

GLOBAL TB CAUCUS LIBRARY

TB PREVENTION

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A SPOTLIGHT ON TB PREVENTION

Tuberculosis (TB) is the world's leading infectious disease killer. The bacterium that causes TB is highly infectious, airborne and prone to developing drug-resistance. The majority of people who fall ill with TB are of working age. The resulting death, disability, and healthcare costs are significant for individuals, their communities and countries. All of this can be prevented.

While diagnosing and treating people with TB disease saves lives, altering the trajectory of the epidemic towards elimination requires TB prevention. Preventing TB is possible and cost effective through a package of interventions that protect people from TB disease and stop chains of transmission. Progress towards expanding access to TB prevention has been lagging behind the broader TB response, putting millions of people at risk and contributing to significant, long-term healthcare costs.

INTERNATIONAL COMMITMENTS ON PREVENTION

TB has been recognised as a global public health emergency. In line with the Sustainable Development Goals, world leaders have pledged to strengthen TB prevention to reduce the incidence of TB.

Commitments include:

United Nations High-Level Meeting on Tuberculosis (2023):¹

- By 2027, at least 90% of people who are at high risk of TB are provided with TB preventive treatment
- Integrate care for screening, prevention and treatment of TB and related conditions, including HIV, so that 90% are reached with health services
- Accelerate the development and roll-out of safe, effective, affordable TB vaccines

United Nations High-Level Meeting on Universal Health Coverage (2023):²

- Prioritize health promotion and disease prevention, including through strengthened primary care
- Progressively increase health spending and strengthen social protection
- Scale up efforts to promote healthier and safer workplaces
- Strengthen infection prevention and control in healthcare settings

UNDERSTANDING THE DIFFERENT FORMS OF TB ^{3, 4}

Not everyone who is infected will develop TB disease, and not everyone who has TB disease will have symptoms. This is why access to diagnosis and prevention is crucial.

TB infection occurs when someone has TB bacteria in their body, and their immune system is containing the infection. This was previously called 'latent TB infection'. People with TB infection do not have symptoms, and cannot pass the infection on to other people. It is estimated that 25% of the global population has TB infection. For people without a compromised immune system, their risk of developing TB disease after infection is approximately 10% over the course of their life. This risk is greatest in the two years after infection. TB infection can be diagnosed and successfully treated.

TB disease occurs when the infection is no longer controlled by the immune system, and the bacterium multiplies and begins to damage the person's body. People whose immune systems are compromised by HIV, undernutrition, diabetes, smoking, harmful use of alcohol or certain medical conditions are at a much greater risk of developing TB disease. People with TB disease will often have symptoms like cough, fever, fatigue and weight loss, and can pass the bacterium onto other people. For most people, TB disease affects the lungs but it can also affect other organs (extrapulmonary TB). TB disease can be diagnosed and successfully treated.

Drug-resistant TB (DR-TB) is when the bacteria causing TB disease are resistant to one or more of the antibiotics used to treat TB. New treatment regimens mean that drug-resistant TB can be treated. However, when someone is given the wrong regimen or their treatment is interrupted, new or additional resistance can develop.

Asymptomatic TB is when a person develops TB disease but has not yet developed any of the widely recognised symptoms. This is a newly recognised phenomenon, and current data suggests that almost two thirds of transmission may be from asymptomatic TB. People without symptoms are unlikely to go to healthcare services for testing, but asymptomatic TB can be diagnosed and successfully treated.

**WANT TO UNDERSTAND THE DATA IN YOUR COUNTRY?
CONTACT YOUR GLOBAL TB CAUCUS REGIONAL MANAGER FOR
A PERSONALISED BRIEFING.**

TB PREVENTION TOOLKIT ^{5, 6, 7}

SCREENING FOR TB INFECTION

Not everyone has the same risk of being exposed to TB, or of having the infection turn into TB disease. For this reason, the World Health Organization (WHO) recommends that groups who are at greater risk are regularly screened for TB and offered appropriate treatment.

The first step of screening is to determine if the person has TB disease. Because of the risk of asymptomatic TB, this requires either a chest X-ray or rapid molecular test in addition to symptom screening. The development of AI-enabled, digital and portable chest X-rays has made this easier and cheaper.

After ruling out TB disease, a modern skin or blood test can be used to confirm if someone has TB infection. Because access to the newest tools is still limited and these tools can still produce false negatives, people who are very likely to have been infected and are at high risk of disease may be offered treatment without a positive test result.

