

Let's Unite to End Tuberculosis

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Do's Unite to End Tuberculosis (TB)

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By Dr Brighton Chireka

Each year , we recognise world Tuberculosis (TB) day on March 24. This annual event commemorates the date in 1882 when Dr Robert Koch announced his discovery of Mycobacterium tuberculosis, the bacillus that causes Tuberculosis (TB). The theme of world TB day 2016 is "Unite to End TB" . I invite you to "Unite with me to End TB" by sharing this article with as many people as you can . We want it to reach many people. Tuberculosis can affect anyone at anytime so we need to be aware of this disease.

What is Tuberculosis (TB) and how common is it?

Tuberculosis (TB) is a top infectious disease killer worldwide. It is caused by bacteria (Mycobacterium tuberculosis) that most often affect the lungs. It can affect other parts such as the abdomen, the brain and the bones as well as the glands. Tuberculosis is curable and preventable. According to the World Health Organisation (WHO) in 2014 , 9,6 million people fell ill with Tuberculosis and 1.5 million died from the diseases. Sadly over 95% of TB deaths occur in low and middle-income countries . It is among the top 5 causes of death for women aged 15 to 44. In the same year 2014 , an estimated 1 million children became ill with TB and 140 000 children died of TB.

Global impact of Tuberculosis

According to WHO In 2014, the largest number of new TB cases occurred in the South-East Asia and Western Pacific Regions, accounting for 58% of new cases globally. However, Africa carried the most severe burden, with 281 cases per 100 000 population in 2014 (compared with a global average of 133).

In 2014, about 80% of reported TB cases occurred in 22 countries. The 6 countries that stand out as having the largest number of incident cases in 2014 were India, Indonesia, Nigeria, Pakistan, People's Republic of China and South Africa. Some countries are experiencing a major decline in cases, while in others the numbers are dropping very slowly. Brazil and China for example, are among the 22 countries with a sustained decline in TB cases over the past 20 years.

Tuberculosis (TB) in Zimbabwe

According to USAID, Zimbabwe is the 17th highest tuberculosis (TB) burden country in the world, and TB is the second leading cause of severe illness and mortality in Zimbabwe. The most significant contributing factor to the TB burden is the HIV/AIDS epidemic. Approximately 80 percent of TB patients are co-infected with HIV. This co-infection remains a major factor propelling the high death rate among TB patients in Zimbabwe. Most cases of TB are found in the urban areas of Zimbabwe. Over the last five years, the number of TB cases detected annually has ranged between 40,000 and 48,000.

The challenge is that Tuberculosis is a leading killer of HIV-positive people worldwide. HIV and TB form a lethal combination, each speeding the other's progress. In 2015 , 33% of HIV death was due to TB. In 2014 there were an estimated 1.2 million new cases of TB amongst people who were HIV-positive, 74% of whom were living in Africa. The other challenge is the development of TB that is resistant to the current drugs being used. Globally in 2014 , an estimated 480 000 people developed multidrug-resistant TB (MDR-TB).

A lot of work has been done by WHO and several governments all over the world to reduce TB. I am pleased that the Millennium Development Goal target of halting and reversing the TB epidemic by 2015 was met globally. TB incidence has fallen by an average of 1.5% per year since 2000 and is now 18% lower than the level of 2000. The TB death rate dropped 47% between 1990 and 2015. An estimated 43 million lives were saved through TB diagnosis and treatment between 2000 and 2014.

I now support this year's theme of uniting to end TB . I also support ending the TB epidemic by 2030 which is among the health targets of the newly adopted Sustainable Development Goals.

How is Tuberculosis spread?

TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they push the TB germs into the air. A person needs to breathe in only a few of these germs to become infected. About one-third of the world's population has latent TB, which means people have been infected by TB bacteria but are not (yet) ill with the disease and cannot transmit the disease. People infected with TB bacteria have a 10% lifetime risk of falling ill with TB. However, persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a much higher risk of falling ill.

When a person develops active TB disease, the symptoms (cough, fever, night sweats, weight loss etc.) may be mild for many months. This can lead to delays in seeking care, and results in transmission of the bacteria to others. People with active TB can infect 10-15 other people through close contact over the course of a year. Without proper treatment, 45% of HIV-negative people with TB on average and nearly all HIV-positive people with TB will die. This means that we need to diagnose TB early and treat it as well.

So who is at high risk of getting TB ?

All age groups are at risk of getting Tuberculosis but your location plays an important role. Over 95% of cases and death are in developing countries. Underlying infection such as HIV puts one at high risk. People who are infected with HIV are 20 to 30 times more likely to develop active TB. The risk of active TB is also greater in persons suffering from other conditions that impair the immune system. Tobacco use greatly increases the risk of TB disease and death. More than 20% of TB cases worldwide are attributable to smoking.

What are the Symptoms of TB and how is it diagnosed?

