



USAID
FROM THE AMERICAN PEOPLE



KNCV
TUBERCULOSIS FOUNDATION

CHALLENGE TB

CHALLENGE TB

OCTOBER 2017-MARCH 2018
SUMMARY REPORT

INTRODUCTION

Welcome to the Challenge TB summary report for October 2017-March 2018, which brings you highlights of the projects' work, significant achievements, and success stories from the first half of the fourth year of implementation.

In partnership with governments, national TB programs, USAID, partners, the private sector and civil society – and with the participation of patients themselves – Challenge TB is committed to the vision of a world free of TB.

The project is aligned with the United States Government strategy to prevent and control TB, and has three objectives:

- Improving access to high-quality patient-centered TB, drug-resistant TB and TB/HIV services

- Preventing transmission and disease progression
- Strengthening TB service delivery platforms.

In the fourth and penultimate year of Challenge TB, the project continues to improve and accelerate TB prevention, care, and treatment. The project works in 23 countries, the East Africa region, and also on five core-funded projects that have a global impact on TB.

More information, stories, and full reports can be found on the Challenge TB website.

www.challengetb.org

Challenge TB contributes to the WHO End TB Strategy targets:

Vision: A world free of TB
Goal: To end the global TB epidemic
By 2025: A 75% reduction in TB deaths (compared with 2015) and less than 50 cases per 100,000 population.

Global Fund:
Challenge TB assists countries with the full Global Fund life cycle, from epi-analysis and national strategic plans, to concept notes and full implementation.

Overarching:
Challenge TB is a cost-effective and efficient mechanism. It assists countries to move towards universal access through a patient-centered approach that identifies and addresses the needs of all patients including women and children, and with a particular emphasis on reaching out to vulnerable communities.



FINDING AND TREATING THE MISSING TB PATIENTS

Approximately 40 percent of people with TB worldwide do not receive a diagnosis or the appropriate treatment. Many people with TB are missed by health systems because of the barriers they face accessing the right services, such as a lack of information, poverty, the distance to the nearest health facility, and stigma. Challenge TB is

helping to find more of these 'missing' people by expanding access to TB care, screening household members of TB patients, encouraging and implementing community-based screenings among high-risk populations, educating the public on TB, and training health care workers.

COMMUNITY SUPPORT

The engagement of the community in TB care is crucial to improving TB detection, care and treatment outcomes. Communities and civil society organizations play a vital role in providing services and support which are not accessible to many vulnerable populations.

Community-based activities continue to grow in Challenge TB countries with over 20 percent of all patients notified in

the first half of Year 4 reported through community referral.

In Afghanistan, 14,655 Challenge TB trained community health workers identified and referred 20,000 people with TB symptoms to diagnostic centers for testing. As a result 1,372 were diagnosed with TB and 723 have so far started on treatment.

COUNTRY HIGHLIGHT MOZAMBIQUE

In Challenge TB supported areas 40 percent of notified patients were referred by community health workers who organized TB health education sessions known as 'monthly cough days' and arranged house-to-house visits, educating people about the disease and looking for anyone with TB symptoms.



Unbeknownst to his family, seven-month-old Rahat from Dhaka, Bangladesh, had already been exposed to tuberculosis (TB). He got it from his grandfather who had recently died of the disease.

The first signs of trouble came when Rahat, a normally happy baby, stopped smiling. He lost the usual playfulness of a healthy child, rapidly lost weight, and developed a large swelling on the side of his neck. His parents were very worried, as they knew that this type of swelling was a possible sign of TB.

His parents went to the pharmacy and purchased some antibiotics to treat his symptoms, but his condition continued to worsen each day. They sought help at the Dhaka Population Services and Training Center, where Rahat was referred to the National Institute of Chest Disease and Hospital (NICDH). There, the doctors used a special diagnostic method called fine needle aspiration cytology to find out what was wrong. Rahat's parents learned the terrible news, their ten-month-old son had TB.

Rahat was immediately started on treatment, but after two months his condition had not improved. He was taken back to the NICDH, but this time he went to the drug-resistant TB unit. There, a team of experts trained and supported by the USAID-funded Challenge TB project assessed Rahat's response to treatment and he was tested using GeneXpert. The test confirmed that Rahat was suffering from drug-resistant TB, which is why the initial course of treatment had had no effect.