Priority Groups for TB Screening and Preventive Treatment

Some people are at higher risk of being exposed to TB and/or having TB infection progress to TB disease. Priority groups for regular TB screening include:

- People living with HIV
- Household contacts of people with confirmed TB disease, especially children
- Health workers
- Those living or working in crowded settings (e.g. prisons, mines)
- Clinical risk groups (e.g. pregnancy, dialysis, etc.)
- Migrants from high TB burden contexts

TB PREVENTIVE TREATMENT

TB preventive treatment (TPT) is a course of antibiotics that can cure TB infection before it progresses to TB disease. Older forms of TPT take 6-9 months to complete, which many people struggle with. Newer, much shorter regimens are now recommended by WHO because they are safer, more likely to be completed and more cost-effective. These regimens are safe and effective for young children and adults, as well as people living with HIV. They are shorter and cheaper than treatment for TB disease.

VACCINES

The first TB vaccine, BCG, was developed over 100 years ago. It offers some protection from severe forms of TB in children, so is recommended in higher burden settings. However, this protection wanes over time and people who received BCG as children can still develop and spread pulmonary TB as adolescents and adults.

Research to develop a vaccine that protects adults from TB is advancing at pace, and efforts are underway to prepare for the potential roll-out of these vaccines in 2028/29.

PRIMARY PREVENTION

Primary prevention refers to a range of interventions that reduce the risk of people being exposed to TB infection and developing TB disease. These strategies include ensuring people with TB disease are diagnosed and treated quickly, to minimise the number of people they might expose to the bacterium.

Primary prevention also includes robust airborne infection prevention and control, particularly in healthcare facilities and crowded settings such as prisons, aligning closely with pandemic prevention, preparedness and response efforts.

Action to address the social determinants of TB, including undernutrition, smoking, harmful alcohol use and many non-communicable diseases, can also significantly reduce the number of people who are more vulnerable to developing TB disease after exposure. This requires a whole-of-government approach.



Partnering with legislative HIV/AIDS Champions

People living with HIV are among those at greatest risk of TB. The Global Parliamentary Platform on HIV and AIDS (GPP HIV) is an inter-parliamentary network launched in July 2024. With nearly 400 members of parliament from over 40 countries, the GPP unites legislators in a global effort to end HIV and AIDS. Operated by a joint secretariat of Unite, the Global TB Caucus, and the Global Equality Caucus, and supported by key partners including UNAIDS, StopAIDS, WACI Health and the International AIDS Society, the platform works to expand access, mobilize investment, strengthen health systems and research, drive community engagement, and address social and systemic barriers to HIV and AIDS services.

MAKERS OF A SUCCESSFUL TB PREVENTION SYSTEM ^{5, 8, 9}

TPT ACCESS AMONG HIGHEST RISK GROUPS

Increasing access to TPT relies on regular screening of risk groups who are already in contact with healthcare services, such as people living with HIV and health workers themselves. More proactive approaches are required to reach other people at high risk, including routine contact tracing for household contacts of people with TB disease. Active case finding or screening campaigns may be appropriate in some settings, such as in mines or prisons.

Data shows that people with TB infection are both more willing to start and more likely to complete TPT when they are tested with modern diagnostic tests and offered the newer, shorter treatment regimens. Accessing these newer tools relies on regulatory approval, integration into national guidelines as well as routine health service delivery.

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PATIENT COUNSELLING AND SUPPORT

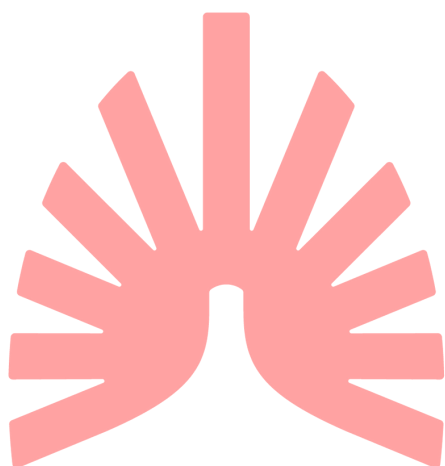
Designing TB prevention services in a people-centred way is critical to increasing TPT coverage. This is because TB remains a highly stigmatised disease, affecting people's willingness to come forward for testing and notify close contacts. Since people with TB infection are otherwise healthy, they may have concerns about receiving preventive treatment. This is especially the case if this treatment is associated with direct or indirect healthcare costs.

Involving affected communities in both the design and implementation of services can help make services more accessible and acceptable, allowing more people to come forward for testing and complete treatment. In addition to country-level partnerships, international funding mechanisms like the Stop TB Partnership's Challenge Facility for Civil Society strengthen capacity for this work.

