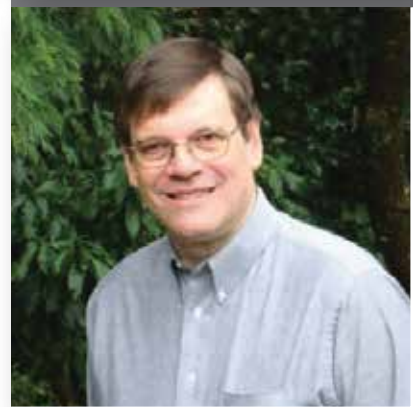
## Hemex Health

Achieving Malaria elimination requires a reliable, efficient and quick diagnostic procedure that can test large populations quickly and easily while detecting species and strains that other diagnostics can miss. Current diagnostics rely on multiple genetic markers and enzymes for diagnosing Malaria. Some of the current rapid diagnostic kits, which are increasingly becoming the mainstay of Malaria diagnosis, have some limitations such as their resilience to environmental conditions and their inability to diagnose parasites with some mutations. Gazelle, the HemexDx device, employs the magneto-optical detection of hemozoin, a cellular byproduct of Malaria infection which is a reliable marker of Malaria infection.

The device uses cutting-edge technology for the detection of Malaria using a small blood sample and provides a result in only one minute. Gazelle diagnoses both major Malaria species found in India, and is a compact, lightweight, battery-operated reader that works in resource-restricted settings such as remote village laboratories and clinics where power supply is limited. It is a resilient, durable device which can withstand harsh weather conditions, and can be utilized for a large number of tests. It also allows for data transfer to a central cloud, hence minimizing data losses and ensuring streamlined data capture and transfer.



1. Magnets pass over magnetic particles several times.
2. Aligned particles block light passing through sample.
3. Signal analysis determines presence of particles indicating Malaria.



Hemex has developed a revolutionary device that detects a Malaria infection in one minute. Our IHF partnership has given us an extraordinary opportunity to work with multiple government collaborators to test our solution. This kind of clinical validation will make our innovation a reality and help India toward its goal of [Malaria] elimination.

**Patti White**  
CEO

**Peter Galen**  
Chief Innovation Officer,  
Hemex Health



Hemozoin produced by Malaria parasites



Image Courtesy: Hemex Health

Gazelle shows easy-to-read results on the screen after one minute



Image Courtesy: Hemex Health

## Valetude Primus Healthcare (VPH)

A person infected with TB, if left undiagnosed, can infect about 10-15 healthy individuals in a single year. It is critical to break the cycle of infection by diagnosing every infected individual. Currently, sputum microscopy combined with the Cartridge-based Nucleic Acid Amplification Test (CBNAAT) are the main diagnostic methods used in India, which either lack the desired sensitivity or are time and resource intensive.

Valetude Primus Healthcare has developed a field deployable, automated, affordable and rapid TB diagnostics device called iMC<sup>2</sup>-TB. The device enables last-mile connectivity between infected individuals and diagnostics. VPH can bring the sputum sample collection process straight to the patient's doorstep with the help of healthcare workers and their novel sample collection technology, and provide rapid, affordable and accurate diagnosis of TB.

“



The support from the IHF will enable VPH to deploy iMC<sup>2</sup>-TB devices at primary health centres for clinical validation and regulatory approval. By enabling TB diagnosis at PHCs across India, we would be able to detect hundreds of thousands of patients that are missed each year and by doing so, end the vicious cycle of TB infections in India.

**Saurabh Singh**  
Co-founder,  
Valetude Primus Healthcare

”



*Image Courtesy: Valetude Primus Healthcare*



## Centre for Health Research and Innovation (CHRI)

The current CHRI project aims to create an ecosystem for faster diagnosis and treatment initiation of TB patients through TrueNAT MTB, a rapid, point-of-care diagnostic platform allowing primary healthcare workers to diagnose TB in primary health settings where microscopy is the only current technique available. The diagnostic technique of CBNAAT needs expensive infrastructure and can be based only at tertiary care hospitals or larger health centres where this infrastructure is available. The TrueNAT MTB device will diagnose a larger volume of patients at the village level, thus ensuring rapid and affordable diagnosis and quicker treatment initiation.