"I will never forget the 12 of July, 2016. That was the day the doctor told me that my child had drug-resistant TB. I walked home from the hospital in a state of bewilderment

and shock. How could my child have drug-resistant TB?" —Rahat's mother, Nasrin

Given how young Rahat was and the fact that he only weighed seven kilograms, the team of doctors treating him were justifiably worried that he would not be strong enough to fight this devastating disease. To give him the best possible chance of survival, they set up community-based treatment that allowed Rahat to receive his medicines at home and to continue being breastfed by his mother.

Challenge TB's community TB coordinators closely monitor his condition and treatment through regular home visits and a mobile phone app called mHealth developed by Challenge TB. The app allows the coordinator to easily track both the treatment and the DOT provider, in order to ensure that TB patients like Rahat are getting their daily medicine and whether they are suffering from any adverse side effects.

With financial support from Challenge TB to cover the costs of check-ups, tests, and nutritious food, Rahat's life has been restored. His treatment will take another three months to complete, but he put on 3 kg of weight after just two months, and he is already back to his former self. He is not only smiling again, but he is active and playing like any other child his age.

Finding more children with TB is a high priority for the Challenge TB project in Bangladesh. In 2017, more than 240,000 children were screened for TB at six selected facilities and a total of 404 were found to have TB and put on treatment. Twenty-seven children with drug-resistant TB have also been diagnosed since 2016, all of them have been put on treatment and are doing well.

TODDLER BEATS TB



SYSTEMATIC SCREENING FOR ACTIVE TB

Rather than waiting for people to first develop symptoms and seek treatment, Challenge TB encourages the screening of groups that have a high risk of getting TB (people living with HIV, prisoners, families of TB patients, etc.). By implementing systematic screening for active tuberculosis to target high-risk groups those with TB can be diagnosed and treated as soon as possible, not

only curing those infected but also preventing the further spread of the disease.

By the end of the first half of Year 4 over 235,000 diagnosed TB patients were notified to health centers in Challenge TB countries through systematic screening activities.

COUNTRY HIGHLIGHT BURMA

Challenge TB implemented systematic screening for active TB activities focusing on key populations in townships, which contributed to 13 percent of all patients notified.

ACTIVE TB SCREENING IN PRISONS

The incidence of TB in prisons is 5 to 70 times greater than in the wider community, which means dealing with TB in prisons must be a critical part of any public health policy that aims to control and ultimately eradicate the disease. Across the seven countries which are working on systematic

screening for active TB in prisons, over 1,000 patients have been diagnosed in Year 4 so far.

In Malawi, the project expanded support from six to nine prisons which has so far resulted in 55 patients being diagnosed and treated for TB.

CHILDHOOD TB

At least one million children get sick with TB each year and it is estimated that more than 21 die every hour from the disease. Challenge TB continues to invest and implement in activities to find, diagnose, and treat more children with the disease.

In 13 countries, the case notification among children diagnosed with TB has

continued to grow from 10 percent in 2014 to 13 percent by the end of March 2018.

Treatment to prevent TB in children under the age of five has continued to increase as well, with over 35,000 children put on isoniazid preventive therapy (IPT) in the first six months of Year 4.

COUNTRY HIGHLIGHT ETHIOPIA

A total of 3,237 children were put on IPT in the first half of Year 4, which means that more children have already been put on therapy than in the whole of 2017.

ENHANCING PRIVATE-SECTOR CONTRIBUTIONS

Many people with TB seek care in the private sector, and private healthcare providers are often the first point of care even for patients who are eventually treated in the public sector. This delay in diagnosis can increase the chances of poor treatment results and allows for the further transmission of the disease in the community.

Challenge TB is increasing the participation of private sector providers in TB care and control, by for example

training local pharmacists to identify TB symptoms and linking anyone with TB symptoms to diagnostic and treatment services.

The involvement of private programs has substantially increased with notifications of diagnosed TB patients increasing to 20 percent at the end of March 2018. Indonesia is the top Challenge TB country with 29 percent of TB patients coming from the private sector.



COUNTRY HIGHLIGHTS

Afghanistan: A total of 1,905 TB patients were notified through community-referral campaigns in Challenge TB areas, representing 12 percent of all community referrals.

Bangladesh: All 39 GeneXpert machines have been connected to a data connectivity system allowing for real-time results.

