Bending the Curve

Keeping our Promise of Ending TB in the South-East Asia Region on time
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Bending the Curve - Keeping our Promise of Ending TB in the South-East Asia Region on time


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<th>Abbreviation</th>
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<tr>
<td>AIDS</td>
<td>acquired immune deficiency syndrome</td>
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<tr>
<td>AMR</td>
<td>anti-microbial resistance</td>
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<td>CBO</td>
<td>community-based organizations</td>
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<td>CSO</td>
<td>civil society organizations</td>
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<tr>
<td>DALYs</td>
<td>disability adjusted life years</td>
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<tr>
<td>DOTS</td>
<td>directly observed treatment, short-course</td>
</tr>
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<td>DR-TB</td>
<td>drug-resistant tuberculosis</td>
</tr>
<tr>
<td>DST</td>
<td>drug susceptibility testing</td>
</tr>
<tr>
<td>GF</td>
<td>The Global Fund to Fight AIDS, Tuberculosis and Malaria</td>
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<tr>
<td>HBC</td>
<td>high-burden (TB) country</td>
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<tr>
<td>HLM</td>
<td>high-level meeting</td>
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<tr>
<td>I2I</td>
<td>Investment to Innovation</td>
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<tr>
<td>IC</td>
<td>infection control</td>
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<tr>
<td>IPT</td>
<td>isoniazid preventive therapy</td>
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<tr>
<td>LBC</td>
<td>low-burden (TB) country</td>
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<tr>
<td>LMIC</td>
<td>low- and middle-income countries</td>
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<tr>
<td>LTBI</td>
<td>latent TB infection</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MDR-TB</td>
<td>multidrug-resistant tuberculosis</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>NSP</td>
<td>national strategic plan</td>
</tr>
<tr>
<td>PMDT</td>
<td>programmatic management of drug-resistant tuberculosis</td>
</tr>
<tr>
<td>PPM</td>
<td>public-private mix</td>
</tr>
<tr>
<td>PTB</td>
<td>pulmonary TB</td>
</tr>
<tr>
<td>RR-TB</td>
<td>rifampicin-resistant TB</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SEA</td>
<td>South-East Asia</td>
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<td>SEAR</td>
<td>South-East Asia Region (of WHO)</td>
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<tr>
<td>STP</td>
<td>Stop TB partnership</td>
</tr>
<tr>
<td>TA</td>
<td>technical assistance</td>
</tr>
<tr>
<td>TB</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>UHC</td>
<td>universal health coverage</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNGA</td>
<td>United Nations General Assembly</td>
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<tr>
<td>WHA</td>
<td>World Health Assembly</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>XDR-TB</td>
<td>extensively drug-resistant TB</td>
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It has been one year since Member States of the WHO South-East Asia Region signed the Delhi Call for Action to End TB in the Region in alignment with the UN Sustainable Development Goals. In doing so they explicitly recognized that the present rates of decline are inadequate, and that intensified action is needed. Accelerating efforts towards ending tuberculosis was also declared a Regional Flagship Priority.

Ending TB in the WHO South-East Asia Region is important not only for the countries in the Region but also globally. Ending TB in this Region will also determine global progress in this regard as the Region bears almost half the global TB burden. In 2016, about 40% of global TB deaths occurred in our Region, which also has six of the world’s 30 high-TB-burden countries and two of the world’s top ten highest-incidence countries. The Region bears about 30% of the world’s rifampicin-resistant (RR) and multidrug-resistant (MDR) tuberculosis cases.

In the Call for Action, Member States committed to unprecedented efforts for ending TB that were supported by multisectoral, empowered national initiatives, budgetary increase, patient support, high-quality care, investments in innovation, and mobilizing of global and domestic resources.

The commitment has been taken forward by Member States in various ways. India has set an aspirational goal to end TB by 2025 rather than 2030. India has also increased three-fold its domestic budget for the national TB programme, and more recently has committed US$ 100 million annually to provide nutritional support to all TB patients. Indonesia has committed to accelerating active case detection through the universal use of rapid molecular tests to diagnose and treat TB cases. Sri Lanka has begun implementing a fast-track response, with the aspirational goal of achieving End TB targets by 2025. Thailand has approved an ambitious strategic plan aimed at significantly reducing the incidence of TB. Bhutan has issued regulatory instructions to implement all aspects of the Delhi Call for Action. Bangladesh has been a frontrunner in the development and adoption of a shorter regimen for MDR-TB that led to global interest as well as its adoption.
However, we need to do much more, and translate the commitments to action on the ground. As the modelling undertaken by the WHO Regional Office for South-East Asia clearly demonstrates, ending TB will not be achieved in any of the Member States with the current approaches even for countries with relatively strong health systems. Ending TB will need a comprehensive approach encompassing strengthening of current services, adoption of new tools and technologies, as well as additional efforts in accelerating case-finding activities. Additionally, without more robust preventive measures we cannot achieve our goals related to ending TB. Preventive measures could include introducing a biomarker test for TB, followed by safe preventive therapy or a vaccine. Hence investments in research are required now to urgently develop the products needed. It is estimated that the region’s efforts to end TB have only mobilized half the required funds and the Region continues to face a funding gap of US$ 1 billion annually. The funding gap needs to be plugged urgently.

