

## WEEKLY EPIDEMIOLOGICAL REPORT

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#### Can we eliminate Tuberculosis? Part

This is the first article of series of two articles.

Tuberculosis is an infectious disease caused by the bacillus *Mycobacterium Tuberculosis* which is spread when people who have active disease expel bacteria into the air. It is a major cause of health deterioration and death worldwide. The disease could affect any organ in the body except hair and nail. Once a person is infected with TB, the disease could develop later at any time. The risk of developing TB disease in an infected person is 5-10% for the entire life.

TB is curable and preventable. About 85% of people with TB disease can be cured with the ideal 6-months drug regime. When a diseased person takes anti-TB drugs for 2 weeks with the correct dose, correct combination, at the correct time they stop the spread of bacillus into the environment. Therefore, identification of TB patients and treatment on time with standard anti-TB drugs is the key to preventing TB. Contact tracing and other infectious control measures are the next steps that help to minimize the disease spread.

### Global status of Tuberculosis

Although TB is preventable, it is prevailing

in all countries. Is it a dream, the elimination of TB from the earth in near future? Let us investigate the latest global report on TB by WHO.

In 2020, over 15 million people died of TB including 214,000 HIV-positive deaths. TB is the 13th leading cause of death in the world and the second leading infectious cause of death. The estimated total number of cases of TB disease was 10 million in 2020. Among them, 1.1 million were children. 30 high-burden countries were identified, and their contribution is 86% of the total TB cases. The largest number of TB cases was reported from the Southeast Asia region. The cumulative reduction of TB incidents between 2015 and 2020 was 11%, although the estimated reduction was 20% in the strategy. "Multidrug-resistant TB is remaining as a threat to public health. By 2022, US\$ 13 billion is needed annually for TB prevention, diagnosis, treatment, and care to achieve the global target agreed at the UN high-level meeting on TB in 2018." (WHO)

# History and the status of Tuberculosis in Sri Lanka

The history of TB in Sri Lanka is longer than many centuries. The first step in TB

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control was taken in 1910 by establishing the Tuberculosis commission. In 1916, the first TB detection centre was started in pettah, Colombo. Inward treatment facilities for treatment were first established in 1917 at Ragama hospital followed by Kandana in 1919 and Kankasanthurai in 1930. The military hospital for infectious diseases established in Welisara for soldiers has later converted into a TB hospital in 1946. It is the National Hospital for Respiratory Diseases today in Sri Lanka. The anti-TB campaign was launched in 1945 and pulmonary TB was named a notifiable disease in the country in 1948. The TB campaign was renamed as National Program for Tuberculosis control and chest diseases in 2001. After introducing the standard anti-TB drug regime in 2005, the drugs were provided by the Global Centre for Drug Supply free of charge.



In the Global TB report 2021 Sri Lanka is named as a low-burden country for Tuberculosis. Usually, 7000 to 9,000 TB cases are reported each year. Although the estimated TB incidence rate is **64/per 100,000 population**, the real incident rate falls below it. In 2020, it was reduced to **32.2/100,000**, the lowest incident rate reported in the last 15 years, most probably owing to the Covid 19 pandemic that affected the country. The total number of cases detected in all forms of TB is 7258 in the same year. It was 8434 in 2019. Among the total new cases (6686), 4758 were pulmonary TB cases. Majority of pulmonary TB cases were bacteriologically confirmed cases (3734) that were spreading the infection to others significantly.

WHO has defined the elimination of TB, as a rate of TB of 1 in every million persons, or a case rate of 0.1 per/per100,000 population). Currently, we are very far from that target. If we consider the epidemiology of TB in the country, the highest number was reported from Colombo in a few consecutive years followed by Gampaha, Kalu-

tara, Kandy, Rathnapura, and Galle. Western province is the most populated area in the country where there is a high chance of the spread of infectious diseases. And, poor socioeconomic status, low income, poor hygiene, high population density, (slums, flats, institutional lodges), and higher prevalence of illicit drugs in the area are some contributing factors to get this result. In contrast, Kilinochchi, Mannar, and Mullative districts, continuously reported a low number of cases. The population in that area is lower when compared to the other part of the country. Even though we are very far from the elimination targets of TB (0.1per 100,000), still in a better position when compared to other states in the region. The age distribution of TB cases usually falls into the economically productive age groups. But in 2020, It deviated to the old age group.

The incidence of Multi-Drug Resistant TB rates is lower in Sri Lanka compared to other countries in the region. The total number of MDR-TB cases was 12, 21, and 18 in 2018, 2019, and 2020, respectively. Treatment access rates among them were 100% each year. Very importantly MDR-TB is not community transmitted here. Most of the time it is acquired outside the country.

HIV testing of all TB patients was made mandatory in 2013. In 2020, a total of 33 cases were diagnosed with HIV-TB co-infection. Among them, 20 were already diagnosed with HIV before getting the TB, and others were detected after diagnosing TB. Unlike TB, HIV is not a common disease in SL.

In 2020, only 12 foreign nationals were detected with TB. So, the major contribution of TB in the country is from the community transmission of TB within the country.

The treatment success rate in all forms of TB in 2019 is 84.2% for which the target is 90%. And the TB Death rate is 7.1 while the WHO acceptable rate is 3-5%. Even the sputum conversion rate for the new bacteriologically confirmed pulmonary TB cohort is (79.2%) not closer to the WHO-recommended target of 90%.

### Compiled By, Dr.V.U. Jayasinghe

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Page 2 to be continued ...

Tab	uble 1: Selected notifiable diseases reported by Medical Officers of Health 16 <sup>th-</sup> 22 <sup>nd</sup> Jul 2022 (29 <sup>th</sup> Week)																												
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Table 2: Vaccine-Preventable Diseases & AFP

16th- 22nd Jul 2022 (29th Week)

Disease		N	lo. of	Case	es by	y Pro	ovino	Number of cases during current	Number of cases during same	Total number of cases to date in	Total num- ber of cases to date in	Difference between the number of cases to date			
	w	С	S	N	Е	NW	NC	U	Sab	week in 2022	week in 2021	2022	2021	in 2022 & 2021	
AFP*	00	00	00	00	00	00	00	00	00	00	00 44		28	57.1 %	
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %	
Mumps	00	00	00	00	00	00	00	00	00	00	01	35	50	- 30 %	
Measles	00	00	00	00	01	00	00	00	00	01	00	14	09	55.5 %	
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %	
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %	
Tetanus	00	00	00	00	00	00	00	00	00	00	00	05	02	150 %	
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %	
Japanese En- cephalitis	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %	
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %	
Tuberculosis	00	20	02	18	20	08	22	04	26	120	123	3254	3085	5.4 %	

### Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna,

KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam,

AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP\* (Acute Flaccid Paralysis ), Japanese Encephalitis

CRS\*\* =Congenital Rubella Syndrome

NA = Not Available

Number of Malaria Cases Up to End of July 2022,

04

All are Imported!!!

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication

### ON STATE SERVICE

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