Botswana: Challenge TB helped the National TB Program to develop a new five-year National Strategic Plan in line with the Global End TB strategy, which was used for application to the Global Fund request. The plan was approved.

Burma: Active case-finding interventions in high-risk areas such as poor urban and hard-to-reach remote towns resulted in the finding of 781 TB cases.

Cambodia: A total of 19,261 contacts of TB patients were screened through contact investigation, and 743 additional TB patients were found.

DR Congo: A total of 2,131 TB patients were identified and treated through private providers with the assistance of Challenge TB.

Ethiopia: A total of 6,149 people were screened, including miners and residents from a mining area in the Oromia province. As a result, a total of 88 TB patients were diagnosed and treated.

India: A total of 365 drug-resistant TB patients were started on bedaquiline in 24 Challenge TB supported areas.

Indonesia: The total private sector contribution to case notification has increased from 22 percent in 2015 to 30 percent at the end of March 2018.

Kazakhstan: 125 TB clinicians were trained on new drugs and shorter treatment regimens, resulting in 58 drug-resistant patients being put on individualized treatment regimens.

Kyrgyzstan: By the end of March 2018, nearly 400 patients were enrolled on treatment with new drugs and regimens, giving them a higher chance of being cured.

Malawi: A total of 5,622 prisoners were screened, resulting in 48 being diagnosed with TB and started on treatment.

Mozambique: In Challenge TB supported areas, a total of 11,089 children under the age of 5, were started on TB preventive treatment.

Namibia: The first three patients with extensively drug-resistant TB treated with new drugs and regimens have been declared cured.

Nigeria: A mobile truck equipped with digital X-ray and GeneXpert diagnosed a total of 212 individuals with TB, and 8 patients with drug-resistant TB.

Tajikistan: A total of 35 patients were started on new TB drugs and shorter treatment regimens in the first six months of Year 4.

Tanzania: TB patients notified through intensified case-finding activities in healthcare facilities, has increased from 22 percent to 34 percent in Year 4.

Ukraine: A total of 87 TB patients have been enrolled on bedaquiline treatment in the first six months of Year 4.

Uzbekistan: Four additional GeneXpert machines were procured and installed in Challenge TB supported laboratories, bringing the total to 56.

Vietnam: A total of 30 healthcare workers and 40 National TB Program staff were trained on TB and TB/HIV to ensure early diagnosis and quality treatment for patients.

Zambia: Challenge TB refurbished the TB ward in the University Teaching Hospital. With a 54-bed capacity and equipped with separate patient, staff, and visitor wings, the new facility incorporates various infection control measures, including fans to extract potentially infectious airdrops, germicidal ultraviolet irradiation to kill infectious TB particles, and personal protective equipment. The newly refurbished ward offers more effective institutional care for patients with DR-TB.

Zimbabwe: TB specimen transport continued to increase with over 13,000 specimens transported so far in Year 4.





COMBATING DRUG-RESISTANT TB

The bacteria that causes TB can develop a resistance to the drugs used to treat the disease. Multidrug-resistant TB (MDR-TB) does not respond to at least two of the most effective first-line TB drugs: isoniazid and rifampicin. Expanding the diagnosis and the treatment of drug-resistant TB continues to be vital in the fight against TB and a priority for the project.

In 2017, the proportion of new patients tested for resistance to rifampicin continued to increase. In Challenge TB supported areas, 32 percent of new patients were tested for resistance, a significant rise from 2016 when only 15 percent of patients were tested.

The proportion of previously treated TB patients tested for resistance to rifampicin also continues to increase, with 61% tested in 2017 compared to 47% at the start of the project in 2014.

In the first half of Year 4, a total of 5,511 patients with multidrug-resistant TB started treatment across 17 countries.

Being diagnosed with multidrug-resistant TB and undergoing treatment can impose significant social, psychological and economic stress on patients. Research shows that social support systems help patients cope with the different pressures they face during their treatment and increase the chances of them adhering to their treatment and thus being cured.

Across the 13 countries where the project invests in social and economic support, the number of patients receiving help has steady increased, and reached 1,487 by March 2018 with Nigeria having the highest number of 1,065.

COUNTRY HIGHLIGHT UKRAINE

Since social support was introduced in Ukraine, 964 patients have received support, 374 patients have successfully completed treatment so far, and 510 patients are continuing treatment and progressing well. Thanks to Challenge TB support, 66 patients who interrupted their treatment have returned and are back in care.

