ANNUAL REPORT 2021





Advisory Panel

Dr. H.D.B. Herath - Director/ NPTCCD

Dr. Nirupa Pallewatte - Deputy Director/ NPTCCD

Writing Panel

> Dr. Hemali Jayasekera - Consultant Community Physician

> Dr. Kasuni Kalubowila - Acting Consultant Community Physician

> Mr. Janaka Thilakarathne - Medical Records Officer

Editorial Panel

Dr. Onali Rajapaksha - Consultant Community Physician

Dr. Mizaya Cader - Consultant Community Physician

Dr. Shalika Chularatna - Registrar - Health Informatics

TABLE OF CONTENT

	TABLE OF CONTENT	2
	LIST OF TABLES	4
	LIST OF FIGURES	5
	LIST OF ABBREVIATIONS	6
	MESSAGE FROM THE DIRECTOR	7
	PREFACE	8
PΑ	RT I	9
PR	OGRESS REPORT	9
	1. INTRODUCTION	10
	National Programme for Tuberculosis Control and Chest Diseases	10
	Key messages:	10
	Sustainable Development Goals & End TB Strategy	11
	2. METHODS	13
	2.1 Notification system:	13
	2.2 Treatment outcomes for TB patients	14
	2.3 Notification rate of all TB cases	16
	3. RESULTS	19
	3.1 Surveillance of Tuberculosis	19
	3.2 Incidence of Tuberculosis	19
	3.3 Case Detection of TB	20
	Extra Pulmonary TB	26
	New EPTB Case Detection	26
	Sites of EPTB Cases	26
	Previously treated TB Cases	28
	Multi Drug Resistant Tuberculosis (MDR-TB)	29
	TB/HIV Co-Infection	30
	TB Among Health Care Workers	31
	TB Among Foreign Nationals	32
	Treatment Outcome of HIV/TB Confected Cases	32
	Sputum conversion among pulmonary TB patients	33

3.4 Treatment outcome of TB patients	33
Treatment Outcome of PTB Cases	37
Treatment Outcome of New Bacteriology confirmed PTB cases	39
Treatment Outcome of clinically diagnosed cases	40
Treatment Outcome of WRD cases	41
Treatment Outcome of previously treated patients	42
Treatment Outcome of Sputum Negative and Culture Positive Cases	42
3.5 DOTS coverage	44
PART II	46
ACTIVITY REPORT	46
Major Challenges	51
Major challenges in respiratory disease control	52
PART III	53
Administration Report	53
OPD Attendance and Ward Admissions	54
Laboratory Services	54
External Quality Assurance of Sputum Microscopy	55
X-Ray Facilities	55
BCG Vaccination	55
Detailed Tables	56

LIST OF TABLES

Table 2: depicts the distribution of Primary and Miliary TB cases over the years, from 2010 – 202 Table 3: MDR patients reported and their treatment enrollment 2010 - 2021 Table 4: Outcome of MDR-TB for previous years Table 5: Outcomes of HIV patients reported from the districts	29 32 36 45
Table 4: Outcome of MDR-TB for previous years	29 32 36 45
	32 36 45
Table 5: Outcomes of HIV patients reported from the districts	36 45
	45
Table 6: Treatment outcome summary of all forms of TB 2020	
Table 7: Population coverage of DOTS in the country is 100% since 2010	
Table 8: Testing by WHO recommended Rapid Diagnostics in 2021	55
Table 9: Annual Mortality of All TB Cases from 2006-2021	57
Table 10: Distribution Rates of all TB cases by District of Residence in 2021	58
Table 11: All TB Case Detection by District of Registration in 2021	
Table 12: Distribution of New Cases of TB by Province in 2021	60
Table 13: Distribution of new cases of TB by Age and Type in 2021	61
Table 14: Distribution of New Cases of TB by Age and Sex in 2021	61
Table 15: Age and Sex Distribution of All New TB Cases by District in 2021	62
Table 16: Age and Sex Distribution of Smear Positive New TB Cases by District in 2021	63
Table 17: Age and Sex Distribution of Smear Negative New TB Cases by District in 2021	64
Table 18: Age and Sex Distribution of All New PTB Cases by District in 2021	65
Table 19: Age and Sex Distribution of New EPTB Cases by District in 2021	66
Table 20: Distribution of Treatment Outcome of All forms of TB by Districts in 2020	67
Table 21: Distribution of Treatment Outcome of All Forms of New (PTB and EPTB) Cases by Distr	ct in
2020	68
Table 22: Distribution of Treatment Outcome of All New PTB Cases by District in 2020	69
Table 23: Distribution of Treatment Outcome of New Sputum Positive PTB Cases by District in 20	20
	70
Table 24: Distribution of Treatment Outcome of New Sputum Negative PTB Cases by District in 2	020
	71
Table 25: Distribution of Treatment Outcome of EPTB Cases by District in 2020	72
Table 26: Distribution of Treatment Outcome of Re-Treatment TB Cases by District in 2020	73
Table 27: Distribution of Treatment Outcome of Other TB Cases by District in 2020	74
Table 28: Distribution of Sputum Conversion of New PTB Cases at the End of the Intensive Phase	by
District in 2020	75
Table 29: Distribution of Sputum Conversion of Re-Treatment PTB Cases at the End of the Intens	ive
Phase by District in 2020	76
Table 30: All TB Case Detection by category by District of Registration in 2020	77
Table 31: Distribution of Treatment Outcome of WRD TB Cases by District in 2020	78
Table 32: Distribution of Treatment Outcome of Sputum Negative Culture Positive TB Cases by	
District in 2020	79

LIST OF FIGURES

Figure 1: Tuberculosis incidence rates from 2005 to 2021	19
Figure 2: Case detection of TB by type in 2005 - 2021	20
Figure 3: Case Detection of TB by Type in 2021	21
Figure 4: TB case detection by district of registration in 2021	21
Figure 5: The map of Sri Lanka with TB case detection by district – 2021	22
Figure 6: Percentage distribution of new cases of TB by type and district in 2021	23
Figure 7: Distribution of new bacteriological confirmed pulmonary TB cases by district - 2021	24
Figure 8: Distribution of clinically diagnosed new PTB Cases by district 2021	25
Figure 9: Distribution of all new TB cases by age groups and sex in 2021	25
Figure 10: Distribution of new extra Pulmonary TB cases by district in 2021	26
Figure 11: Distribution of Meningitis and Primary TB cases from 2010-2021	28
Figure 12: Proportion of previously treated categories by district in 2021	28
Figure 13: Number of MDR-TB cases against the treatment success rate-2013-2019	30
Figure 14: District distribution of Multi Drug Resistant Tuberculosis by District in 2020	30
Figure 15: Percentages and Numbers of TB/HIV screening 2010-2021	31
Figure 16: Distribution of Health Workers (36 Patients) Detected 2021	31
Figure 17: Sputum Conversion Percentage of New Smear-Positive Cases by District	33
Figure 18: Treatment Success Rate of All Forms of TB in 2010-2020	34
Figure 19: Treatment Success Rate of All Forms of TB by Districts in 2020	35
Figure 20: Treatment outcome summary of all forms of TB in 2020	37
Figure 21: Treatment Outcome of Pulmonary TB Cases from 2005-2020	38
Figure 22: Treatment Success Rates of New Bacteriologically confirmed PTB Cases by Districts in	ı
2020	40
Figure 23: Treatment Success Rates of New clinically diagnosis cases by Districts in 2020	41
Figure 24: Treatment Success Rates of WRD cases by Districts in 2020	41
Figure 25: Treatment Outcome Summary of Bacteriologically Diagnosed TB Patients in 2020	42
Figure 26: Treatment Outcome Summary of Clinically Diagnosed TB Patients in 2020	43
Figure 27: Treatment Outcome Summary of Extra Pulmonary TB Patients in 2020	43
Figure 28: Treatment Outcome Summary of Re-Treatment TB Patients in 2020	43
Figure 29: Treatment Outcome Summary of Treatment History Unknown TB Patients in 2020	44
Figure 30: All TB cases detected in 2021	
Figure 31: Incidence new and relapse - 2021	81
Figure 32: Case detection rate - 2021	82
Figure 33: Treatment success of all forms of TB – 2020	83

LIST OF ABBREVIATIONS

AFB Acid Fast Bacilli

AIDS Acquired Immune Deficiency Syndrome

BCG Bacillus Calmette-Guerin

DCC District Chest Clinic

DOTS Directly Observed Therapy Short course

DST Drug Susceptibility Testing

DTCO District Tuberculosis Control Officers

EPTB Extra Pulmonary Tuberculosis
EQA External Quality Assessment

FDC Fixed Dose Combination

GDF Global Drug Facility

GFATM Global Fund to fight AIDS, Tuberculosis and Malaria

HIV Human Immune Deficiency Virus

IEC Information, Education and Communication

MDG Millennium Development Goals

MDR-TB Multi Drug Resistant Tuberculosis

NPTCCD National Program for Tuberculosis Control and Chest Diseases

NTRL National Tuberculosis Reference Laboratory

OPD Outpatient Department
PTB Pulmonary Tuberculosis

SAARC South Asian Association for Regional Cooperation

SEARO Regional Office for South-East Asia (WHO)

STAC SAARC Tuberculosis and AIDS Centre

TB Tuberculosis

WHO World Health Organization

MESSAGE FROM THE DIRECTOR

The National Programme for Tuberculosis Control and Chest Diseases (NPTCCD), as the main focal point at the national level, is responsible for controlling the TB burden in the country and has taken the initiative to achieve End TB targets and objectives by the year 2035 through strengthening active case finding, standard management for patients with TB, and enhancing preventive measures. Since Sri Lanka has an effective TB and chest disease control programme, there were challenges in implementing some parts of the programme due to the COVID-19 pandemic and the lockdown situation in the country for the year 2021. The directorate works closely with relevant ministerial units, other state and private sector stakeholders, and community entities and collaborates with the WHO and the Global Fund to reach the End TB targets.

We appreciate the continuous commitment rendered by the staff of all district chest clinics in Sri Lanka, as well as the commitment made by patients and their relatives who came forward to comply with treatment and collaborate to reduce the stigma associated with TB despite COVID- 19 situation in the country.

Dr. H.D.B. Herath,

Director

NPTCCD

PREFACE

The annual report of the National Programme for Tuberculosis Control and Chest Diseases (NPTCCD) is an annual publication on activities and achievements of tuberculosis (TB) and chest diseases control in Sri Lanka for the year 2021.

The objective of this annual report is to provide information to a wide range of stakeholders on the progress and performance of TB control activities in Sri Lanka.

It comprises three parts.

Part I: Provides the performance of NPTCCD. Data collected during 2021 are analyzed and presented. These findings could be useful for policymakers to provide necessary decisions on improving TB services. In addition, District Tuberculosis Control Officers (DTCO) and other provincial or district-level health professionals can utilize this information to focus their activities more precisely to reach national targets of TB control.

Part II: Provides information regarding the TB control activities carried out in Sri Lanka in 2021 at the national and district level.

Part III: Describes the administrative framework of the NPTCCD and facilities affiliated with TB control services.

PART I PROGRESS REPORT

1. INTRODUCTION

National Programme for Tuberculosis Control and Chest Diseases

National Programme for Tuberculosis Control and Chest Diseases (NPTCCD) is a central level organization in the Ministry of Health and Indigenous Medical Service, which is headed by the Director/ NPTCCD. The programme functions under the Deputy Director General (Public Health Services I) of the Ministry of Health. The central unit of the NPTCCD, National Tuberculosis Reference Laboratory (NTRL), Central Drug Stores (CDS) of the NPTCCD, District Chest Clinics (DCCs) of Colombo and Gampaha are under the direct administrative purview of the Director NPTCCD.

Tuberculosis (TB) continues to be a public health problem in the country and the estimated incidence in 2021, is 64/ 100,000 population. Around 7000-9000 cases are reported every year and the ratio for new pulmonary to new EPTB is 2.4 in 2021. Nearly 72% of total TB cases are pulmonary TB (PTB) while 79.6% of PTB are bacteriologically confirmed. There are 10 Multi Drug Resistant TB (MDR) patients reported in the country in 2021 and the number of people with TB/HIV co- infection is 48 (Number detected by screening in both TB and HIV programmes).

