Agenda item 10

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ENDING TUBERCULOSIS AND AIDS A JOINT RESPONSE IN THE ERA OF THE SUSTAINABLE DEVELOPMENT GOALS

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EXECUTIVE SUMMARY

The topic of the thematic segment of the 42nd PCB meeting "Ending tuberculosis and AIDS – a joint response in the era of the Sustainable Development Goals" reflects the urgent need for collaboration between the tuberculosis and HIV responses to accelerate towards ending these intertwined epidemics.

The 2018 United Nations High-Level Meeting "United to end tuberculosis: an urgent global response to a global epidemic" provides a unique opportunity to elevate the importance to end the TB epidemic and reflect on the contribution of HIV-associated TB.

HIV-associated TB presents a risk to achieving the Sustainable Development Goals, UNAIDS Fast-Track Strategy and End TB Strategy Targets to end these two epidemics by 2030. Without effective sustained action the needs of the most vulnerable populations will not be met.

People living with HIV are at increased risk of developing TB disease. TB remains the leading cause of hospitalization and death among people living with HIV despite the existence of effective prevention and treatment interventions. One in three HIV-related deaths were due to TB in 2016. While TB deaths overall decreased by 37% between 2000 and 2016, TB deaths among people living with HIV only declined by 23% during the same period. Multidrug-resistant TB remains a significant threat to people living with HIV and contributes to higher mortality rates. Evidence-based interventions to prevent and treat HIV-associated TB are poorly implemented.

The number of new HIV infections and notifications of TB are slowly decreasing, but not at the pace needed to meet global targets. The burden of HIV-associated TB is greatest in Africa and south-east Asia. Globally, key populations who have increased exposure to TB due to where they live or work, have limited access to quality services or are at increased risk due to compromised immune function remain disproportionately affected.

This thematic segment aims to review the role of the global community in responding to the disproportionate burden of TB among people living with HIV. The background paper explores the role of TB and HIV programme collaboration in addressing the socioeconomic, gender, stigma and human rights issues that drive these epidemics. It also assesses how the respective programmes can work together to identify and reach vulnerable populations to achieve the Sustainable Development Goals.

TB and HIV are strongly associated with the social determinants of health. Yet the TB and HIV communities do not collaborate to address the social and structural drivers of disease. Socioeconomic status can influence the risk of TB infection, progression of disease, diagnosis and successful treatment and the presence of TB can have a direct and negative impact on the socioeconomic status of a person and their family. People living with HIV-associated TB continue to face dual stigma and discrimination against both infections.

The 2012 WHO *Policy on collaborative TB/HIV activities—guidelines for national programmes and other stakeholders* provides a set of recommendations to:

- establish and strengthen the mechanisms for delivering integrated TB and HIV services;
- reduce the burden of TB in people living with HIV by intensified TB case-finding and high-quality anti-TB treatment, scale-up of isoniazid preventive therapy, and better infection control (the three "I's"); and
- reduce the burden of HIV in people with presumptive and diagnosed TB .

The successful implementation of effective interventions to reduce the burden of HIV-associated TB requires integrated, adequately funded, accessible health services that can reach all key populations and deliver comprehensive, person-centred health services in a non-stigmatizing environment that respects people and their human rights.

The pillars of the WHO End TB Strategy provide a framework for TB and HIV programmes to collaborate with each other and with other sectors to achieve the Sustainable Development Goals and

relevant global targets. Those pillars are: integrated, patient centred care and prevention; bold policies and supportive systems; and intensified research and innovation.

Case studies of good practices show that effective collaboration between TB and HIV programmes and other sectors, working in partnership with people and communities living with HIV and TB can achieve impact. The HIV community has an opportunity to champion the response to HIV-associated TB and to:

- renew and reinvigorate global leadership and commitment to end the epidemics of HIV and TB and transform the HIV/TB response to be equitable, rights based and people-centred;
- invest the necessary funds to improve the coverage of effective interventions and to accelerate the development of tools to end TB in people living with HIV;
- situate the HIV/TB epidemic in the context of larger socioeconomic considerations and work towards Universal Health Care and health systems strengthening;
- ensure multisectoral action at all levels of government to reach all people living with HIV-associated TB, in particular people in vulnerable and key population groups;
- commit sustainable financing to ensure access to health care for all and availability of effective multisectoral interventions to reduce the burden of TB in people living with HIV;
- guarantee meaningful engagement of people living with HIV and TB and their communities in all policy development; and
- ensure that all policies reflect and address the underlying socioeconomic drivers for TB and protect human rights.

THE WAY FORWARD

There has been significant progress in reducing the impact of HIV-associated TB since 2008. However the recommendations from the first thematic segment for the Programme Coordinating Board on TB remain pertinent.

We have the evidence and effective tools to prevent most TB deaths. Yet these tools are not being used effectively and at the required scale to reach the people who need them most. Countries with a high burden of HIV-associated TB need to rapidly scale up the collaborative activities laid out in the WHO policy.

Early and frequent TB screening and testing for newly diagnosed people living with HIV, combined with antiretroviral therapy and TB treatment or preventive treatment is vital. The delay between diagnosis and treatment must be reduced drastically.

The 2016 UN Political Declaration on Ending AIDS set targets for reaching 90% of all people with TB with preventive or therapeutic treatment and achieving 90% treatment success for all people diagnosed with TB. It also set the framework for the HIV community's contribution to reduce the burden of TB among people living with HIV. All newly diagnosed people living with HIV should be screened for TB. People with active TB must be started on treatment and people with no symptoms of active TB should receive preventive treatment. All newly diagnosed adults and children living with HIV should be on antiretroviral therapy and either TB treatment or TB preventive treatment.

Tuberculosis and HIV programmes should coordinate efforts to "find the missing millions" by:

- informing and engaging key populations about their increased risk of TB and HIV and facilitate better access to client-centred TB and HIV services;
- integrating TB and HIV service delivery for key populations using a "one-stop-shop" model;
- reconfiguring health services to better reach and meet the needs of the communities left behind in response to HIV and TB by making opening hours more flexible, training health care workers on the needs of key TB and HIV populations, community outreach into areas with high rates of TB and HIV, contact tracing, index screening and household screening;
- identifying vulnerable households and communities to guide community case-finding activities through index cases of HIV and TB. Vulnerabilities to disease and ill-health often overlap in locations and populations on the margins of society, where access to services is poorest; and

- multidisease health screening campaigns can be tailored to the major causes of vulnerability, morbidity and mortality in each community, and costs can be shared between health, social and education programmes.

Tuberculosis and HIV programmes must advocate together for the political commitment needed to build the components of UHC: sustainable health financing, health systems governance, health workforce, essential medicines and health products, health statistics and information systems and service delivery and quality; which are all necessary for an effective global response to HIV-associated TB required to meet the target of a reduction of TB-related deaths among people living with HIV by 75% by 2020.

Equitable access to and universal uptake of new TB and HIV tools (drugs, diagnostics, vaccines) should be facilitated to ensure that cost is not a barrier to the access of quality diagnostics and treatments. Align and harmonize regulatory pathways to Fast-Track the uptake and implementation of new tools to diagnose, prevent and treat TB and HIV, including utilizing Trade-Related Aspects of Intellectual Property Rights flexibilities.

In the longer term, TB and HIV programmes must work together to build robust systems for health; address the social and structural determinants of TB and HIV and identify new resources and funding models for research into better tools to prevent, diagnose and treat TB among people living with HIV.

UNAIDS needs to develop clear guidance to countries on how to measure, monitor and reduce the impact of TB and HIV stigma and discrimination in health care, workplace and community settings. Discriminatory laws and practices that work against people with TB or HIV must be removed, and laws, policies and practices that enable access to services should be promoted.

Policymakers and health-care providers must transform the standard response to TB and HIV to make it equitable, rights-based, non-discriminatory, gender-transformative and people-centred, not just in health settings but also in workplaces, schools, prisons and other places of detention, with the eventual goal of achieving universal health coverage, to protect people from the potentially catastrophic health expenditures caused by HIV, TB and drug-resistant TB.

HIV and TB programme collaboration is needed to address the common social and structural determinants of disease. Synergies can be achieved for improving school and prison health, providing harm reduction services for people who use drugs, occupational health for healthcare workers, outreach services for mobile populations, social protection and nutritional support, and income generation.

Secure and sustainable investment in vital health services, through prioritization, efficiencies and innovation. HIV and TB programmes need to develop a strong investment case for domestic investment in effective HIV and TB programmes which give a healthy return on investment. Health is not a cost but an investment. Estimates show that, over the long term, each dollar spent on TB programmes saves up to 30 dollars through improved health and increased productivity.

To fuel innovation and new discoveries, more partnerships are needed between governments, businesses (particularly drug manufacturers), and civil society organizations. The goal should be to develop more effective, shortened and less toxic treatment regimens.

The international community must commit to more decisive and accountable global leadership. Without accountability, goals and commitments have little meaning. Governments need to be supported to improve living standards. That means ensuring access to nutritious food, a clean environment, education, and fostering healthy economic conditions.

ABBBREVIATIONS

AIDS	acquired immune deficiency syndrome
AMR	antimicrobial resistance
ART	antiretroviral therapy
ARV	antiretroviral drug
Global Fund	The Global Fund to fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
MDR-TB	multidrug-resistant tuberculosis
PCB	Programme Coordinating Board
SDG	Sustainable Development Goal
TB	Tuberculosis
UHC	Universal Health Coverage
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

I. INTRODUCTION

1. The 41st UNAIDS Programme Coordinating Board (PCB) meeting agreed that the topic of the Thematic Segment of the 42nd meeting in June 2018 would be “Ending tuberculosis and AIDS—a joint response in the era of the Sustainable Development Goals”.

2. That decision follows on previous decisions and recommendations, including at the 22nd PCB meeting in 2008,[1] to:
   - mobilize communities, including migrants and other marginalized populations to ensure increased access to tuberculosis (TB) diagnosis, prevention and care in people living with HIV;
   - work with the World Health Organization (WHO) to establish mechanisms for accountability of HIV programmes in the prevention, diagnosis and treatment of TB in people living with HIV;
   - advocate for the inclusion of TB prevention, detection and treatment in national HIV action frameworks;
   - deliver integrated TB and HIV services that provide adequate TB infection control in all care settings;
   - address the resource gaps for the prevention, diagnosis and treatment of TB; and
   - Work with relevant partners to accelerate research and development of better tools for the prevention, diagnosis, and treatment of TB in people living with HIV.

3. The first United Nations (UN) High-Level Meeting on TB, scheduled for 26 September 2018,[2] will provide a vital opportunity to make TB a global priority and to achieve renewed commitment from world leaders to end the TB epidemic by 2030. Discussions held during the PCB thematic segment can contribute to the UN General Assembly debate and to a subsequent Political Declaration that will inform the future global TB response.

4. The WHO End TB Strategy,[3] which the World Health Assembly approved in 2014, aims to create a world free of TB, with zero deaths, disease and suffering due to TB by 2035. This strategy pushes beyond the Sustainable Development Goals deadline and defines an end to the TB epidemic in 2035 as:
   - a 95% reduction in the number of TB deaths from a baseline of 1.8 million deaths in 2015, including the 0.4 million deaths among people living with HIV;
   - a 90% reduction in the TB incidence rate, or less than 10 people per 100 000 population per year, from 104 people per 100 000 in 2015; and
   - zero families affected with TB experience catastrophic financial costs due to TB.