Achieving our joint goal of ending TB by 2030 is fundamental to advancing the health and well-being of all people across the South-East Asia Region, as well as in the world. This will make a range of social and economic aspirations possible.

Ending TB will also contribute significantly to WHO’s new Thirteenth General Programme of Work 2019–2023 that has three strategic priorities covering the "triple billion": 1 billion more people with health coverage, 1 billion more people safer, and 1 billion lives improved.

I am hoping that in the next one year, we will register a significantly greater progress in implementing the Delhi Call for Action in all Member States and the Region will have set examples for the rest of the world with its progress towards ending TB.

Dr Poonam Khetrapal Singh
Regional Director
WHO South-East Asia Region
1. Why bend the curve?
11 countries

26% of the world’s population

40% of all TB related deaths

1/2 of all new TB cases occur here

There are 1.5 million missing TB cases across the region and only 1 of 5 people needing MDR-TB treatment were enrolled in 2016 with a treatment success rate of merely 50%
1.1 Unacceptably high burden of TB in the WHO South-East Asia Region

Tuberculosis (TB) is the most lethal infectious disease in human history, and it remains the leading cause of death from a single infectious agent globally, with 1.7 million deaths in 2016. Drug-resistant forms of TB are responsible for a quarter of the annual deaths due to antimicrobial resistance (AMR) and, if left unchecked, by 2050 will claim millions of lives and cause the global economy to incur losses worth billions of dollars. The WHO South-East Asia (SEA) Region has some of the highest TB-burden countries, and nearly half of all TB cases in the world are to be found in people from this Region. The Region has nearly half the global burden in terms of new cases (incidence), and close to 40% of the burden in terms of deaths due to TB. And this while only 26% of the global population lives in the Region.

In 2016, there were approximately 700,000 deaths from TB and TB-HIV, and 4.7 million new cases of TB disease, in the countries of this Region. India and Indonesia alone have 37% of the global TB burden. Timor-Leste and the Democratic People’s Republic of Korea are among the top 10 countries in the world in terms of incidence rates.

The total number of TB cases that were notified to national TB programmes of the SEA Region in 2016 was 2.9 million or only about 58% of the estimated incidence. The overall success rate of tuberculosis treatment in the WHO South-East Asia Region stood at 78% for the 2015 cohort, the lowest in the last five years.

Tuberculosis forms the cornerstone of the global AMR challenge. Multidrug-resistant and rifampicin-resistant TB (MDR/RR-TB) in this Region contributes to nearly 30% of all drug-resistant TB cases. Estimated incidence in 2016 was more than 200,000, of which just 40,480 were started on treatment. Of those started on treatment in previous years (such as 2014), only half were successfully treated.
TB kills more people in the productive age group of 15-49 years. DALYs are lost annually in this productive age group.

**TB traps**
people in a vicious cycle of disease and poverty

**11 million**
DALYs are lost annually in this productive age group

TB incidence is **4 times**
higher in the poorest quintile

The Region loses nearly **US$ 4 billion**
annually as costs of accessing TB services

Although TB poses a risk to people of all income classes, it is a disease that both breeds in poverty and breeds poverty.
1.2 TB plays a key role in perpetuating poverty

The fight against TB is integrally linked with the region’s broader aspirations for health and development. TB sits at the intersection of health and development – the poor are exceptionally afflicted by TB, and up to four times more than those in the highest income bracket.\(^3\) TB perpetuates poverty by debilitating those with disease, often in the most productive years of age. It is estimated that TB patients in low- and middle-income countries face expenditures equivalent to more than 50% of their annual income in fighting this disease.\(^4\) In the SEA Region, TB is the leading infectious disease cause of mortality and disability adjusted life years (DALYs) lost among people in the productive age group of 15–49 years. The annual direct and indirect costs of TB in the SEA Region amount to nearly US$4 billion.\(^5\)