The NPTCCD is the national focal point for prevention and control of TB in the country. The services are provided through a network of 26 District Chest Clinics, 2 sub chest clinics, 108 branch clinics and 189 microscopic centers. Diagnostic culture facilities are available at National TB Reference Laboratory (NTRL) and Intermediate TB Laboratories at Rathnapura, Kandy, Jaffna and Galle.

Key messages:

- ➤ In 2021, 6537 incident cases (new and relapse cases; 29.7/100 000 population) were notified to the National Programme and there is a gap of around 4000 cases between the number notified and the number estimated for the country.
- > The observed inadequacies were
 - Less referrals from primary health care settings for sputum investigations leading to underutilization of microscopic centers

- Inadequate contact screening
- Mal distribution of trained manpower
- Poor involvement of non-governmental organizations and Community based organizations at district level
- Inadequate involvement of private sector
- > Treatment success rate for cohort of patients registered for treatment in 2020 was 82.2% and high death rate (7.6%) has contributed mainly to observed rate. Clinical practice has shown late presentation and comorbid factors as main reasons for deaths.

NPTCCD is responsible for infrastructure development and financial management of the institutions under its direct administrative purview. It also provides technical guidance and financial assistance from funds obtained from donor agencies for implementation of the TB control activities at the district level. In addition, NPTCCD is responsible for formulation of policies and guidelines for control of TB and other respiratory diseases and for planning, implementation, monitoring and evaluation of the TB control activities carried out in the entire country. TB surveillance is another main activity carried out by the NPTCCD. It also acts as a coordinating body between the central ministry and provincial health sector and other governmental and nongovernmental organizations.

NPTCCD carries out training of medical and paramedical staff engaged in TB care and carries out public awareness through various channels of communication. The Government of Sri Lanka is the main source of funding for the NPTCCD. In addition, TB control activities are supported by the Global Fund for AIDS, Tuberculosis and Malaria (GFATM). World Health Organization (WHO) and SAARC provide support for research and capacity development of healthcare staff involved in TB related activities.

Sustainable Development Goals & End TB Strategy

Sustainable Development Goals (SDGs) were set up in 2015 by the United Nations General Assembly and is intended to be achieved by 2030. It comprises 17 interlink goals. A goal for 'Good health' is included in SDG 3 to ensure healthy lives and promote well-being for all at all ages and includes 13 targets which are set for the period of 2016-2030. TB is described in target 3.3: "By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases". The

post 2015, Global TB strategy aims to end the global TB epidemic by 2035 and is linked with SDG.

The current National Strategic Plan (NSP) for 2021 - 2025, is developed in line with achieving the above stated goals. The stated objectives for the five-year period are as follows.

- To find and successfully treat, on average, between 2021 and 2025, 10,000 cases of drug sensitive TB annually including 600 children
- 2. To successfully treat, on average, each year between 2021 and 2025, 11,600 eligible cases for TB preventive treatment (TPT).
- 3. To properly engage the private sector in TB diagnosis and care, and ensure by end 2025, 30% of all cases notified are referred from the private sector.
- 4. To strengthen monitoring and evaluation of TB control activities at all levels.
- 5. To significantly increase the quality and quantity of operational research studies on TB.
- 6. To significantly improve the organization and management and control of TB activities.

The targets and milestones to End TB are as follows:

Table 1: Targets and Milestones to end TB

Indicator	Milestones for	Milestones for	Milestones for	End TB targets
	2020	2025	2030	for 2035
Percentage reduction in the	35% reduction	75% reduction	90% reduction	95% reduction
absolute number of TB	of deaths	of deaths	of deaths	of deaths
deaths (baseline 2015)				
Percentage reduction in the	20% reduction	50 % reduction	80% reduction	90% reduction
TB incidence rate (baseline	of incidence	of incidence	of incidence	of incidence
2015)				(10:100,000
				cases)
Percentage of TB patients	0%	0%	0%	0%
and their households				
experiencing catastrophic				
costs due to TB				

^{*}Based on WHO Global Tuberculosis Report 2021

2. METHODS

2.1 Notification system:

TB notification collects information on each reported case of TB for the surveillance of TB in Sri Lanka. It is carried out in both inward and OPD patients. Once the patient is sent home, it is important in follow up of patient, defaulter tracing and for range PHI to carryout field investigation targeting compliance, contact tracing, health education and infection control activities.

> TB Case Notification

TB is a notifiable disease since 1948. NPTCCD receives case notifications in a special form (Health 816 A) from District Chest Clinics, other government health institutions and from private health institutions. Once a TB patient is diagnosed at a chest clinic, he or she should be registered in the District TB Register and should be notified to Central unit of the NPTCCD and to National Epidemiological Surveillance System through Medical Officer of Health. Patients diagnosed at other institutions are also referred to the relevant chest clinics for registration, notification and further management.

> TB Death Notification

TB deaths are notified to the central unit by Health 814.A detailed report on deaths occurred among TB patients during the period of treatment are collected by form TB 17. Deaths due to TB are also notified to the Registrar General's Department through vital registration system.

Monthly and Quarterly Records and Returns

Data on case detection (TB-08), sputum conversion (TB-09), treatment outcome (TB-10), programme management (TB-12) and TB and Non-TB wards (TB-13) are collected quarterly from District Chest Clinics. The electronic patient information management system (ePIMS) was introduced to the system in 2018. The ePIMS constitute of five modules. At present, all the districts are entering data to the ePMIS in addition to maintaining paper-based records and returns.

TB screening activities in prisons and OPD returns on TB suspects are collected monthly on the standard data collection forms. Data on culture specimens are sent from NTRL to Central Unit. DTCOs are responsible for sending completed returns and reports accurately and timely.

Presentation of Data

NPTCCD analyses the data and compiles the national reports. Performance at district level is discussed at the review meetings held quarterly at NPTCCD as well as at the district reviews held annually in respective districts.

Dissemination of Data

NPTCCD provides information to government and international organizations such as Epidemiology unit and other units of Ministry of Health, Central Bank of Sri Lanka, WHO, SAARC, STAC, GFATM etc.

In addition, information on TB is provided to provincial and regional health authorities and to DTCOs for further reference and interventions.

2.2 Treatment outcomes for TB patients

Treatment outcomes for TB patients (excluding patients treated for RR-TB or MDR-TB using the second line anti-TB drugs) are as follows:

All bacteriologically confirmed and clinically diagnosed TB cases should be assigned an outcome from this list except those with RR-TB or MDR-TB3, who are placed on a second-line drug regimen.

Cured

A pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who is smear negative or culture negative in the last month of treatment and on at least one previous occasion.

Treatment completed

A TB patient who completed treatment without evidence of failure BUT with no record to show that sputum smear or culture results in the last month of treatment and on at least one previous occasion are negative, either because tests were not done or because results are unavailable.

Treatment failed

A TB patient whose sputum smear or culture is positive at month 5 or later during treatment.

Died

A TB patient who dies for any reason before starting or during the course of treatment.

Lost to follow-up

A TB patient who did not start treatment or whose treatment was interrupted for 2 consecutive months or more.

Not evaluated

A TB patient for whom no treatment outcome is assigned. This includes cases for whom the treatment outcome is unknown to the reporting clinic.

Treatment success

The sum of cured and treatment completed.

The main indices used to measure the progress in TB control are,

- Case notification Rate
- Case Detection Rate
- > Treatment Success Rate
- Sputum Conversion Rate
- Lost to follow up Rate
- Death Rate

2.3 Notification rate of all TB cases

The notification rate of all TB cases is defined as number of all forms of TB cases notified in a given year out of the mid-year population of the country in the same year

Case Detection Rate

The term "detection" as used in this report, means that a patient is diagnosed as having TB and is reported to the NPTCCD by TB-08.

Case Detection Rate is defined as "percentage of total number of incident TB cases notified out of the total number of estimated incident cases of TB during the given year".

Estimation of TB Incidence

Estimation of TB incidence is calculated by WHO using a mathematical model which is revised annually. Accordingly, the case detection rate in this report is based on 2015 WHO estimates (65.0 per 100,000 population).

Treatment Success Rate

Treatment Success Rate is defined as the proportion of TB cases registered in a given year that successfully completed their entire course of treatment with or without bacteriological confirmation of cure ("cured" + "treatment completed").

Sputum Conversion Rate

Sputum Conversion rate is the percentage of smear-positive pulmonary TB cases registered in a specified period that converted from smear positive to smear negative at the end of intensive phase of treatment.

Number of smear-positive pulmonary TB cases
Registered in a specified period that are smear negative
at the end of the intensive phase of Treatment

Sputum Conversion Rate =

Total number of smear-positive pulmonary TB cases
registered for treatment in the same period

Lost to follow up Rate

The Lost to follow up Rate is defined as the percentage of TB cases registered in a specified period that interrupted treatment for more than two consecutive months.

Number of TB cases registered in a specified period that interrupted treatment for more than two consecutive months

Lost to follow up Rate =

Total number of TB cases registered in the same period

Death Rate

The Death rate is defined as the percentage of TB cases registered in a specified period that died from any reason during the course of treatment.

Number of TB cases registered in a specified period that died from any reason during the course of the treatment Death Rate Total number of TB cases registered in the same period	X 100
--	-------

3. RESULTS

3.1 Surveillance of Tuberculosis

> TB Case Notifications

Cases of all forms of Tuberculosis should be notified to the NPTCCD using the H816-A form. a total of 5126 was notified to NPTCCD in 2021. In addition, all the TB cases registered at a district chest clinic are notified to the NPTCCD via TB-08. In 2021, this number was 6771.

> TB Death Notification (H 814)

During the year 2021, 268 TB deaths were notified by H814 (Table 7).

3.2 Incidence of Tuberculosis

The incidence rate of TB in Sri Lanka for 2021 was 29.1 per 100,000 population. The incidence rate has dropped by 8.9% compared to the previous year (Figure 1). The proportion of relapse cases among detected TB patients in 2019 (4.6%) shows an increase compared to the same proportion in 2018.

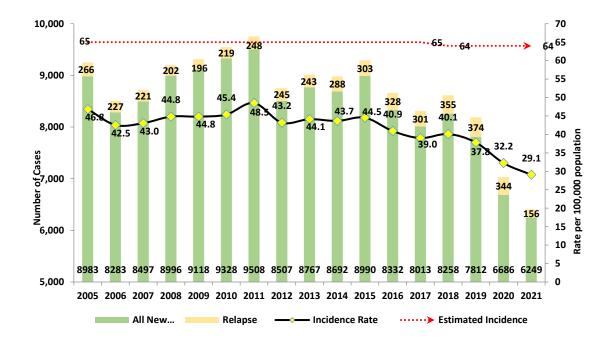


Figure 1: Tuberculosis incidence rates from 2005 to 2021

3.3 Case Detection of TB

The total number of all forms of TB cases reported from DCCs was 6771. This is a reduction from the previous year total number (Figure 2). Of this, 6249 (92.3%) were new cases, 508 (7.5%) were previously treated cases and 14 (0.2%) were cases with unknown treatment history.