MULTISECTORAL ACTION

Multisectoral collaboration is essential to reaching all people at risk of TB. Within the health system, this includes between TB programmes and relevant counterparts, including HIV and immunisation programmes and regulatory agencies. Primary prevention, including strengthened airborne infection prevention and control, relies on collaboration with divisions responsible for strengthening primary and community care and pandemic prevention, preparedness and response.

Outside the health sector, collaboration is required to reach people at risk of TB who are not in regular contact with health services. This includes collaboration with Ministries of Labour (congregate working environments), Ministries of Justice (prison facilities), and Ministries of Education (education settings, including for health workers). In addition to professional collaboration, budgetary support is required for these cross-cutting initiatives.



TB Prevention in Low Burden Countries¹⁰

The combination of prevention interventions that are most cost effective will vary between epidemiological contexts. In lower burden settings, a greater focus on the highest risk populations may be more appropriate than widespread screening and TPT.

Low burden, high-income countries can also face different policy and implementation barriers. This includes regulatory approval for newer, shorter TPT regimens, which is still not in place in many of these countries. These shorter regimens could prove transformative for many of the highest risk patients, including people experiencing homelessness and going through the asylum process.



ADDRESSING POLICY AND IMPLEMENTATION BARRIERS

A number of key interventions could dramatically improve both the access to and quality of TB prevention in your constituency:

RESOURCE MOBILISATION

The ability to procure and deliver modern tests and treatments, train staff and maintain systems is contingent on adequate funding. Financing for TB and health has fallen dangerously short of internationally agreed targets. In countries with high TB burden, increasing national health budgets and ensuring coverage of TB screening and TPT in national insurance schemes are the single most effective ways of strengthening TB prevention.

In higher-income countries, in addition to strengthening domestic services, investments in multilateral funding streams like the Global Fund to Fight AIDS, TB and Malaria and the Stop TB Partnership's Challenge Facility for Civil Society can bolster global TB prevention efforts.

TB PREVENTION AS KEY FOCUS ON NATIONAL TB STRATEGIES

Historically, TB prevention has often been seen as a “nice to have” rather than a core TB programme priority. However, robust prevention is essential to curbing the trajectory of the epidemic, reducing long-term healthcare costs and meeting global targets to end TB.

Making TB prevention a core priority in national strategic plans is the first step in ensuring appropriate programmatic focus on TB prevention. Combined with adequate resource allocation, guideline updates and a consistent approach to quality improvement, a number of countries have been able to make remarkable progress in a short space of time.

MULTI-SECTORAL ACTION

Policies and processes designed with the best of intentions can often create inadvertent barriers to well-functioning, cost-effective and responsive TB prevention. Close multi-sectoral collaboration within and across relevant Ministries is crucial to protecting more people from TB. Overcoming political, legal and logistical barriers to this collaboration relies on high-level leadership and support from Ministries of Finance.

RESEARCH

Funding for operational research and quality improvement initiatives is needed for countries to develop and implement the most cost-effective TB prevention systems in their specific epidemiological context. At a global scale, meanwhile, investing in the research and development of better diagnostic tools could transform how healthcare workers determine who is most likely to benefit from TPT.

SUPPORTING PARLIAMENTARY ACTION

As a Member of Parliament, you have committed to improving the lives of your constituents. The Global TB Caucus Secretariat is here to help you in your efforts to ensure they can access effective, safe and affordable TB diagnosis, including by:



SHARING DATA

Contact your GTBC Regional Manager to request an up to date briefing about the state of TB diagnosis in your country and region.



CONNECTING YOU WITH PARTNERS

We can put you in touch with global, regional and local experts, including experts by experience to discuss the specific barriers to TB diagnosis in your country.



DOING THE LEG WORK

We know parliamentarians are exceptionally busy. If you want to write to a Minister, make a speech in parliament, brief your colleagues or generate media coverage, we can support.



ABOUT THE GLOBAL TB CAUCUS LIBRARY

The Global TB Caucus Library is made up of briefings on key policy priorities in the TB response. The briefings are developed with the support of an expert advisory panel, which convenes scientists, healthcare leaders, technical experts and affected communities from around the world. Each briefing summarises the evidence-base and sets out the recommendations made by different stakeholders to overcome barriers to ending TB.

This primer and briefing were published in collaboration with the Global Parliamentary Platform on HIV/AIDS. Operated by a joint secretariat by Unite, the Global TB Caucus, and the Global Equality Caucus and their partners, the GPP brings together parliamentary champions working on HIV/AIDS.

To find out more, **visit: www.gpphiv.org**

To access the full briefing, visit
<https://www.globaltbcaucus.org/policy-and-research>