5. The following principles guide the End TB Strategy by 2035:[4]
   - Government stewardship and accountability;
   - Engagement of civil society and communities;
   - Protecting and promoting human rights, ethics and equity; and
   - Adapting strategy and targets to context with global collaboration.

6. The Stop TB Partnership’s *Global Plan to end TB—the paradigm shift, 2016–2020*[5] sets out the actions and resources needed during the first five years of the End TB Strategy. The Global Plan emphasizes TB prevention, active case-finding and contact tracing, focusing attention on key populations, developing and rolling out of new tools and implementing comprehensive TB packages that are appropriate for different epidemic and socioeconomic environments. The Global Plan stipulates three people-centred targets that should be achieved by 2020, ideally, or by 2025, at the latest:

- reach at least 90% of all people who need TB treatment[a];
- reach at least 90% of key populations living with TB; and
- achieve at least 90% treatment success.

7. Ethics and human rights form the foundation of the End TB Strategy and Global Plan.[6] [7] The Stop TB Partnership TB and Human Rights Task Force[8] aims to protect and promote human rights in the provision of universal access to TB services; to reduce vulnerability; increase access to effective TB services; empower people and communities and enhance capacity building and development. The 2017 WHO Ethics Guidance for the Implementation of the End TB Strategy underscores that ending the TB epidemic is a matter of social justice as TB disproportionately affects marginalized and vulnerable populations.[9]

8. The 2016 Political Declaration on Ending AIDS confirmed the commitment of Member States to reduce the number of TB deaths in people living with HIV by 75% by 2020;[10] meeting this target requires an immediate intensification of action. The Political Declaration also included the promotion of non-discriminatory access to health, the strengthening of national social and child protection systems, and the elimination of HIV related stigma and discrimination and the abolition of gender inequalities.

9. This thematic segment recognizes the UNAIDS Fast-Track Commitments to end the AIDS epidemic by 2030,[11] specifically Target 10: “Commit to taking AIDS out of isolation through people-centred systems to improve Universal Health Coverage, including treatment for TB, cervical cancer and hepatitis B and C” and Target 6: “Ensure that 75% of all people living with HIV benefit from HIV-sensitive social protection by 2030”.

10. The targets aim to reduce AIDS-related deaths to fewer than 500 000 and TB related deaths in people living with HIV by 75% by 2020. The targets also aspire to reach 90% of all people who need TB treatment, including 90% of populations at higher risk and achieve at least 90% success, mirroring the targets outlined in the Stop TB Partnership Global Plan.

11. The 2030 Agenda for Sustainable Development[12] reaffirms Member States’ commitment to end the epidemics of TB and HIV by 2030 (SDG 3.3), achieve Universal Health Coverage (SDG 3.8) and to ensure healthy lives and promote well-being for all at all ages. Gender equality and the empowerment of women and girls are central to achieving the sustainable development targets (SDG 5).

12. Ending the epidemics of TB and HIV requires a comprehensive, multisectoral response to address the social determinants of health. This approach includes, but is not limited to, social protection systems and measures for all (SDG 1.3); ensuring the resilience of vulnerable populations through protections to social, economic and environmental shocks (SDG 1.5); addressing food insecurity and malnutrition (SDG 2); ensuring access to adequate housing (SDG 11.1); strengthening domestic resource mobilization for funding (SDG 17.1) and enhanced global partnerships (SDG 17.16 & 17.17).

13. TB remains the leading cause of hospitalization and death among people living with HIV. Effective interventions to prevent and treat HIV-associated TB exist but are often poorly implemented. This thematic segment and the background paper review the global

[a] Reach all people with TB (active and latent) and place all of them on appropriate treatment—first-line, second-line and preventive treatment—as required

response to the disproportionate burden of TB among people living with HIV. They explore how TB and HIV programme collaboration can address the socioeconomic, gender, stigma and human rights issues that underpin these epidemics. In addition, they assess how programmes can work together to identify and reach vulnerable populations to achieve the SDGs.

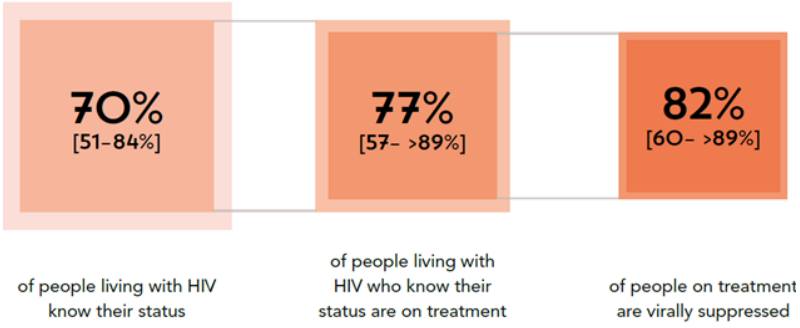
14. In preparation for this thematic segment, UNAIDS issued a call for the submission of case study examples of collaborative activities in TB and HIV programmes. A selection of good practice examples is presented in this paper. All case studies received are included in a Conference Room Paper UNAIDS/PCB (42)/CRP3.[13]

15. Annex 1 to this Background Note includes links to global policy guidelines on joint approaches to reducing the burden of HIV-associated TB.

II. THE GLOBAL BURDEN OF TB, HIV AND HIV-ASSOCIATED TB

16. In 2016, UNAIDS estimated that there were 1.8 million new HIV infections (1.6–2.1 million), including 160,000 occurring in children younger than 15 years old.[14] There are currently 36.7 million (30.8–42.9 million) people living with HIV and 20.9 million accessing antiretroviral therapy (ART).[15] Despite an increase in treatment coverage, the current rate of decline in the estimated number of new infections since 2010 remains insufficient to reach the global target of fewer than 500 000 new infections by 2020.[16]

Figure 1. Global progress towards the 90–90–90 HIV treatment targets in 2017[11]



17. People living with HIV are at a substantially increased risk of developing active TB disease, 21 times higher than the rest of the world population (range, 16–27).[17] People living with HIV with latent TB infection are also 30 times more likely to develop active TB compared to people without HIV infection.[18] Individual outcomes of HIV-associated TB are worse than active TB in people without HIV infection (36% outcome of death compared to 12% in 2016).[19]

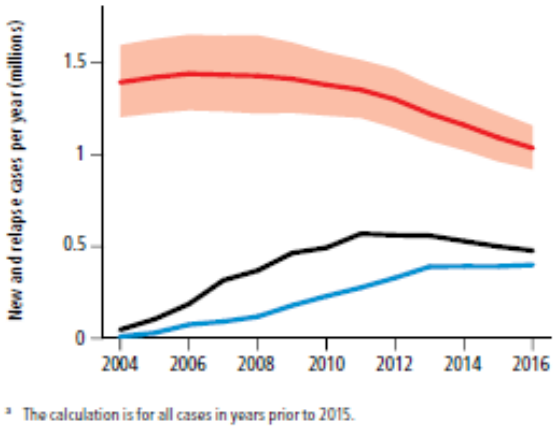
18. WHO estimates that 10.4 million (range 8.8–12.2 million) people developed TB disease (incident TB cases) worldwide in 2016 (90% adults; 65% male).[20] The global incidence of TB is declining slowly, relative to the global population, but not at the rate needed to achieve the 90% reduction in TB incidence rate (or less than ten people per 100 000 population per year), which is the global target for 2035.[21]

19. To achieve the End TB Strategy milestones, the decline in incidence needs to increase from 1.5% (2015) to 4–5% per year by 2020 and to 10% per year by 2025.[22] Approximately 10% (range 8–12%) of incident TB cases in 2016 were among people living with HIV.[23] An estimated 40% or 4 million TB cases were not notified in 2016, representing the most significant obstacle to achieve the global targets.

20. A total of 476 774 TB cases among people living with HIV were notified to national TB programmes in 2016. That figure amounts to about 46% of the estimated number of incident TB cases among people living with HIV.[24] This indicates that more than half of all HIV-associated TB cases are not diagnosed and started on TB treatment.

21. Of the TB cases among people living with HIV that were notified to TB programmes, 85% were reported to be receiving ART. However, that would mean that only 39% of estimated incident TB cases among people living with HIV received both TB treatment and ART in the same year (Figure 2). Taking ART reduces the risk of developing HIV-associated TB disease by up to 65%, but residual risk remains.[25] Estimates for HIV-associated TB treatment success in 2015 are 78% compared to 83% for all new TB cases.[26]

Figure 2. Global numbers of notified new and relapse cases[a] known to be HIV-positive (black), number started on ART (blue) and estimated number of incident HIV-positive TB cases (red) 2004-2016. Shaded areas represent uncertainty bands.[27]

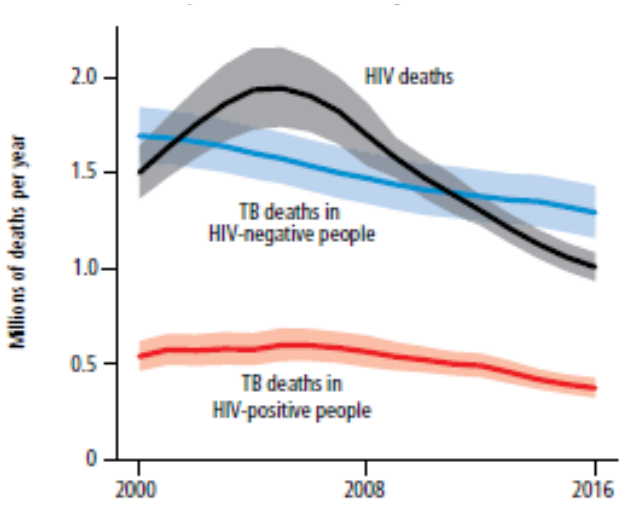


[a] The calculation is for all cases in years prior to 2015.

22. TB is the ninth leading cause of death worldwide, and the leading cause of death from an infectious disease, having exceeded AIDS-related deaths in the last two years.[28] In 2016, there were 1.3 million TB deaths, plus an additional 374 000 TB deaths among people living with HIV (reported globally as AIDS-related deaths).[29] An estimated one million (range, 830 000 – 1 200 000) people died of AIDS-related illnesses during 2016, with TB accounting for more than one in three AIDS-related deaths.[30]

23. While the number of deaths due to TB is falling globally (a reduction of 37% between 2000 and 2016) the number of TB deaths among people living with HIV declined by only 23% during the same period (Figure 3).[31] The proportion of people with TB who die from disease must be reduced from 17% (in 2015) to 10% by 2020, and to 6.5% by 2025 to reach the End TB Strategy milestones and achieve a 95% reduction in the number of HIV-associated TB deaths.[32]

Figure 3. Global trends in the estimated number of deaths caused by TB and HIV (millions), 2000–2016. Shaded areas represent uncertainty intervals.[33]



24. Multidrug-resistant TB (MDR-TB) is an increasing threat to people living with HIV and contributes to higher mortality rates.[34] In 2016, there were an estimated 600 000 new cases of TB with resistance to rifampicin. This constitutes a growing public health crisis and threat to global health security.[35] TB is the leading cause of death associated with antimicrobial resistance.

