

Challenging TB in Bangladesh

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Each year, we commemorate World Tuberculosis (TB) Day on March 24 to raise public awareness about the devastating health, social and economic consequences of TB, and to step up efforts to end the global TB epidemic.

TB remains the world's deadliest infectious killer. Each day, nearly 4,500 people lose their lives to TB and close to 30,000 people fall ill with this preventable and curable disease. Global efforts to combat TB have saved an estimated 54 million lives since the year 2000 and reduced the TB mortality rate by 42%.

The theme of World TB Day 2019 — 'It's time' — puts the accent on the urgency to act on the commitments made by global leaders to:

- Scale up access to prevention and treatment
 - Promote equitable, rights-based and people-centred TB response
 - Ensure sufficient and sustainable financing including for research
 - Promote an end to stigma and discrimination
 - Build accountability
- Bangladesh scenario:** There is a huge TB burden in Bangladesh. In Bangladesh the numbers of the incidence of TB in the population is not going down dramatically. That means we have a long way to go to combat the

Disease Burden 2017 ¹	
Number of cases per 100,000 population	221
Percentage of global burden	3.6
Number of people who fell ill	364,000
Of those who fell ill, % not diagnosed or notified	33
TB deaths	60,000

TB Financing 2018 ²	
National TB budget	USD 66 million
Funded	69%

United Nations Targets (Number of cases, cumulative 2018–2022) ³	
Diagnosis and treatment	1,534,500
MDR	17,133
Prevention	969,300
Child TB	110,000

Source: The original report "Building a tuberculosis-free world: The Lancet Commission on tuberculosis" was published in The Lancet on March 20, 2019 available at www.thelancet.com/commissions/tuberculosis-free-world

disease. Moreover, the burden of drug resistant TB is on the rise.

The burden in the urban area and some pocket areas in the country is an added threat. On top of this, the prevalence of TB patients in some particular population like children, healthcare providers, HIV/AIDS patients are very difficult to handle.

Whereas the government is trying to extend support to the patient pool, there are obvious

resource constraint that hinders the pathway to curve down the number of patients with a very short period of time.

Although the donor communities are supporting the government to mitigate the problem, there are ample opportunities to deal with TB burden.

Dr Abu Jamil Faisel, a Senior Technical Director of 'Challenge TB' project funded by USAID, expressed his optimistic view of

Bangladesh Report Card		
Meets UN diagnosis and treatment targets ⁴	Drug sensitive TB	Approaching target
	Multi-drug resistant TB	Needs improvement
	Children with TB	Needs improvement
Provides universal health coverage and health equity	National public-sector financing ⁵	Needs improvement
	SDG 1.3 Social protection system ⁶	Approaching target
	SDG 3.8.2 Catastrophic health expenditure ⁷	On target
	SDG 3.8.1 UHC service coverage score ⁸	Approaching target
	SDG 2.1 Prevalence of under-nourishment ⁹	Approaching target
Addresses multi-sectoral drivers of TB	SDG 3.3 ART access for HIV+ patients ¹⁰	Needs improvement
	Tobacco taxation ¹¹	On target
	SDG 3.9 Air pollution ¹²	Needs improvement
	Political will	Low ¹³

combating the disease. But again, considering the constraints at different avenues, the fight is not likely to be short-lived.

In an interview with the Star Health, he highlighted some dire need of improvement in the holistic efforts to end TB. Like many other development initiatives, the lack of coordination with different government mechanisms and bodies are very crucial. Recently, the report "Building a

tuberculosis-free world: The Lancet Commission on tuberculosis" published the country report cards. It clearly revealed the room for paying immediate attention including the political will.

It is a matter of hope that the Government of Bangladesh is already committed to lower the disease burden. But it just needs a boost and some additional robust emphasis form the top level of country leadership. Global initiative: WHO has launched a joint initiative "Find. Treat. All. #EndTB" with the Global Fund and Stop TB Partnership, with the aim of accelerating the TB response and ensuring access to care, in line with WHO's overall drive towards Universal Health Coverage.

On this World TB Day, WHO calls on governments, affected communities, civil society organisations, health-care providers, and national/international partners to unite forces under the banner "Find. Treat. All. #EndTB" to ensure no one is left behind.

It is time for action! It is time to End TB. It is time to bring tuberculosis out of the shadows.

The interview of Dr Abu Jamil Faisel is available on YouTube at <https://youtu.be/rxmnUID-mmw> or simply scan the QR code.



DID YOU KNOW?

TB is not only a disease of the lungs

Tuberculosis (TB) is caused by bacteria *Mycobacterium Tuberculosis* that most often affect the lungs. Tuberculosis is curable and preventable. It is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale 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 disease and cannot transmit the disease.

TB in the lungs or throat (pulmonary TB) are the only forms of the illness that are infectious, which means it can be passed on to other people. However, TB can also affect any other part of the body including kidneys, brain or bones. This is called non-pulmonary TB — and these are not infectious.