With the adoption of the Sustainable Development Goals (SDGs) by the United Nations, all countries are now committed to “end TB” which essentially means at least a 90% reduction in TB mortality and 80% reduction in TB incidence by 2030. This needs a paradigm shift in strategies that we use to address TB. While the global goal of Ending TB has received political support, the reality is that the current pace of progress in the Region is too slow – and by several orders of magnitude in most countries – to reach the End TB targets. This is characterized by severe underinvestment in all areas of TB. For example, TB accounts for nearly 2% of the disability-adjusted life year (DALYs) and 2% of deaths globally, but receives only 0.25% of the estimated US$ 265 billion spent on medical research annually.\(^6\)
**Figure 1:** Projected declines in incidence rates (per 100,000 population) for the SEA Region and all Member States.

For each graph, the dotted line indicates the projected decline with current trends while the bold line is the expected decline that must be achieved to reach the End TB targets.
1.3 Current rates of incidence decline remain slow in the Region: need to bend the curve

The current rate of decline in TB incidence is much slower compared with the rates of decline required to reach the WHO End TB Strategy targets by 2030 (see Figure 1). The minimum rates of decline will need to be between 10%–15% per annum. These rates of decline have been achieved in post-War Europe and in other settings, at a time when the plethora of new tools and drugs that are available in the fight against TB today did not exist. The opportunities afforded to the global community to end TB today are huge, and need to be matched with ambition, resources and careful planning.

To really make a dent in TB incidence, the social determinants of TB also need to be fully articulated and addressed. For example, it is well established that TB will continue thriving as long as poverty persists. The global burden of TB associated with undernutrition is of a higher magnitude than that caused by HIV-AIDS. Ageing populations in South-East Asia, and with a high prevalence of diabetes, have a major impact on the trajectory of TB incidence. Unless these factors, and other social determinants and unhealthy behaviours such as smoking and alcohol consumption are addressed as part of a comprehensive response to TB, the vision of eliminating TB will not be translated to reality.

Similarly, while enhancing access to diagnosis and treatment in health-care settings remarkably improves outcomes in terms of reducing suffering and death, it has little impact in terms of reducing incidence rates and driving down new TB infections. This is chiefly because the outreach aspect of TB services still remains limited, leading to millions of undetected TB cases, and creating poor patient outcomes related to delayed diagnosis and treatment and ongoing transmission in households and communities. In many settings, TB services remain “hospital-centred” rather than “patient-centred”, with an assumption that good health-seeking behaviours are the norm. This assumption does not take into account that a whole range of factors (geographical, financial and psychological) have a direct impact on how and when people seek health services.

Progress towards meeting End TB milestones for 2025 and 2030 remains uneven and slow: in almost every country in the SEA Region, national efforts will have to be vastly stepped up to reach these targets.
2. Strategic shifts needed in approach towards ending TB
**Figure 2:** The potential impact of different intervention combinations on the TB incidence rates (per 100,000 population) in SEA Region
2.1 The scientific underpinnings of a smarter response

The strategic shift needed for adequately addressing the goals and targets of the End TB Strategy is guided by science. Working with a consortium of academics, the WHO Regional Office for South-East Asia reviewed the evidence and commissioned modelling exercises to understand which interventions and at what levels of coverage could make the greatest contribution to achieving the End TB goals. The modelling clearly shows that “a business as usual” approach could lead to very slow rates of decline in incidence, or in some cases no decline at all.

The following interventions were modelled successively, adding each intervention in a combination strategy. An assumption of implementation with a steady (linear) scale-up over five years starting from 2017 was made. The exception to this assumption was mass preventive therapy, which was assumed to be scaled up over five years starting from 2025.

**Strengthen:** The first of the strategy packages is aimed at improving basic TB services, that includes diagnostic facilities, engagement of all providers (in referral and reporting), and improving treatment initiation and outcomes. Some of the targets included in the strategy include:

- Private (or non-NTP) sector engagement covering 50% by 2020 and continued scale-up. The approach includes training and incentives for non-NTP providers, to follow standards of TB care.
- Laboratory expansion, in order to improve access to diagnosis.
- Accelerated substitution (ultimately 80%) of smear by rapid diagnostic tests. The algorithm for diagnosis by rapid molecular tests involves chest X-ray screening followed by confirmation using rapid tests and hence both X-ray facility and rapid molecular test availability needs to be scaled up together.
- Proportion of TB diagnoses initiated on treatment increased from 88% to 95% by reducing the number of cases diagnosed but not put on treatment.
- Treatment completion rates among those initiated on treatment have been low and need to be increased from current reported levels of 78% to at least 95%.
- The model also envisages that at least 80% of all patients needing second line treatment because of resistant bacillus will start receiving the shorter treatment regimen (9-12 months) by 2020.
**Accelerate:** This strategy package builds on the first package of strengthening services and includes enhanced case-finding measures- (although as discussed below, this scenario could also include patient-focused mechanisms to encourage uptake of TB services).