The current study supported by the IHF aims at creating streamlined protocols for deploying TrueNAT MTB to the point-of-care, hence ensuring maximum efficiency for the machine's deployment to the remote corners of India. These protocols can prove especially useful in improving TB detection and diagnosis rates in underserved areas such as tribal areas, where a lack of effective tools for case finding and diagnosis hampers elimination efforts, and has led to these areas having a much higher incidence rate of TB than others across the country.



*Image Courtesy: Centre for Health Research and Innovation*

## Projects under the India Health Fund initiative of Tata Trusts, prior to its incorporation

To date, the IHF has announced two rounds of Request for Proposals (RFPs). The focus areas of these RFPs include the use of technology and data science to strengthen surveillance, early detection and the prompt treatment of TB and Malaria; the promotion of a robust molecular diagnostic pathway for primary healthcare in low-resource settings for a faster and more accurate diagnosis of TB and Malaria; effective communication strategies to prevent transmission of TB and Malaria; active case detection for high-risk tribal populations; strategies for the private sector to promote alignment with national standards of case identification and reporting; and greenfield R&D activities that could result in a reduction in infection rates in TB and Malaria.

## Innovators in Health (IIH)

Innovators in Health aims to transform outcomes by extending public health resources to patients struggling in private treatment for TB. IIH hopes to synchronize the interactions among various stakeholders, such as patients, field workers in the public health system including the Revised National Tuberculosis Control Programme (RNTCP), lab technicians, private doctors, pharmacists and Accredited Social Health Activists (ASHAs).

The project is expected to expand case detection through private patients' notifications and improved adherence. If successful at scale, the program will reach 200,000–450,000 patients in Bihar alone, and about 2.5–4.5 million nationally.

A story from the field can help illustrate how the IIH model can help find a case which would have otherwise fallen through the cracks. During a routine field visit, Navneet, one of IIH's

field workers, came across Preeti Kumari (name changed), a young girl who had rapidly lost weight and had been running a fever for nearly a month. Navneet suspected TB and counselled Preeti to undergo multiple tests for a diagnosis. She was found to have extra-pleural TB, a condition that is untreatable locally and probably, would not have been diagnosed altogether, had it not been for the field worker's persistence.



Image Courtesy: IIH



After being turned away by the government sub-divisional hospital, Preeti finally sought help from Navneet, who contacted a private surgeon familiar with IIH's work. He consented to perform the surgery without any charges. Preeti eventually recovered after completing the standard Directly Observed Treatment, Short-Course (DOTS regimen) under the local health worker's supervision.

*Image Courtesy: IIH*



“



Recent investments and interest in private sector engagement have focused on large urban centres. The India Health Fund enabled us to build a model of private sector engagement for rural India, thus closing an important gap in TB care in India.

**Manish Bhardwaj**  
Founder & CEO,  
Innovators in Health

”



*Image Courtesy: IIH*



## Foundation for Medical Research (FMR)

The incidence of TB is driven by unbroken transmission of TB through air. Although effective treatment is known to reduce transmission, how treatment affects transmission and the duration when a patient becomes non-infectious after initiation of treatment are not clearly known. FMR is studying how rapidly treatment induces changes in TB bacteria that affects its ability to infect.

Currently the project is deciphering mechanisms behind reduced infectiousness and will generate knowledge which can advise patients about resuming normal activity without fear of infecting others. Determining how long a patient remains infectious after beginning treatment will be

critical in determining protocols and rules for infection control and preventing transmission of the bacteria to caregivers and family members, some of whom such as children and the elderly are particularly vulnerable to contracting the disease. This study will help in devising better protocols for infection control and also in knowing treatment efficacy.

The study has also developed a non-invasive method to capture and track TB bacteria that are released by patients, even in patients who cannot produce sputum and this method can be extremely useful in the diagnosis of TB in children. Currently, painful and invasive procedures are necessary for diagnosing TB among children.

If successful, the current study can potentially transform sample collection and diagnosis, thereby ensuring faster initiation of treatment.

