UNITE TO END TB

ON THE ROAD TO ENDING TB

HIGHLIGHTS FROM THE 30 HIGHEST TB BURDEN COUNTRIES

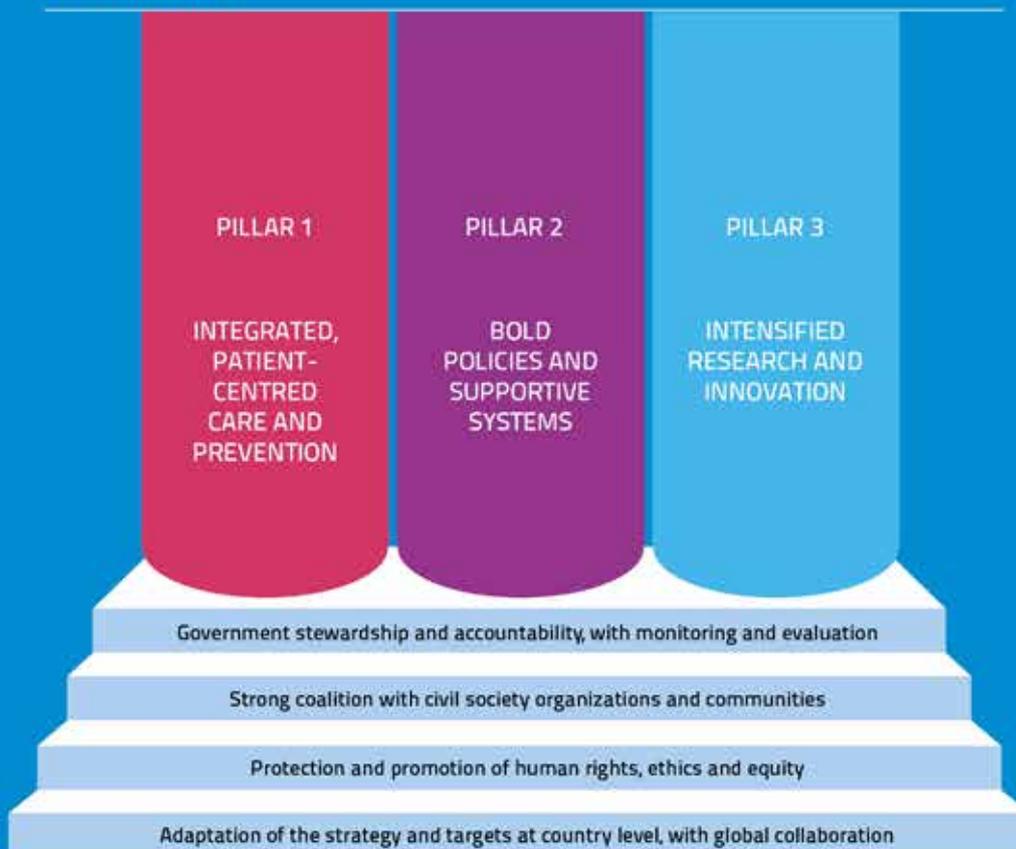**World Health Organization**

THE END TB STRATEGY

VISION: A WORLD FREE OF TB
Zero deaths, disease and suffering due to tuberculosis

GOAL: END THE GLOBAL TB EPIDEMIC

INDICATORS	MILESTONES		TARGETS	
	2020	2025	2030	2035
Reduction in number of TB deaths compared with 2015	35%	75%	90%	95%
Reduction in TB incidence rate compared with 2015	20% (<85/100 000)	50% (<55/100 000)	80% (<20/100 000)	90% (<10/100 000)
TB-affected families facing catastrophic costs due to TB (%)	0	0	0	0

PILLAR 1

INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION

PILLAR 2

BOLD POLICIES AND SUPPORTIVE SYSTEMS

PILLAR 3

INTENSIFIED RESEARCH AND INNOVATION

Government stewardship and accountability, with monitoring and evaluation

Strong coalition with civil society organizations and communities

Protection and promotion of human rights, ethics and equity

Adaptation of the strategy and targets at country level, with global collaboration

The End TB Strategy is not a "one size fits all" approach and its success depends on adaptation for diverse country settings.

ON THE ROAD TO ENDING TB

HIGHLIGHTS FROM THE 30 HIGHEST TB BURDEN COUNTRIES

2016 marks the beginning of the Sustainable Development Goals (SDGs) era. Ending the global tuberculosis (TB) epidemic is the goal of the World Health Organization's End TB Strategy, and it is a SDG target for 2030.

Ending TB is a development challenge and opportunity. It is about tackling poverty and inequity. Ministries of Health cannot do it alone. Ending TB and achieving the SDGs requires intensified action across government ministries, communities, the private sector and civil society. It will take health and socioeconomic interventions, along with research and innovation. Progress across the SDGs will be essential.