- Investigating contacts of TB cases can lead to finding of new TB cases because of likelihood of transmission. Therefore, one of the first steps in accelerating case-finding is contact investigations for every TB case diagnosed at the health facility, by following-up on all their contacts (colleagues, household, neighbours, etc.) for active TB.

- Intensified case-finding (ICF) would involve active screening of high-risk cases or community based referrals from the general population. Depending on the local context, high-risk groups could mean HIV-positive patients, other immuno-compromised patients, and the elderly or pockets of population that are unreached but may have high transmission rates such as slums.

**Prevent:** Cutting the chain of transmission of infection from one person to another would have maximum impact on development of new cases. This will need preventing airborne transmission at health facilities and in communities, administering preventive therapy and research on new tools like a vaccine or a mass preventive therapy. To accomplish this:

- Current recommendations for Preventive Therapy among high risk populations and contacts that do not have active TB needs to be followed along with airborne infection control measures.

- At present, mass preventive interventions are purely hypothetical with assumed availability by 2025. This may include a diagnostic test that can distinguish high-risk latent infections from others, followed by a preventive therapy regimen that is feasible for mass administration or a vaccine that cuts the chain of transmission that can be applied on mass scale.

Clearly the sharpest declines in incidence are seen when mass preventive therapy is added into the intervention mix. However, the science for feasibly operationalizing this is still in development, underscoring the need for urgent investment in research and development. Meanwhile, huge levels of progress are possible with current tools. By combining interventions under the ‘strengthen’ and ‘accelerate’ umbrella, enormous declines in incidence and mortality can be achieved.

For countries aiming to achieve the End TB targets by 2025, availability of a mass preventive tool is imperative by 2020. Investments in research and development of appropriate tools may help achieve such aspirational goals.
2.2 Addressing TB has a high Return on Investment

It is estimated that US$ 1 invested in preventing TB deaths generates a benefit of US$ 43.

Prompt treatment can give an individual about 20 additional years of productive life.

TB treatment is low-cost and highly effective.

Investing in TB treatment has substantial economic and health returns.
2.3 The investment case for TB

TB control has been part of an essential package of health services for most low- and middle-income countries (LMICs) for decades, based on the relatively high returns of TB control. The economic case, put simply, is that TB treatment is low cost and highly effective, and on average may give an individual in the middle of their productive life about 20 additional years of life resulting in substantial economic and health returns. Moreover, the delivery of high-quality TB services can prevent the spread of the disease to others; slow the emergence of drug-resistant forms of the disease, a dangerous and costly form of TB; and disproportionately benefit the poor.

Reducing deaths from tuberculosis would generate a benefit of US$ 43 per dollar spent.

The costs of inaction are huge. The Stop TB Partnership has warned that a five-year delay in funding TB research and development could result in an additional 8.4 million TB cases and 1.4 million TB deaths by 2030, equating to over US$ 5 billion in excess treatment costs. As one of the leading drivers of antimicrobial resistance (AMR), TB will contribute to even greater economic losses, which could exceed US$ 100 trillion by 2050 in the absence of concerted action today. For the Region this will mean more than 700,000 deaths each year due to TB in the Region and nearly US$ 4 billion in patient costs.

Although financing for TB interventions must markedly increase if the Region hopes to end the TB epidemic as a public health threat, needed resources nevertheless range from 1.0% to 14% of public health expenditure. As strengthened TB interventions are implemented by the national programme and achieve reductions in TB transmission and illness, TB-related costs (both as a percentage of public spending and as a proportion of GNI) are expected to decline.
3. Transformative strategic shifts enabled by political commitment
Empowered national initiative

Universal access to high-quality TB care in all sectors

Regional Innovation to Implementation (I2I) fund

Full funding for ending TB

Patient-centred socioeconomic support

Mobilization of global resources
3.1 The Delhi Call for Action

With the clear understanding that the TB response in the WHO SEA Region needs bolstering, and in the light of the scientific facts calling for a shift in strategy, the Regional Director of the WHO South-East Asia Region made TB a Flagship Priority Programme in 2016. This was followed by the first Ministerial Meeting in Asia on TB, with the specific objective of generating political commitment to the ‘End TB’ Goals.

