Reaching the unreached:

active case finding for tuberculosis in Karnataka

Reaching the Unreached: Active Case Finding for Tuberculosis in Karnataka

A Coffee Table Book

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The photographs in this book have been taken with the consent of the community.

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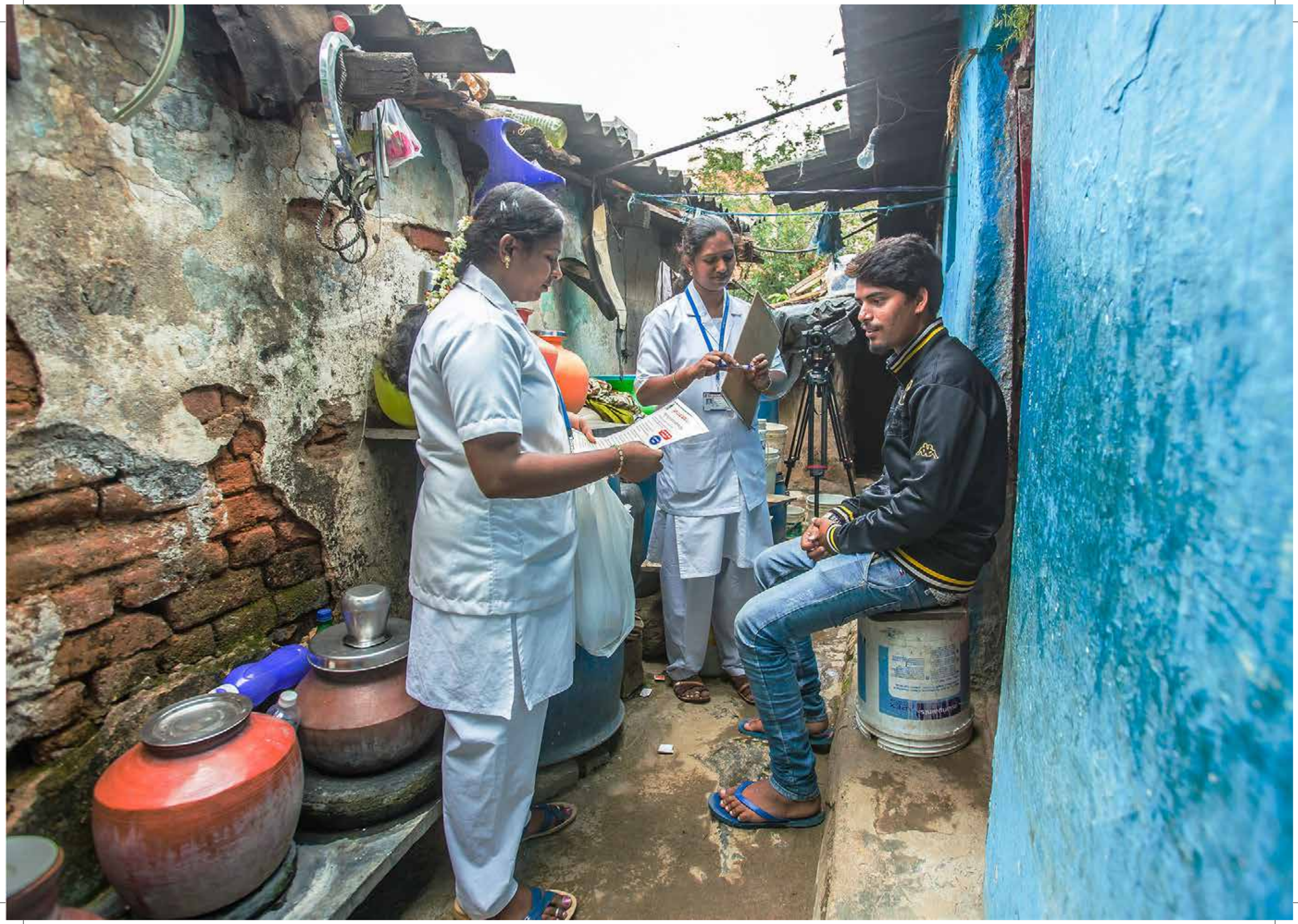
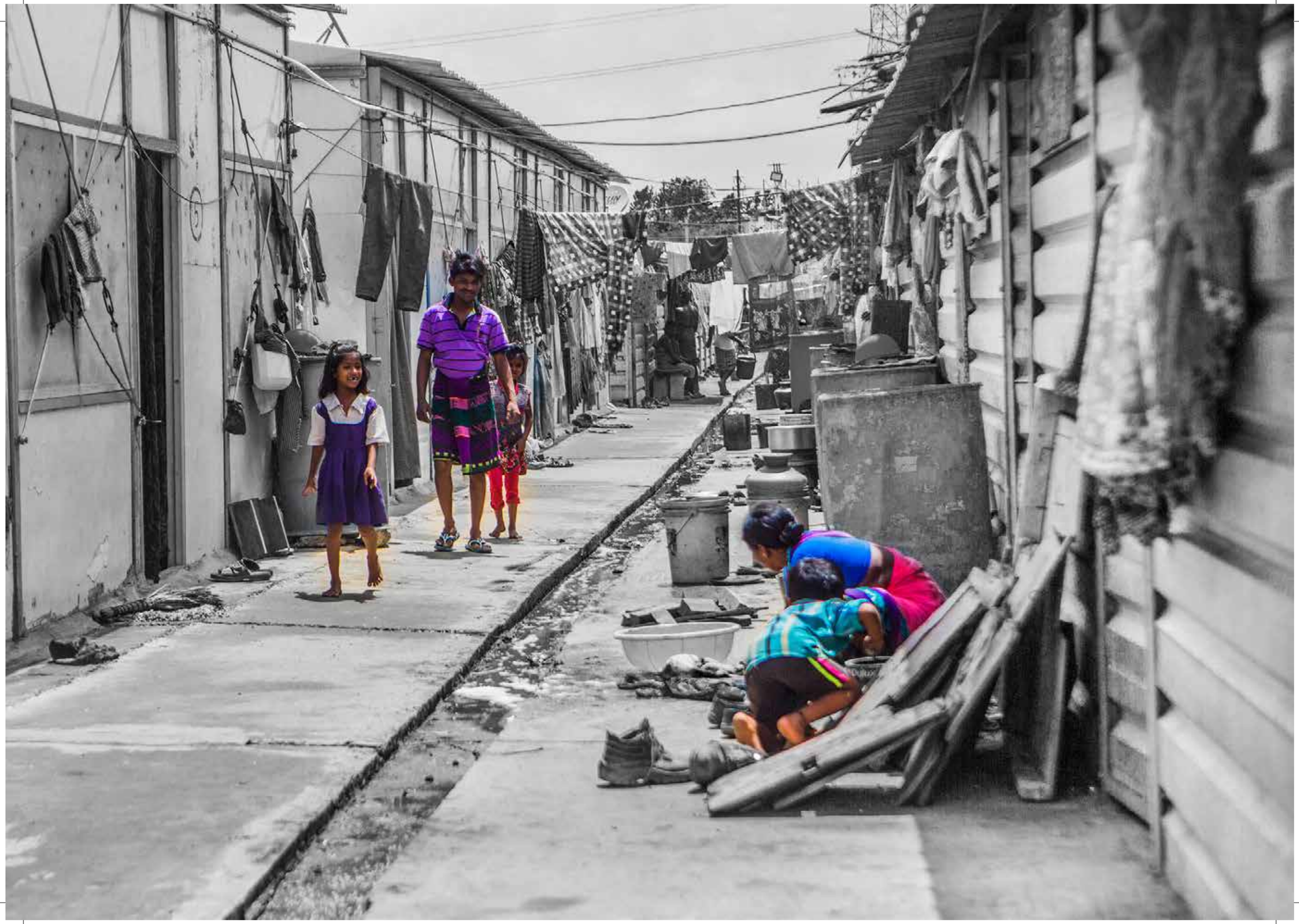
Acknowledgements

The Active Case Finding campaign would not have been possible without the invaluable contribution of the Government of Karnataka and the National Health Mission, which conceptualized and guided officials at block, district and state level from planning to execution and evaluation. It is through the efforts of these state officials and officials of the RNTCP that the campaign was meticulously planned. The laboratory technicians and physicians were integral to the campaign as their technical skills and responsiveness complemented the efforts at the field level. Medical colleges and private doctors played a crucial role during the campaign through the provision of timely diagnostic services. The field staff, including ASHAs, ANMs, Junior Health Assistants and TB Health Volunteers were the backbone of the campaign and their work at ground level laid the foundation for its success. The involvement of NGOs and community-based organizations were key to the achievements of the field teams.

We would like to thank KHPT for writing, compiling and shaping this document so that the findings and success of our approach can be shared widely. The individual passions and collective zeal of all these people have made this campaign a success and brought us closer to achieving our goal of ending TB by 2025.





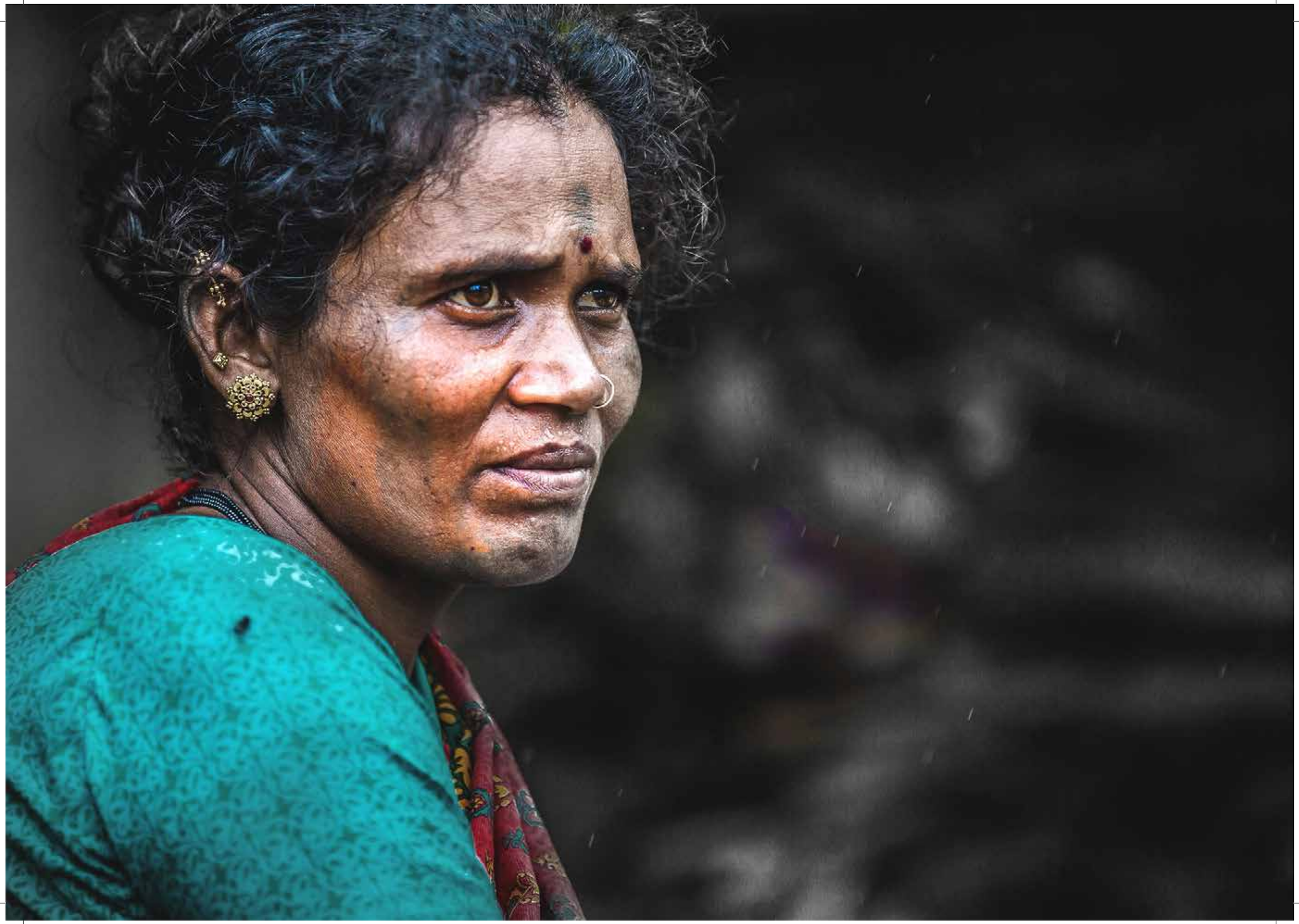
FOREWORD

We are undergoing a tremendous change in the way we look at addressing tuberculosis (TB) in this country. India has the highest number of TB cases in the world and it has long been the government's priority to eliminate the disease for a TB-free India through the Revised National Tuberculosis Control Program (RNTCP). In 2017, the Government of Karnataka conducted a campaign on Active Case Finding (ACF) in three phases, to find people in the community who may not be aware that they have TB. It was the intention of the government to get these patients to the right treatment and at the right time to prevent the spread of the disease.

The exercise involved stake-holders right from the Honourable Minister, who took an active interest in the campaign, to the government machinery and communication channels. Field teams found over 4000 cases of TB after screening a population of about 1.2 crore during the three phases of the campaign. I commend the efforts of state officials, frontline workers, NGOs and other associations who worked tirelessly to detect TB cases in the hard-to- reach populations of Karnataka. This book commemorates their dedication and hard work towards our cause to fight TB, which is a disease that severely affects the quality of life and livelihoods, and is often fatal if not treated in a timely manner. However, these efforts are just the tip of the iceberg. There is much more to be done if we are to meet the goal of ending TB by 2025. The active participation of various stakeholders is very important to formulate a strategy to tackle TB. The media is an important stakeholder to spread the message that TB is curable and that there is no reason for people with TB to hide themselves. We have NGOs and other associations who actively participate in various health activities at the grassroots level. I urge them to come and work with the government.

I also urge the participation of physicians from the public and private sector, field level workers including the ASHAs and ANMs, medical officers, the private sector and other associations who can contribute in a positive and symbiotic way to the government's efforts to fight TB. It is of utmost importance to have the involvement of the people, who are equal stakeholders, to achieve our shared vision of ending TB by 2025. There is much more to be done, so we must work hand in hand to ensure health for all and health everywhere.