World leaders have described the Sustainable Development Goals as a "collective journey" to improve the lives of people everywhere and have pledged that no one will be left behind.

ON THE ROAD TO ENDING TB

In 2014, the World Health Assembly, led by Ministries of Health of 194 countries, adopted the post-2015 End TB Strategy, and pledged to implement it. The following pages provide some highlights of how the Ministries of Health of the 30 highest TB burden countries, and their partners, are beginning to adopt, adapt and implement the End TB Strategy. These countries represent both those with the greatest absolute numbers of people falling ill each year with TB, and those with the highest burden per capita. All are pathfinders in moving forward to end TB by overcoming challenges and innovating to accelerate progress.

This quick overview gives a sense of the efforts to shift gear and innovate. However, there are a host of huge challenges facing these high burden countries that restrict their efforts, including health system, human resource, and financial resource constraints.

SUSTAINABLE DEVELOPMENT GOALS

ON THE ROAD TO ENDING TB

30 HIGHEST TB BURDEN COUNTRIES

INDIA

2.2 million

RUSSIAN FEDERATION

120,000

BRAZIL

90,000

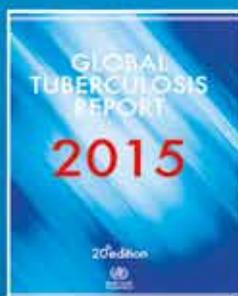Top 20 countries with highest absolute numbers of people falling ill with TB
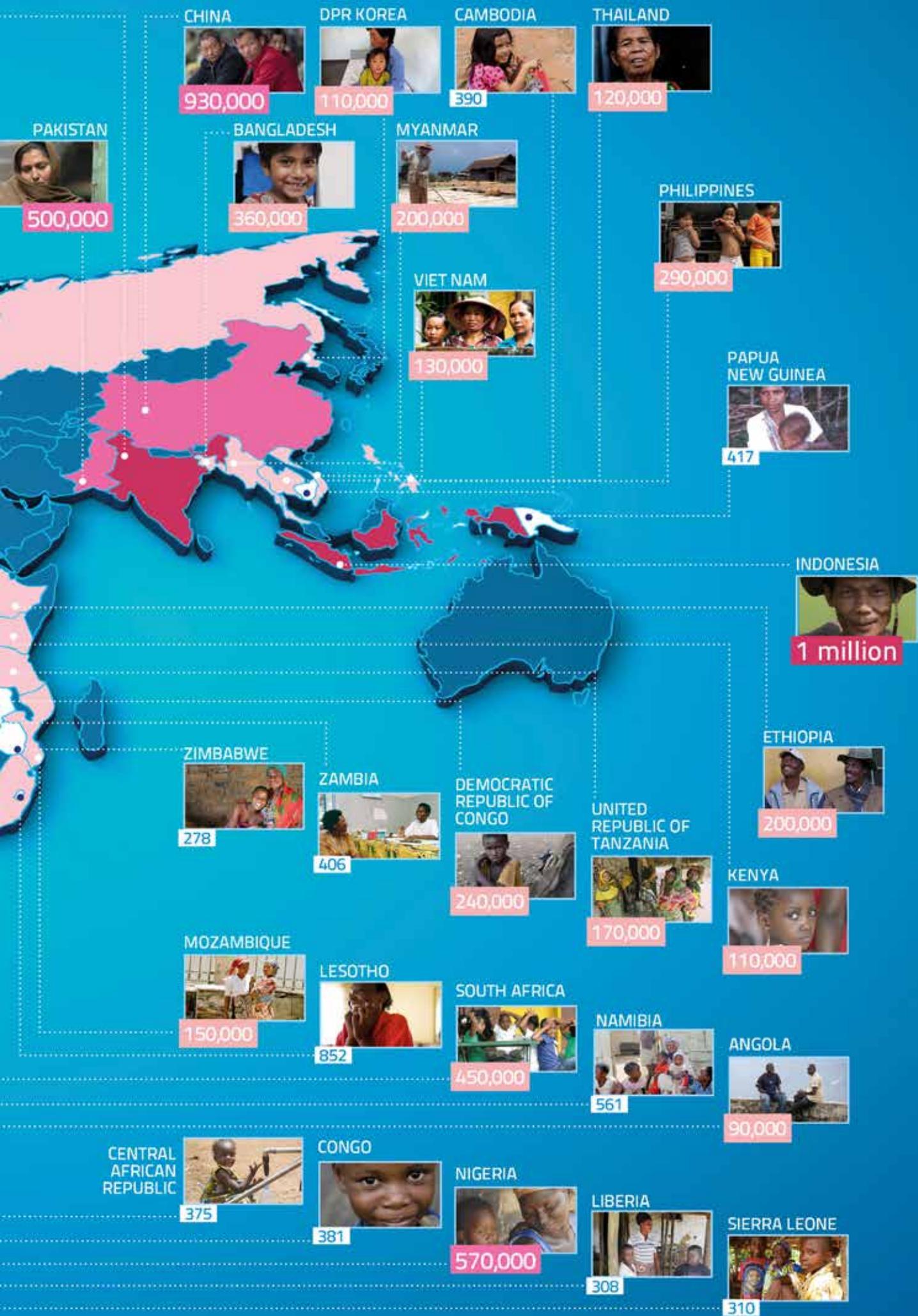
over 1 million

