



Editorial

TB-HIV Co-Infection and MDR-TB: Major Concerns for Post 2015 Global Agenda

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Global burden: TB & MDR-TB

Tuberculosis (TB) is second only to HIV/AIDS as the greatest killer worldwide due to a single infectious agent. As per 2013 statistics, 9 million people fell ill with TB and 1.5 million died from the disease. Over 95% of TB deaths occur in low- and middle-income countries, and it is among the top 5 causes of death for women aged 15 to 44. In 2012, half a million people were infected with the drug resistant TB, also known as multi-drug resistant-TB (MDR-TB). However, it is estimated that less than a quarter of the actual cases were properly diagnosed. The World health Organization (WHO) has now classified MDR-TB as a global health security risk and estimate that as many as five million people will be infected with it by 2015 (Ann *et al.*, 2013).

TB-HIV co-infection

According to WHO, the largest number of new TB cases is contributed by the South-East Asia region with highest number of cases globally (Chattu *et al.*, 2013). However, Africa carried the greatest

proportion of new cases per population with 280 cases per 100 000 population in 2013. HIV and TB form a lethal combination, each speeding the other's progress. In 2013 about 360 000 people died of HIV-associated TB. Approximately 25% of deaths among HIV-positive people are due to TB. There were an estimated 1.1 million new cases of TB amongst people who were HIV-positive and 78% of them were living in Africa. Definitely, TB is a leading killer of HIV-positive people causing one fourth of all HIV-related deaths. Apart from that globally in 2013, an estimated 480000 people developed multidrug resistant TB (MDR-TB) (<http://www.who.int/mediacentre/factsheets/fs104/en>).

In 2014, WHO director general Margaret Chan made a statement that "Earlier and faster diagnosis of all forms of TB is vital," as it improves the chances of people getting the right treatment and being cured, and it helps stop spread of drug-resistant disease. There is a need for evidence based interventions that can be implemented to treat the established infections and prevent the new ones from happening (Chattu,

2014). Around 2.5 million people become infected with HIV each year. This extraordinary toll on human life and public health worldwide will only be reversed with effective prevention (Chattu *et al.*, 2014).

A major Public-Private Partnership

Key partnerships have played an instrumental role in scaling back TB and HIV co-infection. As HIV/AIDS has claimed millions of lives in the global workforce and continues to be a threat to many businesses (Chattu, 2015). To address this issue seriously, President's Emergency Plan for AIDS Relief (PEPFAR) in August of 2012, PEPFAR came forward and had announced a public-private partnership between USAID, UNITAID and the Bill & Melinda Gates Foundation. This partnership includes expansion and increased access to GeneXpert (Xpert), a molecular diagnostic system that provides a two-hour rapid diagnosis of TB, TB/HIV co-infection and drug-resistant TB. This partnership produced an immediate 40 percent reduction in the cost of this innovative rapid TB test, and a year and a half later is contributing to the roll-out of this new technology, increasing access to those most vulnerable (<http://blogs.state.gov/stories/2014/03/24/world-tb-day-fight-against-hiv-aids-vital-future-without-tuberculosis>).

Post 2015 development agenda: END TB strategy

The global strategy and targets for TB prevention, Care and control after 2015 were endorsed by all member states at the 2014 World Health Assembly as shown in the table below (http://www.who.int/tb/post2015_TBstrategy.pdf). Achieving this global target is feasible only with dramatic decline in TB

deaths and cases, and elimination of economic & social burden of TB. Failure to do so will carry serious individual and global public health consequences.

WHO emphasizes the following principles to achieve this ambitious goal:

1. Government stewardship and accountability with monitoring & evaluation
2. Strong coalition with civil society organizations and communities
3. Protection and promotion of human rights, ethics and equity
4. Adaptation of the strategy and targets at country level with global collaboration.

Achievement of this goal by 2035 requires:

1. Expanding the scope and reach of interventions for TB care and prevention, with a focus on high-impact, integrated and patient-centered approaches;
2. Eliciting full benefits of health and development policies and systems, through engaging a much wider set of collaborators across government, communities and the private sector;
3. Pursuing new scientific knowledge and innovations that can dramatically change TB prevention and care.

Ambitious targets & pre-conditions

1. To reach the targets set out in the End TB Strategy, the annual decline in global TB incidence rates must first accelerate from an average of 2% per year in 2015 to 10% per year by 2025.
2. Secondly, the proportion of people with TB who die from the disease (the case-

fatality ratio) needs to decline from a projected 15% in 2015 to 6.5% by 2025.

3. Though these declines in deaths and incidence by 2025 are ambitious to achieve, they are feasible with existing tools complemented by universal health coverage and social protection.

To sustain progress beyond 2025 and achieve the SDG* 2030 and End TB 2035 targets, additional tools must be available by 2025. In particular, a new vaccine that is effective pre- and post-exposure and a safer and more effective treatment for latent TB infection are needed to reduce the number of new TB cases arising from the

approximately 2 billion people worldwide who are infected with *M. tuberculosis*, as well as better diagnostics and safer and easier treatment including shorter drug regimens for TB disease. For new tools to be available by 2025, greatly enhanced and immediate investments in research and development are required.

To ensure full impact, these actions must build on principles of government stewardship, engagement of civil society, human rights and equity, and adaptation to the unique context of diverse epidemics and settings.

VISION	A world free of tuberculosis – zero deaths, disease and suffering due to tuberculosis			
GOAL	End the global tuberculosis epidemic			
INDICATORS	MILESTONES		TARGETS	
	2020	2025	SDG 2030*	END TB 2035
Reduction in number of TB deaths compared with 2015 (%)	35%	75%	90%	95%
Reduction in TB incidence rate compared with 2015 (%)	20% (<85/100 000)	50% (<55/100 000)	80% (<20/100 000)	90% (<10/100 000)
TB-affected families facing catastrophic costs due to TB (%)	Zero	Zero	Zero	Zero

The United Nations is in the process of defining a post-2015 development agenda. A set of “Sustainable Development Goals” (SDGs) are being developed for 2030; TB is proposed to be part of the agenda and goals.

Source: WHO- post 2015 TB strategy document

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