Dr Rathan Kelkar, IAS
Mission Director, National Health Mission
Government of Karnataka



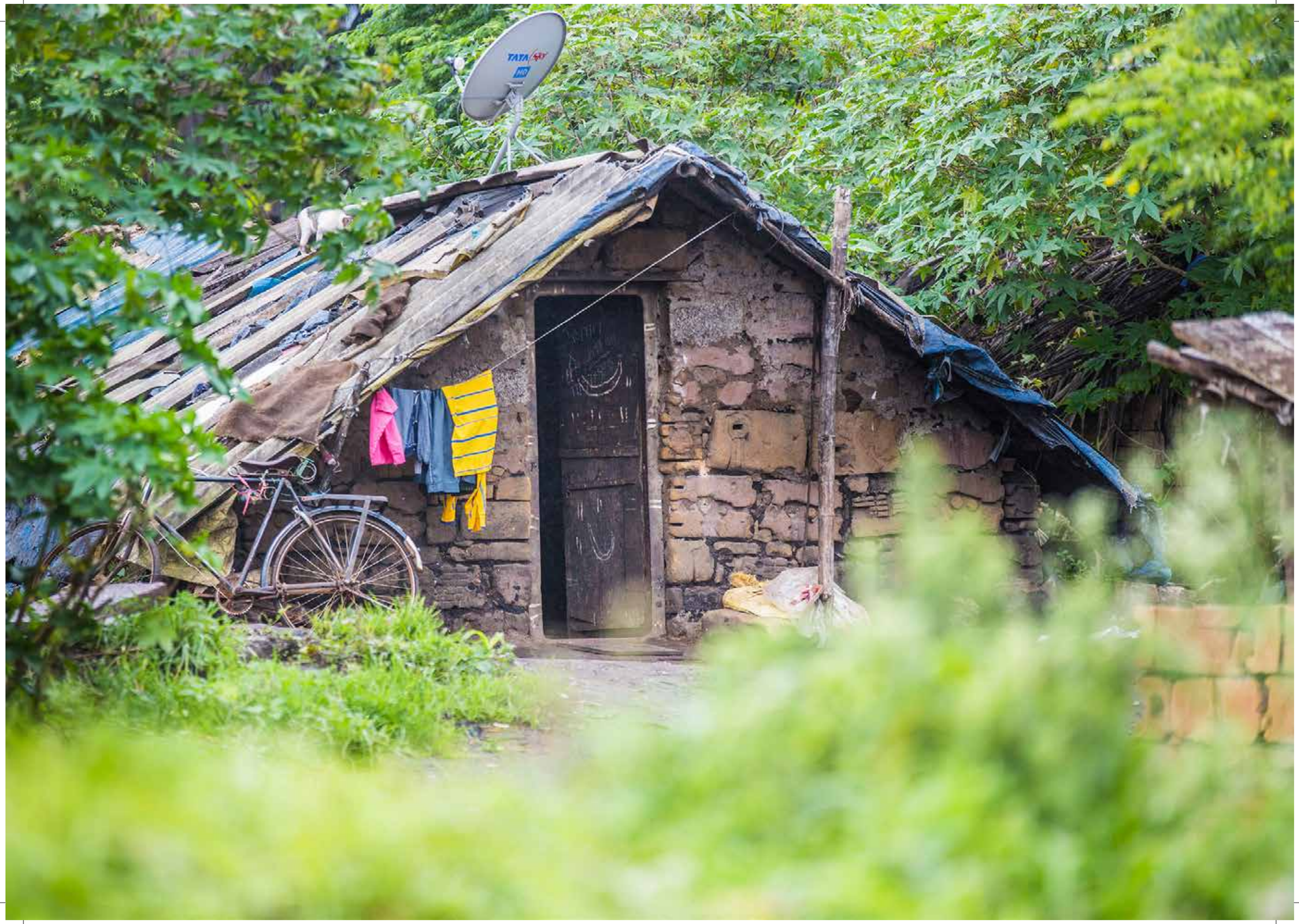
PREFACE

It's been a great pleasure to be associated with the government's Active case Finding (ACF) campaign and I am pleased to present this book "Reaching the Unreached: Active Case Finding for Tuberculosis in Karnataka", which captures the highlights of all three phases of the campaign in the state. This is the story of an innovative approach by the government to ensure that tuberculosis (TB) screening and case detection was taken out of health facilities and into communities which, for a variety of reasons, were less likely to seek out facility-based care for TB. KHPT has been working for 15 years to enhance the wellbeing of communities through evidence-based, innovative, sustainable and scalable programs in areas of public health including HIV/ AIDS, maternal, neonatal and child health, adolescent health and education, and tuberculosis. The organization has worked in close collaboration with government initiatives for TB elimination over the course of seven years. These interventions were aimed at achieving higher awareness of TB, increased case detection, effective patient care and support, and improved treatment outcomes.

Currently, we implement the Tuberculosis Health Action Learning Initiative (THALI), a four-year program funded by the United States Agency for International Development (USAID). This project has given us the opportunity to continue our engagement with the government and fortify our collaborative efforts with the RNTCP, state and local governments to achieve the long-standing vision for a TB-free India. It was an enriching and rewarding experience for the THALI staff to work closely with the field teams during house-to- house visits conducted in Bangalore during the ACF campaign. We will continue to engage with our partners and the government, in close alignment with the RNTCP, to bring in evidence-based and innovative approaches to community engagement and family-centred care to achieve the government's ultimate goal of eliminating TB in India by 2025.

Dr Prakash Kudur
Project Director THALI
KHPT

Mohan HL
Managing Trustee
KHPT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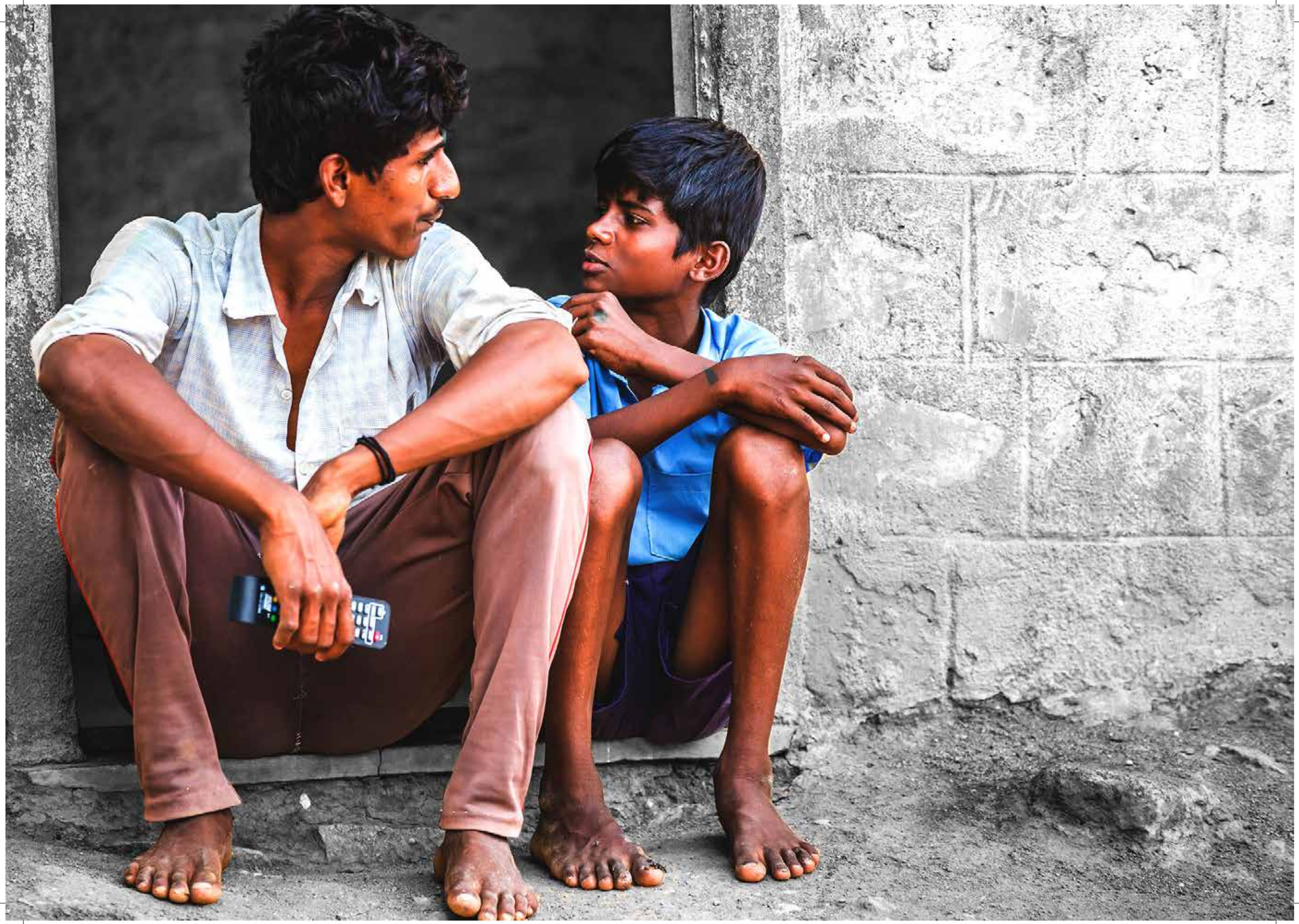
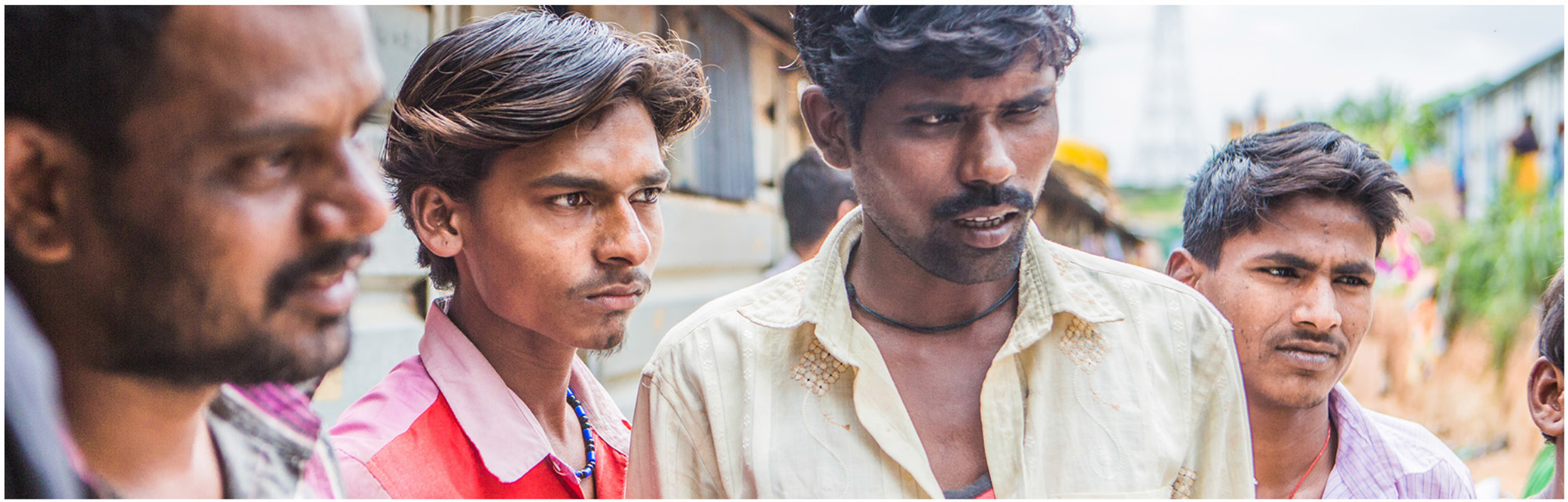
CONTENT



About tuberculosis

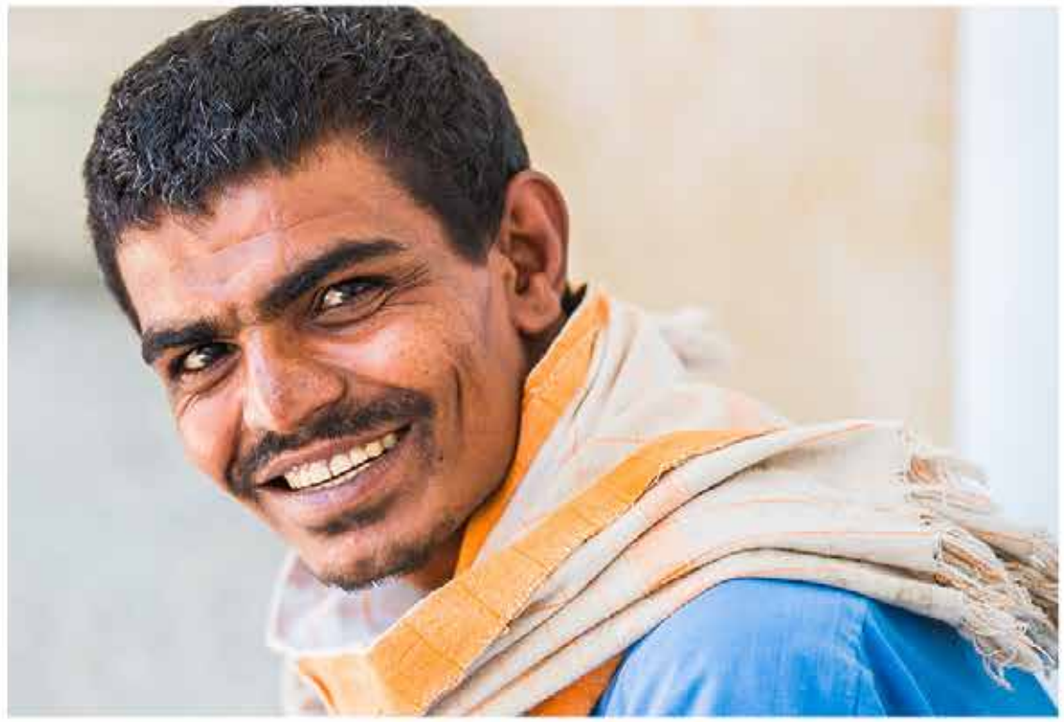


Surendra* is a young man of slim build who works in a factory in Dharwad creating parts for construction machines. A fitness enthusiast, he would spend hours at the gym and do yoga regularly. At work, Surendra was surrounded by grinding machines and air thick with dust. Despite being provided with a protective mask, he often failed to use it because he found it uncomfortable. A few months into his job, he developed a cough and began feeling weak and tired throughout the day. He had always thought he was healthy, so he ignored his symptoms. After some weeks, as his condition worsened, he visited a doctor. A sputum test and a chest X-ray would confirm that he had tuberculosis (TB). Surendra found it difficult to accept his diagnosis, and the loss of his earnings. He listed into a depressed state, and his family members suffered, unable to understand how to help him. TB confined him to his bed for four months before he began to feel better. It was a long journey to recovery, but after six months of treatment, he felt well enough to begin reclaiming his life from the disease that had, for some time, taken it away.