500 000 – 1 million

under 500,000

Top 10 countries with highest rates per capita of people falling ill with TB and at least 10,000 cases per year

Incidence rate (number of new TB cases per 100,000 population)

GLOBAL TUBERCULOSIS REPORT

2015

20th edition

CHINA
930,000

DPR KOREA
110,000

CAMBODIA
390

THAILAND
120,000

PAKISTAN
500,000

BANGLADESH
360,000

MYANMAR
200,000

PHILIPPINES
290,000

VIET NAM
130,000

PAPUA
NEW GUINEA
417

INDONESIA
1 million

ETHIOPIA
200,000

ZIMBABWE
278

ZAMBIA
406

DEMOCRATIC
REPUBLIC OF
CONGO
240,000

UNITED
REPUBLIC OF
TANZANIA
170,000

KENYA
110,000

MOZAMBIQUE
150,000

LESOTHO
852

SOUTH AFRICA
450,000

NAMIBIA
561

ANGOLA
90,000

CENTRAL
AFRICAN
REPUBLIC
375

CONGO
381

NIGERIA
570,000

LIBERIA
308

SIERRA LEONE
310

ABCs

The "ABCs" of putting the End TB Strategy into practice are:

ADVOCACY
BASELINE PREPAREDNESS
COORDINATION AND COLLABORATION

This means advocating for political engagement, knowing your epidemic and collaborating with more partners.

Ethiopia

Ethiopia's political commitment, along with an army of thousands of health extension workers and community volunteers, is helping to successfully tackle TB in the country.

TB prevention and control is a top priority in Ethiopia's Health Sector Transformation Plan for 2016–2020. The End TB Strategy milestones and targets have been fully integrated into its National TB Strategic Plan for the period. Building on these guideposts, implementation is moving along on all three pillars of the Strategy as part of the national health agenda.

Most fundamental is service access, and Ethiopia has made important strides in improving access through its Health Extension Programme, which deploys more than 40,000 health extension workers nationwide. Among their duties is helping individuals with TB symptoms to access diagnostic testing, and supporting them during treatment should they have TB.

South Africa

South Africa's National Department of Health is leading a national dialogue on the approaches ahead needed to ensure universal health coverage.

Its integrated national TB and HIV response is framed by ambitious targets to extend access to prevention and care for the highest number of co-infected individuals in the world. The country is a leader in: enabling access to the rapid Xpert MTB/RIF test to detect TB and drug-resistant TB. Over 200 health services have the technology; extending treatment to prevent TB among people living with HIV, such that 60% of people worldwide receiving preventive therapy are in South Africa; using new recommended drugs in treatment of drug-resistant TB; and amplifying the voice of vulnerable populations. National authorities are working with top TB research institutions in South Africa in discussing research priorities and enabling more rapid use of research results in policy and practice.

India

India, which has the largest number of TB cases worldwide with over 20% of the global total, is committed to achieving universal access to TB care as part of its campaign for a *TB Free India*.

Its Revised National Tuberculosis Programme has developed objectives for 2020, with milestones for each year, that are aligned with the End TB Strategy. Among the priorities are the provision of Xpert MTB/RIF and other rapid diagnostics, free treatment for all forms of TB both in the public sector and through special initiatives with private providers, accelerated expansion of treatment for MDR-TB, and expanding linkages with social welfare schemes, including nutritional support.

India is beginning to see a significant increase in reported TB case finding as a result of making notifications mandatory and intensifying efforts to engage the private sector, using a new web-based reporting system *(Nikshay)*, featuring mobile applications. Efforts are underway to enhance *Nikshay* and use it to support spatial surveillance, drug-supply and inventory management, and possible electronic cash transfers to patients and providers.

ABCs

Russian Federation

The Russian Federation's High Level Working Group on TB was created over 15 years ago to address the worsening TB epidemic at the time.

The group brings together high level representatives across the Russian government, from research institutes, Oblast authorities and collaborating ministries such as the Ministry of Justice, as well as WHO. The Group has provided a long-lasting platform for policy dialogue that has facilitated the update of national strategies and guidelines in line with WHO recommendations. The Working Group has collaborated with over 30 national and international nongovernmental organizations in driving down the epidemic.