COUNTRY HIGHLIGHT AFGHANISTAN

Challenge TB continues to assist in the expansion of access to GeneXpert in 15 provinces. By the end of March 2018, 23 GeneXpert machines were installed. As a result, 82 drug-resistant TB patients have been diagnosed and put on treatment.

GeneXpert is used to diagnose TB and to test for resistance to rifampicin, with the results available within two hours, meaning patients can start treatment more quickly. Challenge TB's investment in GeneXpert technology, has led to a dramatic increase in the number of new and previously treated patients tested as testing had become more efficient.

The progress made with drug-resistance testing is largely facilitated by support

for the scale-up of GeneXpert technology. By the end of the first half of Year 4, all 22 countries had installed GeneXpert machines.

A total of 3,169 GeneXpert machines are now in use of which 1,074 (34 percent) are connected to a data connectivity system, which makes test results immediately available to doctors and the national TB program, and allows for faster treatment initiation.

EXPANDING GENEXPERT

SPECIMEN TRANSPORT SYSTEMS

In areas where GeneXpert machines are not available, specimen transport systems are used to transport TB samples to laboratories for testing. The project plays an increasing role in supporting and these transport systems and in the first half of Year 4,

Challenge TB transported over 100,000 TB samples across 15 countries. The transport system in DR Congo was improved and the systems in Tajikistan and Kazakhstan were expanded to cover more geographic areas.



India has more cases of TB than any other country. In urban slums such as in the city of Cuttack, in the eastern state of Odisha, TB rates are quite high, partly because of the crowded living conditions, but also because there has been little to no work done to engage the private sector in these areas. This is a crucial step, as in India, an estimated 70 percent of people with TB go straight to the private sector to seek medical help.

Nineteen-year-old Siba Senapati was diagnosed with pulmonary drug-resistant TB in October 2017. Tragically, his father had died of TB only a few years before, and after his death, Siba had fallen into a dark spiral of unemployment, poverty, and addiction.

DR-TB is difficult to treat, it can take more than 24 months and consists of many pills, some of which can have serious side effects. Psychosocial support in the form of food and financial support, for example, can have a dramatic effect on patients' morale and can significantly reduce the numbers of patients who give up on treatment.

'Maa Aadyashakti' is a self-help group for women that operates in the slum where Siba lives. The women in the group each

contribute as much as they can afford to a group account. Once they have enough savings, they plan to apply for a microloan from a bank that will help them to set up a small business.

As this group has a deep understanding and connection with the community, the Challenge TB project trained them on all aspects of TB including the stigma surrounding the disease and TB patients need for community support if they are going to survive the long and difficult process of treatment. They are now providing both psychological and nutritional support to people on TB treatment to help them stick to their grueling daily regimen.

Challenge TB also employs treatment coordinators to help every person with DR-TB adhere to their treatment. It is important that they get to know their patient's medical history and personality, so they can provide additional support to those most likely to have trouble and give up. Purna Chandra Behra is the coordinator in Siba's area and he visited Siba, who was living alone in a shanty. Over a series of visits Siba became more open with Purna and described how he had been diagnosed with drug-sensitive TB in 2016 but he had given up on treatment after just one month.

Challenge TB staff have been on hand to support Siba since he received his diagnosis and members of 'Maa Aadyashakti' help him get to and from the hospital for his

appointments. They also looked after him during his hospitalization at the DR-TB Center, until his mother was able to return from another city where she was working to care for him.

Thanks to regular counseling by the treatment coordinator and someone from a local NGO specializing in addiction, Siba recovered from his drug addiction and is determined to complete his TB treatment.

Since Siba and his mother had no income, Challenge TB staff helped them to submit a successful applications to receive some money from the Red Cross and the Samaja Relief Fund. Siba was provided with 'Sattu', a mixture of ground pulses and cereals, which is packed with protein and helps him regain the weight he lost before he was treated. Under the project, Siba's mother is now linked to 'Madhu Babu Pension Yojana' - a scheme run by the government of Odisha that provides pensions to widows, senior citizens and the disabled, through which she receives a small monthly pension. Project staff also persuaded her to join 'Maa Aadyashakti', so she can save for the future and provide support to other TB patients in the community.