25. The burden of HIV-associated TB is highest in sub-Saharan Africa and South-East Asia. In 2016, 12 countries accounted for more than 70% of HIV-associated TB[b] cases and more than 75% of all HIV-associated TB deaths.[c] Fully 86% of TB-related deaths among people living with HIV occurred in sub-Saharan Africa in 2016.[36]

The socioeconomic and structural determinants of HIV and TB

26. Socioeconomic status can influence the risk of TB infection, the progression of TB disease, diagnosis and successful treatment and conversely the presence of TB can have a direct and negative impact on the socioeconomic status of a person and their family.[37] TB is strongly associated with poverty and linked to the broader determinants of health: high unemployment, poor working and living conditions, social exclusion and lack of social support, overcrowding and malnutrition.[38] Many of these socioeconomic factors also increase the risk of HIV infection, impact health-seeking behaviours, access to health services and increase vulnerability to the impact of HIV-associated disease

27. Poverty and food insecurity prevent people from accessing prevention, diagnostic and treatment services for HIV and TB. Protein-energy malnutrition and micronutrient deficiencies increase the risk of TB. When poverty and food insecurity co-exist, TB is especially likely to result in under-nutrition and poor dietary intake is likely to negatively impact on TB treatment outcomes. Malnourished people who have TB have delayed recovery and higher mortality rates than people who are well nourished. There is also a significant correlation between regions with high TB and HIV prevalence and high food insecurity. People living with HIV who are undernourished are also more susceptible to TB infection. In addition to effective treatment, people who have HIV-associated TB may

[b] Angola, Democratic Republic of Congo, India, Indonesia, Kenya, Mozambique, Nigeria, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.
[c], Angola, Cameroon, Democratic Republic of the Congo, India, Indonesia, Kenya, Mozambique, Nigeria, South Africa, Uganda, United Republic of Tanzania and Zambia.

require additional nutrition but are often unable to access, ingest or absorb sufficient food, this can increase adverse treatment outcomes and mortality.[39]

28. The Global Plan to Stop TB defines the rights-based approach to TB as being grounded in international, regional and domestic laws.[40] These laws establish the rights of people living with and vulnerable to TB, including the rights to life, health, non-discrimination, privacy, participation, information, freedom of movement, housing, food, safe drinking water and sanitation, and to enjoy the benefits of scientific progress.

29. Human rights law also creates corresponding legal obligations for governments and responsibilities for private actors and requires that they promote accountability and access to remedies for rights violations. Moreover, as has been demonstrated in the HIV response, respecting and promoting the human rights of people living with TB is likely to foster more sustainable interventions, improved prevention and treatment outcomes, and reduced drug resistance.

30. Gender-related factors that fuel TB and HIV risk and that create carriers to services assume many forms. Overall, men face a higher risk of developing TB than women[41] and men are more likely than women to die of TB.[42] Male-specific risk factors are related especially to work in high-risk settings, such as mining or blasting with exposure to dust, and to economic migration, which also increases the risk of treatment interruption. The use of tobacco, alcohol and drugs, and poor health-seeking behaviours are also associated with heightened risk of TB infection. Men are less likely to have their TB detected and reported compared to women.[43] [44]

31. Conversely, women may have limited access to TB services than men, due to domestic responsibilities or if they have to seek permission from male family members to attend health-care services or if their health is considered less important than that of male family members.[45] [46]

32. Pregnant women living with HIV are up to ten times more likely to develop TB disease than pregnant women without HIV and have poorer TB treatment and pregnancy outcomes.[47] [48] Women living with HIV have a three times greater risk of maternal and infant mortality if they have active TB during pregnancy, with a six-fold increase in perinatal deaths and double the risk of premature birth and low weight infants.[49] TB can have particularly severe outcomes for women and is in the top five causes of death for women aged 20–59 years.[50]

33. People with TB have a right to be free from stigma and discrimination in all settings, including health care, employment, housing, education and migration. Stigma reflects a complex interaction of sociocultural, legal and structural factors. The stigma, discrimination and exclusion associated with HIV can both amplify and be amplified by TB-related stigma.[51]

34. Stigma can occur at the community level, among people living with or at risk of HIV and TB, and in health-care settings, workplace, and educational institutions and social services. In the context of TB, while negative labelling and linking are part of the “stigma backbone” all over the world, the specific labels, links, and stereotypes vary by context. TB stigma continues to be a major barrier to successful outcomes for patients, families, caregivers, and communities that can delay treatment, hinder recovery, increase suffering and increase mortality.[52] [53] [54] [55]

35. Since TB and HIV are often associated with poverty, poor living conditions and socially “undesirable” behaviours, people may be stigmatized and discriminated against based on their TB status and their perceived socioeconomic status and behaviours. People

living with HIV and TB disease may face dual stigma and discrimination. Key populations may also face stigma from concurrent illnesses (e.g. hepatitis), employment (e.g. sex workers and miners) or social positioning related to gender or migration. The intersection of these stigma experiences compounds the difficulties people face in accessing TB and HIV screening, testing and treatment services.

36. The Stop TB Partnership defines TB key populations as populations who have increased exposure to TB due to where they live or work, people who have limited access to quality services or are at increased risk due to compromised immune function (Table 1).[56] HIV is the most potent risk factor for the progression from TB infection to TB disease. HIV also increases the rate of recurrence of TB disease. People living with HIV are therefore considered a TB key population. TB key populations are important in all HIV epidemic settings.

Table 1. Key populations affected by TB (Global Plan to End TB 2016–2030)

People who have increased exposure to TB due to where they live or work	• Prisoners, sex workers, miners, hospital visitors, health care workers and community health workers. • People who: ○ live in urban slums, ○ live in poorly ventilated or dusty conditions, ○ are contacts of TB patients, including children, ○ work in environments that are overcrowded, ○ work in hospitals or are health care professionals.
People who have limited access to quality TB services	• Migrant workers, women in settings with gender disparity, children, refugees or internally displaced people, illegal miners and undocumented migrants. • People who: ○ are from tribal populations or indigenous groups, ○ are homeless, ○ live in hard-to-reach areas, ○ live in homes for the elderly, ○ have mental or physical disabilities, ○ face legal barriers to access care, ○ are lesbian, gay, bisexual or transgender.
People at increased risk of TB because of biological or behavioural factors that compromise immune function	• People who: ○ live with HIV, ○ have diabetes or scoliosis, ○ undergo immunosuppressive therapy, ○ are undernourished, ○ use tobacco, ○ suffer from alcohol-use disorders, ○ inject drugs.

37. TB key populations will also include groups who are at higher risk of acquiring HIV[57] (HIV key populations). The UNAIDS 2016–2021 Strategy[58] defines key populations at higher risk of acquiring HIV, as “groups of people who are more likely to be exposed to HIV or to transmit it, and whose engagement is critical to a successful HIV response.”

38. In all Member States, key populations include people living with HIV. In most settings, gay men and other men who have sex with men, transgender persons, people who inject drugs, people in prisons and other closed settings, and sex workers and their clients are at higher risk of exposure to HIV than the general population. Each country should define

the specific populations that are key to their TB and HIV epidemics and response based on the epidemiological and social context.

39. Children living with HIV have up to 20 times increased risk of TB compared to HIV-negative children living in the same community.[59] The global incidence of TB-associated HIV in children is difficult to estimate due to a lack of disaggregated data. However, it is estimated that TB ranks among the top ten causes of death for children.[60]

40. Despite significant progress in the prevention of mother-to-child transmission of HIV, an estimated 160 000 new HIV infections [100 000 – 220 000] and 120 000 HIV-related deaths [79 000 – 160 000] occurred in 2016 among children younger than 15 years.[61] It is estimated that 240 000 children (<15 years) died from TB [190 000 – 300 000] in 2015. Approximately 39 000 of those deaths occurred among children who had acquired both TB and HIV.

41. TB is more difficult to diagnose in young children compared to adults, and the presence of HIV further increases the likelihood of a delayed or missed diagnosis of childhood TB.[62] Despite the availability of quality-assured, child-friendly TB medications, 230 000 (96%) of the childhood TB deaths in 2015 [190 000 - 290 000] involved children who had not received TB treatment.[63]

42. Most child TB deaths can be prevented with timely preventive therapy, diagnosis and treatment. Existing interventions to prevent, diagnose, and treat TB therefore either do not meet the needs of children or are not available where they are needed most.[64]

43. The only TB vaccine, BCG, is administered to newborns. It offers some protection against severe forms of TB in early childhood but loses its effect before adolescence. TB can be prevented with simple drugs, yet less than 15% of children at high risk of developing TB following exposure to a person with infectious TB receive preventive therapy. Less than half of the estimated 1 million children who fall ill with TB every year, and less than 10% of the estimated 32 000 children with multidrug-resistant TB (MDR-TB) are diagnosed and put on treatment.[65]

44. Health-care workers have an increased risk of being exposed to TB[66] (up to three times higher than the general population) and MDR-TB. Many health-care workers living with HIV may not access health services for HIV or TB treatment due to fear of disclosure and the stigma surrounding TB and HIV.[67] They may not have the knowledge and tools to protect themselves from HIV and TB. Many programmes have been designed to help health-care workers understand and address their own concerns about TB risk on the job, as well as stigmatizing attitudes toward patients.[68] However, training is unlikely to be effective if health-care workers believe that they have inadequate workplace support, or supplies of medicines and diagnostics to function effectively.[69]

45. Miners living with HIV have a fivefold increase in the risk of developing active TB, and the TB incidence in miners who are living with HIV and silicosis is up to 15 times higher than miners who do not have HIV infection.[70] The working and living conditions experienced by miners increase the risk of acquiring TB infection. In many places, mining relies on poorly paid workers in remote locations with poor working and living conditions and where state regulatory mechanisms may not hold mining companies to account for ensuring workplace safety.[71] Structural barriers to adequate testing and treatment services result in high rates of undiagnosed TB.

46. People in prison and other closed settings, including pretrial detention, have the right to health services that are the equivalent of people in the community.[72] The higher prevalence of HIV in the global prison population combined with lack of sunlight,

ventilation and sanitation, poor nutrition and overcrowding facilitate the rapid transmission of TB in closed settings.[73] The incidence of TB in the prison population is up to 23 times greater than in the general population.[74] People in prisons often originate from marginalized and vulnerable communities. TB epidemics in the prison populations can be an important determinant of the TB epidemic in the general population,[75] due to the continual flow of people (inmates, visitors and staff) between the two populations.

47. Indigenous peoples across the world often bear a disproportionate burden of TB and HIV. Historical and continued marginalization, racism, displacement and relocation of indigenous populations have resulted in reduced access to traditional territories and inability to subsist on the land. This disruption of their traditional lifestyles is combined with lack of or limited access to essential services and genetic, socioeconomic and cultural factors that increase the impact of TB and HIV among indigenous peoples.

48. Refugees, migrants and internally displaced persons (IDPs) are at increased risk of exposure to TB and HIV and reduced access to essential TB and HIV services because of ethnic, cultural, linguistic or other discriminatory barriers, stigmatizing attitudes, illegal status, and fear of deportation or lack of required documentation.[76] Overcrowded living conditions increase the likelihood of TB transmission, and poor health and nutritional status can weaken the immune system to increase the vulnerability of conflict-affected populations developing active TB.