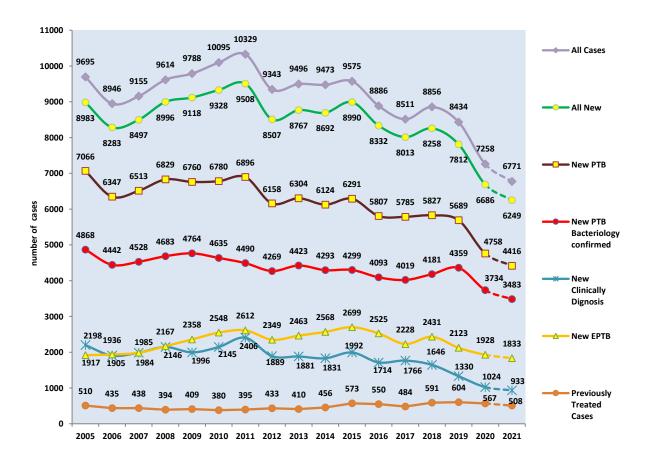


Figure 2: Case detection of TB by type in 2005 - 2021

Among the 6249 new TB cases, 4416 (70.6%) were pulmonary TB (PTB) cases and the rest 1833 (29.3%) were extra pulmonary TB (EPTB) cases. Of the 4416 PTB cases, 3483 (78.9%) were bacteriologically diagnosed, while 933 (21.1%) were clinically diagnosed (Figure 3). Of the 3483 bacteriologically confirmed PTB cases, 2793 (80.2%) were sputum microscopy positive, 78 (2.2%) were sputum negative culture positive, and 612 (17.6%) were xpert MTF/RI positive cases. Out of the previously treated cases of 508, 391 (77%) were bacteriologically confirmed PTB, 60 (11.8%) were clinically diagnosed PTB and 57 (11.2%) were EPTB cases.

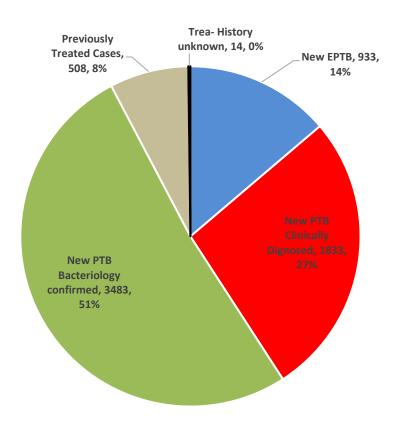


Figure 3: Case Detection of TB by Type in 2021

There was a high disparity of TB case detection among districts (Figure 4). The highest number of TB cases was reported from Colombo (n=1690; 24.9%), followed by Gampaha (n=895; 13.2%) and Kandy (n=462; 6.8%).

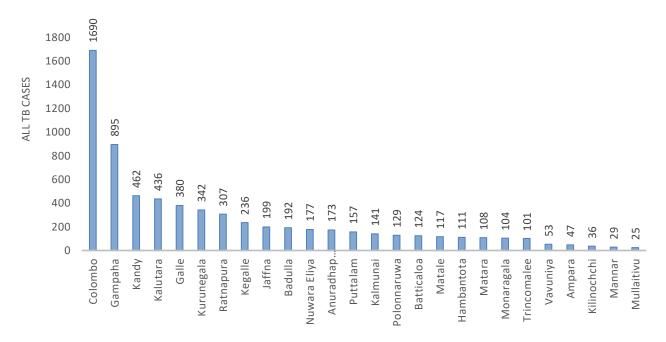


Figure 4: TB case detection by district of registration in 2021

Colombo district also accounted for the highest number of relapse cases of 75, which was 26% of total relapse cases. Colombo also reported the highest number of cases in categories of 'treatment after failures' (n=42, 37.8%) and lost to follow up cases (n=55; 62.5%) (Table 9). Lowest numbers of TB cases were reported from the Eastern province, with Mullaitivu district reporting 25 cases (0.4%) and Mannar district reporting cases (n= 29, 0.4%).

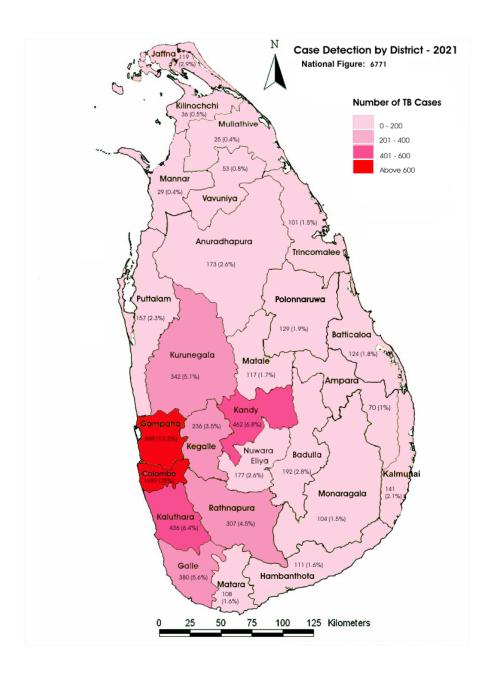


Figure 5: The map of Sri Lanka with TB case detection by district - 2021

New TB Cases

The distribution of categories of new TB cases among districts varied a lot (Figure 6). The proportion of new TB cases that were bacteriologically confirmed ranged from 80.4% in Vavuniya district to 31.3% in Kilinochchi district. Likewise, the proportion of clinically diagnosed among new TB cases ranged from 32.7% in Hambanthota district to 4.3% in Vavuniya district. The highest proportion of EPTB among the new cases were reported from Kilinochchi district (53.1%), while the lowest proportion of 15.2% was reported from Vavuniya district.

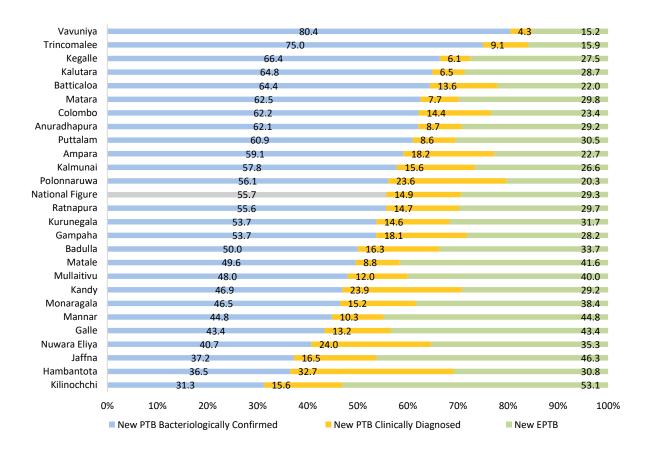


Figure 6: Percentage distribution of new cases of TB by type and district in 2021

Bacteriology confirmed New Pulmonary TB cases

The highest number of bacteriologically confirmed pulmonary TB cases 925 (37.6 per 100,000 population) was reported from Colombo district. Second highest number, 442 of bacteriologically confirmed pulmonary TB cases was reported from Gampaha district and the district rate is less than half of that of Colombo district (Figure 7).

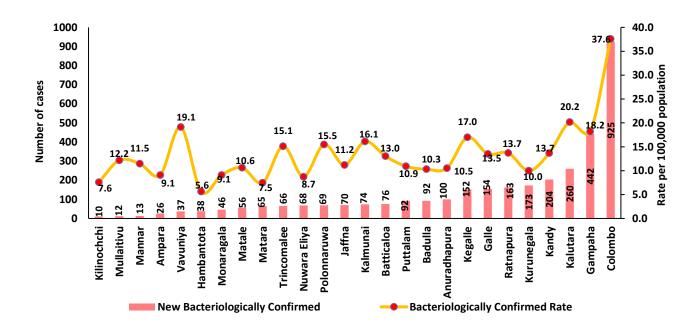


Figure 7: Distribution of new bacteriological confirmed pulmonary TB cases by district - 2021

Clinically Diagnosed New Pulmonary TB

A total of 933 new TB cases were clinically diagnosed in 2021. The highest number and rate of clinically diagnosed cases were reported from Colombo district (n=214, 8.7 per 100,000 population) (Figure 8).

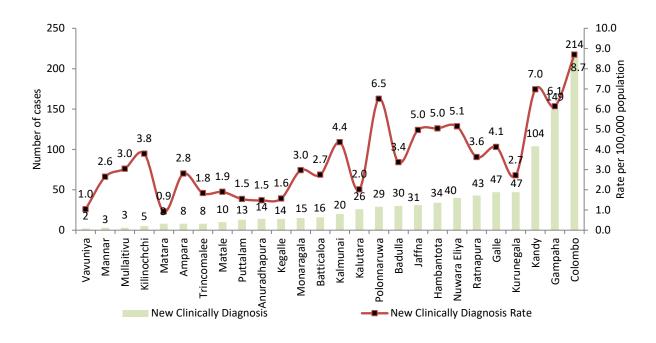


Figure 8: Distribution of clinically diagnosed new PTB Cases by district 2021

➤ Age and Sex Distribution of New TB Cases

The highest number, 1347 (21.6%) of new TB cases was in 55-64 years age group. The lowest number was in 0-14 years age group (n=163, 2.6%). Out of 6249 new cases, 3523 (56.4%) were in the economically productive age group of 15-54 years. The number of males with TB (n=3918, 62.7%) were as the number among females (n=2331, 37.3%). The highest number of new TB cases among both sexes were reported in the age group of 55-64 years. In contrast, more female TB patients were reported than males among the younger age groups of 0-14 and 15 - 24 years (figure 9).

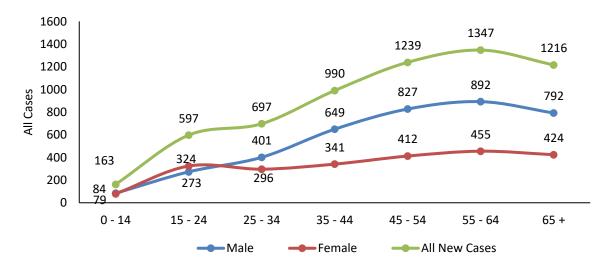


Figure 9: Distribution of all new TB cases by age groups and sex in 2021

Extra Pulmonary TB

New EPTB Case Detection

A total of 1833 new EPTB cases were reported in 2021. Colombo district accounted for the highest number (n=348), followed by Gampaha district (n=232) and Galle district (n=154). The highest rate (14.1 per 100000 population) of EPTB was reported from Colombo district. The lowest numbers of EPTB cases (n=7) was reported from the of Vauniya district (Figure 10).

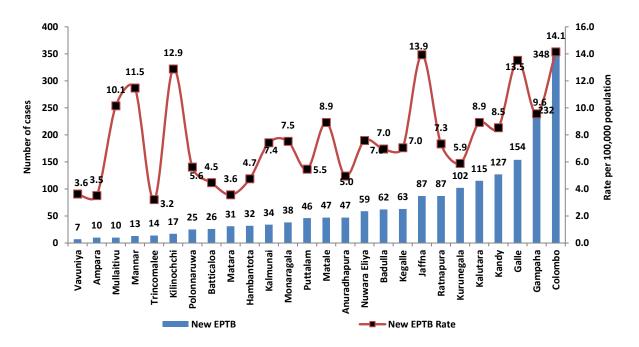


Figure 10: Distribution of new extra Pulmonary TB cases by district in 2021

Sites of EPTB Cases

Out of all EPTB cases, TB of respiratory tract confirmed by bacteriologically and histologically (ICD code A 15), accounted for 138 cases (7.3%). TB respiratory tract, not confirmed by bacteriologically or histologically (ICD code A16) were 322 (17%). In addition, there were 144 (7.6%) cases of nervous system TB, 792 (41.8%) cases of TB of other organs (Table 2).