Siba's view on life has undergone a complete transformation, he has had a glimpse of all the new possibilities and wants to stay healthy. He has now completed three months of treatment and will continue his treatment in the public sector. He says that it's now his turn to help and to provide for both him and his mother by becoming a rickshaw driver.

SIBA'S STORY

SCALING-UP NEW DRUGS AND THE SHORTER TREATMENT REGIMEN

COUNTRY HIGHLIGHT KAZAKHSTAN

Challenge TB has introduced new drugs and regimens in five regions so far, and 58 patients with drug-resistant TB have started on individualized treatment using new drugs.

New TB drugs and shorter treatment regimens are critical to helping end the TB epidemic. With growing drug-resistance, the use of new drugs and shorter regimens can not only shorten the time it takes to treat patients but offer a chance for those who had no other options to finally be cured.

There has been steady progress in the adoption and expansion of new

drugs and regimens in Challenge TB countries. By the end of March 2018, 20 countries were implementing and scaling-up the use of new TB drugs (bedaquiline and delamanid) and the shorter treatment regimen. A total of 459 patients have been enrolled on bedaquiline, 295 patients on delamanid, and 758 patients on shorter treatment regimens.

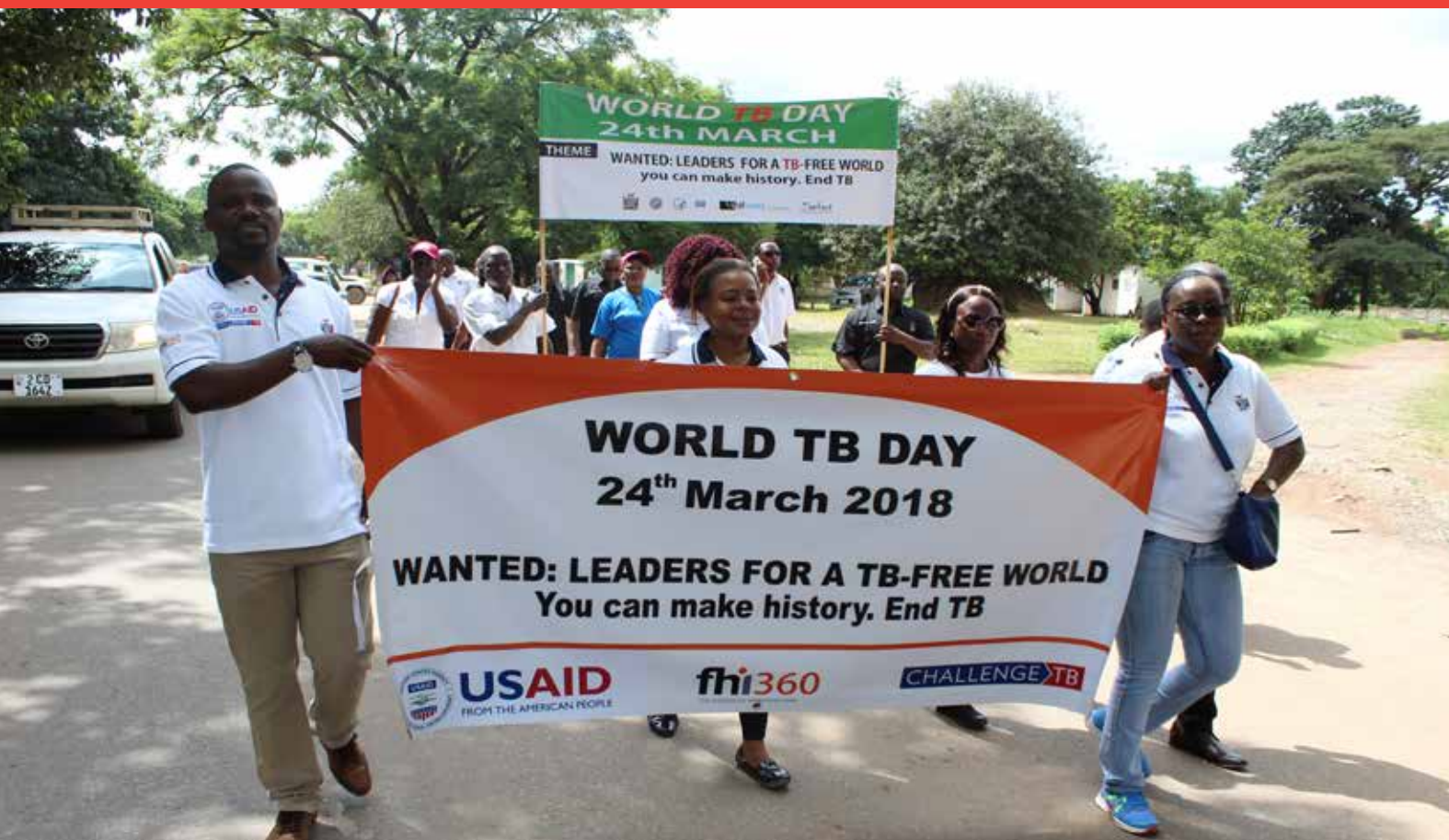
WORLD TB DAY

On March 24 each year, Challenge TB countries celebrate World TB Day and use it to raise awareness of TB in the community and among politicians and donors. This year's theme was "Wanted: Leaders for a TB-free world" and most Challenge TB countries organized or participated in national activities and events to raise TB awareness.

Kyrgyzstan used World TB Day to have a writing, drawing, and photography

contest on "How did TB change my life?" which was designed to decrease stigma and raise TB awareness. A run was also organized that was attended by more than 450 people.

In Ukraine, a photo exhibition, titled "TB through Patients' Eyes" was opened in the Ukrainian Parliament, and in Uzbekistan, a painting exhibition "A Happy Life Without TB" displayed paintings by children with TB.



NEW PUBLICATIONS

<https://www.challengetb.org/library>

Generic ND&R Training Modules

This package of training files contains powerpoint presentations and facilitators guides on the programmatic management of drug resistant TB, including diagnostics, treatment and care, supply chain, monitoring and evaluation, and interim cohort analysis. The materials have been designed to be used by both the staff of NTPs and other organizations. The materials are developed as “pick and choose” options depending on each country’s need for competency development of staff working at all levels of health facilities.