At its most recent meeting at the end of 2015, the group discussed the steps to be taken to implement the End TB Strategy and TB Action Plan for the WHO European Region 2016-2020, including needs in improving MDR-TB treatment, expanding ambulatory care and psychosocial support for those affected.

Indonesia

Indonesia has the second largest number of TB cases in the world with 10% of the global total. These estimates are based on a recent nationwide population-based survey of TB prevalence conducted by Indonesia's National Institute of Health Research and Development working with the National TB Programme.

The survey results indicated that the TB burden in the country is much higher than previously thought. Only about one third of the estimated one million new TB cases that occur each year are reported. However, results also suggested that many of the cases missed in the national reporting system are being treated, in both the public and private sectors. Indonesia is now planning a study to directly measure the level of under-reporting of detected TB cases, and will use findings to develop strategies to improve linkages with all providers involved in TB diagnosis and treatment and to strengthen associated reporting.
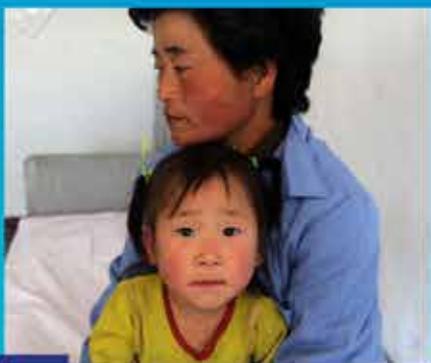
STRENGTHENING THE FOUNDATIONS FOR ENDING TB

Liberia and Sierra Leone are rebuilding their health systems following the devastating Ebola outbreak. In Liberia, TB services are now beginning to function again with efforts for enhanced TB case finding by further involving communities, building on one of the key lessons learnt from the crisis. Other core public health functions that will help TB efforts are being addressed, including human resources reinforcement, laboratory strengthening and surveillance. However, resources are still severely constrained.

Other high TB burden countries that urgently need increased support to enable basic functioning of primary health care systems to support TB prevention, treatment and care include **Angola, Congo, the Central African Republic, the Democratic People's Republic of Korea, and Papua New Guinea.**
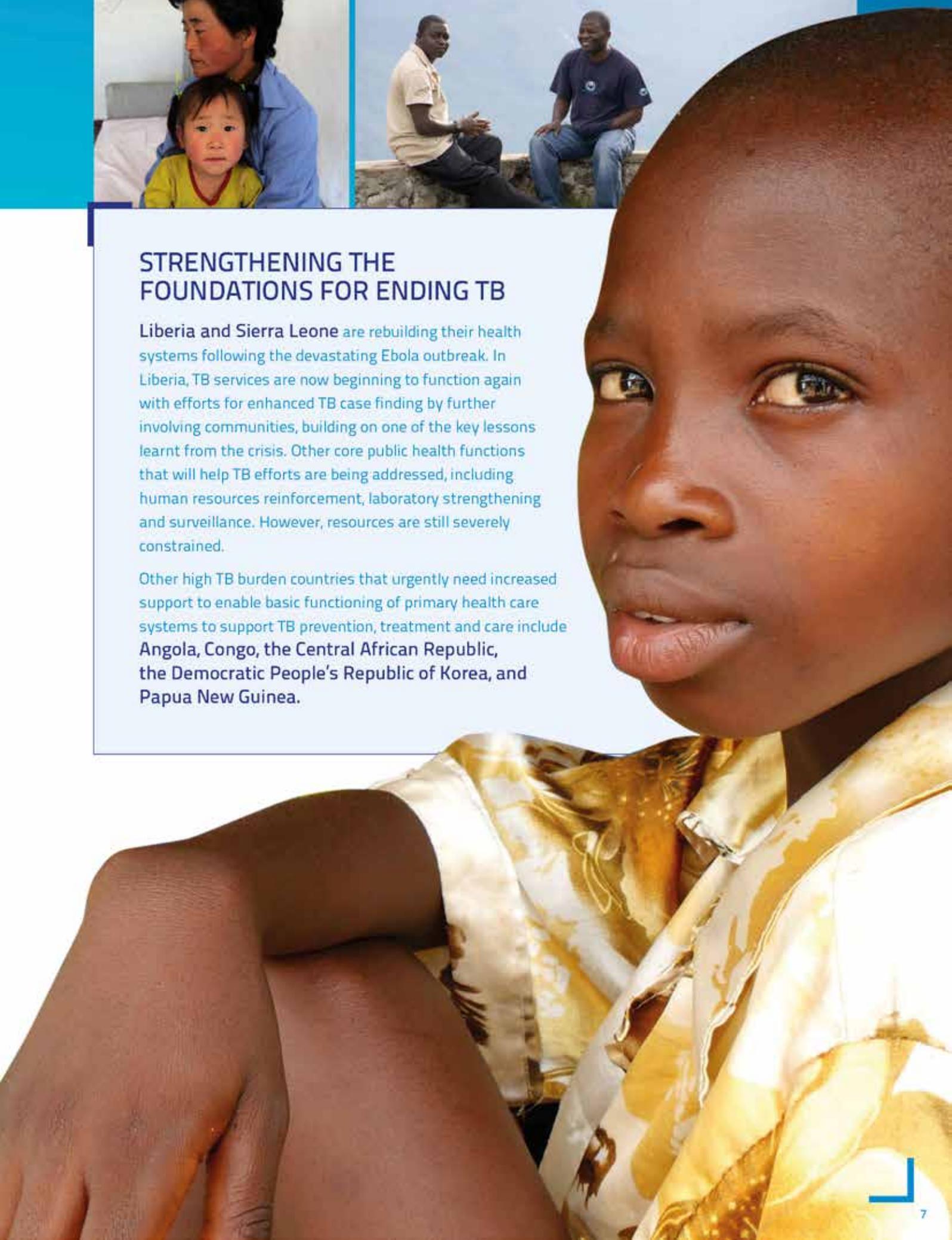
PILLAR 1 > INTEGRATED, PATIENT-CENTRED CARE & PREVENTION