ICD-10 Code	Site	Number of Cases	Percentage
A15: Respi	 ratory tuberculosis, bacteriologically and histologically confirmed	138	7.3
A15.4	Tuberculosis of intrathoracic lymph nodes	34	1.8
A15.6	Tuberculous pleurisy	100	5.3
A15.8	Other respiratory tuberculosis (mediastinal, nasopharyngeal, nose, sinus [any nasal])	3	0.2
A15.9	Respiratory tuberculosis unspecified	1	0.1
A16: Respi	l iratory tuberculosis, not confirmed bacteriologically or histologically	322	17.0
A16.3	Tuberculosis of intrathoracic lymph nodes	52	2.7
A16.4	Tuberculosis of larynx, trachea and bronchus	27	1.4
A16.5	Tuberculous pleurisy	230	12.2
A16.8	Other respiratory tuberculosis (mediastinal, nasopharyngeal, nose, sinus [any nasal])	13	0.7
A16.9	Respiratory tuberculosis unspecified	0	0.0
A17: Tube	rculosis of nervous system	144	7.6
A17.0	Tuberculous meningitis	93	4.9
A17.1	Meningeal tuberculoma	6	0.3
A17.8	Other tuberculosis of nervous system	26	1.4
A17.9	Tuberculosis of nervous system, unspecified	19	1.0
A18: Tube	rculosis of other organs	792	41.8
	Tuberculosis of bones and joints		
A18.0	Spinal TB (Includes Vertebral Column - M49.0*)	164	8.7
A18.0	Tuberculosis of other bones and joints (Excluding spinal TB)	62	3.3
A18.1	Tuberculosis of genitourinary system	46	2.4
A18.2	Tuberculous peripheral lymphadenopathy (TB adenitis)	291	15.4
A18.3	Tuberculosis of intestines, peritoneum and mesenteric glands	76	4.0
A18.4	Tuberculosis of skin and subcutaneous tissue	39	2.1
A18.5	Tuberculosis of eye	114	6.0
A18.6	Tuberculosis of ear	0	0.0
A18.7	Tuberculosis of adrenal glands	0	0.0
A18.8 Tub	 erculosis of other specified organs	497	26.3
	Pericardium	25	1.3
	Milliary	12	0.6
40.0	Disseminated	24	1.3
18.8	Site not specified	363	19.2
	Breast	7	0.4
	Other	66	3.5
	Total	1893	100.0

Table 2: Distribution of Primary and Miliary TB cases over the years, from 2010 – 2021.

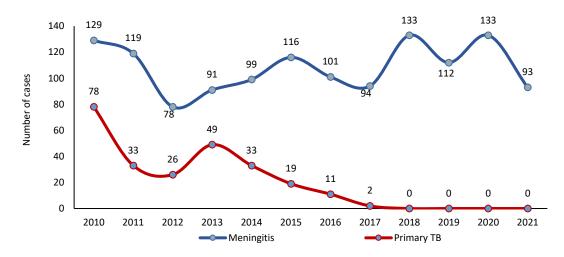


Figure 11: Distribution of Meningitis and Primary TB cases from 2010-2021

Previously treated TB Cases

In 2021, 508 (7.5%) previously treated cases were reported. This consisted of 288 relapses (56.7%), 111 (21.8%) treatment after failure, 88(17.3%) treatment after lost to follow up, and 21 (4.1%) other previously treated cases (Table 11).

The highest numbers of re-treatment cases were reported from Colombo district (n=192) and Gampaha district (n=70). Out of 88 loss to follow up cases, Colombo (n=55, 62.5 %) and Gampaha (n=12, 13.6 %) were the districts which reported the highest numbers of cases.

Colombo (75, 26.0%) district reported the highest number of relapse cases (Figure 12).

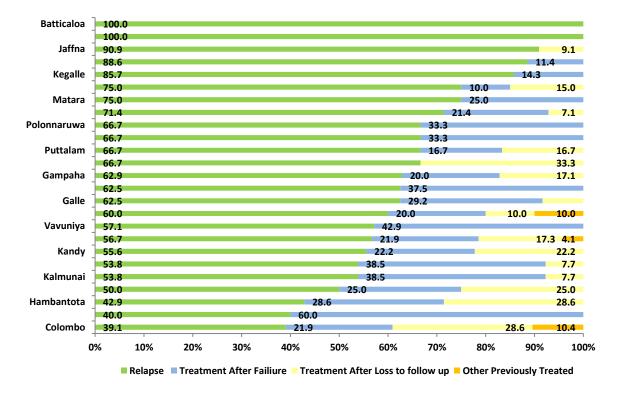


Figure 12: Proportion of previously treated categories by district in 2021

Multi Drug Resistant Tuberculosis (MDR-TB)

The incidence of MDR-TB is low in Sri Lanka when compared to other countries in the SEARO region. Ten cases of MDR-TB were reported in year 2021 and all of them were enrolled in to treatment. Sri Lanka uses standardized treatment regimens for MDR TB patients according to international and local guidelines.

Table 3 describes the number of confirmed patients reported during 2010-2021 period and the proportion of patients enrolled into treatment.

	2010	2011	2012	2013	2014	2015	2016	2017	201 8	2019	2020	2021
Number of laboratories that confirmed MDRTB patients	8	12	5	4	13	13	17	25	12	21	14	10
Number enrolled in treatment in the same year	4	5	4	4	11	13	17	24	12	21	14	10
Number enrolled in treatment in the next year	1	4	1	-	-		-	-	-	-	-	-
Total number enrolled in treatment	5 63%	9 75%	5 100%	4 100%	11 85%	13 100%	17 100%	24 96%	12 100%	21 100%	14 100%	10 100%

Table 3: MDR patients reported and their treatment enrollment 2010 - 2021

Year	Total Registered	Trea-Success Rate	Trea-Success	Deaths	Death Rate	Failure / Rx with held	Faliure Rate	Lost to Follow up	Lost to Follow up Rate	Diag. Change	Diag. Change Rate
2013	4	2	50.0	1	25.0	1	25.0	0	0.0	0	0.0
2014	13	9	81.8	2	15.4	0	0.0	2	15.4	0	0.0
2015	13	10	76.9	2	15.4	0	0.0	1	7.7	0	0.0
2016	17	11	64.7	4	23.5	2	11.8	0	0.0	0	0.0
2017	25	17	68.0	6	24.0	0	0.0	1	4.0	1	4.0
2018	12	11	91.7	0	0.0	1	8.3	0	0.0	0	0.0
2019	21	13	68.4	5	23.8	0	0.0	0	0.0	2	9.5

Table 4: Outcome of MDR-TB for previous years

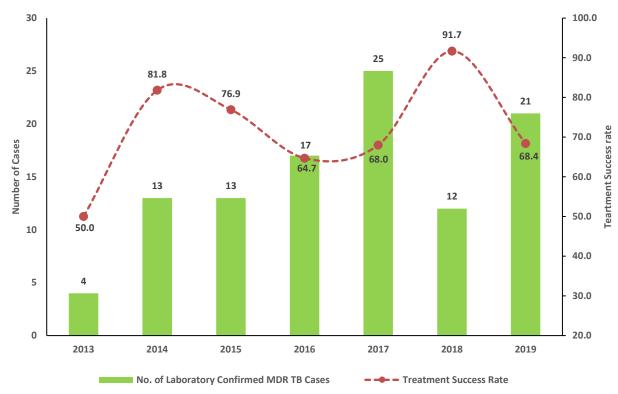


Figure 13: Number of MDR-TB cases against the treatment success rate-2013-2019

As illustrated in Figure 14 the highest numbers of MDR-TB cases are reported from the districts of Colombo and Kurunagala in 2021.

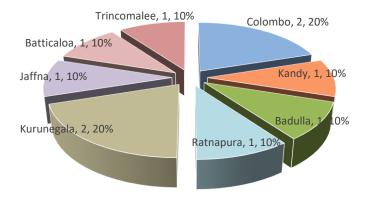


Figure 14: District distribution of Multi Drug Resistant Tuberculosis by District in 2020

TB/HIV Co-Infection

HIV testing of all TB patients was made mandatory in 2013. In 2021, 6549 (96.7%) TB patients were screened for HIV (figure 16). Of these patients, 18 patients were found to be HIV positive. In addition, there were 30 patients with known HIV - status diagnosed with TB contributing to the total of 48 patients with HIV/ TB co-infection in 2021.

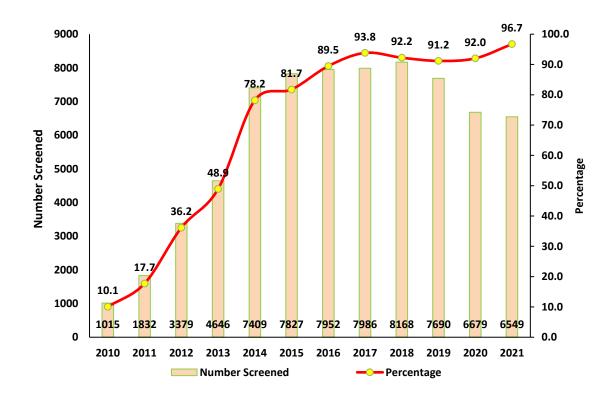


Figure 15: Percentages and Numbers of TB/HIV screening 2010-2021

TB Among Health Care Workers

In 2021, 36 health care workers had been diagnosed with TB. The number for 2020 was 62. Majority of them (n=17, 47.2%) were reported from Galle district, followed by Colombo district (6, 16.7%) (Figure 16).

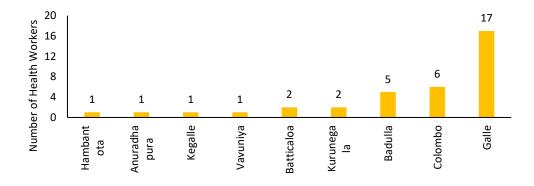


Figure 16: Distribution of Health Workers (36 Patients) Detected 2021

TB Among Foreign Nationals

In 2021, 14 foreign nationals with TB were reported to NPTCCD from Colombo (8), Gampaha (2), Anuradhapura (2), Galle (1) and Hambanthota (1) districts.

Treatment Outcome of HIV/TB Confected Cases

District	No. of total HIV + Corinfectted Cases		Cured or treatment completed	Trea- Sucsess Rate	Treatment Failed	Died	Lost to follow-up
Anuradhapura	1	3	1	100.0	0	0	0
Batticaloa	1	3	1	100.0	0	0	0
Colombo	5	15.2	3	60.0	0	1	1
Galle	1	3	0	0.0	0	1	0
Gampaha	9	27.3	9	100.0	0	0	0
Kegalle	1	3	1	100.0	0	0	0
Kurunegala	1	3	1	100.0	0	0	0
Nuwara Eliya	3	9.1	3	100.0	0	0	0
Puttalum	3	9.1	2	66.7	0	1	0
Ratnapura	1	3	1	100.0	0	0	0
Hambantota	2	6.1	0	0.0	1	1	0
Jaffna	1	3	0	0.0	0	1	0
Kalutara	1	3	1	100.0	0	0	0
Monaragala	1	3	1	100.0	0	0	0
Polonnaruwa	1	3	0	0.0	0	1	0
Trincomalee	1	3	0	0.0	0	1	0
Total	33	100	24	72.7	1	7	1

Table 5: Outcomes of HIV patients reported from the districts

Sputum conversion among pulmonary TB patients

Sputum conversion is checked at the end of intensive phase. For new patients, it is checked at the end of two months (2/3 months). If not converted, sputum is checked at 3 months. Among previously treated patients, sputum conversion is checked at the end of 3rd month (3/4 months), (Figure 17) If not converted, sputum is checked at the end of 4 months.

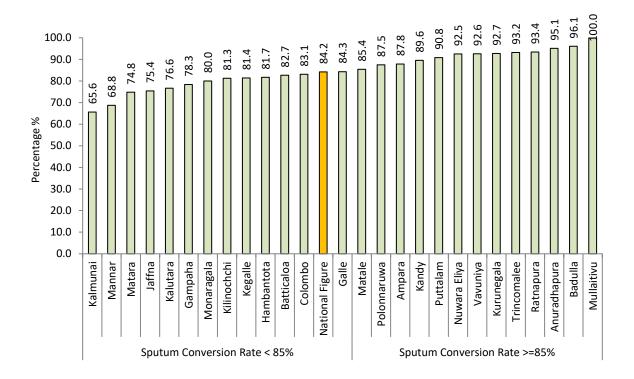


Figure 17: Sputum Conversion Percentage of New Smear-Positive Cases by District

3.4 Treatment outcome of TB patients

As it takes more than one year to declare outcome status for some EPTB cases, outcome data are typically presented for the cohort two years previous to the current year. In this report, outcome data are presented for the cohort of patients registered in 2020.

Treatment Outcome of All Forms of TB (pulmonary & extra pulmonary TB)

Total number of cases registered for treatment in 2020 was 7258. Out of this, outcome of 384 (5.3%) patients was not evaluated. Outcome of rest of the patients is illustrated in figure 18.