TB Stigma – Measurement Guidance

This comprehensive manual is designed to help busy people generate enough information about stigma issues to design and monitor and evaluate stigma reduction efforts. This manual is not for academics or theorists, but for health workers, professional or management staff, people who advocate for those with TB, and all who need to understand stigma and respond to TB stigma.

Standard Operating Procedure for TB Preventive Therapy Performance Assessment

This is a fillable form that can be used to assess and improve TB preventive therapy (TPT) initiation and completion among eligible people living with HIV who have screened negative for TB.

PHOTOS

TB Treatment Supporter, Bangladesh - Tristan Bayly

World TB Photo Exhibition, Ukraine - Andriy Gorb

Crowds gather as the Mobile TB Clinic comes to town, Malawi - Akuzike Tasowana

Rahat the toddler who beat MDR-TB, Bangladesh - Samuel Murmu

Contact Investigator Talatu Dalihu visiting the home of a TB patient, Nigeria - Habiba Bello

Man with TB symptoms is all smiles after providing a sample for testing, Cambodia - Tristan Bayly

MDR-TB patient Siba Senapati at home, India - Muktai Panchal

World TB Day, Zambia - FHI 360

MDR-TB patient Oleksandr Yurchak arrives for treatment, Ukraine - Lena Laba

CONTACT DETAILS

Email: info@challengetb.org

Website: www.challengetb.org

Twitter: @challengetb

Instagram: [instagram.com/challengetb](https://www.instagram.com/challengetb)

Exposure: challengetb.exposure.co

Medium: medium.com/@challengetb

The Global Health Bureau, Office of Health, Infectious Disease and Nutrition (HIDN), US Agency for International Development, financially supports this publication through Challenge TB under the terms of Agreement No. AID-OAA-A-14-00029. This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of Challenge TB and do not necessarily reflect the views of USAID or the United States Government.

WHAT IS CHALLENGE TB?

Challenge TB is the flagship global mechanism for implementing USAID’s TB strategy as well as contributing to TB/HIV activities under the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR).

Challenge TB is led by KNCV Tuberculosis Foundation and implemented by a unique coalition of nine organizations: American Thoracic Society (ATS), FHI 360, International Union Against Tuberculosis and Lung Disease (The Union), Interactive Research & Development (IRD), Japan Anti-Tuberculosis Association (JATA), Management Sciences for Health (MSH), PATH, and the World Health Organization (WHO).



Design, Editing, & Layout - Tristan Bayly
Text - Tristan Bayly & Jan van Mil