In a Ministerial Meeting in Delhi held on 15–16 March 2017, all Member States of the Region signed the Call for Action for Ending TB in the WHO South-East Asia Region. The key commitments in the Call for Action are as follows:

- LEAD implementation of the national TB responses in countries – specifically the high-burden countries – by an empowered national initiative that reports to the highest levels of government in Member States, and that includes a multisectoral response and is committed to translating policies into time-bound, result-oriented actions at multiple levels of administration, with ownership and access to real-time monitoring;

- INCREASE budgetary and human resource allocations by governments as well as by their global, domestic and other partners so as to ensure that national TB plans are evidence-informed, fully funded, rationally and effectively used and avoiding wastage;
• ENABLE, using innovative communications, the engagement and literacy of communities and individuals with TB and provide the best possible care to each and every person, including migrants, the aged and other high-risk populations, living with any form of TB, including drug-resistant TB and TB-HIV co-infections, presenting either to the public or the private sector, including general practitioners, while also expediting introduction and expansion of new tools of diagnosis, treatment and prevention as they become available;

• SUPPLEMENT medical care for TB with patient-centred, community empowering, necessary social and financial protection in a holistic manner through collaborations across and beyond the health sector in every country of the Region;

• WORK jointly with the South-East Asia Regional Office of the World Health Organization and partners to further boost actions in countries, including forming regional research consortiums, mobilizing additional global resources and securing political commitment at the highest levels from countries through the Ministerial Meeting in Moscow, Russia, in November 2017, and at the UN General Assembly Session in 2018, thereby demonstrating regional commitment to end TB; and

• SET UP jointly with the South-East Asia Regional Office of the World Health Organization and partners a regional Innovation to Implementation (I2I) fund to ensure accelerated sharing of knowledge, including the use of secondary data, intellectual resources and testing innovations to reach out and treat all cases.

The political momentum generated in the region for Ending TB received a further boost when many Ministers from the Region also attended the high-level Ministerial Meeting in Moscow later in 2017.
4. Tracking progress since the Delhi Call for Action
### 4.1 Funding allocation increase in high-burden countries in the Region

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<tr>
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<td>$53</td>
<td>$85</td>
<td>60%</td>
</tr>
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<td>DPR Korea</td>
<td>$14</td>
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<td>India</td>
<td>$245</td>
<td>$525</td>
<td>114%</td>
</tr>
<tr>
<td>Thailand</td>
<td>$13</td>
<td>$20</td>
<td>48%</td>
</tr>
</tbody>
</table>

*Source:* 2017 WHO Global TB Report"
4.2 Leap frogging in six areas of transformation

With the political commitment to End TB at an all-time high, and the request from SEA Region ministers to support the monitoring of progress, the WHO Regional Office undertook a snapshot assessment of where the Region stands a year after the Delhi Call to Action. This was done along the key areas that were set out in the Declaration. The picture that emerges shows impressive progress in some areas, with clear examples of best practices in place. However, in other areas progress has been variable and often limited.

1. Establish empowered national initiatives: The initiative is intended to lead the implementation of the national TB responses in the countries that reports to the highest levels of government in the Member States, through a multi-sectoral response and is committed to translating policies into time-bound, result-oriented actions at multiple levels of administration, with ownership and access to real-time monitoring.

At the time of issuing the Delhi Call for Action, ending TB had started gaining attention at the highest political level and the creation of national initiative was intended to capitalize on this attention. In some countries like Thailand, there was a multisectoral initiative, however countries are yet to establish a formal structure that is empowered for TB control:

- Since the issue of Call for Action, Bhutan has started formulating the terms of reference for such committee; India’s TB programme was reviewed by the Prime Minister himself and the monitoring is expected to continue on a regular basis; and the President of Maldives himself gave a call to fast-track the ending of TB. India and Sri Lanka have also expressed a bold vision of ending TB by 2025.

- High level empowered national mechanisms to help direct national strategic plan (NSP) implementation are planned in four countries.