This is the story of hundreds of TB patients, who find themselves stricken with symptoms that they don't always associate with a debilitating disease. TB is a disease that hides in plain sight, often masquerading as a simple cough, low fever or body pain.As the bacteria which cause TB begin to strengthen their hold on the body, they manifest as fevers, night sweats and weight loss, symptoms that are associated with so many illnesses that TB is rarely thought of as the first culprit. If the disease remains untreated, symptoms progressively worsen, weakening the body and in severe cases, leading to death.

**Name changed to protect privacy*

TB is known primarily to affect the lungs, but it can affect almost any part of the body, making it difficult to diagnose until symptoms are severe. Whenever a person with TB coughs, sneezes, spits, shouts or sings, the bacteria spread in tiny droplets and can infect anyone who breathes them in. The disease thrives in populations which live in overcrowded and under-ventilated areas, making the poor the most vulnerable to it. TB is also most likely to take root in persons with low immunity, including those with HIV/AIDS and diabetes and in women, children and the elderly. Persons working in high-risk occupations such as construction workers, miners and garment industry workers, who are exposed to hazardous particles and low air quality in their work environment, are particularly vulnerable to TB since their lung function is already compromised.



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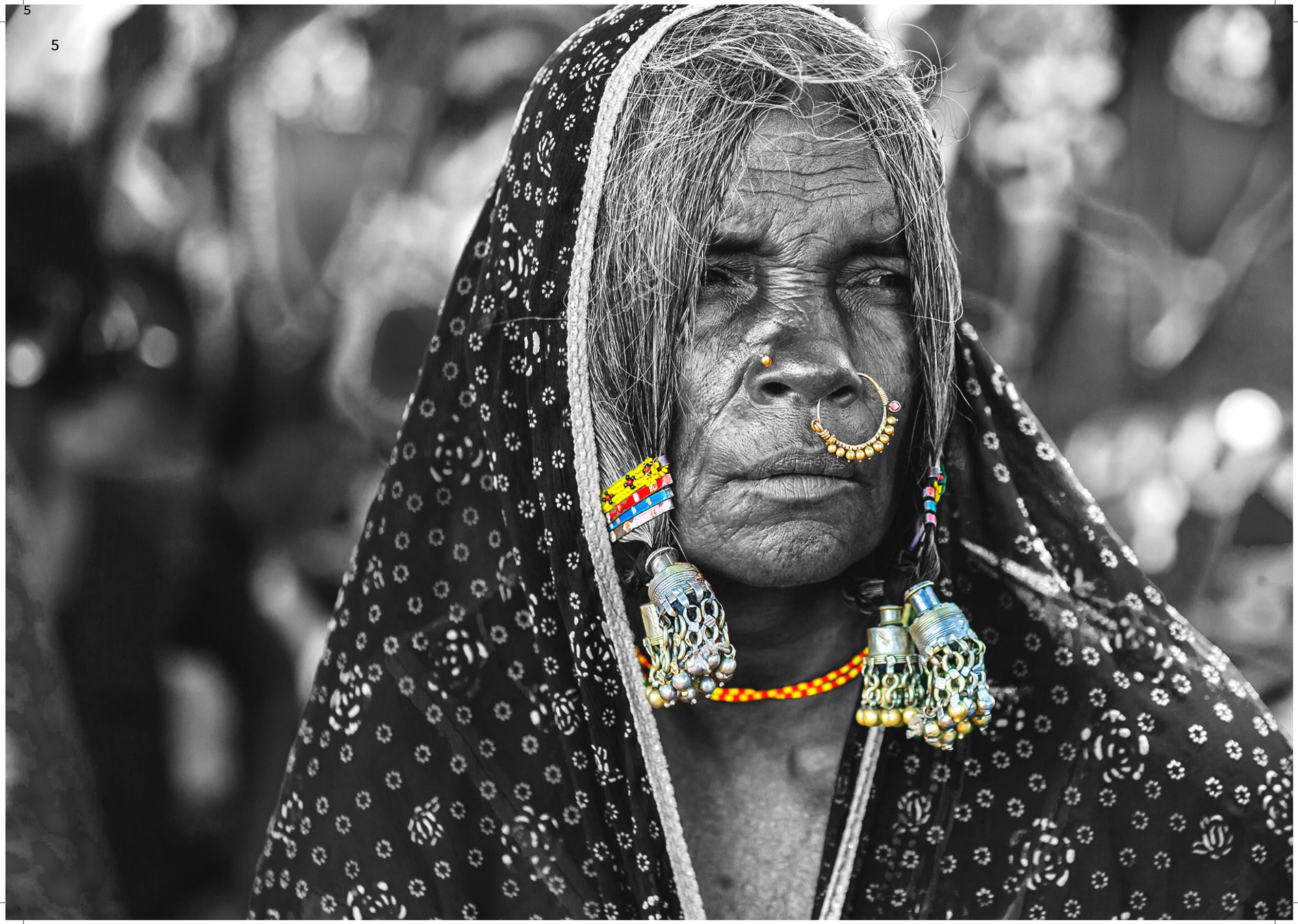

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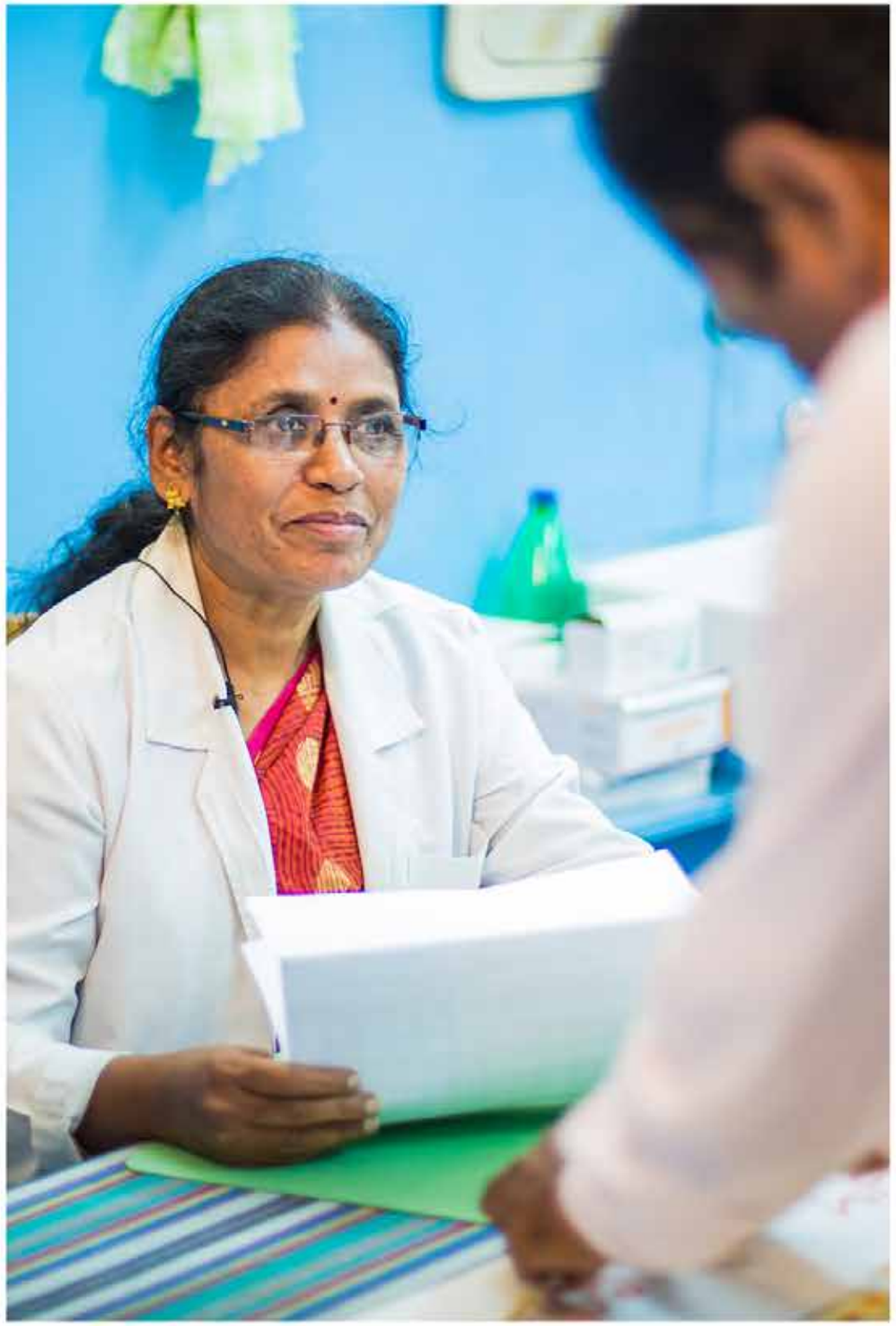
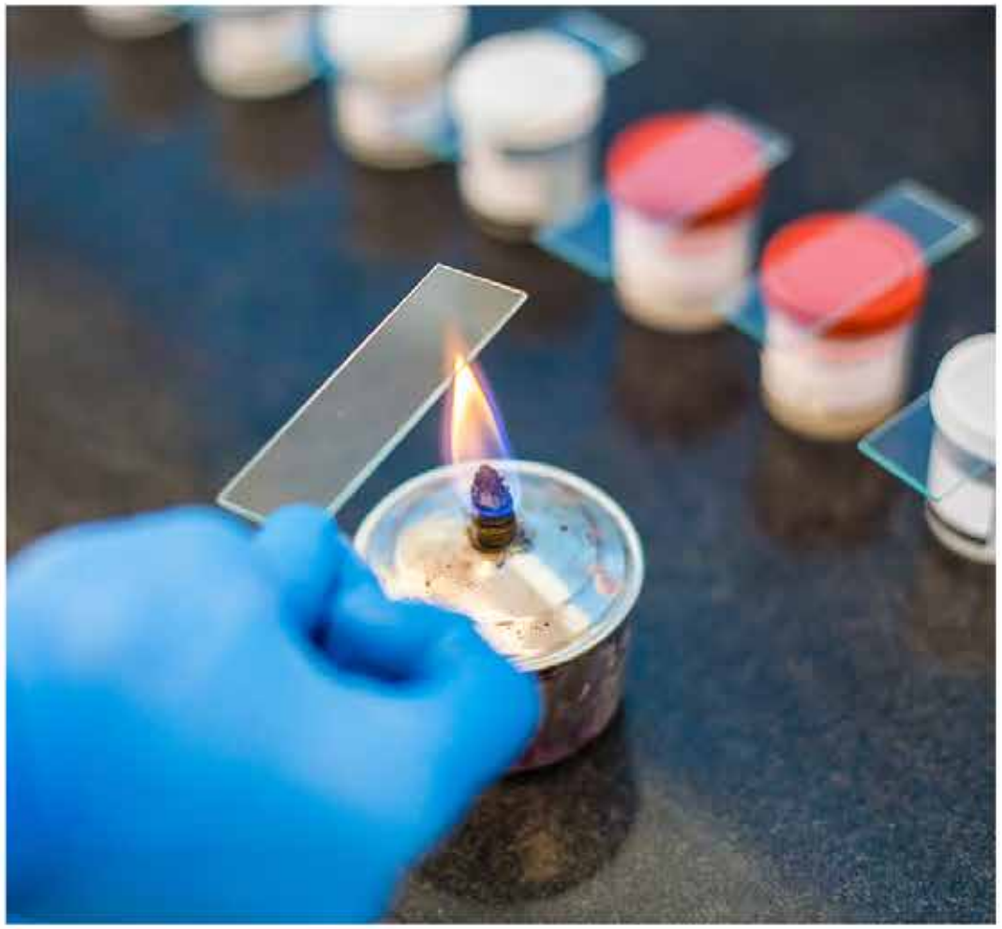
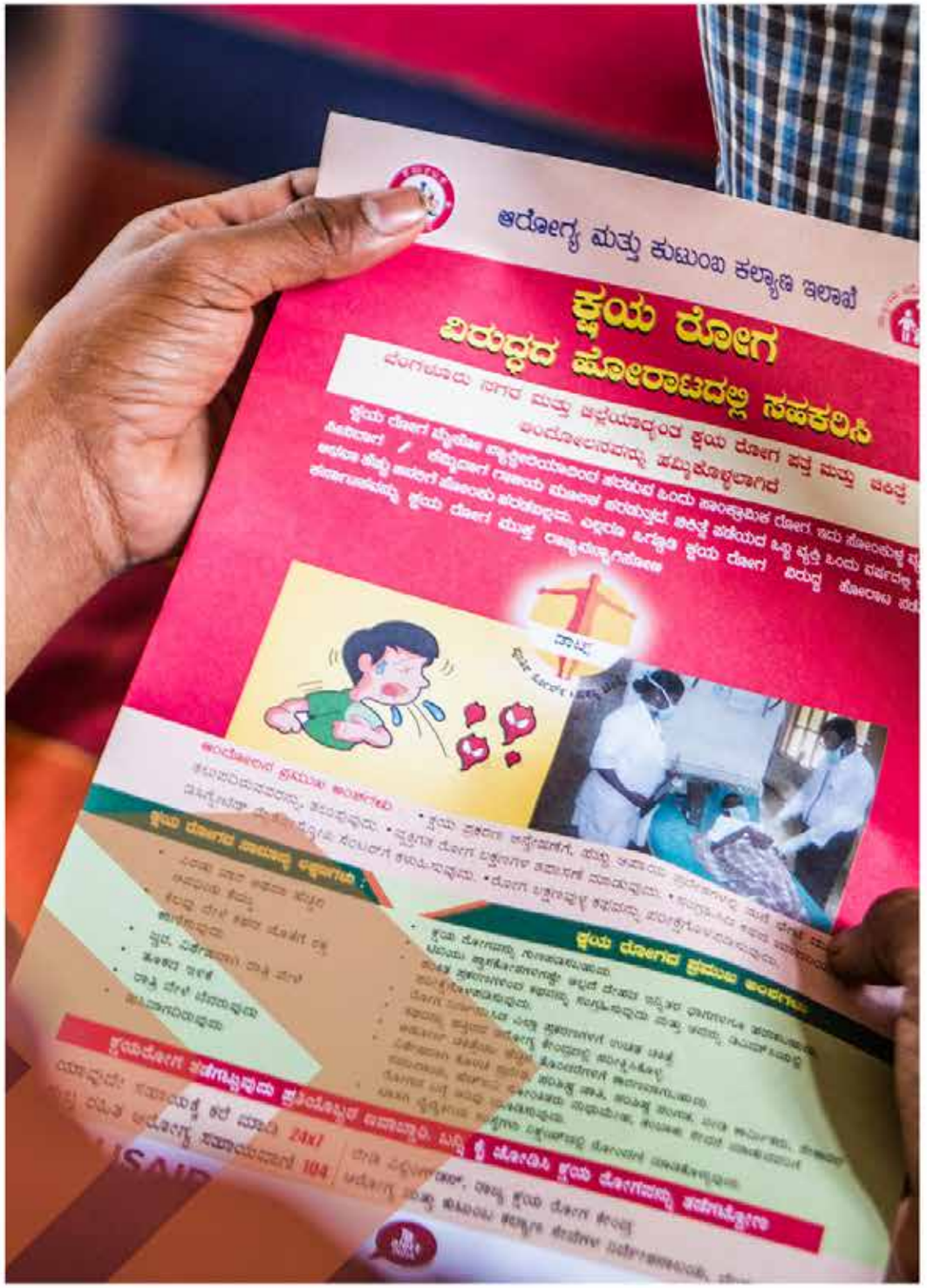
The government of India's efforts to eliminate tuberculosis