Early diagnosis and prompt treatment of all persons with any form of drug-susceptible or drug-resistant TB is fundamental. As part of patient-centred care, all those affected should receive both care that is accessible to them and the educational, emotional, social and economic support they need.

A. Early diagnosis of TB including universal drug-susceptibility testing, and systematic screening of contacts and high-risk groups

B. Treatment of all people with TB including drug-resistant TB, and patient support

D. Preventive treatment of persons at high risk; and vaccination against TB

C. Collaborative TB/HIV activities; and management of co-morbidities

Bangladesh

The National TB Programme of Bangladesh is among the early adopters, with the help of partners, of the FAST approach to improve early TB diagnosis and treatment to reduce disease transmission. The FAST approach focuses efforts in healthcare settings on Finding cases Actively, and Separation until effective Treatment is started. FAST aims to shorten the time between the entry of a person with TB symptoms into a health facility and their initiation of effective treatment, thereby reducing risk of infection and disease.

In TB clinics within health facilities and in chest hospitals, persons with cough are common. The focus is on ensuring all these persons have sputum samples tested, using rapid molecular tests, for TB and drug resistance. Starting with a 680-bed chest hospital in the capital city, Dhaka, the implementation of FAST methods has helped increase the number of TB and MDR-TB cases identified and effectively treated.

Nigeria

Following its national TB prevalence survey, which found many more persons ill with TB than expected, Nigeria is pursuing approaches to expand overall TB service access, and to increase active case finding among high-risk groups and in high-risk areas.

The number of health centres providing TB care and treatment will be increased, particularly in the slums and among defined hard-to-reach populations. Rapid molecular testing will be expanded to improve diagnosis. Medicine vendors in communities are being engaged to refer persons with TB symptoms. The National TB Programme also plans to introduce a web-based information management system to facilitate TB case notification.

China

Over 20 years, TB prevalence and incidence have fallen in China, but the absolute burden of disease is still high (third in the world), and multidrug-resistant TB is a substantial threat.

For rural and urban communities, at high risk of TB, the challenges of fully adhering to TB and/or MDR-TB treatment are substantial. Among the potential solutions are innovative digital health technologies that can help patients in their homes keep up with their recommended treatment. A randomized trial in China of several combined approaches, including monitor-based counselling and SMS reminders has shown promising results -- up to a 45% improvement in adherence. Exploring how such results can inform reinforced patient-centred care, alongside other system and financing improvements, is the next step.

Philippines

The Philippines has embraced the End TB Strategy and is pursuing already many of the innovations promoted for integrated patient-centred care. Prioritization of specific vulnerable populations, such as prisoners, for active case finding is underway. Efforts are being undertaken to make health services more accessible across the country.

The National Department of Health is working with all stakeholders to further decentralize access to rapid TB diagnostics, especially to better serve people at risk of drug-resistant TB, children and the urban poor. Diagnostic and treatment services for drug-resistant TB have been expanded to include more public and private health facilities. Engagement of local authorities is increasing with provision of additional funding.

Lesotho

Serving remote rural populations and migrating mine workers are among the greatest challenges for Lesotho's Ministry of Health.

Among the priorities as the SDG era begins are: expanding integrated TB/HIV and MDR-TB services with better engagement of village health workers and civil society/NGO partners; reinforced social support schemes for eligible patients; and a stronger surveillance system. Lesotho is also moving to use Xpert MTB/RIF technology as the first line of diagnosis for high-risk patient groups, including people living with HIV and prisoners.