- High level political commitment has been recorded from all Heads of States through statement/s; these need to be turned into concrete actions with regular review mechanisms. Multi-sectoral collaboration appears still to be an ongoing challenge for NTPs in all countries as it needs the engagement of partners beyond the Ministry of Health.
2. **Ensure full funding:** The idea behind this ‘ask’ is that Members States increase budgetary and human resource allocations, and mobilize resources from their global, domestic and other partners to ensure that national TB plans are fully funded to achieve the targets of ending TB. However:

- Analysis of national plans reveals that countries in the Region are yet to mobilize full funding for ending TB – although there have been significant positive steps taken in some countries.

- All high burden countries in the Region – Bangladesh, DPR Korea, India, Indonesia, Myanmar and Thailand – have substantially increased their budgets for 2017. India stood out as a country where the budget envelope for TB was substantially increased in 2017 (up to US$ 525 million, almost double the level of 2016) with no funding gap reported for 2017. However, some TB programmes in the region remain severely under-funded – with some reporting a funding gap of more than 50%.

- It is notable that the costing of NSPs in several countries is based on coverage targets that are not likely to lead to the achievement of impact targets listed in the goals of NSPs. This implies that even with a fully funded NSP, resources for Ending TB may remain inadequate as the coverage targets planned remain below what is needed to make the impact in terms of reducing incidence and mortality.

3. **Provide patient centred socioeconomic support:** This action is intended to supplement medical care for TB with patient-centred, community-empowering, necessary social and financial protection in a holistic manner through collaborations across and beyond the health sector in every country of the Region:

- While all countries in the Region have adopted the principles of a "patient-centred approach" in their plans, actual action on ground in support of this has been variable, with an undue focus on facility and hospital centred approaches and limited outreach or service provision at community levels. Some countries are however paving the way for increasing social support and outreach.

- Sri Lanka has started providing nutritional support to all TB patients while several other countries have project based nutrition support (mostly funded by the Global Fund).
• Direct benefit transfer schemes for TB patients such as in India is a another positive development. Other countries are also providing small disability pensions (e.g. Thailand for MDR patients), or patient transport support. However, this is rarely systematic and in some cases this support is totally donor dependent.

• Nearly all, ten of 11 countries have plans to engage civil society organizations (CSOs), though the nature of engagement is highly variable and very few actually aim to build the capacity of CSO/CBOs. Much more needs to be done to mobilize and support community level assets to ensure that they can contribute to the End TB agenda.

• At the current level of planning, only 2/11 countries may meet targets of "zero catastrophic costs" by 2020.

4. Ensure universal access to high quality TB care in all sectors: Several TB patients seek care in sectors outside the NTP. It is important that all such patients get quality care and the outcomes are reported to NTP. The programmes also need to reach out to those who have limited access to any kind of formal service. Progress has been noted in using outreach approaches:

• All 11 countries addressed the following priorities:
  • Increasing case finding and notification
  • Improving treatment outcomes
  • Improving diagnosis and management of MDR-TB

• Accelerated case finding using active screening activities is being adopted in all countries of the Region. High-risk group screenings is done in countries like Bangladesh, Bhutan, India, Indonesia, Sri Lanka, Thailand and Timor-Leste.

• Five countries in the Region have well laid out plans to engage sectors outside the NTPs, while 3 more address it partially.
While TB/HIV is being addressed by all countries, other drivers such as undernutrition, diabetes, TB in elderly and tobacco smoking remain relatively unaddressed.

While most plans capture the right elements of interventions, it was also observed that adequate coverage and output targets of each interventions are either not planned or costed and backed by necessary plan.

5. **Establish a regional mechanism for fast-tracking research**: The capacity of Member States to undertake research specifically product research varies significantly. Having a funding mechanism for research is essential for expediting introduction and expansion of new tools of diagnosis, treatment and prevention as they become available to fast-track approach towards ending TB. A Regional Innovation to Implementation (I2I) fund could support accelerated sharing of knowledge, including the use of secondary data, intellectual resources and test innovations to reach out and treat all cases. Operational research finds a significant place in NSPs of six countries while four others have included elements of operations research to some extent.

- Two countries out of eleven have plans to address the development of new tools.
- The proposed regional I2IFund is still in the early stages of development.

6. **Mobilize global resources**: High-level meetings provide an opportunity to show-case achievements, highlight the gaps and bring together global communities for investments in places where they matter most. One such opportunity was the Global Ministerial Meeting in Moscow in November 2017 and another big opportunity the High Level Meeting (HLM) during the UN General Assembly in September 2018.