India is the country which bears the burden of the highest number of TB cases in the world. TB kills an estimated 480,000 Indians every year and more than 1,400 every day. India has the highest burden of both TB and Multi-Drug Resistant TB based on estimates reported in the Global TB Report 2016, accounting for 27% of the world's 10.4 million new TB cases, and 29% of the 1.8 million TB deaths globally. TB is also the leading cause of death from infectious disease in India and contributed to 37,000 deaths in 2016. A single infectious TB patient can potentially spread disease to at least 10-15 contacts in the family and community in a year. India also has more than a million missing cases every year that are not notified. Most remain either undiagnosed, unaccounted for or inadequately diagnosed and treated. Yet, for all of the damage caused by TB to lives and livelihoods, it is preventable and curable.

India's Revised National Tuberculosis Control Program (RNTCP) envisions a TB-free India and proposes bold strategies to rapidly reduce the burden of TB in the country by 2030, in line with the global End TB targets and Sustainable Development Goals. The RNTCP's National Strategic Plans for TB have laid out comprehensive strategies to provide universal access to TB diagnosis and care in its effort to achieve the target India has set for itself, to eliminate the disease by 2025.Through the RNTCP, TB patients are offered a multitude of benefits, including free diagnostic tests, treatment and follow-up support to patients.





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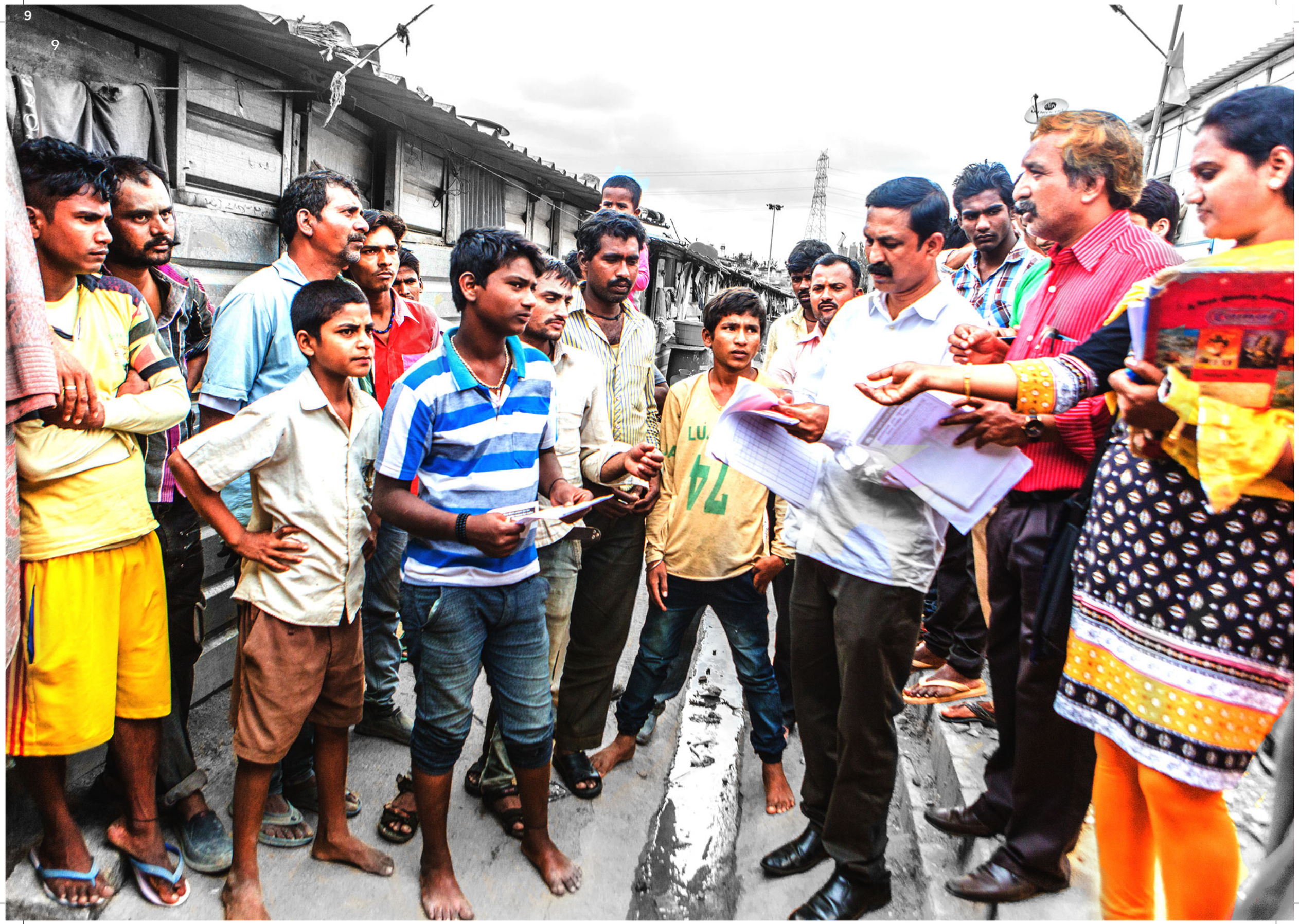
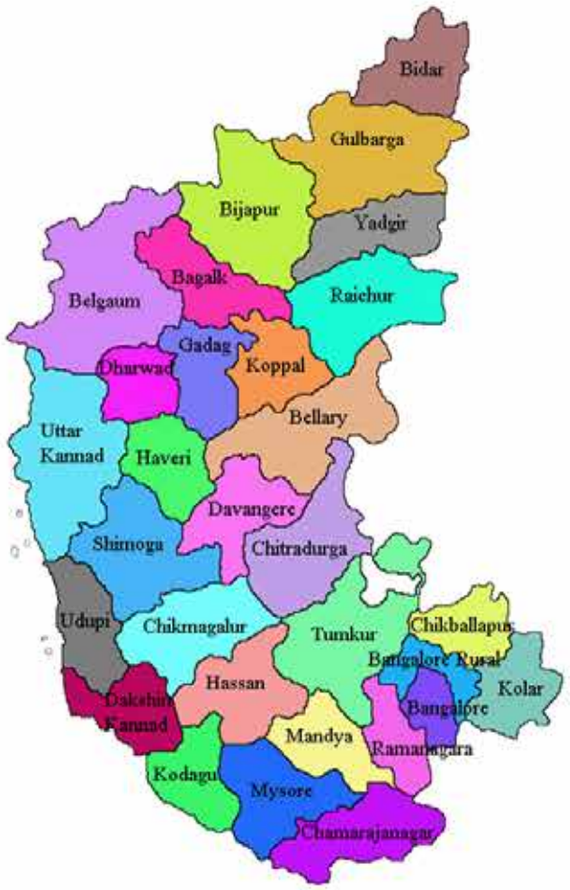


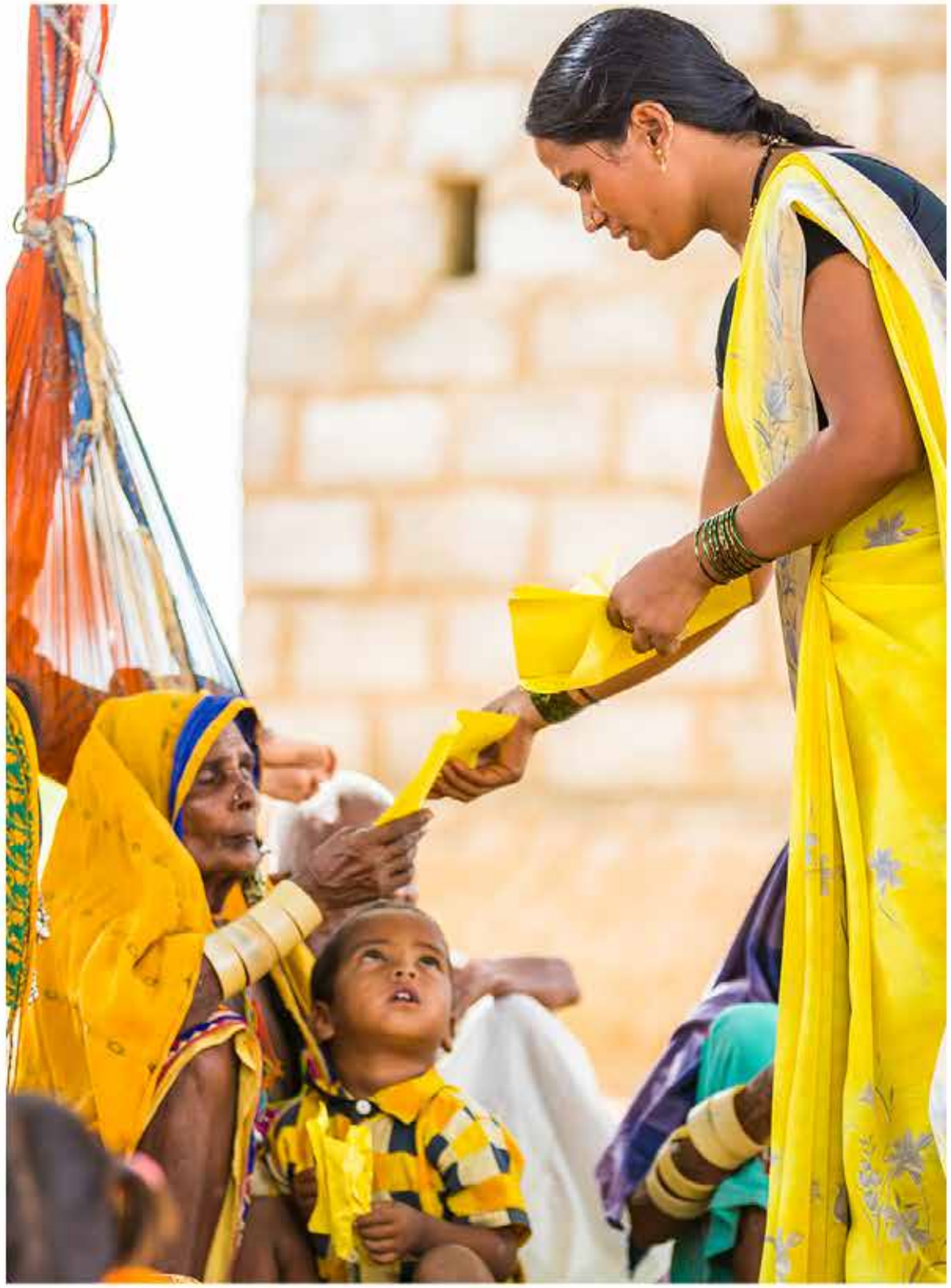
The birth of the ACF campaign

The first phase of the ACF campaign in Karnataka was first carried out in the three districts of Bangalore City, Bangalore Rural and Bangalore Urban from January 16 - 31.

In the next phase, the campaign was extended to 11 districts. In the last phase in December, the campaign reached out to vulnerable populations in 20 districts.



Over three phases of the campaign, the program screened a total population of over 1.2 crore and diagnosed over 4000 cases of TB.