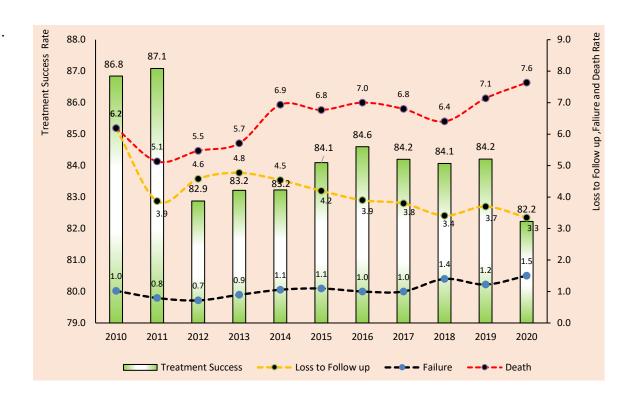


Figure 18: Treatment Success Rate of All Forms of TB in 2010-2020

Treatment Success Rate

The cure rate among registered cases was 44.3% (3215 cases) and a further 37.9% (2753 cases) completed treatment, accounting for an overall treatment success rate of 82.2% (5968 cases). This national figure is below the global target of 85% for treatment success rate. 2021 rate is a 2% drop from the rate reported for the year 2019, which was 84.2%.

There is a greater variation in treatment success rate among the districts, as depited in Figure 19. Mullathivu district reports the highest treatment success rate of 100%, while the lowest of 73.3% was reported from Kilinochchi (figure 19).

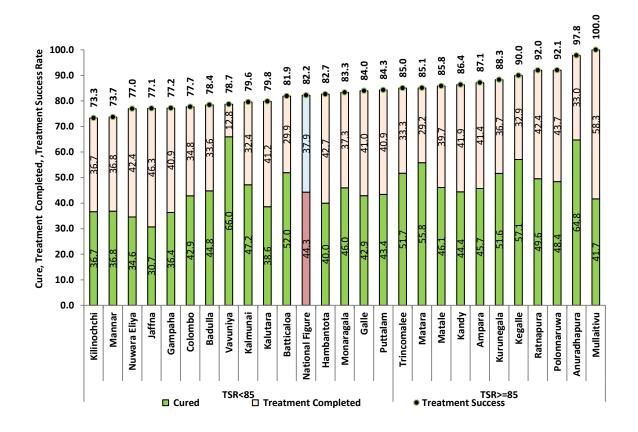


Figure 19: Treatment Success Rate of All Forms of TB by Districts in 2020

> Treatment Failure Rate

The treatment failure rate was 1.5% (n=109) in 2020. There is an increase (6.8%) in treatment failure rate observed compared to 2019, Mannar (10.5%, n=2) and Trincomalee (5.8%, n=7) districts accounted for the highest failure rates. Colombo district reported 40 patients with treatment failure among their 109 total cases, giving a treatment failure rate of 2.3%. There were no patients with treatment failure in the districts of Matale (total cases=141), Batticaloa (total cases=127), Polonnaruwa (total cases=126), Mannar (total cases = 34) and Mullaitivu (total cases=24), in the year 2020 (Table 20).

Lost to Follow Up Rate

In 2020, the Lost to Follow Up rate was 3.3%, marginally less than 3.7% figure for the previous year. The highest Lost to Follow Up rate, 8.3%, was reported in Colombo, which was the highest calculated Lost to Follow Up rate within the last five years. The next highest rate of 5.1% was reported from Nuwara-Eliya district. Ampara, Vavuniya, Trincomalee, Polonnaruwa,

Anuradhapura, Kegalle, Mannar, Killinochchi and Mullaitivu reported zero cases of Lost to Follow Up (Table 20).

Death Rate

Altogether, 554 deaths were reported among the patients with TB registered during the year 2020. However, the contribution of TB to the death was ruled out in 2019 of reported 602 deaths. Among the rest 285, highest numbers were reported from Colombo (n=45), Gampaha (n=45) Jaffna (n=18) and Kandy (n=18) districts. Leaving aside the deaths confirmed as not due to TB, the highest rates of 'all other deaths' were reported from the districts of Killinochchi (11.7%), Mannar (10.5%), Batticoloa (8.7%) and Vavuniya (8.5%) (Table 20).

	New TB	Previously treated TB
Rx success rate	82.9	74.0
Failure rate	1.5	2.1
Death rate	7.7	7.4
Lost to follow up	2.8	9.4
Not evaluated	5.1	7.1

Table 6: Treatment outcome summary of all forms of TB 2020

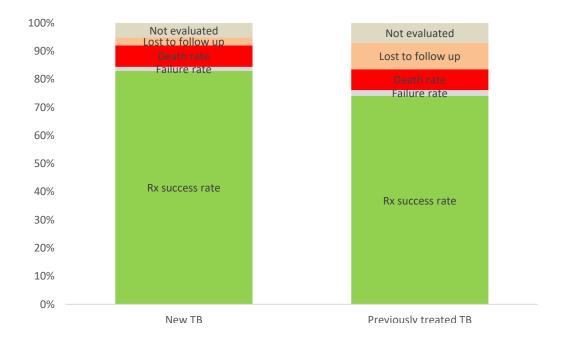


Figure 20: Treatment outcome summary of all forms of TB in 2020

Treatment Outcome of PTB Cases

This section focuses on the treatment outcome rates among pulmonary TB (PTB) patients registered in 2020. In 2020, 4765 new PTB cases were registered for treatment. These patients' outcomes fell into following categories.

- Cured (n= 2915,_61.2%)
- Treatment completed (n= 1018, 21.4%)
- Lost to follow up (n=163, 3.4%)
- Treatment failure (n=75, 1.6%)
- Died and confirmed as not due to TB (n=198, 4.2%)
- Died and not confirmed as not due to TB (n=198, 4.2%)
- Still on treatment/ diagnosis changed/ other (n= 198, 4.2%)

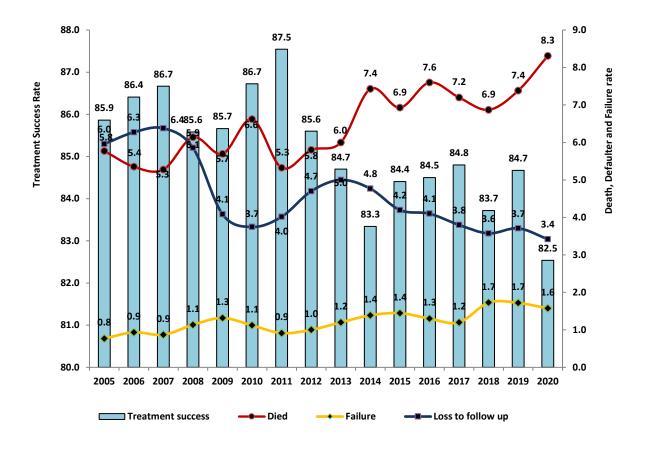


Figure 21: Treatment Outcome of Pulmonary TB Cases from 2005-2020

Treatment Success Rate

Altogether, 2915 patients were cured and another 1018 completed their treatment within the due period. This gives an overall treatment success rate of 82.5%. This is a reduction from the figure of the previous year, 84.7% (figure 21). Major contribution to the cure rates is from the districts of Anuradhapura (86.8%), Mullaitivu (83.3%), Batticoloa (72.1%) and Vavuniya (71.1%).

Treatment Failure Rate

Of all registered PTB patients in 2020, treatment has failed among 75 patients, giving a failure rate of 1.6%, which is same as from the previous year figure of 1.6%. Highest failure rate of 12.8% was reported from Hambanthota district. None of the patients registered in Mannar, Mullaitivu, and Kilinochchi districts have reported treatment failures (Table 22).

> Lost to Follow Up Rate

The Lost to Follow Up rate among PTB patients was 3.4 % (n=163) in 2020. The highest Lost to Follow Up case rate and the highest caseload was reported from Colombo district (8.7%, n=100). Except Colombo and Nuwara Eliya all other districts reported rates below the global target for Lost to Follow Up of 5.0% (Table 22).

Death Rate

From those who were registered as PTB patients in 2020, a total of 396 (8.3%) patients had died. Among those 396, TB was excluded from the cause of death in 198 patients. The rest 198 patients gave a death rate of 4.2% (Table 22).

Treatment Outcome of New Bacteriology confirmed PTB cases

Treatment outcomes were separately analyzed for the reported bacteriologically confirmed PTB cases. This number was 3791 for the year 2020.

> Treatment Success Rate

Of the 3791 cases, 2904 were cured after treatment, and further 273 completed the course of treatment within the due period. Altogether, this gives a treatment success rate of 3177 (83.8%). This is a reduction from the previous year figure of 85.5%. District variations in the treatment success rate is illustrated in the (figure 22).



Figure 22: Treatment Success Rates of New Bacteriologically confirmed PTB Cases by Districts in 2020

Treatment failure was reported among 69 of these patients (1.8%), while Lost to Follow Up was seen among 135 (3.6%) patients. Another 116 patients fell into 'still on treatment/ changed diagnosis' category.

Treatment Outcome of clinically diagnosed cases

Of the 974 cases, 756 completed treatment, giving a treatment success rate of 756 (77.6%). District variations in the treatment success rate is illustrated in the (figure 23).



Figure 23: Treatment Success Rates of New clinically diagnosis cases by Districts in 2020

Treatment Outcome of WRD cases

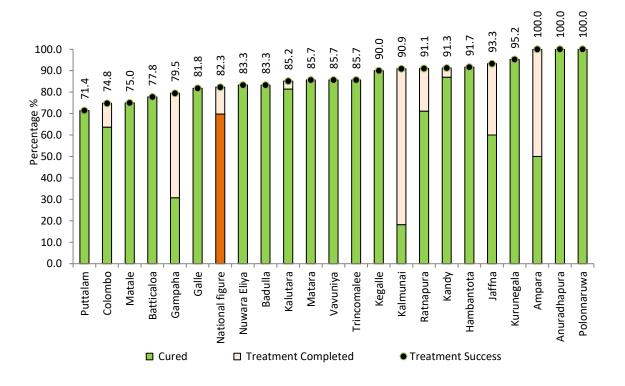


Figure 24: Treatment Success Rates of WRD cases by Districts in 2020

Of the 566 cases, 395 were cured after treatment, and further 71 completed the course of treatment within the due period. Altogether, this gives a treatment success rate of 466 (82.3%). This is a reduction from the previous year figure of 86.8%. District variations in the treatment success rates is illustrated in the (Table 31: figure 24).

Treatment Outcome of previously treated patients

In addition to the newly diagnosed TB patients, there were 566 patients who were diagnosed with TB previously but the condition relapsed or the due treatment course could not be completed within the due time period. The highest number of 180 was reported from Colombo district, followed by Gampaha (n=75) and Galle (n=34) districts (table 26).

Of these 566, 344 patients were reported as relapses. Of these 344, 187 (54.4%) were cured following re-treatment and another 79 (23%) completed their treatment course, bringing the treatment success rate among the relapse category of patients to 77.3%. Altogether, 16 (4.7%) were reported as Lost to Follow Up, and another 22 (6.4%) fell into the 'outcome not evaluated' category.

Treatment Outcome of Sputum Negative and Culture Positive Cases

In 2020, there were 132 new PTB cases whose sputum smear was negative, but culture was positive. The cure rate among these cases registered for treatment was 81 (61.4%) and a further 34 (25.8%) completed treatment within due period. Thus, the overall treatment success rate among sputum negative, culture positive category was 87.1% (table 32).

Figures 25-29 illustrates the treatment outcomes of different categories of TB patients in the year 2020.