49. During acute emergencies, especially those associated with displacement there is an increased risk of both HIV and TB treatment interruption due to disruption of health services, loss of belongings and the breakdown in family and community support systems. For refugees, there may be delays in access to TB and HIV treatment upon arrival in the country of asylum due to geographical inaccessibility, cost, and uncertain access to national TB and HIV services that can reduce linkage to and retention in care.

50. The burgeoning global epidemic of noncommunicable disease and the associated underlying risk factors, such as poor diet and tobacco, alcohol and drug use, increase the risk of TB disease and adverse TB and HIV treatment outcomes. Active and passive tobacco smoking are risk factors for latent TB infection, progression to active disease, poor treatment outcomes and higher death rates from TB disease.[77] Higher alcohol consumption or the presence of alcohol disorder increases the risk of TB in addition to being linked to lower socioeconomic status, homelessness and malnutrition.[78] People who use drugs, including people who inject or smoke amphetamines, are at a higher risk of TB disease.[79] TB is a leading cause of death among people living with HIV who inject drugs.[80]

51. This background note considers what is required to reduce the global burden of HIV related TB in the short term—to achieve the political declaration target by 2020—and what the world needs to do in the longer term—to achieve the SDG 3 target of ending the epidemics of HIV and AIDS by 2030.

52. In the short term, more can be done to increase implementation of the existing evidence-informed interventions currently available to reduce the burden of HIV associated TB. In the longer term, the HIV and TB communities need to collaborate with other programmes and sectors to address the social and structural determinants of disease and ill health that drive the epidemics of TB and HIV and what are the priorities for research into new tools to prevent, diagnose and prevent TB among people living with HIV?

III. WHAT MUST BE DONE TO REDUCE TB DEATHS AMONG PEOPLE LIVING WITH HIV BY 75% BY 2020?

III.a. Evidence-informed interventions to reduce the burden of TB among people living with HIV and the impact of HIV associated TB

53. Since the release and subsequent update of the WHO policy on collaborative TB and HIV activities,[81] there has been impressive scale-up of many of the policy recommendations considered necessary for an effective response to HIV-associated TB. This coordinated action has saved an estimated 6.2 million lives globally between 2005 and 2016 equivalent to a 45% reduction in deaths per 100 000 population.[82] Reducing HIV-associated TB involves a range of effective interventions including those directly aimed at preventing and treating TB as well as those aimed at preventing and treating HIV (therefore indirectly against TB).

54. The WHO policy on collaborative TB and HIV activities includes 12 activities that are based on three key components. These are shown in Table 2.

Table 2. WHO-recommended collaborative TB/HIV activities[83]

A. Establish & strengthen mechanisms for delivering integrated TB and HIV services
1. Set up & strengthen coordinating body for collaborative TB & HIV activities at all levels
2. Determine HIV prevalence among TB patients and TB prevalence among people living with HIV
3. Carry out joint TB and HIV planning to integrate the delivery of TB and HIV services
4. Monitor and evaluate collaborative TB and HIV activities
B. Reduce burden of TB among people living with HIV (the Three I's for HIV and TB)
5. Intensify TB case-finding and ensure high-quality anti-TB treatment
6. Initiate TB prevention with IPT for PLHIV without TB disease and early ART
7. Ensure control of TB infection in health-care facilities and congregate settings
C. Reduce the burden of HIV among people with presumptive and diagnosed TB
8. Provide HIV testing and counselling for people with presumptive and diagnosed TB
9. Provide HIV prevention interventions for people with presumptive and diagnosed TB
10. Provide co-trimoxazole preventive therapy for TB patients living with HIV
11. Ensure HIV prevention interventions, treatment and care for TB patients living with HIV
12. Provide antiretroviral therapy for TB patients living with HIV

A. Establish and strengthen the mechanism for delivering integrated TB and HIV services

55. *Set up a coordinating body for collaborative TB/HIV activities.* National coordinating bodies can facilitate effective multisectoral collaboration and joint approaches between national HIV and TB programmes, government ministries responsible for social

protection and employment, housing, finance and education, the private-for-profit sector, implementing partners, communities and civil society.

56. *Determine HIV prevalence among TB patients and TB prevalence among people living with HIV.* Country surveillance systems can guide programme development—particularly for key population groups—planning and financing. Strengthened vital registration systems are necessary to better identify and address the causes of mortality.

57. *Ensure joint TB/HIV planning to integrate service delivery*. Joint planning should be harmonized with national strategic plans for social protection, UHC and health system strengthening where these exist. Key elements of joint programming include resource mobilization, capacity building and training, TB/HIV advocacy, programme communication, the meaningful engagement of affected communities including key populations, multisectoral engagement including the private sector and academia.

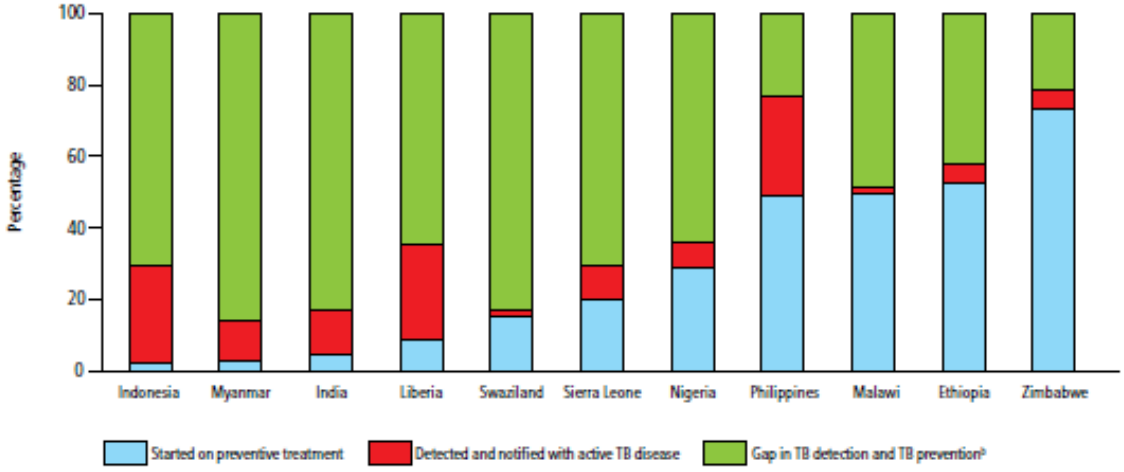
58. *Monitor and evaluate collaborative TB/HIV activities*. Routine programme data must be better utilized to identify gaps and opportunities to improve prevention, testing, treatment and care services. Integration into existing systems and collaboration across the health system and with other programmes facilitates efficient monitoring. WHO and UNAIDS provide core global and national indicators for monitoring and evaluation of TB, HIV and collaborative TB/HIV activities.[84] [85] The use of a national unique client identifiers will greatly facilitate the tracking of clients as they move between health programmes and services and between facilities.

B. Reduce the burden of TB in people living with HIV (the Three I's):

59. *Intensify TB case finding and ensure high-quality TB treatment.* Equitable access to services for TB screening, case-finding, accurate diagnosis and affordable treatment for HIV-associated TB is needed to reach the global target of 90% of people who need to start preventive or curative TB treatment by 2020.

60. The SDG 3.8 target to achieve Universal Health Coverage explicitly includes the provision of TB treatment. All people living with HIV should be screened for TB symptoms at the time of their HIV diagnosis and lifelong at regular intervals and receive either TB treatment or TB preventive therapy depending on the outcome of screening (Figure 4). The WHO clinical algorithm for managing people living with HIV with possible TB[86] should be followed using Xpert MTB/RIF and MTB/RIF Ultra for all people living with HIV.[87] A simple urine dipstick test (lateral flow urine lipoarabinomannan assay, or LF-LAM) can be used in community or primary care settings to diagnose TB in people living with HIV with advanced disease (low CD4 cell counts or people who are seriously ill).[88]

Figure 4: Gaps in TB preventive treatment for people who were newly enrolled in HIV care in 2016, selected countries[89]



61. *Initiate TB prevention with TB preventive treatment and early antiretroviral therapy.* The TB epidemic will not end without addressing the global reservoir of TB infection—one in four people globally are infected with TB. Adults and adolescents living with HIV who have no evidence to suggest active TB disease and who do not have a contraindication to therapy should receive TB preventive treatment at the time of HIV diagnosis, including people who have completed TB treatment and pregnant women.[90]

62. Isoniazid preventive treatment has been shown to reduce the risk of active TB in adults and adolescents by 33%[91] and reduce the risk of death by 37% independent of ART over a period of 7–9 years of follow up.[92] Recent studies have shown that a shorter one-month course of isoniazid and rifapentine is non-inferior to nine months of isoniazid in preventing TB disease among people living with HIV.[93] The use of shorter regimens may improve adherence and treatment completion. A fixed-dose combination of isoniazid combined with pyridoxine and cotrimoxazole (CTX/INH/B6) is also available, which reduced the pill burden and facilitates adherence.

63. Preventive TB treatment should only be given to infants living with HIV younger than 12 months of age who have a history of household contact with a person with active TB, after exclusion of active TB.[94] For infants and children older than 12 months old preventive TB treatment is recommended, regardless of immune status and whether they are on ART, after active TB is ruled out by using a clinical algorithm.[95]

64. Early initiation of ART plus isoniazid preventive treatment significantly reduces the risk of severe illness in people living with HIV, including the risk of TB disease and bacterial infection.[96] People (adults, pregnant and breastfeeding women, adolescents and children) with HIV-associated TB should initiate ART at the same time or as soon as possible after starting TB treatment.[97]

65. *Infection control in healthcare facilities and congregate settings.* Infection control measures can reduce the risk of TB transmission within populations where a significant proportion of people are living with HIV. The foundation of TB infection control is early and rapid diagnosis and proper treatment of TB disease.[98]

C. Reduce the burden of HIV in people with presumptive and diagnosed TB:

66. *Encourage HIV testing for people with presumptive and diagnosed TB.* All people with presumptive and diagnosed TB should be offered a test for HIV. Cross-sectional studies

have demonstrated a very high HIV positivity rate among people with presumptive TB, compared to the general population.[99] Leveraging available platforms both in health-care facilities and in the community to identify persons with presumptive TB and test them for both HIV and TB disease will contribute significantly to both TB and HIV case-finding and is a critical integrative strategy.

67. *Provide HIV prevention interventions to patients with presumptive and diagnosed TB*. Combination prevention programmes include biomedical, behavioural and structural interventions. Specific combination prevention programmes are required for key population groups.[100] Behavioural interventions must go beyond the provision of information and education and should include structural and support interventions. Especially important are those that address social, legal, political and environmental enablers that contribute to HIV transmission and TB disease.[101]

68. *Provide co-trimoxazole preventive therapy (CPT) for TB patients living with HIV.* CPT reduces the risk of bacterial and parasitic infections among newly diagnosed people living with HIV who are starting on ART. CPT should be integrated into the HIV treatment and care package and offered to all people living with HIV and with TB disease regardless of immune status. The new fixed-dose combination INH/B6/cotrimoxazole could increase uptake and adherence to preventive therapy for both TB and other opportunistic infections without adding to the pill burden.