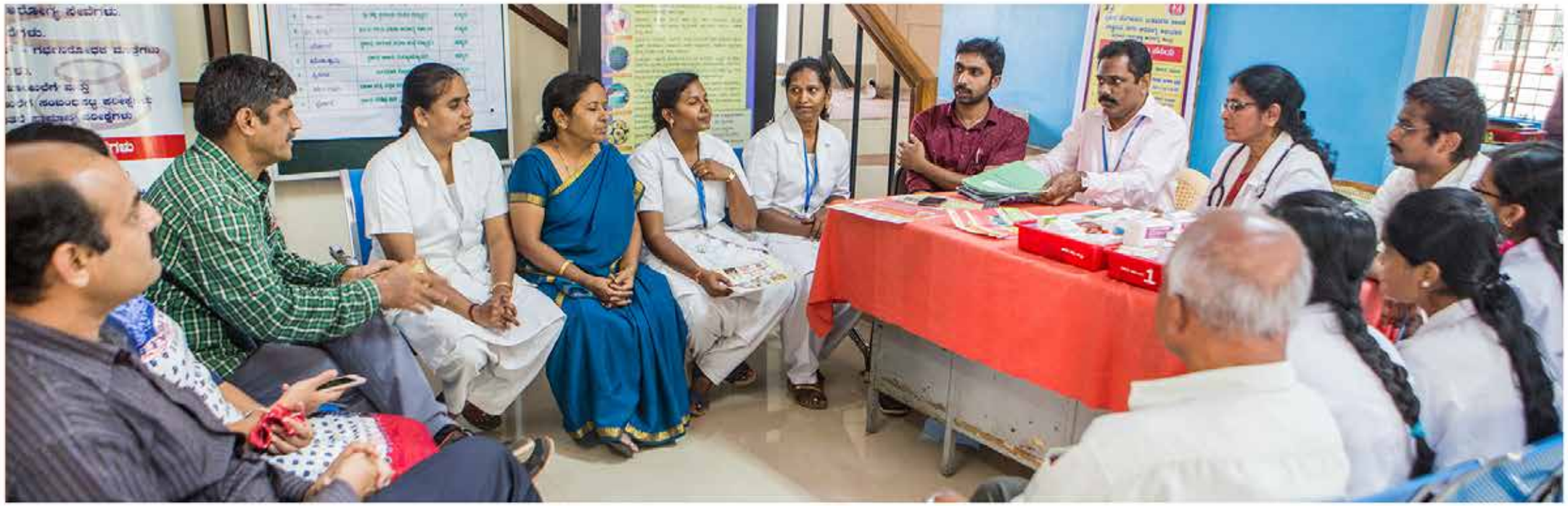


This massive undertaking called for months of planning involving staff at each level of the health system, officials of the RNTCP, healthcare facility staff, and frontline workers including ASHAs and Junior Health Assistants. The campaign enlisted the support of NGOs and community-based organizations which were firmly rooted in the communities to ensure maximum efficiency and reach within each population group.

PLANNING

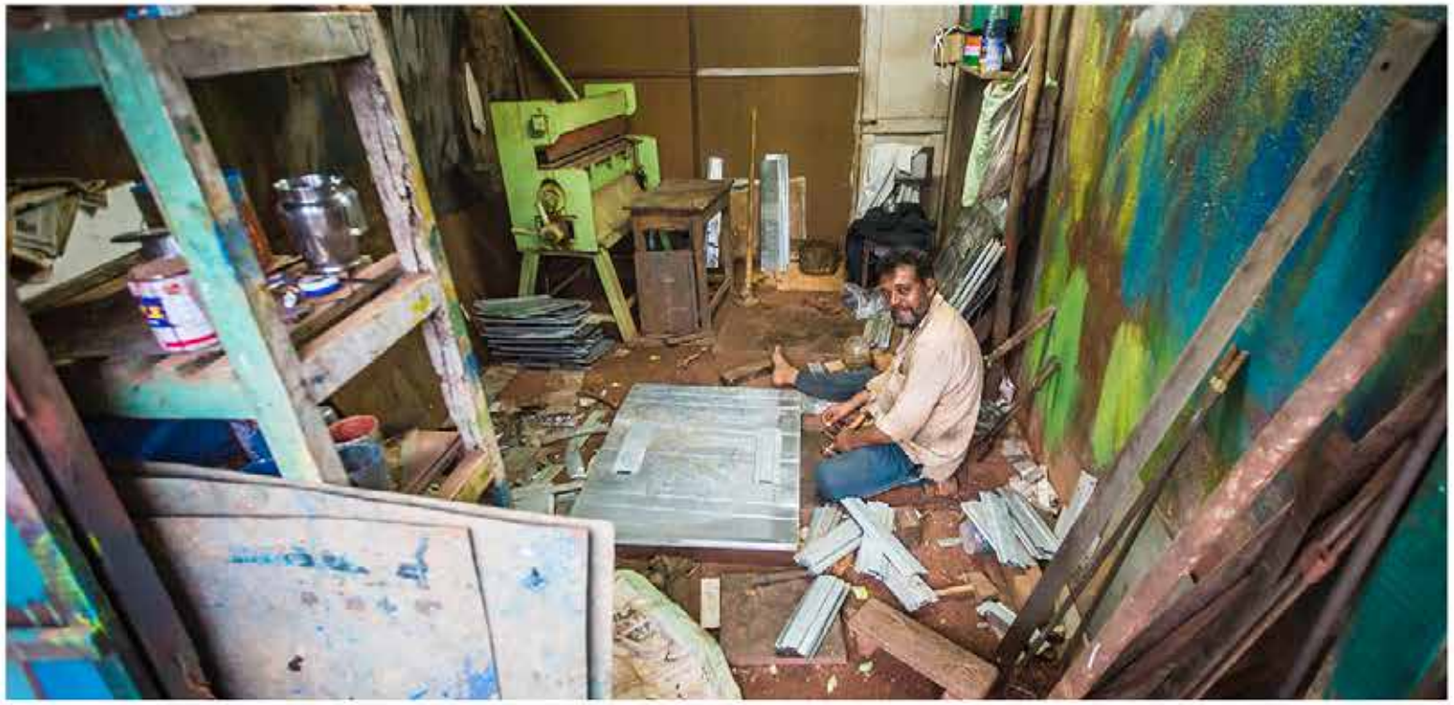
Mobilization and coordination of key stakeholders

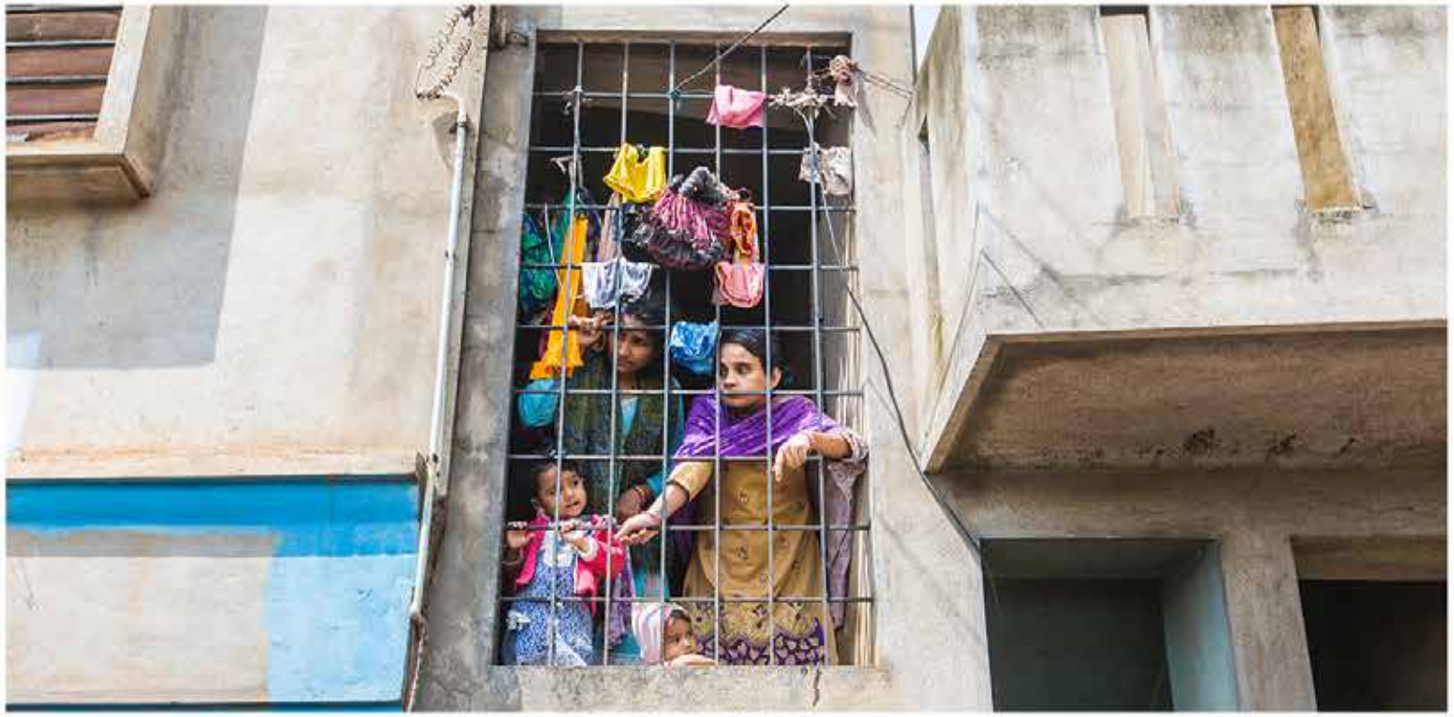
The ACF campaign mobilized government officials starting from the ward and block levels, all the way up to district and state levels, through workshops and trainings on how to strategize, implement and coordinate the ACF campaign through the preparation of micro-plans, taking into account the ground realities and feasibility of implementation. District and block officials conducted trainings and sensitization workshops for frontline workers like the ASHAs on sputum collection and transportation, making home visits, use of data collection formats and family - focused communication to disseminate knowledge on TB. The early planning phase for ACF built common understanding and ownership among all officials and health staff involved in the campaign.

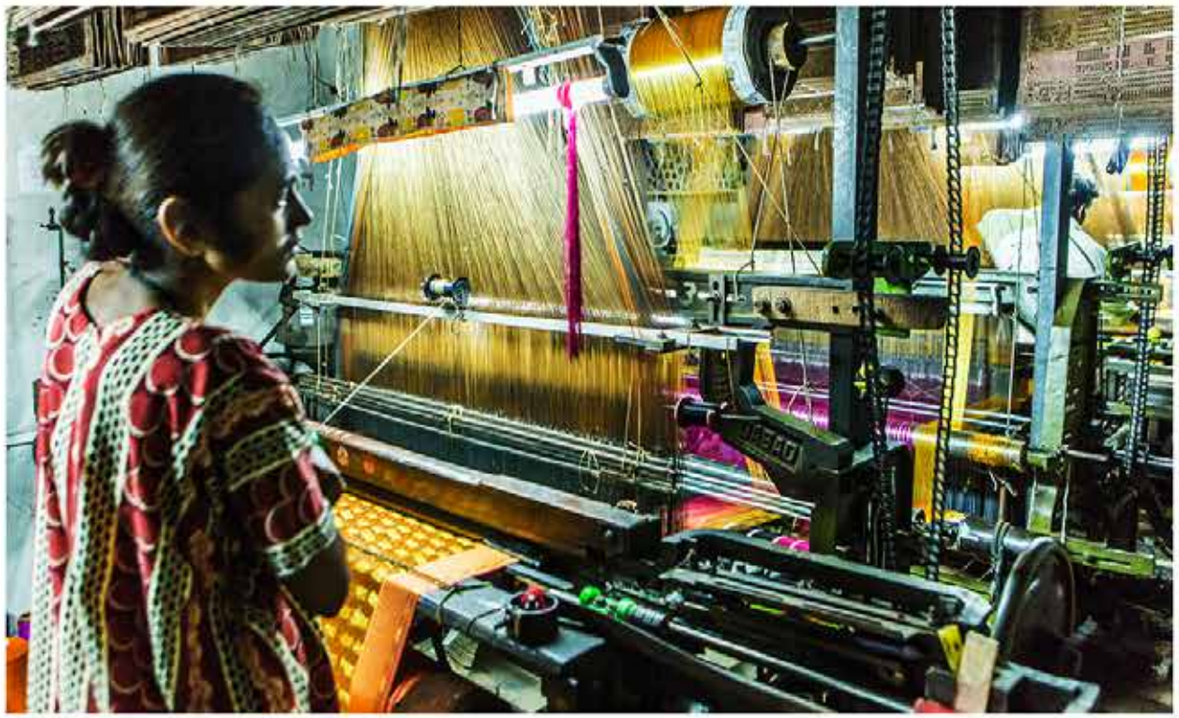


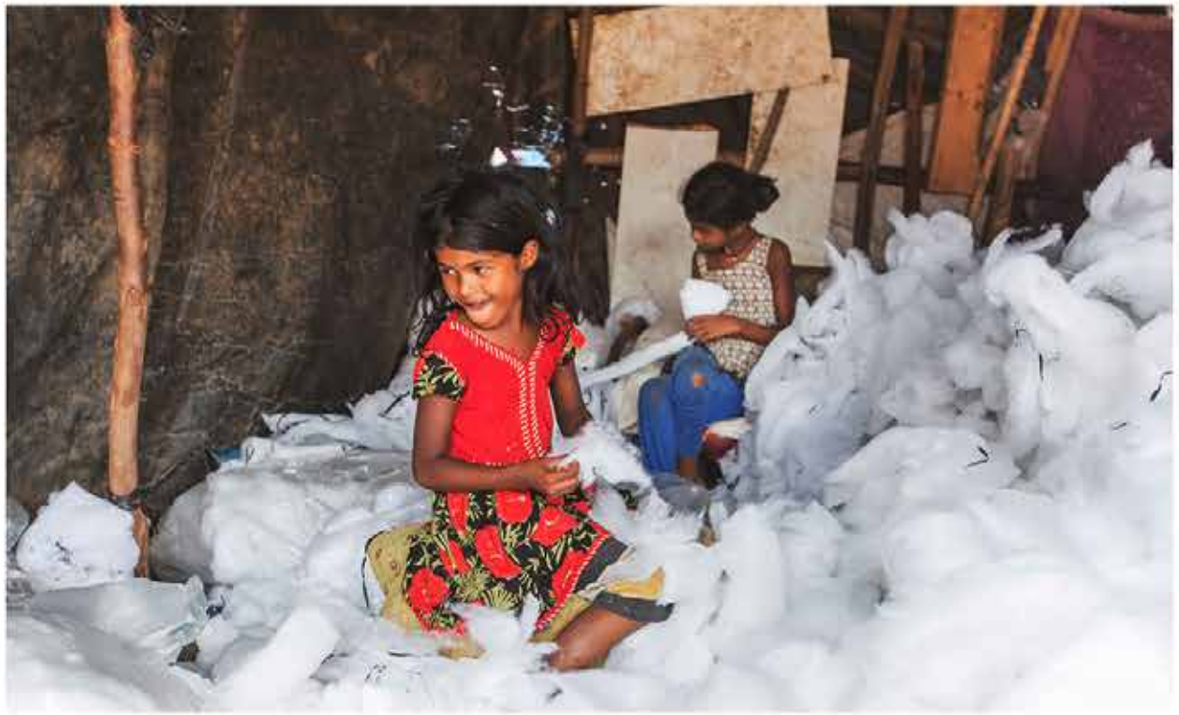
Mapping vulnerable populations

Mapping was the most important exercise in determining which high-risk populations would be screened during the campaign. It also helped anticipate challenges in accessing remote or mobile populations. Some groups, including miners, construction workers and garment industry workers were chosen because their unhealthy work environment and exposure to hazardous particles makes them vulnerable to developing TB. The urban poor in slum areas were identified because they often live in crowded and under-ventilated settlements. The campaign also focused on institutions such as prisons, juvenile homes and rehabilitation centres, where TB is likely to spread as inhabitants live in close proximity. Remote tribal populations with little access to a health facility were also selected. Persons living with HIV, who are extremely susceptible to TB because of their low immunity would be screened as well. In each of these groups, there was a special focus on women, children and the elderly.



