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Editorial

New tuberculosis estimates must motivate countries to act



In October 2016, the World Health Organization (WHO), released its 2016 Global Tuberculosis (TB) Report [1]. The news, sadly, was not good. The WHO reported that the global TB burden is actually higher than previously estimated. In 2015, there were an estimated 10.4 million new TB cases worldwide [1]. Six countries, namely India, Indonesia, China, Nigeria, Pakistan and South Africa, accounted for 60% of the total burden, with India alone accounting for 27% of the global cases.

An estimated 1.8 million people died from TB in 2015, including 0.4 million people that were co-infected with HIV [1]. This means TB kills more people today, than HIV and malaria combined. The WHO report raised concerns about persistent, large gaps in TB case detection and notification. Of the 10.4 million new cases, WHO estimated that only 6.1 million were detected and officially notified in 2015. This left a gap of 4.3 million cases that are considered 'missing' – either not diagnosed, or managed outside of the public sector and not notified to TB control programs [1]. For these 'missing' cases, there is little data on the quality of TB care they receive, but available evidence suggests that quality of care might be sub-optimal [2].

India continues to rank as the world's highest burden country, with 2.8 of the 10.4 million new TB cases that occurred in 2015. TB is also a major killer of Indians. The latest Global Burden of Disease (GBD) estimates show TB to be the 6th leading cause of deaths in India [3]. In 2005, TB was the 6th leading cause of deaths in India, and ten years later, in 2015, it held its place as a leading killer of people in India. This is relevant because India has made economic progress in the past decade, and has also scaled up DOTS to cover the entire population. And yet, TB continues to be a major killer.

These new estimates from WHO and GBD are a wakeup call for the TB community, and underscores the need for greater investments in global TB control. In particular, as the highest burden country, India needs to wake up to the enormity of the epidemic in the country, and put some serious money behind its underfunded TB program [4]. Global TB elimination is an impossible goal without significant progress in India and the other BRICS countries.

A comparison of India with China is quite illustrative. China had 0.9 million TB cases in 2015, while India had over 2.8 million [1]. The number of drug-resistant TB cases in China was 57,000, while India was estimated to have over 79,000 [4]. Unlike India, TB is no longer a major killer of people in China, and does not make the top 10 most important causes of death [3]. While China has carefully tracked its TB epidemic with periodic prevalence surveys, India is just gearing up to conduct its national prevalence survey.

It is worth noting that China more than halved its TB prevalence over the last 20 years [5]. Marked improvement in quality of TB treatment, driven by a major shift in treatment from hospitals to the China CDC public health centers (that implemented the DOTS strategy) was likely responsible for this effect, which has been demonstrated by repeated national TB prevalence surveys.

So, why does India struggle with a much higher TB burden? There are many reasons. For one, India has many social determinants that drive the TB epidemic – poverty, malnutrition, smoking, and indoor air pollution [6–9]. Secondly, India has consistently under-funded TB control for a very long time [10]. And much of the focus was only on the governmental TB program. It is only recently that the national TB program has seriously started to address the problem of TB in India's large, dominant, unregulated, heterogeneous private sector [10].

For many years, India ignored TB patients managed in the private sector, and national prevalence and drug-resistance surveys were not periodically done (unlike China and many other high TB burden countries). Furthermore, the Indian national TB program was (and still is) heavily reliant on insensitive diagnostic tools such as sputum microscopy. All of this meant that India has been under-diagnosing and under-reporting the burden of TB for a long time.

With new research, our understanding of the true burden of TB in India is improving. We are now aware that private sector manages over half of all TB in India, new research suggests that enormous quantities of TB drugs are sold in the Indian private market [11]. In addition, although India made TB notification mandatory in 2012, it has taken a few years for private sector notifications to accumulate. Now, thanks to several public–private partnership programs, significant increases are being noticed in case notifications from private sector [12]. Thus, private sector engagement is critical for countries such as India, Indonesia, Pakistan, and Nigeria, because of their large private health sectors [13].

Overall, the path forward for the highest TB burden countries is clear – acknowledge the reality of a larger TB epidemic, collect better data on true burden of TB, deaths, and drug-resistance, allocate greater funding to tackle this huge problem, and modernize TB care by investing in new diagnostics and drugs. This will not happen without high-level political commitment.

Fortunately, there is now greater acknowledgment among health ministers and public health leaders that TB is a bigger problem than imagined in many countries [14]. Hopefully, awareness of the higher disease burden will result in greater political commitment, more ambitious TB control plans, and higher budgetary allocations to fight TB. Anything less will be insufficient to stem the tide.

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