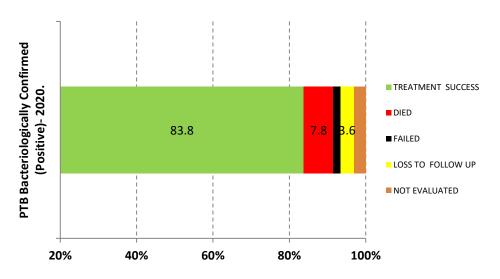


Figure 25: Treatment Outcome Summary of Bacteriologically Diagnosed TB Patients in 2020

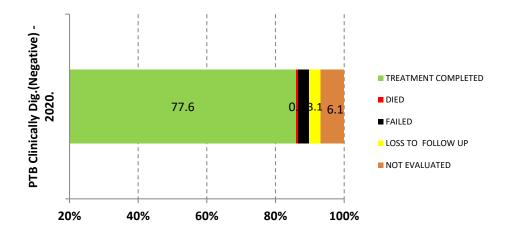


Figure 26: Treatment Outcome Summary of Clinically Diagnosed TB Patients in 2020

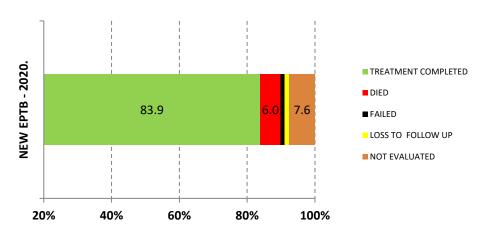


Figure 27: Treatment Outcome Summary of Extra Pulmonary TB Patients in 2020

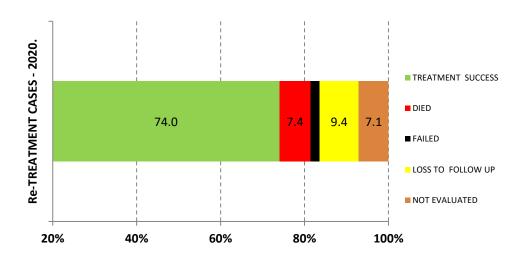


Figure 28: Treatment Outcome Summary of Re-Treatment TB Patients in 2020

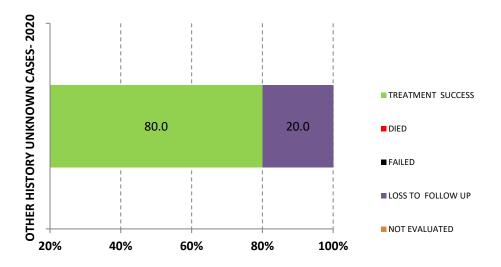


Figure 29: Treatment Outcome Summary of Treatment History Unknown TB Patients in 2020

3.5 DOTS coverage

Year	District Covered	Cumulative DOTS Population Coverage
1997	Galle	5.40%
1998	Kandy	12.90%
1999	Colombo Matara Anuradhapura	32.80%
2000	Kalutara Ratnapura Kurunegala Puttalam	55.40%
2001	Gampaha Hambantota Kegalle	73.10%

	Polonnaruwa	
2002	-	73.10%
2003	-	74.20%
	Matale	
	Nuwara Eliya	
2004	Badulla	87.30%
	Monaragala	
	Vavuniya	
	Ampara	
	Kalmunai	
2005	Batticaloa	97.50%
	Trincomalee	
	Jaffna	
2006	-	
2007	-	97.60%
2008	-	
2009	-	
	Mannar	
2010	Mullaitivu	100.00%
	Kilinochchi	

Table 7: Population coverage of DOTS in the country is 100% since 2010.

PART II ACTIVITY REPORT

Sri Lanka has committed to achieving the End TB targets laid out by the World Health Organization by the year 2035. As the national focal point, NPTCCD has initiated intensive integrated strategic actions to achieve the said targets.

Important activities were carried out in 2021 and the preceding year in view of improving the quality of services provided by the NPTCCD:

- New NSP (National Strategic Plan) for 2021 -2025 was completed in January 2021. In preparation of this, the recommendations given in End Term Review 2020 were strongly considered.
- Grant application was successfully submitted to GF for further 3 years, 2022 2024. Procurement of lab equipment, consumables, and X-pert MTB/RIF cartridges for 2021 was carried out to assure smooth functioning of the laboratory diagnostic services to enhance the TB diagnostic capacity. Anti-TB drugs were timely purchased and distributed to all district chest clinics to maintain undisrupted drug distribution throughout 2021. In addition, drugs were distributed to patients' houses in areas which were locked down due to COVID-19 outbreaks in the country in 2021
- The NPTCCD successfully completed the revision of the National manual for Tuberculosis in December 2021, with the assistance of national experts. The laboratory manual for tuberculosis was also revised and the final draft was submitted for printing in December 2021. PMDT (Programmatic Management of Drug-Resistant TB) Guideline was revised in 2021 with the assistance of national and international experts. The guideline on the Management of Latent TB infection (LTBI) was finalized in March 2021 and its implementation was started in the selected districts (Anuradhapura and Polonnaruwa) as a pilot project.
- Regular supervisory visits to the districts for the year 2021 were conducted from the central level to monitor the progress of the TB control activities and to identify the issues and constraints for the provision of diagnostic, curative, and preventive care services. Some supervisions were conducted physically (i.e., Kalutara, Anuradhapura, Polonnaruwa, Colombo, Kurunegala, Jaffna, Kilinochchi, Mannar and Vavuniya) and the others were conducted virtually due to the prevailing COVID-19 situation in the country.





TB control activities review in Northern Province on 22/12/2021

- Quarterly DTCO (District TB Control Officers) review meetings were conducted at the
 central level virtually to monitor the TB control activities at the district level. Two death
 review meetings were conducted virtually to evaluate the preventable TB deaths and
 thereby to improve the TB health care service delivery.
- Regular in-service capacity building programmess for chest clinic staff as well as for the hospital and field health staff were continued in 2021. In service Modular Training for DTCO/Medical Officers at Chest Clinic and Chest wards was conducted at central level. Refresher Modular Training for DTCO/Medical Officers at Chest Clinic and Chest wards held virtually. Training on TB for medical officers, training for DOT providers, training for Range PHI, Ayurvedic practitioners were carried out at district level.
- Conducted National Costing Survey by NPTCCD in year 2021 namely catastrophic cost incurred by the TB patients and their families and predictors of catastrophic cost
 Survey among the patients attending TB clinics in Sri Lanka. Conducted a study on the Prevalence of LTBI among Health Care Workers within the district of Colombo.
- Health education and promotion unit of NPTCCD was able to conduct free of charge Television, Radio and YouTube programs in 2021 which helped to increase the selfreferrals significantly in Q4 of 2021.
- Guideline was developed for high risk setting and a guide was developed to DTCO for formulating peer groups in their districts to address high risk groups and to make awareness. Revision of formats was carried out for TB/HIV screening in 2021.

- Consultative meeting was carried out for staff of chest clinic and prison health staff to improve case detection among prisoners. Mass screening of all prison inmates were also carried out in 2021.
- Training of trainer programme for members of Non-Governmental Organizations and community-based officers was conducted at central level and one awareness programme was conducted for them at each province. A certificate of appreciation was given to Ayurvedic practitioners who refer patients to district chest clinics.
- World TB Day was celebrated in 2021 and the main event was held at the auditorium
 of the Sri Lanka Medical Association. School art competition was conducted to
 commemorate the world day TB Day to make awareness among school children.



Commemoration of world TB Day at SLMA on 24/03/2021

 Development of audiovisual clips for health staff, community awareness through media, development of posters and leaflets for general public were some of the activities carried out by health education unit in 2021



Media briefing for TB free Sri Lanka on 27/01/2021



Development of IEC material for community awareness

 TB Stake holder meetings, advisory committee meetings, technical support group meetings, regular public private mix working group meeting, steering committee meeting for childhood TB were conducted by NPTCCD in 2021.



TB Advisory Committee meeting on meeting 14.12.2021



Pediatric TB steering committee on 28/07/2021

- Following Constructions were carried out in 2021:
 - ✓ Chest Ward Repair at Eheliyagoda Hospital
 - ✓ Constriction of 3 sputum collection booths in Nuwara Eliya district
 - ✓ Constriction of 2 sputum collection booths in Kandy district
 - ✓ Laboratory Renovation works at District Chest Clinic, Kandy
 - ✓ Construction 12 sputum Collection Booths in Anuradhapura districts

Major Challenges

The following factors were identified as major challenges:

- Address the unreached population groups such as those with limited access to services especially urban poor, estate workers, drug addicts due to COVID-19 situation in the country.
- 2. Strengthen early detection of TB cases due to COVID-19 and the lockdown situation in the country due to poor staff turnover.
- 3. Detection pediatric TB cases was low due to poor contact tracing due to COVID-19 situation and poor staff turnover.
- 4. Reduction of OPD referrals since more attention was driven to COVID-19 outbreak.
- 5. Achieve coverage of TB services in hard-to-reach populations was not adequate due to poor staff turnover.
- 6. Overcome the TB-related stigma.
- 7. Lack of funds to do a continuous mass media program to increase awareness of TB.
- 8. Reduction of TB deaths
- 9. Provision of social benefits and nutritional support for TB patients and their families due to lockdown situation for COVID 19 outbreak.
- 10. Maintain financial sustainability of the National Programme for Tuberculosis Control and Chest Diseases.

- 11. Address the social determinants of health.
- 12. Some supervisory visits at National level were limited to virtual platform due to COVID-19 and lockdown situation in the country.

Major challenges in respiratory disease control

- 1. Some programmes were not carried out physically due to COVID-19 and lockdown situation in the country.
- 2. Strengthen coordination between all stakeholders involved in respiratory disease care and control

PART III Administration Report

OPD Attendance and Ward Admissions

District Chest Clinics provide ambulatory care for patients with TB and respiratory diseases. During the year 2021, 173,744 new patients were registered at District Chest Clinics. Out of these patients, (76,328,43.9%) were self-referrals. Others included referrals from general health institutions or private practitioners (37,451,21.6%), contacts of TB patients (11,942, 6.9%) and persons came for medical examinations (48,023, 27.6%).

In addition to National Hospital for Respirotory Diseases, there are several chest wards situated in different types of hospitals in the country which provide inward care for TB & non TB respiratory patients.

Laboratory Services

> Sputum Smear Microscopy

Sputum smear examinations are done for diagnosis of TB and for monitoring of treatment. The patients having symptoms suggestive of TB, attending to the healthcare facilities are screened for TB by sputum examinations. During the period of treatment all pulmonary TB patients are monitored with sputum examinations at regular and specified intervals.

> Sputum Culture for AFB

TB culture and DST facilities are available only at the National Reference Laboratory at Welisara. Regional Laboratory, Kandy and Ratnapura provide culture facilities only. Sputum cultures are being done for smear negative PTB cases, all previously treated cases before initiation of anti TB treatment and on presumptive MDR TB cases. Total Number of Sputum Culture for TB performed by NTRL in 2021 was 20336.

> Testing by WHO recommended Rapid Diagnostics (Gene X pert)

WHO recommended diagnostic facilities (Gene X pert) are available in Sri Lanka since 2014 in a limited scale and these facilities were expanded in year 2021.

Year	Laboratory	Number of Gene X pert tests performed	Number of specimens with +ve results
2021	NTRL	8991	1974
	All Districts	16588	926

Table 8: Testing by WHO recommended Rapid Diagnostics in 2021

External Quality Assurance of Sputum Microscopy

Quality assurance of sputum smear microscopy is an important component of the National TB Programme. Slides are being sent from all laboratories of District Chest Clinics & NHRD Welisara to the NTRL for EQA. Sputum smears done in microscopy centers of general health institutions are being sent to laboratories at District Chest Clinics for EQA. In addition, samples from 4 private hospitals are received for EQA.

X-Ray Facilities

X-ray facilities including digital X ray facilities are available in almost all chest clinics. The other clinics obtain this facility from the nearest hospital.

BCG Vaccination

The BCG vaccination is an essential component of Expanded Programme of Immunization in Sri Lanka. Accordingly, all newborns are being vaccinated within 24 hours of delivery. BCG vaccination will protect the child from two deadly forms of Tuberculosis in children, i.e.; TB Meningitis and Milliary TB. (Disseminated TB), More than 98% of new born babies have been vaccinated with BCG.

Chest clinics provide services whenever revaccination is necessary, in situations such as absence of BCG scar in children below 5 years of age. There were 1349 revaccinations carried out in chest clinics during 2021.