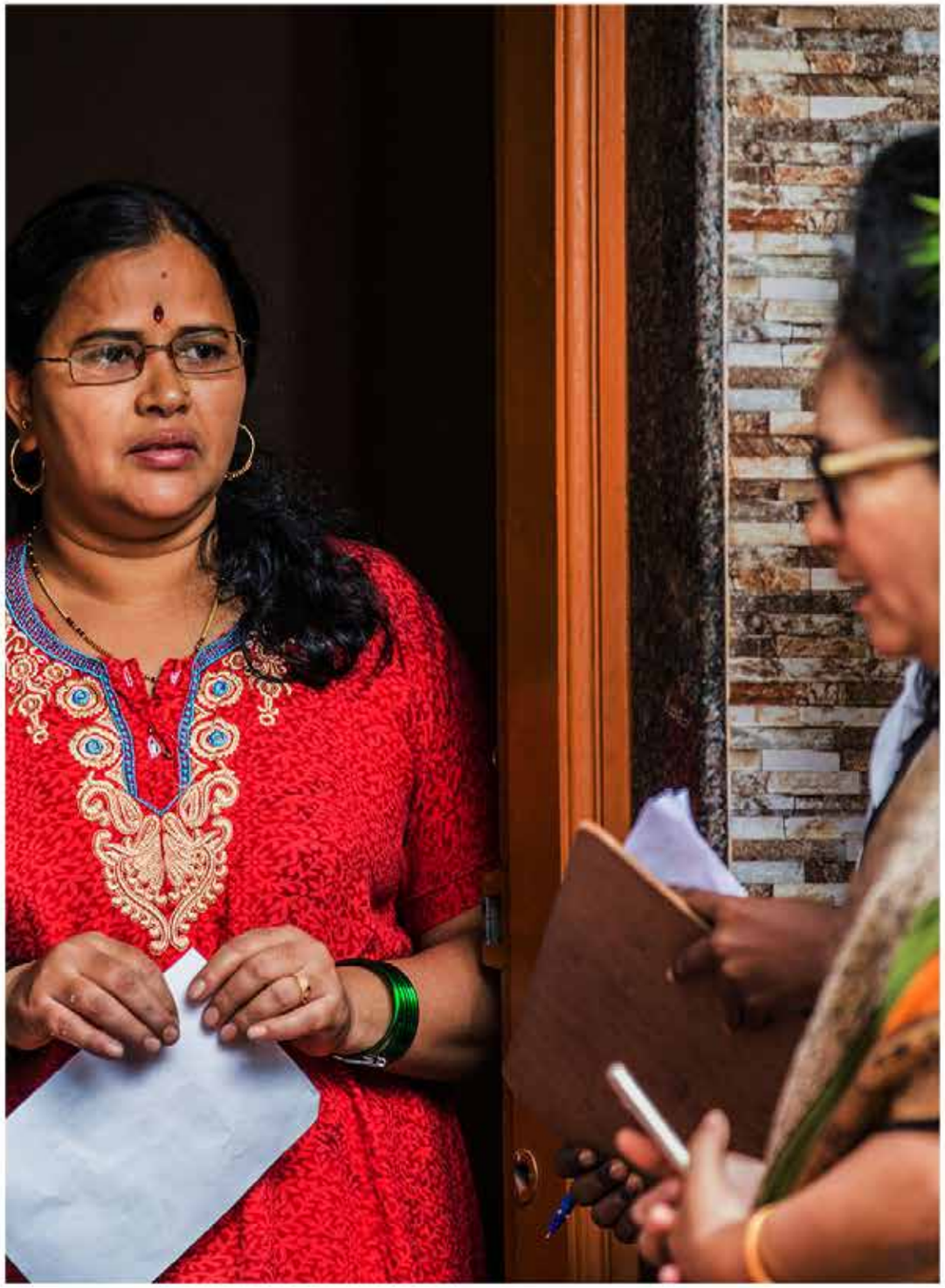






Preparation of micro-plans

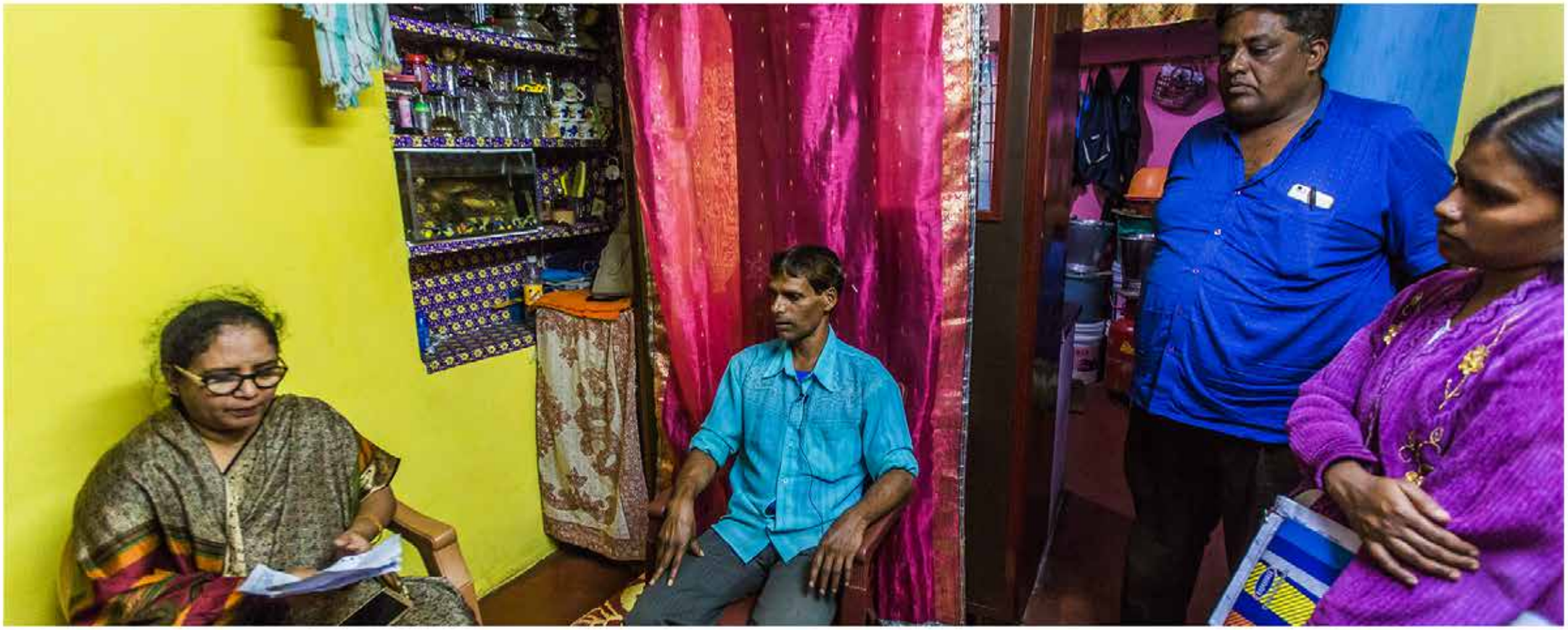
The micro-plans helped devising processes through the campaign that ensured maximum coverage by the designated ground teams. These plans specified the composition of teams to undertake door to door visits, the exact area to be covered and the number of houses enumerated for visits each day. The plans also chalked out channels to link samples to the nearest testing facilities, the requirements for specific medical equipment and platforms for carrying out information, education and communication (IEC) activities.



IMPLEMENTATION

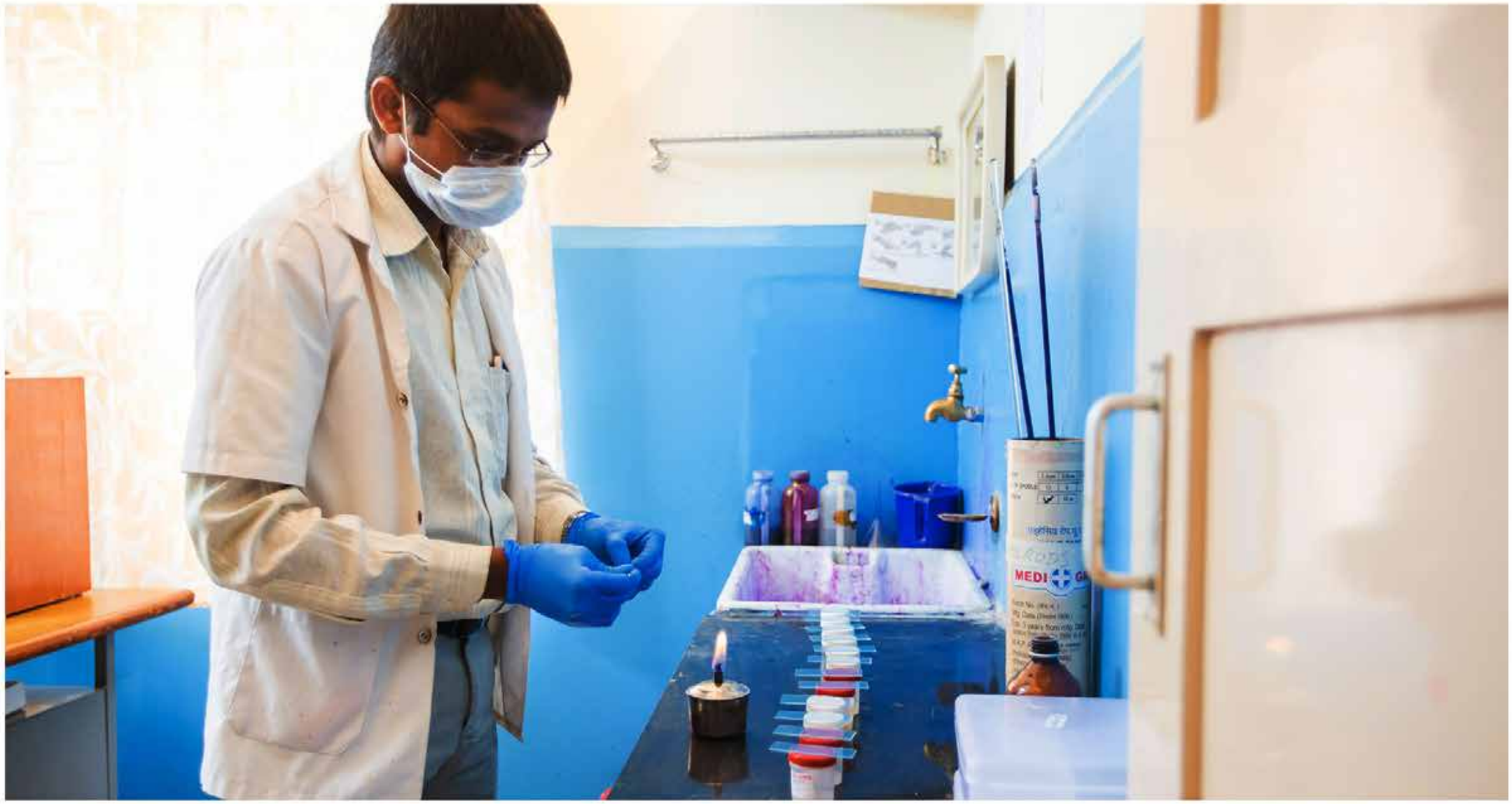
House-to- house visits

Each morning, small groups of field staff fanned out into the communities like foot soldiers, wending their way through narrow streets lined with wall-to- wall houses. Fully equipped with IEC materials and data entry forms, each team of healthcare workers, NGO representatives and general health staff would go to each home, speaking to families about TB. They checked each family member for cough, fever, chest pain, weight loss, and symptoms of extra-pulmonary TB, including joint and back pain. They took down details of absent family members, and marked empty houses with chalk to be visited at a later date. Persons with symptoms were given sputum cups, and samples were collected and sent to laboratories for sputum smear microscopy. If found positive, treatment was initiated within two days. Persons who tested negative, but displayed symptoms, had their samples sent for X-Rays and for the most accurate diagnostic test, the CBNAAT.