“



Our study has successfully shown the detection of live TB bacteria on masks used by patients who cannot produce sputum. Since this is a non-invasive method of sample collection, it has potential application in easier diagnosis of TB in children who are subjected to repeated invasive procedures like gastric lavage for diagnosis.

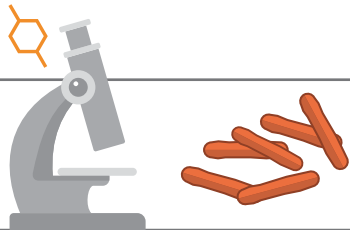
**Dr. Nerges Mistry**  
Director,  
Foundation for Medical  
Research

”



*Image Courtesy: Foundation for Medical Research*

Collect masks of patients at different time points after treatment initiation



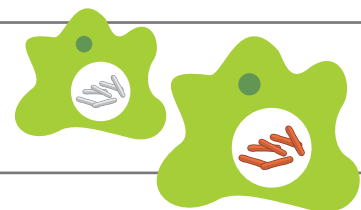
Isolate the bacteria from membrane fixed to inner surface of the mask

Measure changes in bacterium using modern molecular RNA sequencing and cellular (in vitro macrophage model) tools



Identify key genes responsible for infectiousness of TB bacteria

Delete identified genes of TB bacteria through CRISPR technology and note the effect on germ infectiousness



## IIT Bombay

The IIT Bombay Nanobios lab is currently developing an aerosol formulation that will be employed to kill viable bacteria directly in the lungs. The technology may be useful alone or in conjunction with anti-TB drugs. The approach will overcome resistance and reduce side effects associated with the current therapy and may be helpful in treating multi-drug resistant cases. Studies show

promising results in the safety and efficacy in current models. Further studies will test the efficacy of these formulations in larger animal models and if successful, these molecules may proceed to human clinical trials.

The current formulations will administer drugs directly to the alveoli in the lungs and hence drastically reduce side effects,

while ensuring maximum efficacy since the optimal dose of drugs will be delivered to the infection sites, while reducing side effects, and potentially, improving drug adherence and cure rates.

“



This study is extremely crucial in finding a new therapeutic route for multi-drug resistant and extensively drug-resistant (MDR and XDR) TB for which the current scenario in India is very bleak and therefore, there is a great need for funding this work. The ongoing studies and their results indicate that the

formulation is extremely effective and can move towards the next stage of testing. The route of administration is also very simple and therefore, there are high chances of it being successful when introduced.

**Dr. Rohit Srivastava**  
Head, Department of  
Bioengineering, IIT Bombay

”

## National Institute of Malaria Research (NIMR)

This study aims to understand how mosquitoes succeed in finding, searching and locating a human host from a distance of at least 400m, and feed on human blood within two minutes of host identification. Unlocking the pathways to this behaviour may potentially lead to identification of crucial genetic factors that affect host identification in mosquitoes.

Current methods of controlling mosquito populations is through the use of insecticides, which while effective and necessary, also have a collateral impact on the environment.

Unlocking biological pathways within mosquitoes can help in the formulation of targeted repellants which will effectively prevent biting, reduce the

chances of improper application of other personal protection methods, while also providing effective protection against mosquito bites and not have any negative impact on other insects which are otherwise harmed due to the use of insecticides for vector control.





# Partnerships

One of the IHF's larger visions is to build a robust pathway for innovations to transition from validation to policy and finally to the community. To that end, the IHF collaborates with a large variety of organizations including the government, international NGOs, technical agencies, other funding agencies who are working in similar domains and where technical, financial or knowledge partnerships are possible.

## TATA TRUSTS

Tata Trusts, the biggest non-sectarian philanthropic organisations in India, is the main visionary and supporter of the IHF. It is with the seed commitment of the Tata Trusts that the IHF started its operations.



The Union Government remains one of the key partners of the IHF and an MoU with the Central TB Division (CTD) of the Ministry of Health and Family Welfare, the apex body for TB care in India, was formalized in May 2019. The MoU will enable the IHF to collaborate with the CTD on prioritising problem statements, identification of innovation and mentoring and monitoring them through the validation process.



The Global Fund to Fight AIDS, Tuberculosis and Malaria is a strategic global partner of the IHF since its inception along with the Tata Trusts.