When someone with TB in their lungs or throat coughs or sneezes, they send droplets into the air that contain the TB bacteria. If you breathe in these bacteria over a long time you may become ill with TB. But most people will not get ill because:

- you normally need to spend many hours close to a person with infectious TB to breathe in enough bacteria to be at risk
 - most people's immune systems are strong enough to kill off TB bacteria
- TB cannot be spread through touch, sharing cutlery, bedding or clothes**
- People infected with TB bacteria have a lifetime risk of falling ill with TB of 10%. 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.

HEALTH bulletin



New recommendations to accelerate progress on TB

The World Health Organisation (WHO) has issued new guidance to improve treatment of multidrug resistant TB (MDR-TB). WHO is recommending shifting to fully oral regimens to treat people with MDR-TB.

This new treatment course is more effective and is less likely to provoke adverse side effects. WHO recommends backing up treatment with active monitoring of drug safety and providing counselling support to help patients complete their course of treatment.

The recommendations are part of a larger package of actions designed to help countries increase the pace of progress to end tuberculosis (TB) and released in advance of World TB Day. The WHO package is designed to help countries close gaps in care ensuring no one is left behind.

TB is the world's top infectious disease killer, claiming 4,500 lives each day. The heaviest burden is carried by communities facing socio-economic challenges, those working and living in high-risk settings, the poorest and marginalised.

The WHO consolidated guidelines on drug-resistant is available at <http://bit.ly/TBguideline2019>

Targets to eliminate TB within a generation

STAR HEALTH REPORT

A world free of tuberculosis (TB) is possible by 2045 if increased political will and financial resources are directed towards priority areas including providing evidence-based interventions to everyone, especially to high risk groups, and increasing research to develop new ways to diagnose, treat, and prevent TB. Funding this response will require substantial investments, and accountability mechanisms will be necessary to ensure that promises are kept and targets are reached.

Published ahead of World TB Day today, The Lancet Commission on TB estimates that there are significant financial benefits of reducing TB mortality — the savings from averting a TB death are estimated to be three times the costs, and may be much greater in many countries.

TB remains the leading infectious killer of our time, responsible for 1.6 million deaths worldwide in 2017, with drug-resistant forms of TB threatening control efforts in many parts of the world. In addition, in 2017, around a quarter of the world's population were living with TB infection.

The World Health Organisation (WHO) first declared TB a public health crisis in 1993, and in 2018 the first-ever UN High-Level Meeting (UNHLM) on TB made ending the disease a global priority. This included ambitious goals to

- Tuberculosis can be treated, prevented and cured, yet it kills 1.6 million people a year, more people than any other infectious disease.
- The savings from averting a TB death are estimated to be three times the costs, and may be much greater in many countries.

treat 40 million people, and to prevent 30 million new cases between 2018-2022.

The Lancet Commission on TB makes policy and investment recommendations to countries with high levels of TB and their development partners.

Scaling up existing interventions and reaching high risk groups The first priority for most high burden countries is to ensure that high quality diagnostic tests and treatments are available for all people with active TB.

Many people with TB, especially the poorest, cannot access or afford services, and health systems are often slow to identify and investigate cases, meaning patients do not complete treatment or recover. Currently more than a third of TB cases (35%) are not diagnosed or treated. The authors call for universal access to drug susceptibility testing at diagnosis to ensure that all patients are given appropriate

treatment, including access to second-line treatment for drug-resistant TB.

Identifying groups at high risk of TB infection (including people with HIV, people living in the same house as someone with TB, migrants, prisoners, health care professionals, and miners) and bringing them into care will be vital, including offering TB prevention, such as treating latent TB. This is particularly important in people with HIV, where risk of co-infection is high and TB is the leading cause of death.

Once high-risk populations and those already in care have access to affordable, high quality services, introducing universal health coverage is needed to help countries find remaining TB cases.

Investing in TB However, even if current treatments were extended to 90% of people with TB, and 90% were successfully cured, existing efforts would have failed to avert 800,000 deaths in 2017. Global research investment needs to increase by up to four times (from US\$726 million in 2016) to develop treatments and prevention tools that would transform TB outcomes.

Affected countries, donor nations, private sector, and philanthropies must also devise effective financing strategies to end the TB epidemic.

Source: The Lancet



Facts about XDR-TB

XDR-TB, an abbreviation for extensively drug-resistant tuberculosis (TB), is a form of TB which is resistant to at least four of the core anti-TB drugs. XDR-TB involves resistance to the two most powerful anti-TB drugs, Isoniazid and Rifampicin, also known as multidrug-resistant (MDR-TB), in addition to resistance to any of the Fluoroquinolones (such as Levofloxacin or Moxifloxacin) and to at least one of the three injectable second-line drugs (Amikacin, Capreomycin or Kanamycin).

MDR-TB and XDR-TB both take substantially longer to treat than ordinary (drug-susceptible) TB, and require the use of second-line anti-TB drugs, which are more expensive and have more side-effects than the first-line drugs used for drug-susceptible TB.

If TB bacteria are found in the sputum, the diagnosis of TB can be made in a day or two. To confirm XDR-TB, however, it may take from 6 to 16 weeks.