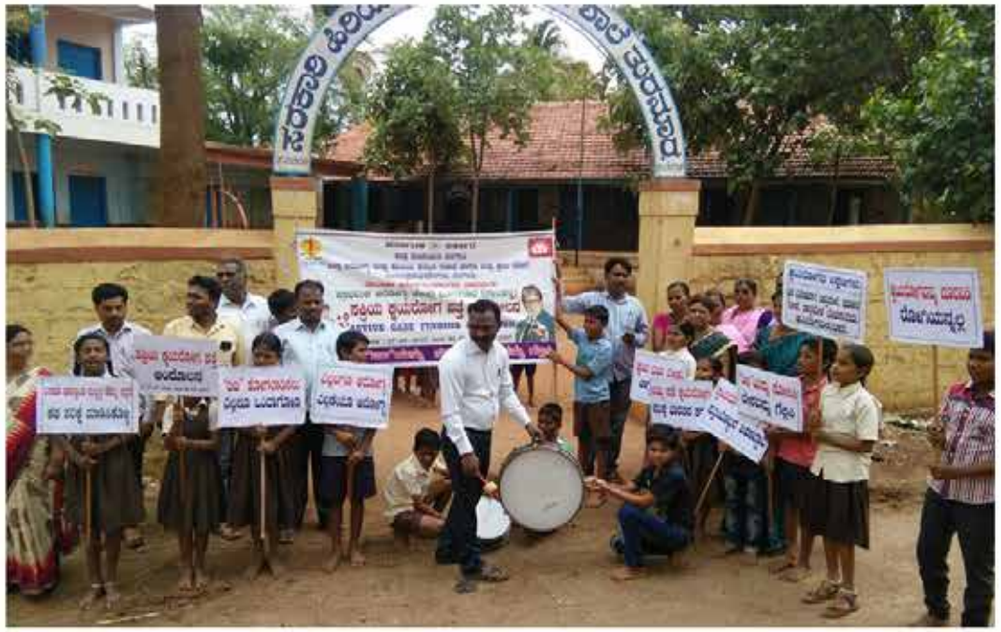


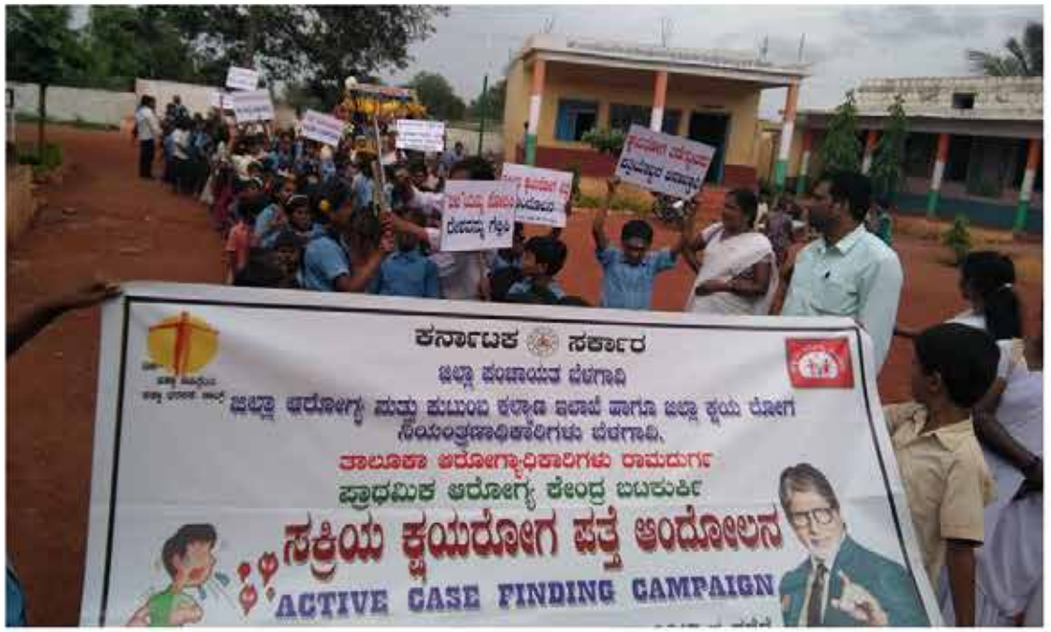
Screening at institutions

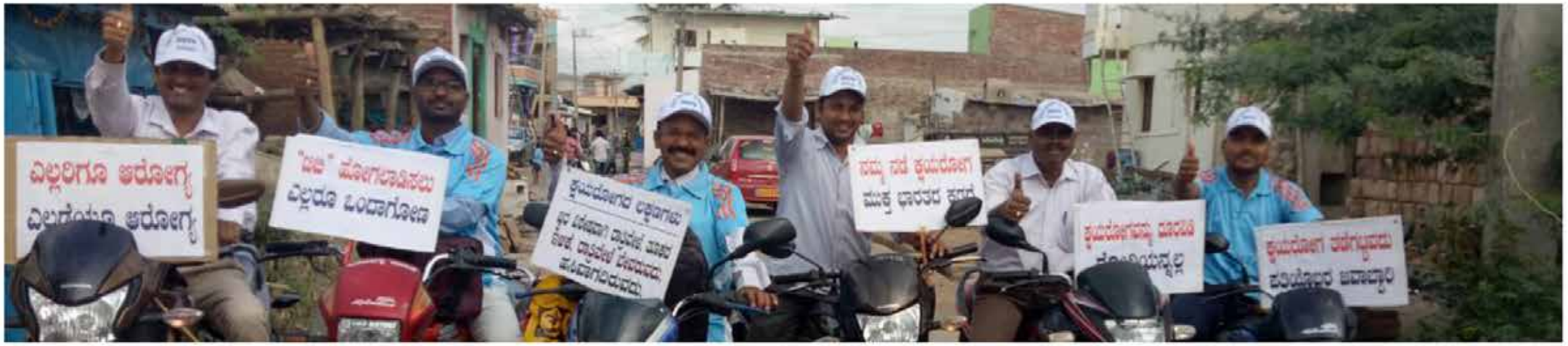
The ACF campaign also extended its outreach to select institutions, where overcrowding could play a part in spreading the disease or where persons were unable to seek medical attention for themselves. Field teams listed in advance a set of institutions including old age homes, prisons, orphanages and rehabilitation facilities, and coordinated with the managing authorities to conduct screening and IEC activities there.



IEC activities







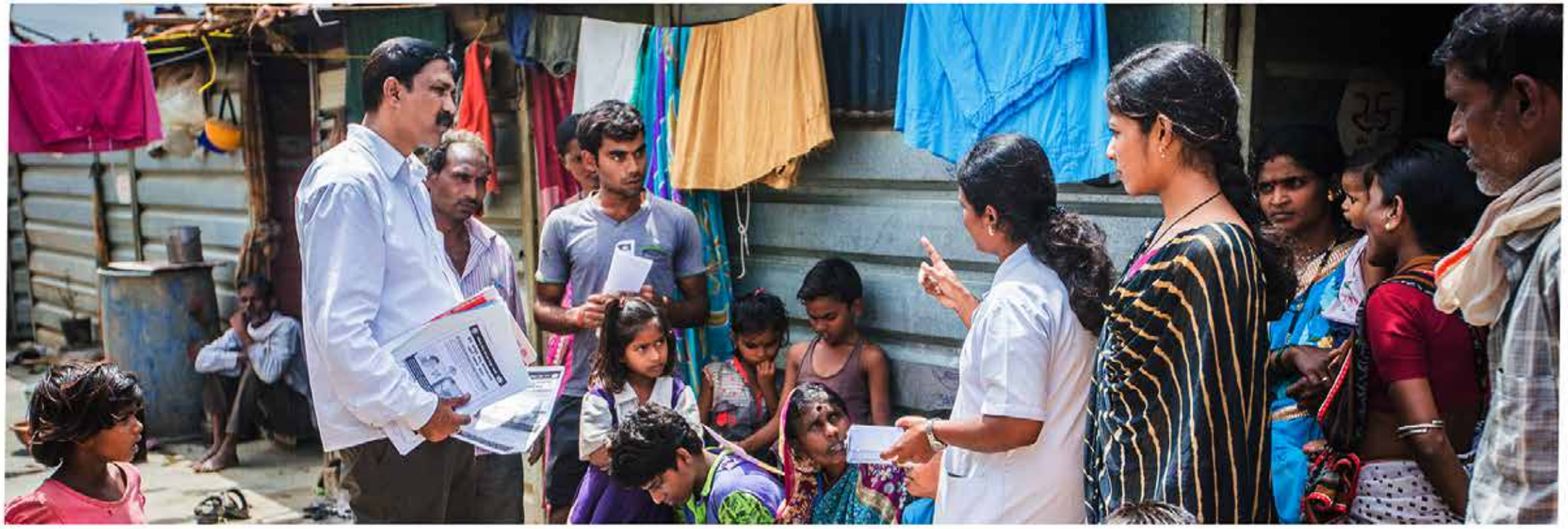
Field teams offered screening only for vulnerable populations, but going deep into the heart of each community was a golden opportunity to spread awareness about TB. The teams addressed groups of people, both large and small, in these communities and distributed information leaflets talking about TB symptoms and the healthcare facilities available to them. Street plays were a popular form of engaging with the communities. ACF also involved a mass media campaign through channels appropriate to different populations to disseminate information about TB and the ACF initiative.

Documentation and analysis

Field teams filed activity reports every day and submitted them to the Medical Officer of the Primary Health Centre, Community Health Centre or Urban Health Centre. The Medical Officer would send daily updates through consolidated reports to block-level officials and the data was digitized. These reports were analysed to assess the reach and the progress of the campaign.

CHALLENGES

The micro-plan was intended to anticipate and prepare teams for the challenges that they would face during the campaign. However, plans on paper could not fully capture the realities of field activities, and the teams had to deal with numerous circumstances that were beyond their control. Although they had undergone training for TB screening and knowledge dissemination, they had to, on some occasions, modify their communication strategies when dealing with communities that were less receptive to their messages and refused screening. In such cases, the teams enlisted the support of key opinion leaders and health workers including the ASHAs and Anganwadi workers, who were familiar and trusted faces in the area. The teams also had to adopt gender sensitive approaches to ensure that both men and women across communities were adequately comfortable to respond to the teams. To effectively reach out to remote areas, teams travelled long hours over difficult terrain and impermanent roads, which sometimes slowed their progress. The second phase of the campaign was hit by downpours which turned the streets into slush, hindering their movement. The teams would often arrive to find that many daily wage labourers had left for work before they had even begun screening. The field teams had to think on their feet to complete their activities according to schedule. They began visiting the communities as early as 6 a.m. in order to catch them before they left from work. And as for the rain, the team had no option but to soldier on, single file, through puddles and under dripping roofs, sheltering under umbrellas! The campaign owes its success to the undeterred spirits of the ground teams.



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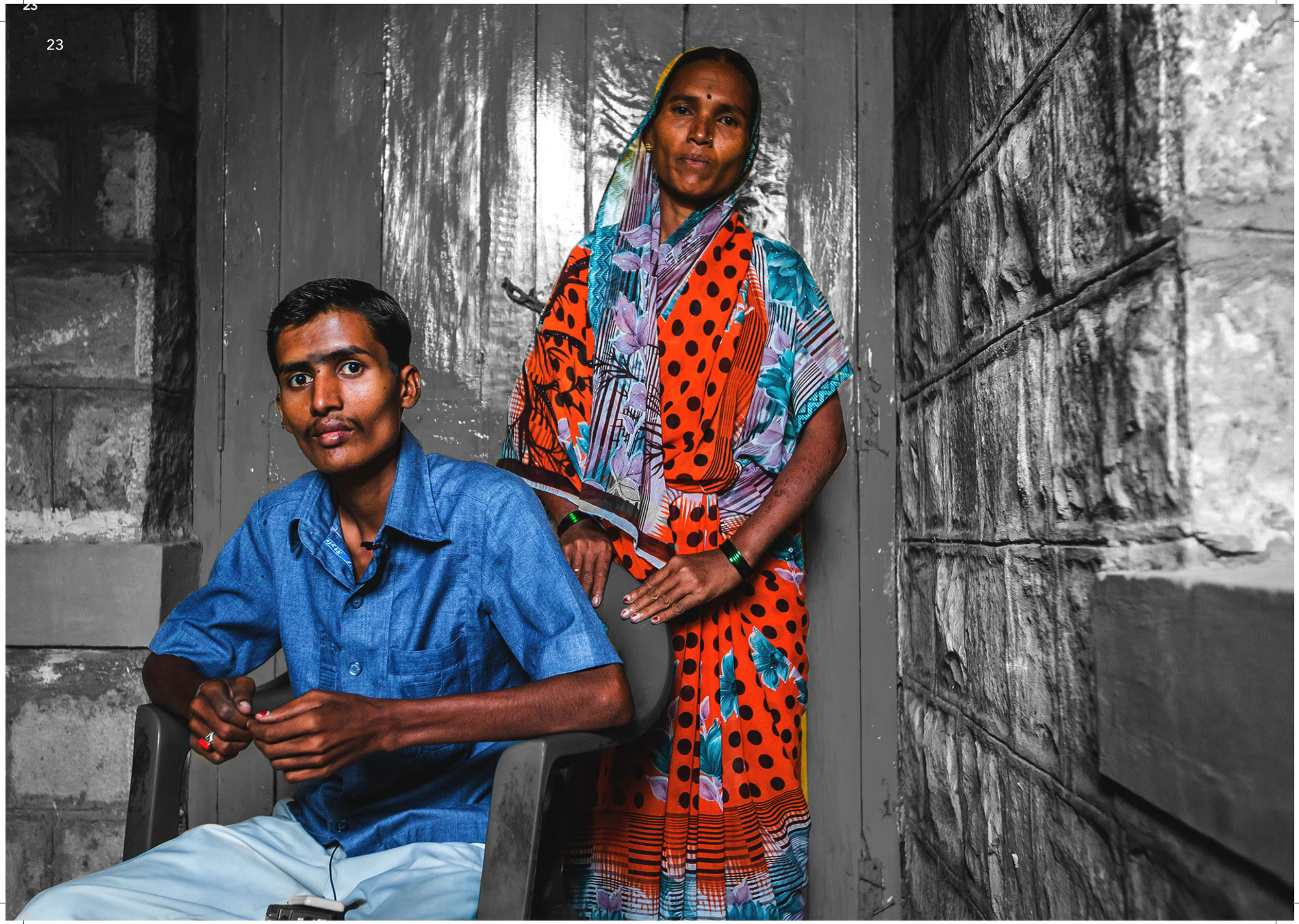


Voices
from the campaign

"Early detection and complete treatment is the mantra. Karnataka adopted this approach through ACF and we found over 4000 cases of TB."

- Dr Ramachandra Bayaree , State Tuberculosis Officer

"A combination of effective and intensive efforts at information, education and communication activities in the community, extensive media coverage, and internal communication and coordination among the RNTCP staff contributed to success of the campaigns."

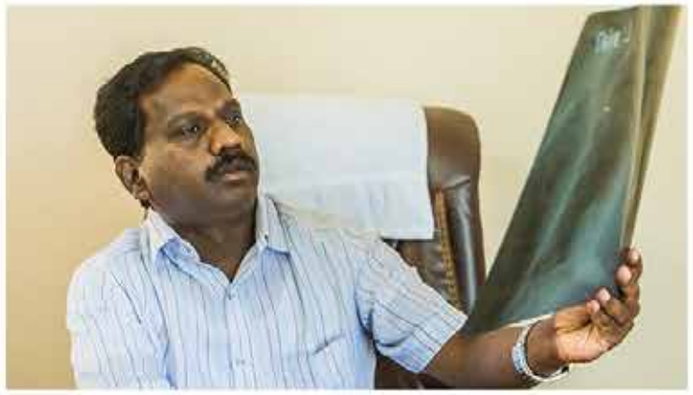
- Dr Suresh Shastri, Senior Specialist, RNTCP

"During the campaign, we made sure that we were right at the doorsteps of people. Not only did we educate them on the symptoms of tuberculosis, but we also screened them and collected samples from symptomatics straight away and sent them for testing."