- There was a prominent presence of the SEA Region during the Global Ministerial Meeting on TB in Moscow, November 2017.
- Attention to the high TB burden in this region needs to be drawn during the HLM at UN General Assembly.
- A additional investment of US$1.3 billion per year is needed in the Region. Such resources, where possible, should come from domestic sources as well as complemented by support from the international community.
4.3 The Moscow Declaration

The Global Ministerial Conference “Ending TB in the Sustainable Development Era: A Multisectoral Response” was organized in Moscow in November 2017 with the aim to accelerate country implementation of the WHO End TB Strategy in order to reach the End TB targets set by the World Health Assembly and the United Nations (UN) SDGs. Key paragraphs from the declaration state the following:

“We reaffirm our commitment to end the TB epidemic by 2030 as envisaged in the Agenda 2030 for Sustainable Development and its Sustainable Development Goals (SDGs), the World Health Organization (WHO) End TB Strategy, and the Stop TB Partnership Global Plan to End TB 2016-2020. We acknowledge that to fundamentally transform the fight against TB, we need to:

i. address all the determinants of the TB epidemic including through a high-level commitment to, and implementation of, a multisectoral approach;

ii. achieve rapid progress towards the goal of universal health coverage through health systems strengthening, while also ensuring universal access to quality people-centred TB prevention and care, ensuring that no one is left behind;

iii. implement measures aimed at minimizing the risk of the development and spread of drug resistance taking into account global efforts to combat AMR;
iv. secure sufficient and sustainable financing, especially from domestic sources, and mobilize, as needed, additional financing from development banks, development partners and donor agencies;

v. advance research and development, as well as rapid uptake, of new and more effective tools for diagnosis, treatment, drug regimens, and prevention including vaccination, and ensure that we translate existing and emerging knowledge into concrete action to achieve rapid results; and

vi. actively engage people and communities affected by, and at risk of, TB.

Furthermore, an effective TB response requires a global, regional, cross-border and country specific approach with multisectoral and multi-stakeholder actions, with recognition of:

i. significant differences among and within countries with high, intermediate and low incidence of TB and MDR-TB;

ii. demographic and social trends such as population ageing and urbanization; and

iii. needs of the affected individuals and communities, and the challenges in reaching and identifying all people with TB and providing them with appropriate care.”
5. Keeping the promise of ending TB on time
5.1 Bolstering the national TB control programmes through collaboration

Build social sector / poverty alleviation scheme linkages

- Nutrition support programme linkages
- Overcrowding and urban poverty alleviation programme linkages

Address sustainable financing of health outcome

- Catastrophic health expenditure mitigation strategies
- Comprehensive health financing – national, official development assistance, blended finance

Invigorate health systems

- Human resources for health
- R&D for health, including addressing antimicrobial resistance
The Regional Office for South-East Asia remains the largest-burden region of the world for TB. While spectacular research and programme innovation has emerged from this Region, TB has continued to remain the largest cause of death due to a communicable disease in the age-group of 15–49 years.

Reflecting the economic and development aspirations of the Region, the WHO Regional Office commissioned research to suggest options for Ending TB on time and the modelling analysis called for extraordinary and urgent actions for leadership and financing, and an immediate shift in diagnostic and prevention strategies. All these required political commitments. All Member States together with the WHO Regional Director signed the Call for Action in March 2017.

This was the first of the leadership actions that were undertaken last year. Following this, Health Ministers of the world met in Moscow in November 2017 for a summit meeting on TB. Almost simultaneously, the WHO Regional Committee for South-East Asia – the highest Governing Body in the Region consisting of all health ministers – endorsed the Declaration and made it integral to regional and country-specific action. The Committee also recommended that WHO monitor progress and reach out to the leaders for mid-course corrections as needed. A high-level meeting on TB on the side-lines of the UN General Assembly in New York is scheduled for September 2018.

Accordingly, the Regional Office conducted a review of the available National Strategic Plans one year after the Call for Action, and summarized that:

i. There has been significant progress in the Region since the Delhi Call for Action. Almost all Heads of States issued political statements underpinning the importance of their TB programmes. These political statements need to be translated into a viable mechanism in each country which would empower the health ministries to enact multisectoral action monitored by the Head of State.

ii. The most important change asked for in the Call for Action was to make the strategic shift in case diagnosis through the use of better tools, reaching out to communities and key populations that are vulnerable to infection, and ensuring quality treatment and preventive medicine through strengthened health services with public, private and patient-centred approaches. These include demand generation through community involvement, incentivizing treatment, and introduction of enabling interventions like transport costs, cash transfer and other such mechanisms.