69. *Provide antiretroviral therapy for TB patients living with HIV*. All people living with HIV and on TB treatment should be offered ART as soon as possible after diagnosis.[102] The time from diagnosis to treatment should ideally be measured in minutes rather than months, as is currently the norm in many low- and middle-income countries. Support to ensure retention in care and adherence to treatment should be tailored to the needs of the individual. This will enable people to complete their TB treatment and to adhere to life-long ART.

III.b Challenges and barriers that prevent implementation of evidence-informed interventions to address HIV-associated TB

70. The successful implementation of effective interventions to reduce the burden of HIV-associated TB requires integrated, adequately funded, accessible health services that reach all key populations and deliver comprehensive, person-centred health services in a non-stigmatizing environment that respects each person and their human rights.

71. Stigma and discrimination surrounding TB and HIV leave many people behind in the global response to TB and HIV. Stigma can influence national commitment and funding for programming, particularly for key populations. The presence of stigma also impacts the attitudes of health care workers, individual health-seeking behaviour, acceptance of diagnosis, uptake of prevention services, adherence to treatment, successful outcomes of treatment, a person's sense of wellbeing and even the accurate monitoring and reporting of disease burden and response.[103] The unchallenged presence of stigma reduces the efficiency of TB and HIV programmes.

72. The lack of Universal Health Coverage and social protection limits the ability of health systems to provide quality prevention, treatment and care for the people with the greatest needs (the "inverse care law"). Services are often insufficiently client-centred, a reality that is obscured by the misleading term, "hard-to-reach" populations. The distance from health-care facilities, lack of transport, direct and indirect costs of health care, and the presence of stigma and discrimination all present barriers to access, especially for the most vulnerable populations. Ensuring service delivery and continuity of care can be especially challenging in fragile and conflict-affected contexts.

73. Poor quality health services can be a barrier to the provision of care even when some of the other hindrances to access are addressed. Staffing shortages and poorly trained health workers, inadequate supervision, poor management of the supply chain for medicines, supplies and equipment, poor infrastructure, inadequate monitoring and evaluation, and poor analysis and use of data and limited resources are factors that undermine the quality of services and weaken health systems.

74. Inadequate integration of TB and HIV service delivery results in the inefficient use of resources to tackle the dual burden of the epidemics. The legacy of vertical programming adds to this challenge. An uncoordinated approach to TB and HIV planning and programming and distinct TB and HIV service delivery blocks the effective prevention, prompt diagnosis and treatment of HIV-associated TB.

75. Gaps in the coverage of effective interventions and tools. The slow adoption of policies and implementation of evidence-informed interventions reduces the impact of cost-effective solutions for prevention and treatment of HIV-associated TB. The slow scale up of TB preventive treatment has undermined efforts to reduce the burden and impact of HIV-associated TB. Preventive treatment is especially key to reduce the disproportionate burden in women and children.

76. Coverage of TB preventive treatment for people living with HIV has increased dramatically: 940 000 people living with HIV (in HIV care or on ART) were on TB preventive treatment in 2016 in 60 countries, compared to 12 000 in three countries in 2004. Significant gaps persist, however, as shown in Figure 5. Approximately 11 million people living with HIV were unaware of their HIV status and unable to benefit from TB preventive therapy. In 2016, 18 of 30 countries with a high burden of TB and HIV did not indicate they were providing TB preventive treatment for people living with HIV in their reports to WHO.[104]

Figure 5. Provision of TB preventive treatment to people living with HIV 2005–2006[105]

77. The slow uptake of new diagnostic technologies that are vital for TB diagnosis in people living with HIV (e.g. Xpert MTB/RIF and LF-LAM) remains a barrier to timely case detection. In 2016, only 28 of the 48 countries with a high burden of HIV infection had adopted national algorithms using Xpert MTB/RIF as the initial diagnostic test for suspected HIV-associated TB.[106]

78. There is also an urgent need for a non-sputum-based, sensitive and child-friendly diagnostic test to aid in the diagnosis of TB in children living with HIV. The diagnosis of HIV in people with TB disease can also be improved. Only 57% of people with TB globally knew their HIV status in 2016. However, in the sub-Saharan Africa, where the HIV-associated TB burden is highest, 82% of people with TB knew their HIV status.[107]

79. The proportion of people known to have HIV-associated TB who are accessing ART is estimated to be 78% globally.[108] While this represents a significant increase in the past 12 years (36% in 2005), the remaining 22% people who are already in TB care but not on ART need to be diagnosed, and linked to care and treatment.

80. Child-friendly formulations for first- and second-line ART are now available, but need to be implemented more widely to ensure all children have equitable access to the correct dose and appropriately formulated drugs.

81. Continuous unmet funding needs. Insufficient ownership and resource allocation by national governments to integrated HIV and TB programmes are resulting in inequitable access to the vital services required by people affected by TB and HIV. This is exacerbated by separate TB and HIV funding streams and budgets, different levels of reporting within governments (e.g. National AIDS Councils often report to the Heads of State, whereas TB programmes report to Ministers of Health) and different workplace cultures often limit effective programme collaboration.

82. National programmes face growing challenges in the form of cofinancing and transition policies that limit their ability to procure and manage adequate supplies for appropriate interventions. Additional investments of US$ 1.4 billion per year for existing interventions and US$1.3 billion for research are needed to achieve the End TB Strategy targets.[109]

83. Inadequate investment in research into new TB drugs, non-sputum-based diagnostics, effective and safe vaccines and preventive treatments that have fewer side effects and are more tolerable in conjunction with ART is a particular challenge. Investment in research and development of newer drugs and host-directed therapies to target drug resistance are needed in addition to shorter, more tolerant regimens that can enhance adherence. Current WHO-recommended treatments can only cure 50% of MDR-TB and 30% of XDR-TB.[110]

III.c Refocusing country-level action to overcome the barriers to implementation of evidence-informed collaborative TB/HIV activities: evidence from case studies

84. The three pillars of the WHO End TB Strategy[111] provide a framework for TB and HIV programmes to collaborate with each other and with other sectors to achieve the SDG and global targets.

Pillar 1: Integrated, patient-centred care and prevention

85. Global and national action to reduce HIV-associated TB needs to be framed within the context of Universal Health Coverage. An effective response to HIV and TB requires that all people and communities have access to quality health services without experiencing financial hardship, stigma or discrimination.

86. The frequent mismatch in coverage of TB and HIV services calls for integrated service delivery and decentralization to primary health care level in “one-stop-shops”. In the SDG era, further integration of TB and HIV with other services—such as sexual and reproductive health; maternal, neonatal and child health services; and youth-friendly

services—can improve diagnosis among women and children. Integrating TB/HIV services into workplace programmes can help reach more men.

87. *Intensified TB and HIV case finding***.** Contact tracing of index cases of HIV and TB can help to focus community outreach services to locations and populations at highest risk of disease. Vulnerabilities to TB and HIV often overlap in communities and an integrated approach to community outreach that does not focus on a single disease. In addition to TB and HIV, outreach services can screen for sexually transmitted infections, pregnancy, noncommunicable diseases, mental health problems and substance abuse, support out-of-school youth and report gender-based violence. Major costs, typically for staff and transport, can be shared across health and social programmes. Stigma can also be reduced, since the approach does not involve identifying any individual or family as the "index" case. The yield of positive cases therefore can be increased.

88. In two districts of the Democratic Republic of Congo, Haut-Katanga and Lualaba, the PATH (Program for Appropriate Technology in Health) and USAID-supported integrated HIV/TB programme of the Ministry of Health includes on-site support from technical officers and coordinators, and training and supervision of health-care workers. This approach has led to large increases in the uptake of TB screening. In 2017, 99% (22 544) of people living with HIV in the two districts were screened for TB, of whom 921 (4.1%) screened positive.

89. In Côte d'Ivoire, management of TB is being improved among people living with HIV at a regional TB centre in Koumassi.[112] People with presumptive TB are offered an HIV test. Individuals not diagnosed with TB on smear or by clinical algorithm but who are HIV-positive are tested again with Xpert MTB/RIF. This approach led to the identification of 1,741 people with presumptive TB, of whom 505 were diagnosed with TB on sputum smear or clinically. The 1,236 people with a negative smear all accepted HIV testing, of whom 175 were found to be HIV-positive. They were then tested with Xpert MTB/Rif, after which an additional 32 people were found to be Xpert-positive, including 4 with rifampicin-resistance. All the individuals were started on both TB treatment and ART. People living with HIV with a negative Xpert MTB/RIF were offered CPT and referred to the HIV care services. Health-care workers are trained on infection control and the treatment of TB and HIV.[113] Members of the community are involved in the follow-up of people providing a holistic approach to care.

90. In Cambodia, 50% of TB cases occur among people aged over 55 years. A mobile screening unit containing an Xpert MTB/RIF and X-ray machine toured 75 government health facilities across four districts. Older age groups were encouraged to be screened by village support groups, as well as any community member presenting with a cough. Screening of 2,068 people yielded 329 bacteriologically positive TB cases. This significantly increased the notifications for people aged over 55 (by 263%) in a population with historically low notification rates and variable access to health services. When combined with community mobilization and the use of new technologies, the series of active screening days increased TB diagnosis, treatment initiation and treatment outcomes in a key population with high prevalence of TB.[114]

91. The Humana Federation introduced two variants of HIV testing in sub-Saharan Africa. One entails field officers visiting households to offer HIV testing along information, prevention services, stigma reduction activities and TB screening. Humana Field Officers also visit the households of index HIV cases recently registered at health facilities and provide screening for household members and sexual partners. In addition, support for treatment retention and adherence is provided for people living with HIV.

92. In Mozambique, Nigeria, South Africa and Zambia, 2.1 million people were tested for HIV in a two-year period (2015–2017). An additional 1.2 million people were screened for TB, with 9300 cases of TB identified. The Humana approach demonstrates the feasibility of a HIV testing approach combined with social support to reduce stigma and discrimination in health care and communities.[115]

93. *TB preventive treatment*. In Côte d'Ivoire, the national TB and HIV programmes convened a series of national stakeholder meetings in collaboration with the United States Centers for Disease Control and WHO to overcome barriers to IPT uptake. These meetings were used to present new evidence, discuss implementation challenges and barriers, such as isoniazid availability, clarify the roles of two programmes, and ensure adequate funding through a Global Fund concept note.[116]

94. *Patient-centred care*. In 2017 the All-Ukrainian Network of People Living with HIV facilitated a sustainable network of patient-centred TB and HIV treatment adherence support through a network of 21 community organizations, providing a tailored package of support that includes social and psychological support, renewing documents, rehabilitation, employment and financial assistance and legal advice. The Network has provided care for 2,712 people with drug-sensitive TB, including 652 (24%) people with HIV-associated TB, achieving 96% treatment success. In 2018–2020, the aim is to expand the project into additional districts covered and include support for people with drug-resistant TB.[117]

95. *Reaching key populations*: *people who use drugs.* In two large districts in Abidjan, Côte d'Ivoire, the national TB programme and the Institut Pasteur investigated the benefits of a community-based peer educator programme to improve diagnosis and treatment of TB among people who use drugs. They carried out systematic screening for TB and HIV testing in a "fumoir" smokehouse frequented by people who use drugs and then linked individuals to treatment, care and social support through peer educators. HIV prevalence among participants was 5.4%, almost double the national prevalence, and 15.4% of people with TB were coinfected with HIV. Despite the mobile nature of this population, the community approach has improved retention in care, with 60% of patients completing their TB treatment.[118]