XDR-TB patients can be cured, but with the current drugs available, the likelihood of success is much smaller than in patients with ordinary TB or even MDR-TB. Cure depends on the extent of the drug resistance, the severity of the disease and whether the patient's immune system is compromised.



/StarHealthBD

TUBERCULOSIS (TB)

is a disease caused by a bacterium called *Mycobacterium Tuberculosis*. The bacteria usually attack the lungs, but TB bacteria can attack any part of the body such as the kidney, spine and brain. If not treated properly, TB disease can be **fatal**.

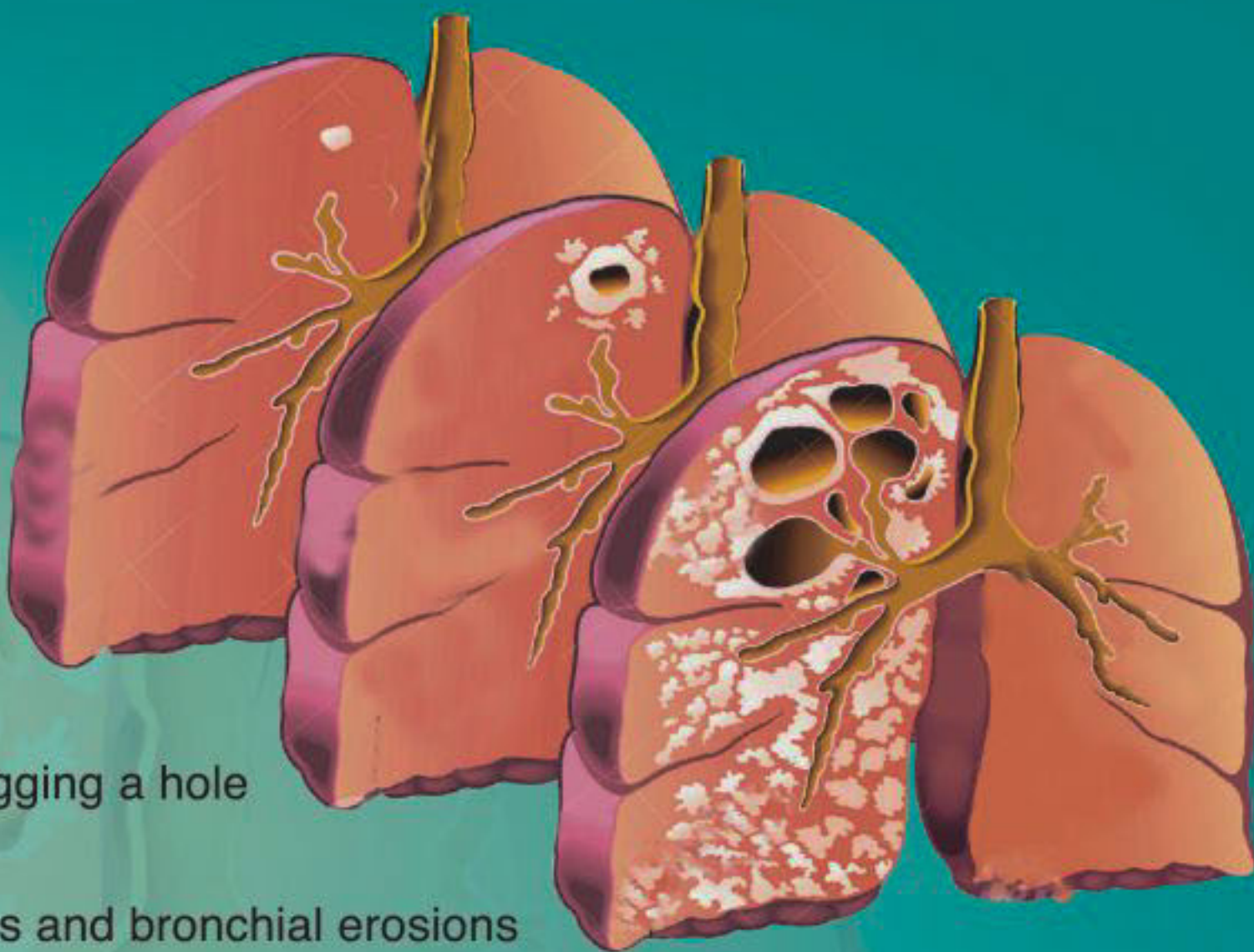
SIGNS & SYNMPTOMS

- A bad cough that lasts 3 weeks or longer
- Pain in the chest
- Coughing up blood or sputum
- Weakness or fatigue
- Weight loss
- No appetite
- Chills
- Sweating at night
- Fever

VACCINATION

Bacille Calmette-Guerin (BCG) is a vaccine for tuberculosis (TB) disease.

It is often given to infants and small children in many countries where TB is common. BCG does not always protect people from getting TB though.



Tuberculous infection initial in the right upper lobe

The initial plaque progresses digging a hole

Formation of numerous cavities and bronchial erosions

Ref: Centers for Disease Control and Prevention (CDC)



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