Detailed Tables

Table 9: Annual Mortality of All TB Cases from 2006-2021

		Mortality
Year	Number	Rate per
		100,000 population
2006	347	1.7
2007	205	1.0
2008	355	1.7
2009	275	1.3
2010	395	1.9
2011	358	1.8
2012	203	1.0
2013	314	1.5
2014	309	1.5
2015	329	1.6
2016	253	1.2
2017	204	1.0
2018	247	1.2
2019	375	1.7
2020	260	1.2
2021	268	1.2

Source: - National TB Register

Table 10: Distribution Rates of all TB cases by District of Residence in 2021

	Estimated	No. of Cases	No. of Cases
District	Mid-Year	Detected	Per 100,000
	Population		Population
Colombo	2,462,428	1690	68.6
Gampaha	2,428,443	895	36.9
Kalutara	1,289,543	436	33.8
Kandy	1,490,535	462	31.0
Matale	527,301	117	22.2
Nuwara Eliya	778,212	177	22.7
Galle	1,140,247	380	33.3
Matara	869,753	108	12.4
Hambantota	674,330	111	16.5
Jaffna	624,950	199	31.8
Vavuniya	193,279	53	27.4
Batticaloa	583,035	124	21.3
Ampara	285,574	47	16.5
Kalmunai	459,048	141	30.7
Trincomalee	436,474	101	23.1
Kurunegala	1,732,982	342	19.7
Puttalam	842,328	157	18.6
Anuradhapura	948,767	173	18.2
Polonnaruwa	445,896	129	28.9
Badulla	892,068	192	21.5
Monaragala	505,231	104	20.6
Ratnapura	1,187,617	307	25.9
Kegalle	894,609	236	26.4
Mannar	113,379	29	25.6
Mullaitivu	98,569	25	25.4
Kilinochchi	132,091	36	27.3
Total	22,036,689	6,771	30.7

Source: Health 814

Table 11: All TB Case Detection by District of Registration in 2021

													Ret	reatme	nt Ca	ses										Trea	tment		
		New (Cases			Rela	ıpse			Treat After I	tment Failure		Lo	st to F	ollow	up	Pre		her ly Trea	ited	Reti	To reatme		ises	Н		unkno	wn	
District	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	ЕРТВ	Total	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	EPTB	Total	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	EPTB	Total	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	EPTB	Total	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	ЕРТВ	Total	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	EPTB	Total	PTB Bacteriologically Confirmed (Positive)	PTB Clinically Dig.(Negative)	EPTB	Total	Grand Total
Colombo	925	214	348	1487	63	4	8	75	31	6	5	42	39	12	4	55	12	3	5	20	145	25	22	192	7	2	2	11	1690
Gampaha	442	149	232	823	31	6	7	44	12	1	1	14	7	5	0	12	0	0	0	0	50	12	8	70	1	1	0	2	895
Kalutara	260	26	115	401	27	1	3	31	3	0	1	4	0	0	0	0	0	0	0	0	30	1	4	35	0	0	0	0	436
Kandy	204	104	127	435	9	3	3	15	5	0	1	6	4	1	1	6	0	0	0	0	18	4	5	27	0	0	0	0	462
Matale	56	10	47	113	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	117
Nuwara Eliya	68	40	59	167	6	0	0	6	1	0	1	2	1	0	0	1	1	0	0	1	9	0	1	10	0	0	0	0	177
Galle	154	47	154	355	7	5	3	15	7	0	0	7	2	0	0	2	0	0	0	0	16	5	3	24	0	0	1	1	380
Matara	65	8	31	104	3	0	0	3	1	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	108
Hambantota	38	34	32	104	2	1	0	3	1	0	1	2	2	0	0	2	0	0	0	0	5	1	1	7	0	0	0	0	111
Jaffna	70	31	87	188	7	1	2	10	0	0	0	0	1	0	0	1	0	0	0	0	8	1	2	11	0	0	0	0	199
Vavuniya	37	2	7	46	3	1	0	4	2	1	0	3	0	0	0	0	0	0	0	0	5	2	0	7	0	0	0	0	53
Batticaloa	76	16	26	118	4	1	1	6	0	0	0	0	0	0	0	0	0	0	0	0	4	1	1	6	0	0	0	0	124
Ampara	26	8	10	44	2	0	0	2	0	0	0	0	1	0	0	1	0	0	0	0	3	0	0	3	0	0	0	0	47
Kalmunai	74	20	34	128	5	1	1	7	5	0	0	5	1	0	0	1	0	0	0	0	11	1	1	13	0	0	0	0	141
Trincomalee	66	8	14	88	6	1	0	7	5	0	0	5	1	0	0	1	0	0	0	0	12	1	0	13	0	0	0	0	101
Kurunegala	173	47	102	322	14	1	0	15	2	0	0	2	3	0	0	3	0	0	0	0	19	1	0	20	0	0	0	0	342
Puttalam	92	13	46	151	4	0	0	4	1	0	0	1	1	0	0	1	0	0	0	0	6	0	0	6	0	0	0	0	157
Anuradhapura	100	14	47	161	7	1	0	8	4	0	0	4	0	0	0	0	0	0	0	0	11	1	0	12	0	0	0	0	173
Polonnaruwa	69	29	25	123	3	1	0	4	1	0	1	2	0	0	0	0	0	0	0	0	4	1	1	6	0	0	0	0	129
Badulla	92	30	62	184	4	0	1	5	3	0	0	3	0	0	0	0	0	0	0	0	7	0	1	8	0	0	0	0	192
Monaragala	46	15	38	99	0	0	2	2	3	0	0	3	0	0	0	0	0	0	0	0	3	0	2	5	0	0	0	0	104
Ratnapura	163	43	87	293	8	1	1	10	2	0	1	3	1	0	0	1	0	0	0	0	11	1	2	14	0	0	0	0	307
Kegalle	152	14	63	229	4	1	1	6	0	0	1	1	0	0	0	0	0	0	0	0	4	1	2	7	0	0	0	0	236
Mannar	13	3	13	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
Mullaitivu	12	3	10	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Kilinochchi	10 3483	5 933	17 1833	32 6249	1 223	0 31	1 34	288	90	0 8	0 13	111	1 65	0 18	5	1 88	0 13	0 3	5	21	3 391	0 60	1 57	4 508	0 8	0 3	0 3	0 14	36 6771
Total	3483	933	1833	6249	223	31	34	288	90	ŏ	13	111	65	18	Э	88	13	3	5	21	391	υO	5/	วบช	ŏ	3	3	14	6//1

Table 12: Distribution of New Cases of TB by Province in 2021

								Number	of Patients					
Province	PTB Bacteriologicall y Confirmed	Rate	PTB Clinically Dig	Rate	ЕРТВ	Rate	All New	Rate	Re-treatment	Rate	Previous Treatment History Unknown	Rate	All TB	Rate
Western	1627	26.3	389	6.3	695	11.2	2711	43.9	297	4.8	13	0.2	3021	48.9
Central	328	11.7	154	5.5	233	8.3	715	25.6	41	1.5	0	0.0	756	27.0
Sorthern	257	9.6	89	3.3	217	8.1	563	21.0	35	1.3	1	0.0	599	22.3
Northern	142	12.2	44	3.8	134	11.5	320	27.5	22	1.9	0	0.0	342	29.4
Eastern	242	13.7	52	2.9	84	4.8	378	21.4	35	2.0	0	0.0	413	23.4
North Western	265	10.3	60	2.3	148	5.7	473	18.4	26	1.0	0	0.0	499	19.4
North Central	169	12.1	43	3.1	72	5.2	284	20.4	18	1.3	0	0.0	302	21.7
Uva	138	9.9	45	3.2	100	7.2	283	20.3	13	0.9	0	0.0	296	21.2
Sabaragamuwa	315	15.1	57	2.7	150	7.2	522	25.1	21	1.0	0	0.0	543	26.1
Total	3483	15.8	933	4.2	1833	8.3	6249	28.4	508	2.3	14	0.1	6771	30.7

Table 13: Distribution of new cases of TB by Age and Type in 2021

				Number of Pa				
Age Group	Smear Positive	Rate	Smear Negative	Rate	ЕРТВ	Rate	All New	Rate
0 - 14	28	0.5	48	0.8	87	1.5	163	2.8
15 - 24	306	7.5	64	1.6	227	5.5	597	14.6
25 - 34	345	9.6	93	2.6	259	7.2	697	19.3
35 - 44	586	20.6	105	3.7	299	10.5	990	34.7
45 - 54	758	43.3	168	9.6	313	17.9	1239	70.7
55 - 64	803	69.9	212	18.5	332	28.9	1347	117.3
65 +	657	24.0	243	8.9	316	11.6	1216	44.5
Total	3483	15.8	933	4.2	1833	8.3	6249	28.4

Table 14: Distribution of New Cases of TB by Age and Sex in 2021

		Male			Female			All New Cases	
Age Group	Estimated Mid-Year Population	No	Rate	Estimated Mid-Year Population	No	Rate	Estimated Mid-Year Population	No	Rate
0 - 14	2,999,193	84	2.8	2,842,733	79	2.8	5,841,926	163	2.8
15 - 24	1,809,694	273	15.1	2,291,816	324	14.1	4,101,510	597	14.6
25 - 34	1,811,416	401	22.1	1,795,990	296	16.5	3,607,406	697	19.3
35 - 44	1,176,759	649	55.2	1,674,788	341	20.4	2,851,548	990	34.7
45 - 54	892,486	827	92.7	859,431	412	47.9	1,751,917	1239	70.7
55 - 64	610,416	892	146.1	537,695	455	84.6	1,148,111	1347	117.3
65 +	1,392,719	792	56.9	1,341,553	424	31.6	2,734,271	1216	44.5
Total	10,692,683	3918 36.6		11,344,006	2331	20.5	22,036,689	6249	28.4

Table 15: Age and Sex Distribution of All New TB Cases by District in 2021

District					M	ale									Fen	nale					Male		
District	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	Male	Female	Total
Colombo	1	12	60	83	164	204	191	115	39	869	4	13	107	75	91	116	111	79	22	618	869	618	1487
Gampaha	1	9	27	56	98	120	119	87	30	547	0	2	35	33	43	46	49	53	15	276	547	276	823
Kalutara	1	5	24	27	40	62	54	38	6	257	0	5	17	18	30	32	26	13	3	144	257	144	401
Kandy	0	7	15	30	37	57	63	45	18	272	1	8	21	19	27	22	34	22	9	163	272	163	435
Matale	0	1	8	6	9	14	20	13	4	75	0	1	5	9	4	8	5	6	0	38	75	38	113
Nuwara Eliya	1	3	18	15	17	20	16	7	1	98	1	2	11	15	4	9	17	8	2	69	98	69	167
Galle	4	8	16	25	27	39	38	31	13	201	5	10	14	22	18	25	35	19	6	154	201	154	355
Matara	0	0	4	4	12	9	14	15	7	65	0	1	4	5	5	8	4	12	0	39	65	39	104
Hambantota	1	0	0	5	15	10	13	11	3	58	4	1	2	5	8	6	7	12	1	46	58	46	104
Jaffna	0	1	5	21	21	21	21	23	8	121	1	0	13	9	7	12	11	10	4	67	121	67	188
Vavuniya	0	0	3	2	4	6	12	5	2	34	0	0	2	3	1	2	1	2	1	12	34	12	46
Batticaloa	1	0	3	3	11	13	21	11	2	65	0	1	7	4	11	7	17	4	2	53	65	53	118
Ampara	0	0	2	3	4	4	7	5	7	32	0	0	1	0	1	3	3	3	1	12	32	12	44
Kalmunai	0	3	7	4	12	15	26	5	4	76	0	2	6	7	6	11	17	2	1	52	76	52	128
Trincomalee	0	0	6	6	10	10	10	10	3	55	0	0	6	3	5	8	8	3	0	33	55	33	88
Kurunegala	2	3	9	13	39	49	63	37	15	230	0	3	9	10	18	19	17	16	0	92	230	92	322
Puttalam	0	4	5	13	19	31	21	8	1	102	1	1	5	6	8	12	10	5	1	49	102	49	151
Anuradhapura	2	2	14	15	15	21	26	19	5	119	0	2	6	7	5	7	8	7	0	42	119	42	161
Polonnaruwa	1	0	4	6	12	21	14	14	8	80	0	0	9	4	7	3	12	7	1	43	80	43	123
Badulla	0	3	8	16	17	18	29	15	4	110	1	1	14	8	9	15	14	9	3	74	110	74	184
Monaragala	1	0	8	4	11	17	16	13	5	75	0	0	3	6	1	5	3	5	1	24	75	24	99
Ratnapura	2	3	13	16	23	31	41	31	9	169	5	2	15	14	17	19	18	24	10	124	169	124	293
Kegalle	0	0	10	17	22	28	43	22	8	150	0	1	7	11	14	12	20	12	2	79	150	79	229
Mannar	0	0	3	4	6	2	7	2	0	24	0	0	1	1	0	1	1	1	0	5	24	5	29
Mullaitivu	0	2	0	4	3	2	7	1	2	21	0	0	0	0	0	2	1	1	0	4	21	4	25
Kilinochchi	0	0	1	3	1	3	0	1	4	13	0	0	4	2	1	2	6	3	1	19	13	19	32
Total	18	66	273	401	649	827	892	584	208	3918	23	56	324	296	341	412	455	338	86	2331	3918	2331	6249