FIGHTING THE CO-EPIDEMICS OF TB AND HIV

Cambodia, Tanzania and Zimbabwe are three examples of high TB/HIV burden countries that have taken active steps to address this deadly disease synergy through scale-up of recommended collaborative TB/HIV activities and integration of services. Since 2004, Cambodia has seen an 80% reduction in HIV-associated TB deaths and Zimbabwe has seen a reduction of more than 70%.

Preventing TB deaths among people living with HIV requires TB preventive therapy, enhanced case detection, and treatment interventions. In Cambodia and Zimbabwe, over 80% of TB patients know their HIV status and over 90% of patients do in Tanzania. Around 90% of notified HIV-positive TB patients have accessed antiretroviral treatment in Cambodia and Zimbabwe, while 83% have done so in Tanzania. These countries have all seen considerable scale-up of Isoniazid Preventive Therapy (IPT for short) in recent years. Zimbabwe has reported for 2014 some 30,000 people living with HIV receiving IPT, up from 11,000 in 2013.

PILLAR 2 > BOLD POLICIES & SUPPORTIVE SYSTEMS

Ending TB hinges on better government policies and systems and meaningful participation of communities, civil society and the private sector.

A. Political commitment with adequate resources for TB care and prevention

B. Engagement of communities, civil society organizations, and all public and private care providers

D. Social protection, poverty alleviation and actions on other determinants of TB

C. Universal health coverage policy, and regulatory frameworks for case notification, vital registration, quality and rational use of medicines, and infection control

Myanmar

Myanmar's National TB Strategic Plan for 2016-2020 is fully aligned with the End TB Strategy.

Its three objectives are to accelerate the decline in TB prevalence and drug-resistant TB; fully integrate TB prevention and care in universal health coverage; and enhance TB prevention, particularly among high-risk populations. TB care is within the country's new essential package of services, and supported by major bilateral and multilateral financing partners. TB is addressed regularly in the national health coordination committee and the National TB Programme has worked with related priority health programmes, and planned with human resources, regulatory and research authorities.

Democratic Republic of Congo

The Democratic Republic of Congo is one of the five focus countries that has implemented WHO's innovative ENGAGE-TB approach.

ENGAGE-TB aims to integrate TB activities into the work of previously unengaged non-governmental organizations (NGOs). In Kinshasa and Kikwit, the National TB Programme has supported the Fondation Femme Plus in including TB services into its community-based HIV activities. This approach has strengthened collaboration between public TB facilities, NGOs and communities and improved data quality at the local level. Public TB officers and NGO focal points meet quarterly to review community-based TB referral and treatment support activities and validate community engagement data, which are then reported to the national level.

Following the ENGAGE-TB pilot, ten additional NGOs are working with the National TB Programme in implementing integrated community-based TB activities across the country.

Pakistan

Pakistan's National TB Programme has developed public-private mix (PPM) models for TB care.

They center on the engagement of different actors, such as NGOs, public and private hospitals, private practitioners, laboratories and pharmacies.

The NTP and its partners have also established a successful PPM model for the management of drug-resistant TB based in public and private tertiary hospitals. Good outcomes have been demonstrated by numerous PPM providers in the quality of diagnosis, treatment and patient support for patients with TB and drug-resistant TB.

Thailand

Thailand's National TB Strategic Plan aligns with the End TB Strategy.

As part of the national health system's focus on universal health coverage with financial protection, the plan also seeks to eliminate catastrophic costs and access barriers for groups of patients that may not yet be benefitting adequately from the already very wide coverage of health insurance. Key vulnerable groups include migrants, prisoners, people living with HIV, children, and the elderly. The plan also places greater emphasis on patient-centred care and community engagement, as well as information system integration so that there is more complete data on who is being served.

People ill with TB often face major expenses and lost income in seeking and staying in care. They may lose their jobs, be stigmatized, or socially isolated. One of the End TB targets is to eliminate "catastrophic costs" for TB-affected families.

ENABLING ACCESS AND SOCIAL PROTECTION

Kenya, Mozambique, Namibia, Zambia

These African countries are among those seeking to better address inequities in access and social protection, given the profound burden of poverty. Kenya now has a strong national social protection policy, and its TB leadership is forging linkages with existing social protection schemes, including cash transfers for key vulnerable groups, and nutritional assessment and support. Under Namibia's new TB strategic plan, greater community engagement, transport reimbursement, income-generation efforts and nutritional support are included. Mozambique is initiating a representative national survey to assess patient and household costs associated with TB care and define means to alleviate them. It is already expanding community-based TB care in two-thirds of its districts and enhancing active case finding. In Zambia, the Ministry of Community Development, Mother and Child Health brings together under one umbrella TB prevention and care and social welfare efforts, which can facilitate further community engagement and cash transfer programme linkages.