96. Screening health care workers for TB and HIV. In 2016 an intensified TB screening programme for health care workers was implemented in ten public health facilities in Dire Dawa, Ethiopia. The screening package included TB symptom screening, blood pressure, HIV and blood sugar tests. Over one year, 85% of health care workers participated in at least one screening with 60% participating in all four quarters, with 94% accepting an HIV test. TB incidence was a high 806 per 100 000 healthcare workers and was four times higher among health-care workers living with HIV. During the course of the year, TB incidence among health-care workers at the participating sites decreased by 87%. This collaborative approach provided confidential, workplace HIV and TB screening services for health care workers.[119]

97. *Integrated TB and HIV services in prisons*. Since 2009, the AIDS Healthcare Foundation "Health through Walls" project has worked in 17 prisons in Haiti to reduce the impact of TB and HIV among inmates and the surrounding communities. It trains peer educators and prison staff on HIV and TB prevention, care and treatment, so HIV testing, TB screening, ART and IPT can be offered to all inmates. Upon release, a discharge planner works with local NGOs and health-care providers to connect them to appropriate medical services in their community and ensure continuity of care. Index case testing has been expanded to test sexual partners and family members. The "health blitz" approach led to an increase in testing rates and improvement in treatment protocols for people living with HIV in prison.[120]

98. In Zambia, the Building Bridges project aims to prevent the transmission of HIV and TB in prisons through a partnership between civil society, the criminal justice system, public health authorities and the community. Peers conduct TB symptom screening in the prison system. Supported by TB prison officers, they provide education about TB and HIV and participate in infection control committees. Peers are incentivized with monthly hygiene packs. The project also supports training of prison officer to be TB coordinators and offer HIV counselling and testing. Between 2015 and 2017, the project was implemented in eight prisons, screening more than 5000 prisoners. Inmates diagnosed with HIV-associated TB can be supported with high-energy protein supplements and peer support to strengthen adherence to treatment and care.[121]

99. Similar results have been achieved in Malawi.[122] An outbreak of HIV in prisons in Iran in the mid-1990's triggered a national response, including harm reduction (including opiate substitution and needle exchange), free HIV testing and condom distribution as well as education of inmates, their families and prison staff. In collaboration with UNODC this programme was expanded to integrate TB prevention, intensified screening and diagnosis and treatment through inmate peers and prison staff. The programme also helps ensure continuity of care between prisons and the community. It has increased coverage of HIV testing and ART, strengthened treatment adherence, and improved TB screening, diagnosis and treatment completion. TB rates among inmates were 30 times higher than the general population.[123]

100. *Integrated TB/HIV services for refugees and internally displaced persons*. In Mahama Kiziba and Kigeme refugee camps, Rwanda aims to provide refugees and asylum seekers with a similar standard of TB and HIV services as that of nationals. Community health workers perform regular community-wide house-to-house TB screening (monthly to every six months). UNHCR and its implementing partners in collaboration with the national TB and HIV programmes and district hospital teams ensure a regular supply of medicine and diagnostic supplies and joint monitoring and supervision of services. All refugees can access TB services through the national TB programme. At present only Congolese refugees can access HIV services through the national programme. However, discussions are ongoing to expand access for Burundian refugees to TB services beyond the current parallel support provided through a Global Fund emergency grant.[124]

101. In three states in North-eastern Nigeria (Adamawa, Gombe and Yobe), the Boko Haram insurgency has led to almost 300 000 internally displaced persons taking refuge in 25 camps and camp-like settings. Inadequate access to health services, poor housing and overcrowding, malnutrition and high rates of HIV increase TB transmission and disease. Through training of community volunteers, engagement of community leaders, camp officials, improved screening, specimen transport and Xpert TB/RIF 220,204 internally displaced persons were screened for TB, 16 610 (8%) were identified with presumptive TB and 948 (6%) were diagnosed with TB. An additional 147 TB cases were diagnosed in children. A little over 2000 contacts were screened for TB with 56 (3%) found to have TB. Internally displaced persons were also offered HIV tests, with 215 (1%) of 22 596 people testing HIV-positive.[125]

Pillar 2. Bold policies and supportive systems

102. Implementation of collaborative TB/HIV activities must be supported by national and sub-national coordination to ensure evidence-based policy, prioritisation, efficient resource utilisation, provision of technical assistance, effective monitoring of activities and successful scale-up of interventions in the context of Universal Health Coverage. Fostering an environment that encourages joint TB and HIV action is necessary to

ensure quality and integrated, client-centred delivery of services. Key to joint programming is the collective commitment of resources, the establishment of functional and accountable joint coordinating bodies, and health system strengthening. Engagement and collaboration with other sectors and activities can result in strengthened health systems.

103. Sustainable financing for Universal Health Coverage includes identifying sufficient funding, the equitable and efficient use of resources and financial management and accountability. The single concept note for Global Fund financing has shown value in TB and HIV programmes collaborating to identify domestic funding. Member States should be supported to move towards increased domestic funding for health services and identify efficiencies in the health system to improve care and performance.

104. Financing mechanisms such as the Global Fund's Challenging Operating Environments policy and the emergency funding mechanisms provide flexible and alternative financing mechanisms such as reprogramming of national grants and additional funds to assist national TB and HIV programmes to meet the unexpected needs of refugees and internally displaced populations and ensure continuity of care.

105. *An integrated health system approach to domestic financing*. The Estonian national HIV strategy 2006–2015 aimed to integrate the multisectoral delivery of HIV and TB services across the Ministries of Health, Social Affairs, Education and Science, Justice and Defence and included representation from civil society. Despite the 2008–2009 financial crises, Estonia was able to ensure that financial commitment from the Government was in place to take over activities from the Global Fund financing.

106. Coordination among all stakeholders, high-level political commitment and a comprehensive and budgeted transition plan were key factors for a successful transition from external financing. The integration of service delivery based on a target group approach instead of vertical approaches to TB and HIV programmes was crucial to ensure efficient allocation and use of resources.[126]

107. The Islamic Republic of Iran has also had great success in integrating TB and HIV services in the general population through ensuring that appropriate infra-structure (human resource, equipment, interdepartmental communication) is in place to support optimal service delivery. Updating care and treatment guidelines, training health-care workers, scaling up registration and reporting system and software, coordination between TB and HIV departments and providing diagnostic facilities for both TB and HIV are the main activities that led to success.[127]

108. *National and international policy guidance*. In 2013 the Ministry of Health of the Republic of Belarus issued a regulation mandating the provision of TB care service for people living with HIV. In 2016, 98% of TB patients were aware of their HIV status and 83% of HIV-positive TB patients received ART and 100% received co-trimoxazole preventive therapy. Isoniazid preventive treatment policy and TB and HIV registers have been improved in collaboration with clinicians.[128] Implementation of collaborative TB/HIV activities has been slow in many of the countries with the highest burden of HIV-related TB, especially by HIV programmes.

109. The most recent PEPFAR country operational planning guidelines for 2018 include comprehensive guidelines on reducing the burden of TB among people living with HIV and it is anticipated that this policy guidance linked to funding will lead to an increase in the implementation of TB screening and preventive treatment for people living with HIV in the coming years.[129]

110. *Social contracting for non-governmental organizations to provide services*. After the withdrawal of Global Fund support from Bulgaria, the country's Ministry of Health identified new mechanisms to continue to support nongovernmental organizations (NGOs) providing services for key populations. Social contracting is a form of cooperation between the government and NGOs, the government contracts the NGO to delivery strictly defined services of social relevance. A sufficient budget and the timely development of adequate legislative and regulatory procedures enabled social contracting to take place and prevent disruption of NGOs services.[130]

Pillar 3 intensified research and innovation

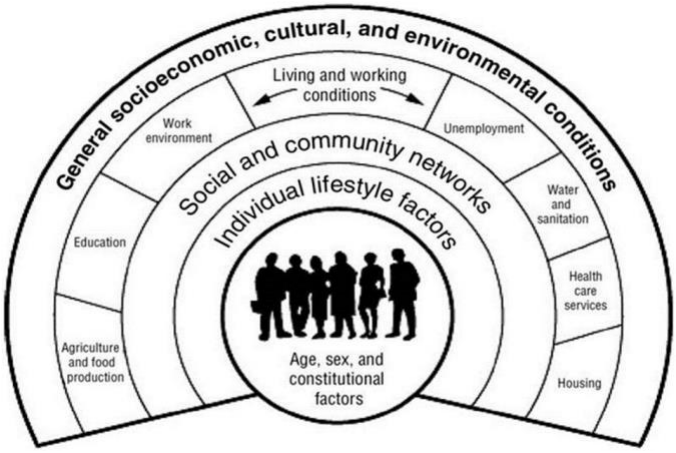
111. There is a pressing need to invest in the discovery, development and rapid uptake of new tools, interventions and strategies that improve the prevention, diagnosis and treatment of TB among adults and children living with HIV. Developing and scale up of new tools and implementing comprehensive TB packages that are appropriate for different epidemic and socioeconomic environments is essential. New and shorter TB preventive treatment regimens and fixed-dose combinations hold promise for catalysing scale-up of TB preventive treatment. The rollout of digital X-ray, multi-disease testing devices, and strategic placement of rapid TB diagnostic tools within HIV health facilities can help reduce delays in accessing diagnosis and life-saving treatment.

112. Investing in research and development and meeting defined country specific targets will ensure that adequate funding is allocated to developing new technologies. The UN High-Level Panel on Access to Medicines report "Promoting access innovation and access to health technologies" acknowledged that the market-driven system for research and development needs to be delinked from the end process of health technologies. Funding for TB research needs to increase to meet the US$ 1.3 billion annual funding gap, for example, through each member state spending up to or beyond 0.1% of its annual gross domestic expenditure on research and development on TB research; and implement long-term funding strategies to ensure the sustainability of research progress and pipelines.

113. *Providing access to new anti-TB medicines*. The All-Ukrainian Network of People Living with HIV initiated the negotiation process for registration with the manufacturers of Bedaquiline and Delamanid. Following a period of negotiations the manufacturers agreed to substitute distributors and register both drugs in Ukraine. At the same time the Network successfully advocated for inclusion of Bedaquiline and Delamanid in the list of medicines for procurement for the national budget in 2018. Community network action was instrumental in improving the speed of introduction of innovations that will expand the treatment options for TB and MDR-TB.

IV. CAN TB AND HIV PROGRAMMES WORK TOGETHER ACROSS SECTORS TO ADDRESS THE SOCIAL AND STRUCTURAL DETERMINANTS THAT DRIVE THE EPIDEMICS AND ACHIEVE SDG 3 IN THE CONTEXT OF THE BROADER SDG AGENDA?

Addressing the socioeconomic and structural factors that drive the epidemics of HIV and TB



114. Health services have limited capacity to directly address the social determinants of health. However, population health will not be improved by health service provision alone, concerted effort is also needed to address the social and structural determinants of health. TB and HIV programmes can more effectively address the common drivers of the epidemics through collaborative effort.

115. Gender-responsive, human rights-based programming and implementation is essential to ensuring that quality TB and HIV services are available and accessible to all, especially key and vulnerable populations. Improved data collection is needed on the social determinants of TB and HIV and other risk factors that make people vulnerable to TB and HIV or reduce their access to care. Disaggregation of data by gender, age group and key populations and where relevant refugee and migrant status is required to ensure that services are designed to reach and meet the needs of key populations.