Social Alpha is an initiative to strengthen the science and technology startup ecosystem in India with a focus on "lab to market" enablement. Since its inception in 2016, Social Alpha has evolved as an integrated incubation cum investment platform for high impact startups that aim to solve the most critical social, economic and environmental challenges faced by humanity.



The Stop TB Partnership is recognized as a unique international body with the power to align actors all over the world in the fight against TB. The IHF and The Stop TB Partnership signed an MoU in January 2019 to work together in India.

Along with these institutions, the IHF works closely with the National Vector Borne Disease Control Programme, the India TB Research Consortium, Indian Council of Medical Research (ICMR), and its affiliates, MERA India, Asia Pacific Leaders Malaria Alliance.



It's  
**TIME**

**To play my part**

to achieve the targets in the UN  
Political Declaration on TB by 2022

## STOP TB PARTNERSHIP **31<sup>ST</sup> BOARD MEETING**

**29-30 January 2019**  
**Geneva, Switzerland**

Stop TB Partnership  
led by  
LINOPS



*Image Courtesy: The Stop TB Partnership*

## Partners' Views

“The India Health Fund is a great example of an organization which has aligned its priorities with the national goal of Malaria elimination. Its approach of identifying specific problem areas through extensive consultations and then deploying meaningful innovations will surely help the country in its journey towards elimination.”

**Dr. Neeraj Dhingra**

Director,  
National Vector Borne Disease Control Programme,  
Ministry of Health and Family Welfare,  
Government of India



“The Government of India has taken up the challenge to fight against TB in a mission mode. Several new initiatives have been introduced like Nikshay Poshan Yojana, a private sector engagement along with the expansion of advanced diagnostics and treatment regimen for all forms of TB. In this context, the Central TB Division (MoHFW) has signed the MoU with the India Health Fund to create a platform for the private and public sector to initiate and scale up innovative solutions, business models and financing mechanisms to engender transformative change in the fight against TB in India. We hope that the partnership with the India Health Fund will provide meaningful innovations that will surely help the country in its journey towards ending TB.”

**Dr. Kuldeep Singh Sachdeva**

Deputy Director General,  
Central Tuberculosis Division,  
Ministry of Health and Family Welfare,  
Government of India



“**T**he India Health Fund is filling a critical role in strengthening India's fight against the public health challenges of Tuberculosis and Malaria and supporting the country's objectives to end the epidemics by 2025 and 2030 respectively. Our strategic partnership with the India Health Fund and the Tata Trusts is a vital one, based on a shared vision: leveraging the power of aggregated philanthropic capital to fund new innovations, tools and solutions to accelerate the elimination of TB and Malaria.”

**John Fairhurst**

Head, Private Sector Engagement,  
The Global Fund to Fight AIDS, Tuberculosis  
and Malaria



“**I**ndia is the highest TB burden country, home to one-in-four TB patients worldwide. It is also the country which has launched a bold and unprecedented war against TB, with the vision of the Prime Minister to end TB in India much earlier than the world. We at Stop TB Partnership believe that the India Health Fund has amazing potential to bring game-changing private sector expertise, innovation, entrepreneurship and financing to the fight against TB in India. We congratulate the Tata Trusts for having seeded the India Health Fund. It is now time for other private sector business leaders, particularly in India, to join and support the India Health Fund.”

**Dr. Lucica Ditiu**

Executive Director,  
The Stop TB Partnership



# Future Directions

---

In the near future, the India Health Fund aims to strengthen its pipeline of projects and partnerships through the innovations identified by the TB and Malaria Quests. The IHF will also look beyond the Quests and seek path-breaking innovations round the year, which need to be supported for eliminating Malaria and TB from India.

Apart from creating a pipeline of products, the IHF seeks to support these innovations and build stronger partnerships with other stakeholders who want to join hands in the fight against TB and Malaria. The IHF also aims to provide a meaningful mentorship platform to the innovators, who will have access to a collective of domain experts.

Additionally, in the future, the IHF is open to supporting innovations for other vector borne diseases where the pipeline is low and the existing innovations are not enough to create a lasting change.

---