Common symptoms of active lung TB are cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats. Please do not ignore these symptoms as you will put your health at risk and of others. Many countries still rely on a long-used method called sputum smear microscopy to diagnose TB. Trained laboratory technicians look at sputum samples under a microscope to see if TB bacteria are present. With 3 such tests, diagnosis can be made within a day, but this test does not detect numerous cases of less infectious forms of TB.

Diagnosing MDR-TB and HIV-associated TB can be more complex. A new 2 hour test that has proven highly effective in diagnosing TB and the presence of drug resistance is now being rolled-out in many countries.

Tuberculosis is particularly difficult to diagnose in children. Children do not produce sputum as they tend to swallow it. They cannot accurately tell us how they are feeling which is vital in diagnosis.

How is Tuberculosis treated ?

The most encouraging thing about TB is that it is treatable and curable. Active, drug-susceptible TB disease is treated with a standard 6 month course of 4 antimicrobial drugs that are provided with information, supervision and support to the patient by a health worker or trained volunteer. Without such support, treatment adherence can be difficult and the disease can spread. The vast majority of TB cases can be cured when medicines are provided and taken properly.

Multidrug-resistant TB

Standard anti-TB drugs have been used for decades, and resistance to the medicines is widespread. WHO said that disease strains that are resistant to a single anti-TB drug have been documented in every country surveyed. Multidrug-resistant tuberculosis (MDR-TB) is a form of TB caused by bacteria that do not respond to, at least, isoniazid and rifampicin, the 2 most powerful, first-line (or standard) anti-TB drugs. A primary cause of MDR-TB is inappropriate treatment. Inappropriate or incorrect use of anti-TB drugs, or use of poor quality medicines, can cause drug resistance.

Disease caused by resistant bacteria fails to respond to conventional, first-line treatment. MDR-TB is treatable and curable by using second-line drugs. However second-line treatment options are limited and recommended medicines may not be always available. The extensive chemotherapy required (up to 2 years of treatment) is more costly and can produce severe adverse drug reactions in patients.

In some cases, more severe drug resistance can develop. Extensively drug-resistant TB, (XDR-TB) ,is a form of multi-drug resistant tuberculosis that responds to even fewer available medicines,

including the most effective second-line anti-TB drugs.

About 480 000 people developed MDR-TB in the world in 2014. More than half of these cases were in India, the People's Republic of China and the Russian Federation. It is estimated that about 9.7% of MDR-TB cases had XDR-TB.

What can we do or what can be done ?

Tuberculosis is a worldwide problem and calls for concerted effort from all stakeholders. I call upon all governments to fully engage with the WHO strategy in addressing TB.

WHO is providing global leadership on matters critical to TB. It has also developed evidence-based policies , strategies and standards for TB prevention, care and control, and monitor their implementation. WHO provide technical support to Member States, catalyze change, and build sustainable capacity. It also monitor the global TB situation, and measure progress in TB care, control, and financing. WHO shapes the TB research agenda and stimulate the production, translation and dissemination of valuable knowledge.

I endorse the WHO End TB Strategy, adopted by the World Health Assembly in May 2014. This is a blueprint for countries to end the TB epidemic by driving down TB deaths, incidence and eliminating catastrophic costs. It outlines global impact targets to reduce TB deaths by 90% and to cut new cases by 80% between 2015 and 2030, and to ensure that no family is burdened with catastrophic costs due to TB.

Ending the TB epidemic by 2030 is among the health targets of the newly adopted Sustainable Development Goals. WHO has gone one step further and set a 2035 target of 95% reduction in deaths and a 90% decline in TB incidence - similar to current levels in low TB incidence countries today.

The WHO strategy needs integrated patient-centred care and prevention. This means that patients must be at the heart of decision making and the care of patients must be joined up. The patient must be treated as a whole person and the family must be supported. Views of the patients must be taken into consideration and reasons must be given if their views are not utilised.

The strategy needs bold policies and supportive systems so that the aims of the strategy are realised . This also calls fir intensified research and innovation as the bacteria that causes TB is getting clever and clever everyday. Drug resistance is a threat to all the gains that have been achieved so far.

WHO have said that the success of the Strategy will depend on countries respecting the following 4 key principles as they implement the interventions:

- 1- government stewardship and accountability, with monitoring and 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

In conclusion

We are all called to action to end TB in our community. We all have a role to play . Let us work glove and hand with our local health leadership. We need to take ownership of our health and do our part. We must not engage in lifestyles that put our health at risk and we must also present early to our doctors for diagnosis and treatment of TB. Taking medication as instructed will see us making a quick recovery and end this disease.

Dr Chireka would to give credit to WHO for up to date information provided in compiling this article .

This article was compiled by Dr Brighton Chireka who is a GP and a Health Commissioner in South Kent Coast in the United Kingdom. You can contact him at: info@docbeecee.co.uk and can read more of his work on his blog (over 80 articles so far) at [DR CHIREKA'S BLOG](#)

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