116. Poverty reduction strategies and social protection systems will improve access to health services, reduce TB and HIV transmission and minimize the impact of disease. Economic and public health policies need to incorporate social protection interventions to reduce undernutrition and food insecurity, improve education, improve living and working conditions and promote healthy diets and lifestyles including the provision of food and nutritional support interventions.

117. TB and HIV programmes can work together with other health programmes, food security and nutrition, poverty reduction, housing, employment and other sectors to advocate for improved living and working conditions. Interventions aimed at increasing social protection; the strength of livelihood or urban renovations may also contribute to reducing the impact of HIV-associated TB.[131] Addressing undernutrition can boost immunity and improve people's wellbeing and active contribution to social and economic activities.

118. Improved linkage to care, retention in care and adherence to treatment lead to improved health outcomes (lower rates of morbidity, mortality, drug resistance and transmission) and increased cost effectiveness (reduced costs and higher productivity). The greatest loss to follow-up for HIV care occurs before starting treatment. Poor adherence to ART undermines viral suppression which may also result in an increased risk of drug resistance, transmission of drug resistance and escalating treatment costs.[132] Food insecurity has been found to be a major barrier to both ART adherence and to care among people living with HIV.

119. *Knowing your TB-related rights*. TB-related rights literacy—helping people to know their rights under health regulations and national law as well as their human and patient rights

with respect to TB—can be part of larger information campaigns or community systems strengthening activities or can be more targeted. Rights literacy can be crucial, especially for marginalized populations already prone to discrimination and exclusion and without good access to mainstream information sources. Patients' rights programs can also be effectively combined with training of health care workers in non-discrimination, gender-responsiveness, confidentiality and informed consent. Health workers, mine workers, prison staff and others who may be exposed to TB on the job may also benefit from rights literacy programs.

120. *TB-related legal services*. Even if people know their rights, they may not be able to assert their rights without assistance from legal or paralegal professionals. In some circumstances, access to legal assistance may be the most direct and effective way for marginalized persons to get access to TB services or to be protected from compulsory treatment or involuntary isolation or to address stigma and discrimination. Community-based and peer-led legal counselling or services may be particularly effective.

121. In Mozambique, the NGO Namati mobilizes lawyers and trains paralegals to work with community leaders and health committees to improve access to health services, including TB services. This approach brought legal solutions to HIV and TB patients facing delays in receiving their medications, as well as rectifying poor sanitation conditions in health facilities, helping to establish mobile services for some remote populations, and cutting wait times for severely ill patients.[133]

122. *Monitoring and reforming policies, regulations and laws that impede TB services*. Policies and laws can impede access to TB services and can be challenged in many ways, for example through advocacy, community mobilization and awareness-raising and litigation. Issues which can be addressed include:
    - Combating involuntary isolation, coerced or compulsory treatment;
    - Care for mobile populations such as refugees and other migrants;
    - Criminal sanctions, especially imprisonment, applied to drug use, minor drug possession 102and possession of drug-using equipment. People who use drugs regularly have a high risk of detention and may be reluctant to use health services due to stigma and discrimination;
    - Improving workplace/occupational policies and laws; and
    - Improving prison conditions and policies.

    Assessing the national legal environment around TB is a helpful means to identify and reform policies, regulations and laws that impede TB services.[134]

123. *Involuntary isolation*. In several countries, laws or public health regulations allow for the compulsory detention, isolation or other punishment of people who refuse TB treatment or are lost to care.[135] Such practices create barriers to accessing health services and may constitute human rights violations. They also contravene the Siracusa Principles, which specify that individuals should be treated in a manner that respects their dignity, human rights and fundamental freedoms.

124. When patients are engaged respectfully and with their informed consent, unwillingness to undergo treatment is rare. WHO guidance states that detention "should never be a routine component" of TB programmes.[136] In rare instances, if a patient refuses care or continuation of care after all "reasonable efforts" have been made, "carefully limited" involuntary isolation, using the least restrictive means possible, may be justified as a last resort. Isolation must not be used as a form of punishment, and any person subjected to it must have been informed in advance of detention.

125. In 2010 in Nandi County, Kenya, in a case initiated by the public health officer, two men were convicted and sentenced to eight months in prison for non-compliance with TB treatment. In prison, they endured conditions that could only exacerbate their illness, including overcrowding and poor diet. They were released with the help of civil society organizations after 46 days. The Kenyan NGO KELIN filed a petition with the High Court to challenge the practice of imprisonment as punishment in such cases.

126. The ruling of the High Court in March 2016 recognized that detention may be justified to protect the public's health, but that detention should not be in a prison because, among other things, it is meant to be for treatment, not punishment.[137] The Court declined to award damages to the plaintiffs for their time in prison, but it ordered the development of a policy on health-related confinement. The Court's decision was hailed as a "game-changer" by KELIN and a milestone toward more rights-based and patient-centred practices related to isolation linked to TB.[138]

127. In several other cases, Courts of Appeal have upheld the rights of people living with TB. Most notably in South Africa, the High Court permitted a class action suit by miners with TB to proceed against the mining industry, giving mine workers an opportunity to obtain remedies for violations of their rights.[139] In another case, the country's Constitutional Court recognized that the negligence of the Correctional Services Department had put prisoners at increased risk for TB.[140] Most recently, the High Court of Kenya held that the imprisonment of two individuals with TB who had stopped taking their treatment was unconstitutional.[141]

128. *Improving TB prevention, treatment and care in prisons and other places of detention*. Training of prison medical personnel, guards, other prison staff and peer educators on basic TB and HIV prevention, treatment and care can be effective. Establishing coordination of prison care among prisons and continuity with post-release care in the community can be the key to enabling people in state custody to begin TB treatment without fear of interruption when they are transferred or released. Peer-based, patient-centred approaches should be encouraged in prison as in other settings.[142]

129. *Sensitization of law-makers, judicial officials and law enforcement agents*. As indicated in the examples from Kenya and South Africa above, the courts can play important roles in protecting and fulfilling the rights of TB patients as well as caregivers. Training of police, judges, and other law enforcement and judicial personnel may be an essential activity to ensure the effectiveness and uptake of TB services. As with HIV, training of police is likely to be best received when it includes practical information on how police can protect themselves from TB on the job.

130. *Training of health care providers on human rights and ethics related to TB*. While health workers might be expected to be models for the community in respecting the rights of people affected by or at risk of TB, this is not always the case. Health workers may need support to overcome their own stigma and fears of acquiring TB, as well as to appreciate the importance of non-discriminatory provision of health care, informed consent, confidentiality and privacy, patient-centred care, patient rights and meaningful participation of patients in decision-making about their care.

131. Training is one strategy for improving knowledge, attitudes and practices of health workers. It may be combined with integration of human rights and ethics elements in performance reviews or other incentives, as well as with patients' rights education. Training is unlikely to be effective if health workers perceive that they have inadequate supplies of medicines or diagnostics or otherwise poor workplace support, or if they feel their own privacy and confidentiality rights are inadequately protected.[143]

132. Ensuring confidentiality and privacy: In workplaces, health care facilities, educational institutions and other settings, measures can be undertaken to reform policies, practices and laws that undermine confidentiality and privacy with respect to TB status.

133. Achieving gender equality and gender equity: Understanding contextual gender-related barriers to services can help to identify solutions and ensure equal access.[144] The UNAIDS/Stop TB Partnership HIV/TB Gender Assessment Tool [145] aims to support countries with the assessment of their HIV and TB epidemics, context and response from a gender perspective. The outputs of the assessment should be used to inform the development of gender-sensitive national plans and investment cases.

134. Gender assessment processes should include all stakeholders including civil society and communities to ensure the systematic collection of gender-disaggregated data that can inform targeted outreach to men and women, training of health workers and other health system strengthening. Gender-focused assessments can highlight regulations, laws and policies as well as programme practices that fail to take into account gender-related drivers of risk.

135. If men's (or women's) working hours impede seeking health services, useful measures may include mobile services, increasing budgets to allow for longer hours of service at fixed facilities, and advocacy with community leaders, men's and women's groups and others on the importance of access to services for all. If men tend not to use primary health care facilities because they are perceived to be for women and children, for example, targeted awareness-raising may change attitudes. If men are disadvantaged, for example as migrant workers, experience occupational dust exposure or are substance users, then advocacy and targeted extension of male-friendly services can help. In HIV-endemic areas, TB services and information should be available to women seeking HIV care and assistance in preventing vertical transmission of HIV.

136. *Reducing stigma and discrimination*. The stigmas surrounding TB and HIV are complex and often additive and should be addressed together through outreach, integration of TB and HIV services at the facility level with health workers trained to understand the stigma and human rights concerns inherent to both diseases, peer support and community support for sustaining treatment, as well as support to government and community entities that can document human rights abuses in this doubly affected population along with functioning mechanisms of complaint and redress.[146]

137. Considerable progress has been made globally in defining and measuring stigma related to HIV and TB, but there is still insufficient research and high-quality evidence for interventions to reduce stigma. It is encouraging that the few interventions evaluated have had a positive impact on reducing some forms of stigma.[147] [148] However, funding is urgently needed for quality research on interventions to reduce stigma and its negative impacts on the response to HIV and TB, such as the HIV and TB Stigma among Healthcare workers (HaTSaH) trial in Free State province in South Africa.[149] Affected communities and health care workers need to be empowered to overcome the stigma and discrimination that is preventing them from reaching the people currently left behind.

138. Further research and investment in measuring the impact of stigma and discrimination is needed and more importantly meaningful ways to reduce stigma in services, workplaces and communities. Key areas for future research are:
    - *Measuring stigma and discrimination*. Stigma indexes and tools can assess the type and level of TB-related stigma in a given population or setting. This data is crucial for designing effective anti-stigma measures.
    - *Addressing stigma and discrimination in the community and workplace*. Provision of basic non-judgmental information on TB, accessible to the lay public and to

employers and employees, is needed to counter stigma and discrimination in the workplace. This can help de-stigmatize people vulnerable to or affected by the disease, empower patients and their communities to know their rights, ensure access to services for all and prevent people losing their jobs due to TB or HIV. Mass media or other awareness-raising activities can help address stigma in the community or workplace.

- *Addressing stigma in health-care settings*. There are programmes to help health workers understand and address their own concerns about TB risk on the job, as well as stigmatizing attitudes toward patients.[150] Ensuring confidentiality and privacy of patients with TB is an important part of stigma reduction in health facilities and increases uptake of health services by people who need them.[151]
- *Addressing stigma and discrimination in education*. TB-related stigma can lead to discrimination and exclusion in education;[152] and it has been demonstrated that school-based information programs have been effective in some settings.[153]

139. Mobilizing and empowering patient and community groups: People's meaningful participation in decision-making about health policies and programmes that affect them is an integral element of the right to health.[154] As is true for many health services, TB services have generally been delivered in a "top-down" fashion. Global guidance emphasizes that the best outcomes are achieved when people are empowered to be meaningful participants in TB prevention, diagnosis and treatment, when they know their rights as patients, and when they can play a "watchdog" role in monitoring the quality and reach of services.[155]

140. Some measures with successful outcomes in a number of countries include: (a) support to patient peer groups, (b) capacity-building to enable people, including men, women and young people, to take an active role in identifying and addressing TB risks in households, communities and workplaces, (c) creating platforms for formal participation of patients and patient groups in health decision-making, (d) building the policy advocacy capacity of current and former TB patients, and (e) building capacity and opportunity for community health committees or TB patient groups to monitor and report on the quality of TB services in their communities.