PILLAR 3 > INTENSIFIED RESEARCH & INNOVATION

In order to end the TB epidemic, new diagnostics, drugs, vaccines and innovative ways of delivering them are necessary. High TB burden countries can drive research through national research plans and greater collaboration with national and international partners.

A. Discovery, development and rapid uptake of new tools, interventions and strategies

B. Research to optimize implementation and impact and promote innovations

Brazil

In 2001, REDE-TB was created as an interdisciplinary group of Brazilian researchers and students with civil society partners, government and health service representatives working on TB and HIV/AIDS from across the country with the aim of promoting the development and implementation of new technologies and strategies to improve TB care and control.

In 2015, REDE-TB, in collaboration with Brazil's Oswaldo Cruz Foundation ('Fiocruz'), and the National TB Programme developed a National TB Research Strategic Plan. Its priorities include validating implementation of locally-developed TB diagnostics, evaluating the cost-effectiveness of scaling up existing TB diagnostics and treatment tools, and designing ways to evaluate and implement interventions for vulnerable populations.

Viet Nam

In 2015, Viet Nam's National TB Programme, in collaboration with national partners, set up the 'Vietnam Integrated Centre for TB and Respirology Research' (VICTORY) in line with the country's national End TB Strategy. The Centre brings together government agencies, hospitals, universities, research institutions, the private sector and NGOs.