A review shows that some countries have leapfrogged ahead with social support to the extent never seen before, but yet fell short of critical coverage.
iii. It is also evident that increasing attention is being given to both implementation and clinical research. This, however, is not at par with the speed and investment needed to meet the fast-track targets as demanded by some Member States.

Given these developments regional health leaders are meeting yet again and are ready to consider concrete actions that are required to make ending TB a reality.

The Delhi Call for Action has to be made operational through jointly defining critical targets needed to Bend the Curve in each area of nationally empowered initiative. This includes identifying each activity related to diagnosis and treatment through newer tools and approaches, identifying and quantifying the elements of patient-centred support and enablers and, finally, jointly monitoring every year through the Governing Bodies.

What Member States can do

1. Establish multisectoral and empowered national initiatives in all Member States. Such initiatives may be for multiple priority diseases depending on the country context, and they must engage various government departments, the private sector and civil society - including members of the affected community; monitor progress; and collectively address gaps and challenges.

2. Develop a national accountability framework - that defines roles and responsibilities of all partners towards ending TB and with indicators to measure performance.

3. Estimate the financial resources needs for ending TB based – ensuring costing for a comprehensive plan inclusive of all strategies. Pooling of resources from domestic funding, international donors and other innovative financing mechanisms will be needed.

4. Define a minimum standard package for universal access which includes the use of new tools, technologies and drugs as recommended by WHO. This package should be treated as a standard of care in all settings. The package must address the barriers to access and include cost effective enablers to ensure the full uptake of services.

5. Commit to engaging civil society and communities - not just as partners in service delivery but as equal partners in design, implementation, decision-making and monitoring of progress. Civil society engagement plans should also include strengthening the capacity of these organizations to meaningfully engage with the programme.
6. Dedicate funding for research and specific development of new tools. Countries that have the capacities in research should increase investments and also create platforms with regional support for royalty-free technology transfer.

**What Partners can do**

1. Front load and scale up investments in high burden countries to cover current financing gaps towards a scaled up Programme.
2. Establish financing channels for innovations particularly for countries that are close to elimination of TB.
3. Proportionate efforts of the global community and donors towards ensuring special time-bound approaches for the highest-burden Region of the world through One-by-Three approaches:
   - High-burden countries can have access to a TB fund on replenishment basis if they could reach elimination criteria in particular defined areas.
   - Low-burden countries can take special initiative towards ending TB in time by careful subnational efforts and inclusive cross-border programmes.
4. Supporting innovation and uptake through market shaping and regulatory mechanisms.

**What WHO SEARO can do**

1. Define non-health elements of interventions and standardize unit costs as a part of package for TB diagnosis and treatment within universal health coverage.
2. Share best practices of mechanisms of empowered national initiatives that have made targeted time bound results possible with monitoring by Heads of States/ Governments.
3. Reach out to the national and local leaders to advocate for Ending TB.
4. Facilitate South-based regional structure to support the supply of drugs and commodities between countries, sharing regional expertise and South-South collaboration and, strengthen the uptake of research and innovation between countries through regulatory networks and other efforts.
5. Provide a secretariat for Innovation to Implementation (I2I) fund that would support innovation and establishment of learning sites for quick uptake of interventions needed for ending TB.
1. Coverage targets by 2020

i. Strengthen existing TB services

- Better public sector diagnostics
- Lab expansion (from 2015 figures)
- Engaging non-NTP sector

Treatment initiation
Treatment completion
RR/MDR-TB proportion short regimen

The 1st milestone by 2020

ii. Accelerate case detection

336 000
Expected patients notified/year from intensified case finding

The 1st milestone by 2020

1.3 million
Patients notified/year from contact investigations
iii. Preventive therapy

Provide preventive therapy to high-risk populations and contacts of confirmed TB cases.

2. Output targets for 2020

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<tr>
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<th>2016</th>
<th>2020</th>
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<tbody>
<tr>
<td>All TB cases notification</td>
<td>2.9 million</td>
<td>4 million</td>
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<tr>
<td>MDR-TB cases notification</td>
<td>40,000</td>
<td>100,000</td>
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<tr>
<td>Treatment success rate for new and relapse cases</td>
<td>78%</td>
<td>90%</td>
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<tr>
<td>Treatment success rate for MDR-TB cases</td>
<td>50%</td>
<td>75%</td>
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References


5. WHO SEARO. Bending the Curve – Ending TB in the WHO South-East Asia Region. Delhi. 2017


10. A review of national strategic plans for tuberculosis in the countries of the WHO South East Asia Region, as of December 2017. Dr Paul Nunn, (unpublished)