141. The interface between health services and affected communities must become less of a barrier to accessing care and tailored to meet the needs of people currently being left behind by health and other services. Peer educators, community outreach workers that meet the needs of key populations such as sex workers, prisoners, miners, men who have sex with men, and drug users, community health workers and community health activations can all help to reduce the barriers to accessing services and reduce delayed diagnosis and treatment.

142. Community health worker programmes and community-based organizations need to be strengthened, supported and funded to find the "missing millions" of people living with HIV, TB infection and TB disease that are unaware that they can benefit from ART, TB treatment or TB preventive treatment.

143. Community based organizations, organizations of affected populations and community leaders need to be given the training and resources they need to support community case finding, linkage to care, adherence to treatment and retention in care. They must also be engaged in the planning, monitoring and evaluation of service delivery and are an essential partner in community-based research.

144. Meaningful engagement of affected communities and key populations is critical. It goes beyond community service delivery to include advocacy, activism and accountability, as well as involvement in planning, monitoring and evaluating service delivery and

conducting community-based research: "nothing for us without us". National HIV and TB policies that are inclusive of key populations will help to ensure access to services for these vulnerable populations.

145. Measures that empower and capacitate refugees, migrants and internally displaced people to engage in programme planning, assessment, implementation and monitoring will facilitate the design of acceptable, appropriate, sustainable and culturally sensitive programmes.

146. Strategies that recognise and address the needs of conflict-affected displaced populations and migrant populations, in fragile or emergency settings will promote linkage and retention in care as well as avoid discriminatory practices. These include same language and culturally competent service providers, communication materials suitable for lower literacy levels and different languages if relevant, promotion of food security and prevention of discrimination by uncertain legal status or other factors. The nature of refugees and migrants' mobility also means that multicountry and cross-border collaboration is needed to improve TB and HIV case-finding and outcomes.

147. Better understanding of and response to the determinants of health among indigenous peoples is needed to tailor services to their needs. Indigenous peoples often live in societies where they have a limited political voice. To promote coherence and joint programming, adequate political traction both at the global and country level, dialogues and programmes between indigenous peoples, national governments and United Nations are required.

148. *A community development strategy to support advocacy in Ukraine*. In January 2018 the All-Ukrainian Network of People Living with HIV collaborated with "Light of Hope" to strengthen the advocacy capacity and skills of TB community leaders. TB community leaders are included in the consultative and advisory bodies of government decision-making at the local level, including discussion on allocation of budget. The information campaign includes promoting patient-centred models for treatment for all forms of TB. The joint TB community has become a catalyst for change in overcoming the TB epidemic in Ukraine.

149. *Developing a training and advocacy toolkit for Southern Africa to support the six I's for HIV/TB.* WHO and the AIDS and Rights Alliance for Southern Africa (ARASA) with partner organizations from seven countries in the region has developed training and advocacy materials to support the implementation of the Six I's for HIV/TB (infection control, intensified case finding, isoniazid preventive therapy, TB/HIV integration, initiating antiretroviral therapy and community involvement). The toolkit provides accessible and evidence-based training and advocacy materials covering all Six I's. The Botswana Network on Ethics, Law and HIV/AIDS reported a positive response from implementing a user-friendly approach to training with community members and health care workers.

V. THE WAY FORWARD

150. There has been significant progress in reducing the impact of HIV-associated TB since 2008, however the recommendations from the first thematic segment for the PCB on TB still stand today (see paragraph 18 above).

151. In the short term, we must stop people living with HIV from dying of TB. We have the evidence and effective tools to prevent most deaths but they are not being implemented quickly enough to scale to reach the people who need them most. Countries with a high burden of HIV-associated TB need to rapidly scale up the collaborative TB/HIV activities

laid out in the WHO policy. Early and frequent TB screening and testing for newly diagnosed people living with HIV with ART and TB treatment or TB preventive treatment, as soon as possible after diagnosis—we must reduce the average time between diagnosis and treatment to minutes rather than months. This is essential to reduce morbidity, mortality (especially among infants) and onward transmission of HIV and TB to others.

152. The 2016 UN Political Declaration targets to reach 90% of all people with TB wtih preventive or therapeutic treatment and achieve 90% treatment success for all people diagnosed with TB, sets the framework for the HIV community's contribution to reduce the burden of TB among people living with HIV. All newly diagnosed people living with HIV should be thoroughly screened for TB and started on TB treatment if proven to have active TB or TB preventive treatment if there are no signs or symptoms suggestive of active TB. All newly diagnosed adults and children living with HIV (100%) should be on ART and either TB treatment or TB preventive treatment.

153. TB and HIV programmes should coordinate efforts to "find the missing millions" by:
    - informing and engaging key populations about their increased risk of TB and HIV and facilitate better access to client-centred TB and HIV services;
    - integrating TB and HIV service delivery for key populations using a "one-stop-shop" model;
    - reconfiguring health services to better reach and meet the needs of the communities left behind in response to HIV and TB by making opening hours more flexible, training health care workers on the needs of key TB and HIV populations, community outreach into areas with high rates of TB and HIV, contact tracing, index screening and household screening; and
    - identifying vulnerable households and communities to guide community case-finding activities through index cases of HIV and TB. Vulnerabilities to disease and ill-health often overlap in locations and populations on the margins of society, where access to services is poorest. Multidisease health screening campaigns can be tailored to the major causes of vulnerability, morbidity and mortality in each community, and costs can be shared between health, social and education programmes.

154. TB and HIV programmes must advocate together for the political commitment needed to build the components of UHC: sustainable health financing, health systems governance, health workforce, essential medicines and health products, health statistics and information systems and service delivery and quality; which are all necessary for an effective global response to HIV-associated TB required to meet the target of a reduction of TB related deaths among people living with HIV by 75% by 2020.

155. Equitable access to and universal uptake of new TB and HIV tools (drugs, diagnostics, vaccines) should be facilitated to ensure that cost is not a barrier to the access of quality diagnostics and treatments. Align and harmonize regulatory pathways to fast-track the uptake and implementation of new tools to diagnose, prevent and treat TB and HIV, including utilizing Trade-Related Aspects of Intellectual Property Rights flexibilities, as needed.

156. In the longer term, TB and HIV programmes must work together to build robust systems for health; address the social and structural determinants of TB and HIV and identify new resources and funding models for research into better tools to prevent, diagnose and treat TB among people living with HIV.

157. The UNAIDS Joint Programme needs to develop clear guidance to countries on how to measure, monitor and reduce the impact of TB and HIV stigma and discrimination in

health care, workplace and community settings. Discriminatory laws and practices that work against people with TB or HIV must be removed, and laws, policies and practices that enable access to services promoted

158. Policymakers and health-care providers must transform the standard response to TB and HIV to make it equitable, rights-based, non-discriminatory, gender-transformative and people-centred, not just in health settings but also in workplaces, schools, prisons and other places of detention, with the eventual goal of achieving universal health coverage, to protect people from the potentially catastrophic health expenditures caused by HIV, TB and MDR-TB.

159. HIV and TB programme collaboration is more likely to succeed in addressing the common social and structural determinants of disease. Synergies can be achieved by both programmes collaborations to improve, for example school and prison health, harm reduction for people who use drugs, occupational health for healthcare workers, outreach services for mobile populations, social protection and nutritional support, and income generation.

160. Secure sustainable investment in vital health services, through prioritization, efficiencies and innovation. HIV and TB programmes need to develop a strong investment case for domestic investment in effective HIV and TB programmes which give a healthy return on investment. Health is not a cost but an investment. The UN estimates that, over the long term, each US$ 1 spent on TB saves up to US$ 30 through improved health and increased productivity.

161. National governments need to leverage the private sector. To fuel innovation and new discoveries, we urgently need more partnerships between governments, businesses (particularly drug makers), and civil-society organizations. The goal should be to develop better, less toxic treatment regimens that work faster than what is currently available.

162. The international community must commit to demonstrate more decisive and accountable global leadership. Without accountability, goals and commitments have little meaning. Governments need to be supported to improve living standards. That means ensuring access to nutritious food, a clean environment, education, and fostering healthy economic conditions. Through collaboration we can End TB and End AIDS by 2030.

[Annexes follow]

Annex 1

LINKS TO POLICIES AND GUIDELINES RELATED TO TB AND HIV-ASSOCIATED TB

Documents marked with an asterisk are of particular importance or relevance to TB among people living with HIV.*

WHO policy documents related to HIV-associated TB

- WHO policy on collaborative TB/HIV activities * Guidelines for national programmes and other stakeholders
- Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection Recommendations for a public health approach - Second edition*
- A guide to monitoring and evaluation for collaborative TB/HIV activities: 2015 revision *

  These documents are aligned with the UNAIDS GAM indicators. UNAIDS and the WHO HIV and TB departments collaborate on modelling estimates and on collecting the relevant indicators related to HIV-associated TB.

- The use of lateral flow urine lipoarabinomannan assay (LF-LAM) for the diagnosis and screening of active tuberculosis in people living with HIV Policy update*
- Guidelines on the management of latent tuberculosis infection*
- Working together with businesses Guidance on TB and TB/HIV prevention, diagnosis, treatment and care in the workplace
- The joint WHO ILO UNAIDS policy guidelines for improving health workers' access to HIV and TB prevention, treatment, care and support services
- Scaling up of collaborative TB/HIV activities in concentrated HIV epidemic settings A case study from India
- Integrating collaborative TB and HIV services within a comprehensive package of care for people who inject drugs Consolidated guidelines
- Guidance for national tuberculosis programmes on the management of tuberculosis in children

WHO policy documents related to TB detection and diagnosis

- Chest radiography in tuberculosis detection Summary of current WHO recommendations and guidance on programmatic approaches *
- Systematic screening for active tuberculosis: an operational guide*
- The use of lateral flow urine lipoarabinomannan assay (LF-LAM) for the diagnosis and screening of active tuberculosis in people living with HIV Policy update *
- Xpert MTB/RIF implementation manual Technical and operational “how-to”: practical considerations*
- Systematic screening for active tuberculosis Principles and recommendations*
- Recommendations for investigating contacts of persons with infectious tuberculosis in low- and middle-income countries*
- The use of molecular line probe assays for the detection of resistance to isoniazid and rifampicin*
- Implementing tuberculosis diagnostics: A policy framework*
- Xpert MTB/RIF assay for the diagnosis of pulmonary and extrapulmonary TB in adults and children Policy update*

For other WHO publications on TB and HIV associated TB, please click here.

Stop TB Partnership publications on HIV-associated TB

- Gender assessment tool for national HIV and TB responses
- Key Populations Brief: People Living With HIV
- Key Populations Brief: Children
- Key Populations Brief: Miners
- Key Populations Brief: Prisoners
- Key Populations Brief: Healthcare Workers
- Briefing note on TB and Human Rights
- Link to the Partnership TB and Human Rights Task force here
- A full list of Partnerships publications can be found by clicking here

Endnotes

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