VICTORY is committed to enhancing the capacity of researchers by training and mentoring, contributing to international collaboration on all types of research, and advocating for local investment in TB research. Over the next two years, it plans to conduct a number of research studies, starting with a national prevalence survey as well as developing tools for prioritizing MDR-TB programme implementation, including a pilot study on the utilization of bedaquiline for the treatment of MDR-TB.
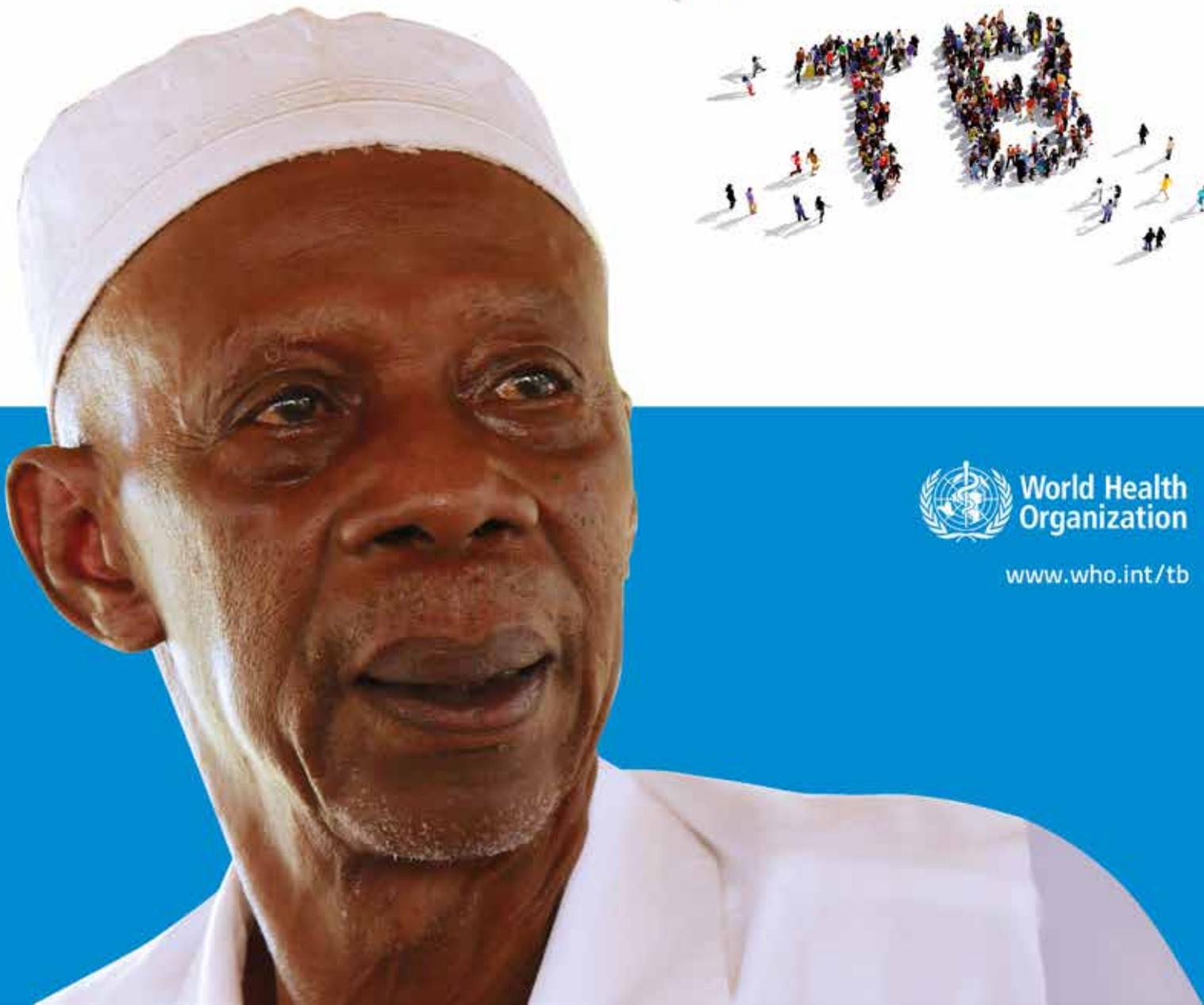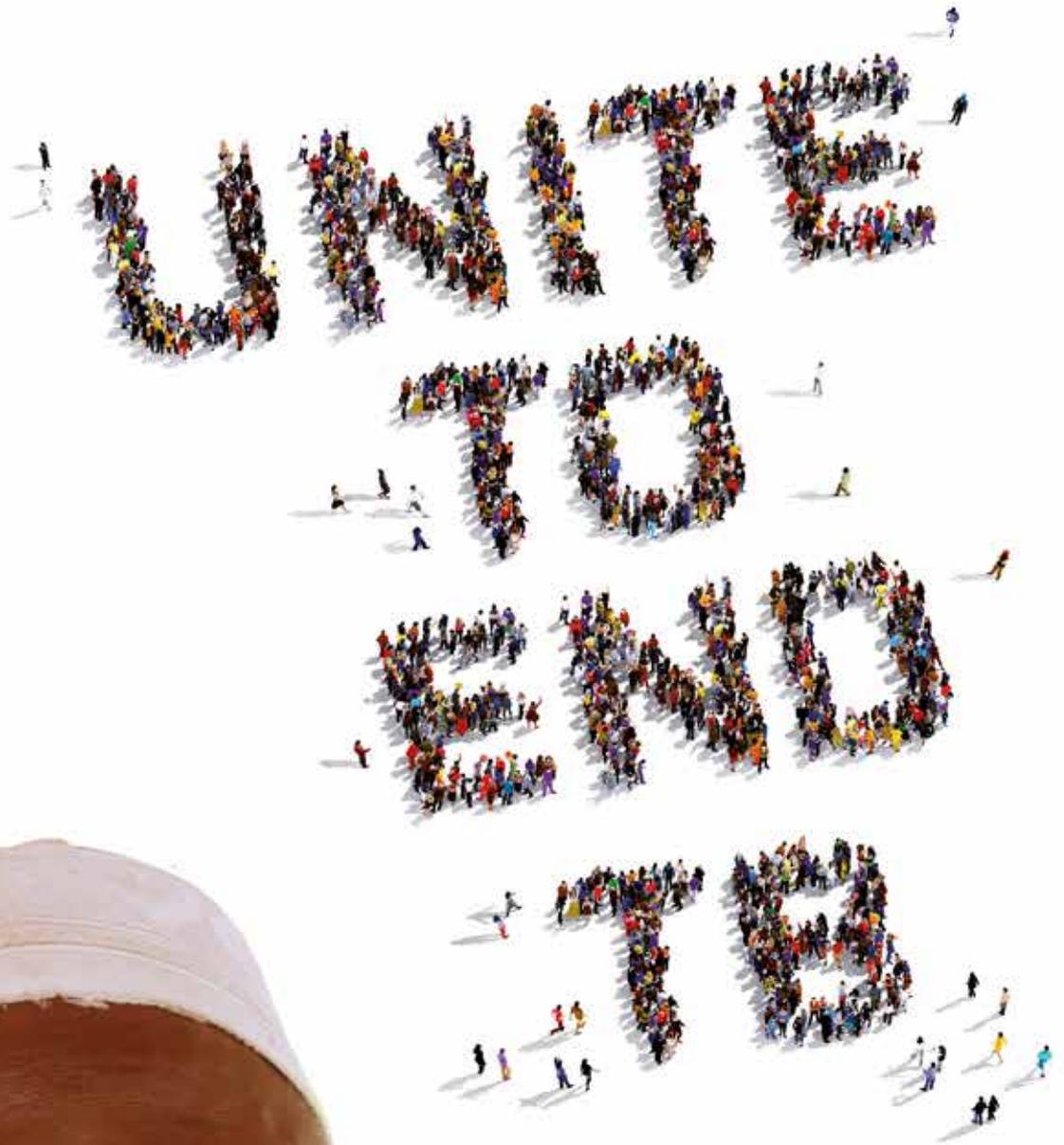
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World Health Organization

www.who.int/tb