- Dr Srinivas, District Tuberculosis Officer, Bangalore Urban

"We have screened the highly vulnerable communities. But we need to universalise the coverage. We need to cover the general population too!"

- Dr Arundhati, District Tuberculosis Officer, BBMP



"We made sure that the staff and the services of the health facility went to populations who couldn't reach them."

- Dr Surendra Babu, District Tuberculosis Officer, Raichur

"In about one week alone we have referred over 5000 symptomatics. This will not only help in early detection, but also prevent the spread of TB."

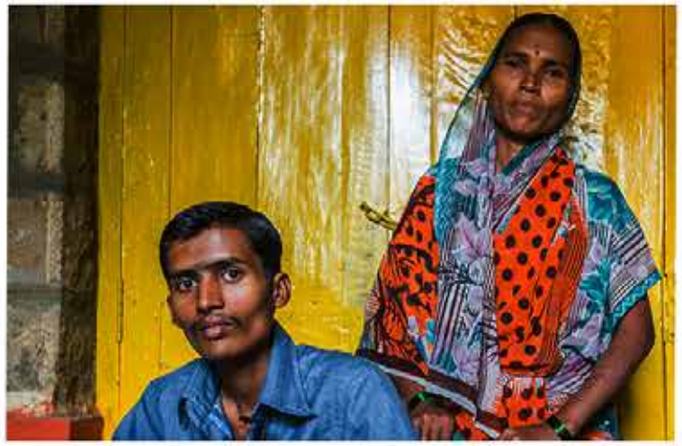
- Dr Shailaja Y Tammnannavar, District Tuberculosis Officer, Belgaum

"We have come to understand that there is TB among the inmates also. We need to root out TB, not only from the prisons, but also from society."

- T P Shesha, Chief Superintendent of Police, Central Prison, Hindalaga, Belgaum

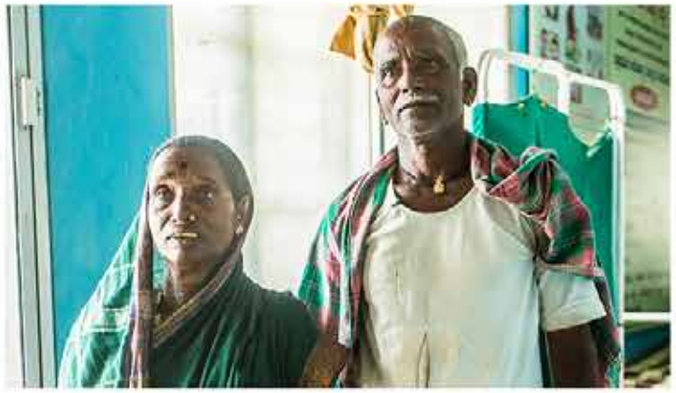
"I had TB and had I recognized my symptoms, I could have been treated much earlier. There are so many people, like HIV positive patients, who have died from TB. Visiting them at home could save many lives."

- Devaraj, a member of Hosa Belaku Sanga, a community-based organization which creates awareness on HIV and TB.



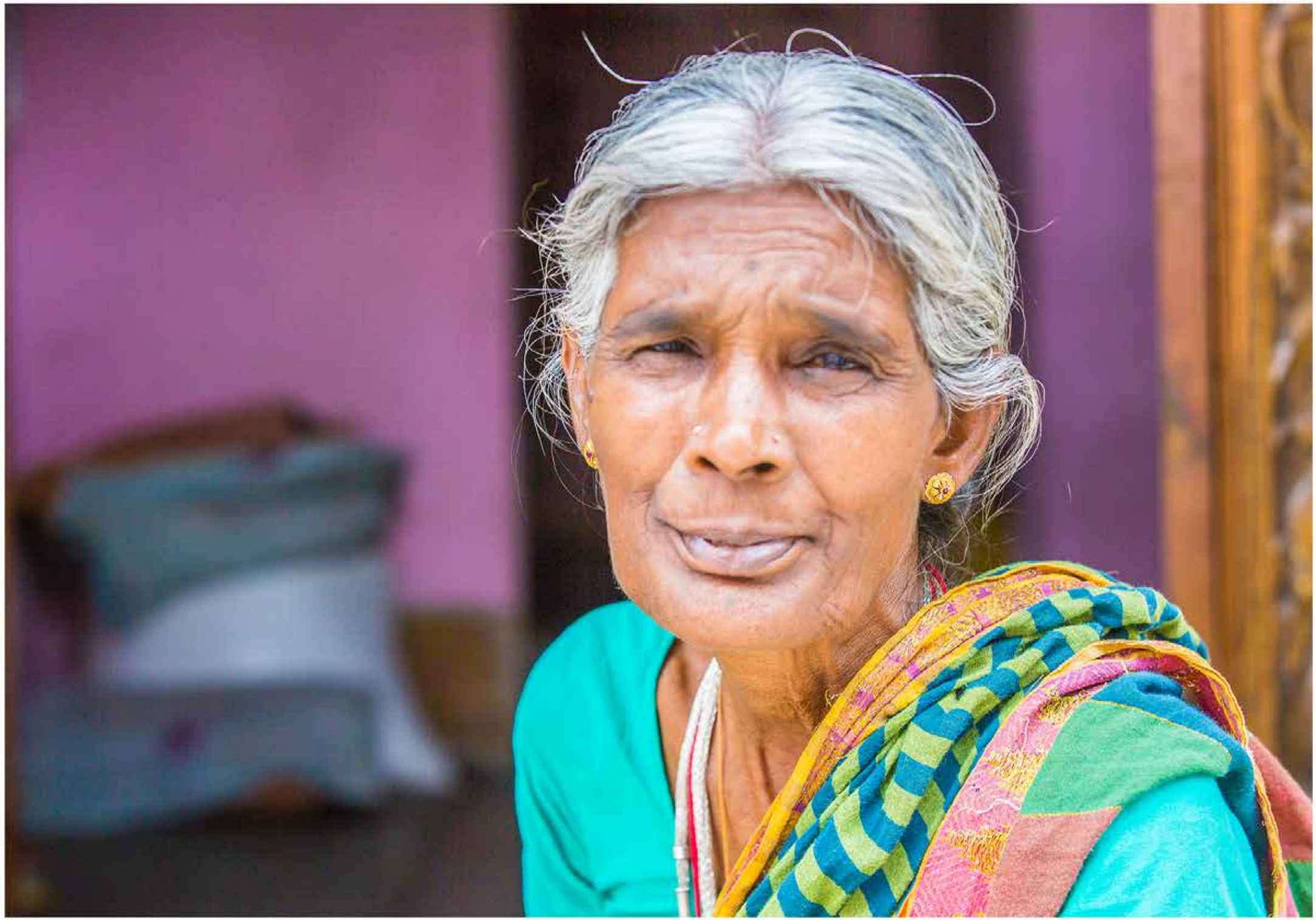
"I see that the Government is taking measures to educate people about the disease and also providing all assistance for TB patients, which is a big relief for us, since we do not have easy access to health facilities."

- Sumithra, a former TB patient, Belgaum



"We do not have access to a hospital. If we fall sick, we use home remedies and get ourselves cured. I had this cough which never seemed to subside, and pain in my abdomen and chest. I am thankful that the health workers visited my house and did everything from collecting my sputum to giving me medication."

- Mahadevi, a daily wage labourer in Belgaum and former TB patient.



Results from the campaign

Phase 1 (January 16 - 30, 2017)

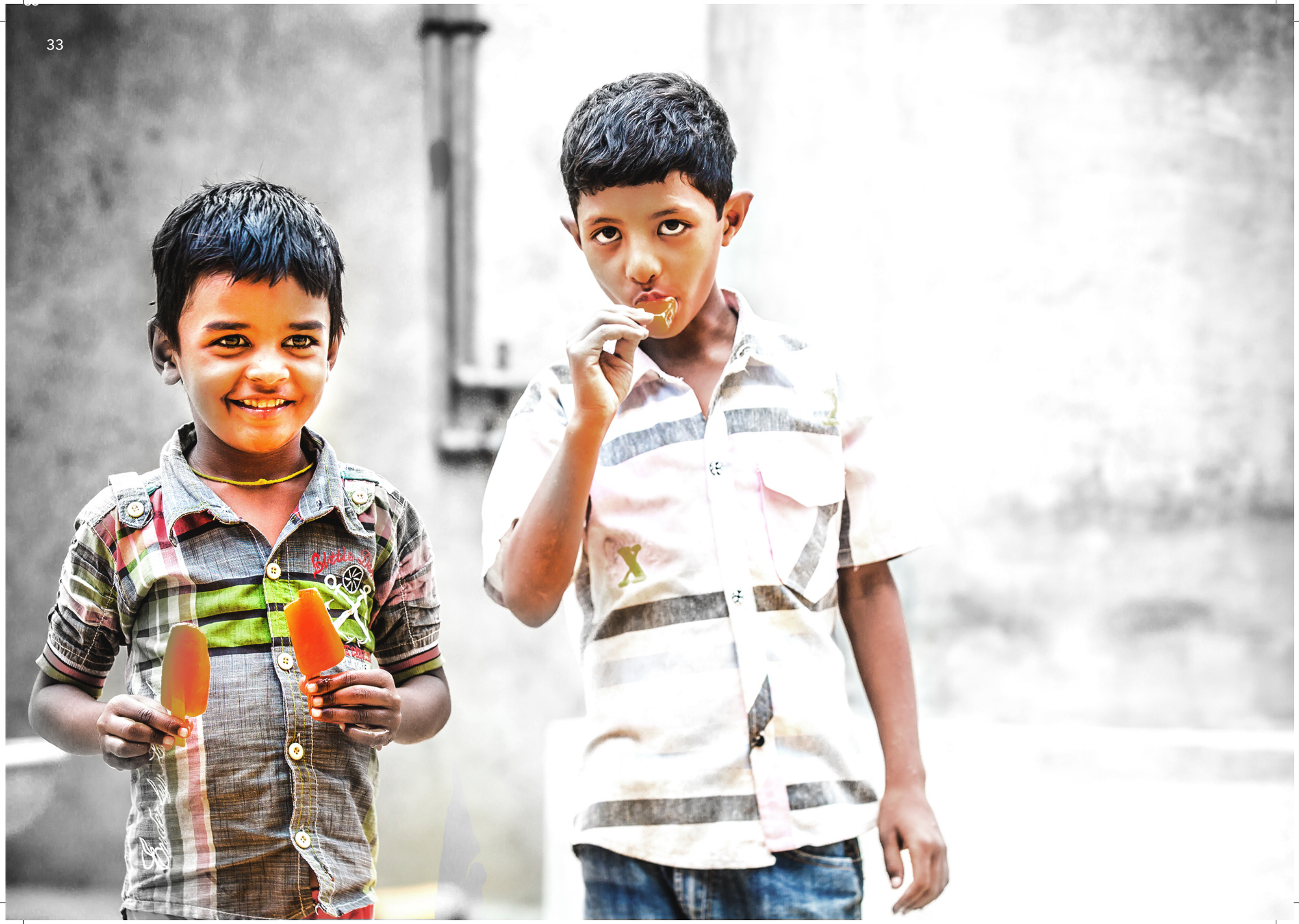
Name of the District	Total Mapped Target Population	Number of Screened for symptoms	Number Examined for Sputum	Number of TB patients Diagnosed
Bangalore	1667763	1620398	5351	98

Phase 2 (July 17 - 31, 2017)

Name of District	Total Mapped Target Population	Number of Screened for symptoms	Number Examined for Sputum	Total no. of TB patients diagnosed
Bangalore Urban	348353	339347	1168	99
Bangalore Rural	116589	118760	561	34
Bangalore City	1212471	1254226	3238	89
Bagalkot	192162	213365	3245	48
Bijapur	240390	237257	2343	110
Belgaum	540965	549244	6433	301
Bellary	286547	277134	5351	320
Koppal	260995	266056	5141	252
Raichur	231836	226288	5287	169
Ramnagar	177518	157237	1851	25
Gulbarga	476601	408449	2154	74
Total	4084427	4047363	36772	1521

Phase 3 (December 4 - 18, 2017)

Sl.no	Name of the District	Total Mapped Target Population	Number of Screened for symptoms	Number Examined for Sputum	Total no. of TB patients diagnosed
1	Bagalkot	182074	180320	1912	64
2	Bangalore City	1505279	1317480	4425	60
3	Bangalore Rural	129058	120452	1025	47
4	Bangalore Urban	325191	328166	1424	91
5	Belgaum	706911	700463	7193	490
6	Bellary	418536	380871	7277	381
7	Bijapur	295515	284721	2846	226
8	Chikkaballapur	150589	146699	2586	61
9	Chitradurga	323957	289536	3014	109
10	Davanagere	214973	299942	8022	76
11	Dharwad	287813	290643	1195	38
12	Gadag	227869	194990	1877	100
13	Gulbarga	321982	296010	2084	75
14	Mandya	256279	248567	2033	44
15	Haveri	208724	228516	3535	118
16	Kolar	183003	177814	925	43
17	Koppal	228508	220451	6555	222
18	Raichur	248556	238240	6806	151
19	Ramanagara	129215	106983	1359	18
20	Tumkur	393135	367703	2694	60
	Total	6737167	6418567	68787	2474



Conclusion

The ACF campaign was a success in all its phases, primarily because of its collaborative nature and meticulous micro-planning. It evolved from phase to phase, tailoring itself to geographies, populations and challenges while continuously innovating, and ultimately achieved its goal of increasing case finding and notification in high-risk population groups. It is a testament to what can be achieved when different stakeholders come together in a single-minded effort to work towards a common goal. The health worker, the medical officer, the lab technician, the ASHA, the community volunteer and the state official were instrumental in pushing Karnataka that much closer to the target of TB elimination by 2025.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