Table 16: Age and Sex Distribution of Smear Positive New TB Cases by District in 2021

					M	ale									Fem	nale							
District	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	Male	Female	Total
Colombo	0	1	30	51	118	148	121	85	26	580	0	5	47	40	53	76	72	42	10	345	580	345	925
Gampaha	0	1	11	30	55	76	79	54	13	319	0	0	20	11	23	21	22	21	5	123	319	123	442
Kalutara	1	1	14	12	26	53	40	27	4	178	0	2	12	7	17	16	15	10	3	82	178	82	260
Kandy	0	0	8	18	24	30	30	19	9	138	0	3	11	6	14	6	17	5	4	66	138	66	204
Matale	0	0	5	3	5	7	12	5	2	39	0	0	4	4	1	4	2	2	0	17	39	17	56
Nuwara Eliya	0	0	10	6	9	12	4	2	0	43	0	0	6	6	1	3	6	2	1	25	43	25	68
Galle	0	1	8	14	16	22	19	14	3	97	0	0	8	10	8	8	15	5	3	57	97	57	154
Matara	0	0	1	3	6	8	9	7	4	38	0	1	4	2	3	5	3	9	0	27	38	27	65
Hambantota	0	0	0	3	8	8	4	1	1	25	0	0	1	3	1	0	2	6	0	13	25	13	38
Jaffna	0	0	3	7	11	9	10	5	3	48	0	0	5	2	3	5	4	1	2	22	48	22	70
Vavuniya	0	0	2	1	4	5	12	3	2	29	0	0	2	1	0	1	1	2	1	8	29	8	37
Batticaloa	0	0	1	0	7	9	18	9	2	46	0	0	3	2	6	6	10	3	0	30	46	30	76
Ampara	0	0	1	3	2	2	4	3	6	21	0	0	1	0	0	1	1	1	1	5	21	5	26
Kalmunai	0	0	5	4	8	11	19	2	3	52	0	1	2	2	4	5	6	2	0	22	52	22	74
Trincomalee	0	0	5	4	10	8	9	9	1	46	0	0	5	2	1	5	6	1	0	20	46	20	66
Kurunegala	0	1	1	8	23	29	40	25	11	138	0	2	3	2	8	8	9	3	0	35	138	35	173
Puttalam	0	1	2	10	13	16	17	8	1	68	1	1	1	1	4	4	7	4	1	24	68	24	92
Anuradhapura	0	0	9	9	12	14	21	11	4	80	0	0	3	2	2	3	4	6	0	20	80	20	100
Polonnaruwa	0	0	2	1	8	14	11	6	7	49	0	0	4	3	2	1	7	3	0	20	49	20	69
Badulla	0	1	5	6	10	9	19	5	3	58	0	1	8	3	4	9	4	4	1	34	58	34	92
Monaragala	0	0	4	4	5	11	8	7	0	39	0	0	1	1	0	2	2	1	0	7	39	7	46
Ratnapura	0	0	5	8	17	20	22	21	8	101	1	1	8	5	6	10	11	15	5	62	101	62	163
Kegalle	0	0	8	12	17	23	26	13	5	104	0	1	4	7	8	7	13	7	1	48	104	48	152
Mannar	0	0	1	1	1	1	3	1	0	8	0	0	1	1	0	1	1	1	0	5	8	5	13
Mullaitivu	0	0	0	2	1	2	4	1	0	10	0	0	0	0	0	2	0	0	0	2	10	2	12
Kilinochchi	0	0	0	2	1	2	0	0	0	5	0	0	1	0	0	0	2	1	1	5	5	5	10
Total	1	7	141	222	417	549	561	343	118	2359	2	18	165	123	169	209	242	157	39	1124	2359	1124	3483

Table 17: Age and Sex Distribution of Smear Negative New TB Cases by District in 2021

					M	ale									Fem	ale							
District	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	Male	Female	Total
Colombo	1	6	9	12	14	25	34	12	11	124	4	3	13	11	10	14	18	12	5	90	124	90	214
Gampaha	0	1	3	9	12	23	21	24	10	103	0	0	5	3	1	6	8	17	6	46	103	46	149
Kalutara	0	0	2	6	1	2	3	2	1	17	0	0	0	2	2	1	3	1	0	9	17	9	26
Kandy	0	6	5	3	6	10	19	12	8	69	1	3	2	2	7	7	7	3	3	35	69	35	104
Matale	0	0	0	0	0	3	2	1	1	7	0	0	0	1	1	0	0	1	0	3	7	3	10
Nuwara Eliya	1	1	3	4	3	5	7	2	1	27	0	0	0	1	0	2	5	4	1	13	27	13	40
Galle	2	0	1	3	4	4	6	6	2	28	0	0	1	3	5	4	3	3	0	19	28	19	47
Matara	0	0	1	0	0	0	0	1	2	4	0	0	0	1	0	2	0	1	0	4	4	4	8
Hambantota	1	0	0	1	0	1	4	9	2	18	3	0	0	0	2	3	3	4	1	16	18	16	34
Jaffna	0	0	0	2	2	6	3	7	2	22	0	0	0	3	0	2	2	2	0	9	22	9	31
Vavuniya	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	0	2
Batticaloa	0	0	0	1	1	3	2	1	0	8	0	0	1	2	1	1	3	0	0	8	8	8	16
Ampara	0	0	0	0	0	2	2	1	0	5	0	0	0	0	1	0	2	0	0	3	5	3	8
Kalmunai	0	0	0	0	1	2	3	1	0	7	0	0	1	2	0	3	7	0	0	13	7	13	20
Trincomalee	0	0	0	1	0	1	0	1	1	4	0	0	0	0	0	2	0	2	0	4	4	4	8
Kurunegala	1	0	3	1	4	6	10	2	3	30	0	1	3	1	2	3	2	5	0	17	30	17	47
Puttalam	0	0	1	1	3	3	1	0	0	9	0	0	0	0	1	2	1	0	0	4	9	4	13
Anuradhapura	0	1	0	2	0	0	0	5	1	9	0	2	0	0	1	1	1	0	0	5	9	5	14
Polonnaruwa	0	0	1	4	2	5	2	5	0	19	0	0	0	0	3	1	3	3	0	10	19	10	29
Badulla	0	1	1	1	3	4	1	4	1	16	1	0	1	2	1	2	2	3	2	14	16	14	30
Monaragala	0	0	0	0	2	2	2	3	3	12	0	0	0	2	0	0	1	0	0	3	12	3	15
Ratnapura	1	3	3	0	2	1	7	4	0	21	3	1	4	2	4	2	2	2	2	22	21	22	43
Kegalle	0	0	0	1	0	1	5	1	2	10	0	0	0	1	2	0	0	0	1	4	10	4	14
Mannar	0	0	0	0	1	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0	3
Mullaitivu	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	2	1	3
Kilinochchi	0	0	0	1	0	0	0	0	1	2	0	0	0	1	0	0	2	0	0	3	2	3	5
Total	7	19	33	53	61	110	137	106	52	578	12	10	31	40	44	58	75	64	21	355	578	355	933

Table 18: Age and Sex Distribution of All New PTB Cases by District in 2021

					М	ale									Fem	nale							
District	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	Male	Female	Total
Colombo	1	7	39	63	132	173	155	97	37	704	4	8	60	51	63	90	90	54	15	435	704	435	1139
Gampaha	0	2	14	39	67	99	100	78	23	422	0	0	25	14	24	27	30	38	11	169	422	169	591
Kalutara	1	1	16	18	27	55	43	29	5	195	0	2	12	9	19	17	18	11	3	91	195	91	286
Kandy	0	6	13	21	30	40	49	31	17	207	1	6	13	8	21	13	24	8	7	101	207	101	308
Matale	0	0	5	3	5	10	14	6	3	46	0	0	4	5	2	4	2	3	0	20	46	20	66
Nuwara Eliya	1	1	13	10	12	17	11	4	1	70	0	0	6	7	1	5	11	6	2	38	70	38	108
Galle	2	1	9	17	20	26	25	20	5	125	0	0	9	13	13	12	18	8	3	76	125	76	201
Matara	0	0	2	3	6	8	9	8	6	42	0	1	4	3	3	7	3	10	0	31	42	31	73
Hambantota	1	0	0	4	8	9	8	10	3	43	3	0	1	3	3	3	5	10	1	29	43	29	72
Jaffna	0	0	3	9	13	15	13	12	5	70	0	0	5	5	3	7	6	3	2	31	70	31	101
Vavuniya	0	0	2	1	4	5	12	5	2	31	0	0	2	1	0	1	1	2	1	8	31	8	39
Batticaloa	0	0	1	1	8	12	20	10	2	54	0	0	4	4	7	7	13	3	0	38	54	38	92
Ampara	0	0	1	3	2	4	6	4	6	26	0	0	1	0	1	1	3	1	1	8	26	8	34
Kalmunai	0	0	5	4	9	13	22	3	3	59	0	1	3	4	4	8	13	2	0	35	59	35	94
Trincomalee	0	0	5	5	10	9	9	10	2	50	0	0	5	2	1	7	6	3	0	24	50	24	74
Kurunegala	1	1	4	9	27	35	50	27	14	168	0	3	6	3	10	11	11	8	0	52	168	52	220
Puttalam	0	1	3	11	16	19	18	8	1	77	1	1	1	1	5	6	8	4	1	28	77	28	105
Anuradhapura	0	1	9	11	12	14	21	16	5	89	0	2	3	2	3	4	5	6	0	25	89	25	114
Polonnaruwa	0	0	3	5	10	19	13	11	7	68	0	0	4	3	5	2	10	6	0	30	68	30	98
Badulla	0	2	6	7	13	13	20	9	4	74	1	1	9	5	5	11	6	7	3	48	74	48	122
Monaragala	0	0	4	4	7	13	10	10	3	51	0	0	1	3	0	2	3	1	0	10	51	10	61
Ratnapura	1	3	8	8	19	21	29	25	8	122	4	2	12	7	10	12	13	17	7	84	122	84	206
Kegalle	0	0	8	13	17	24	31	14	7	114	0	1	4	8	10	7	13	7	2	52	114	52	166
Mannar	0	0	1	1	2	2	4	1	0	11	0	0	1	1	0	1	1	1	0	5	11	5	16
Mullaitivu	0	0	0	2	1	2	6	1	0	12	0	0	0	0	0	2	0	1	0	3	12	3	15
Kilinochchi	0	0	0	3	1	2	0	0	1	7	0	0	1	1	0	0	4	1	1	8	7	8	15
Total	8	26	174	275	478	659	698	449	170	2937	14	28	196	163	213	267	317	221	60	1479	2937	1479	4416

Table 19: Age and Sex Distribution of New EPTB Cases by District in 2021

District					M	lale									Fem	nale					Mala	Famala	T-4-1
District	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	0 -4	5-14	15 -24	25 -34	35 -44	45 -54	55 -64	65 -74	75-Over	Total	Male	Female	Total
Colombo	0	5	21	20	32	31	36	18	2	165	0	5	47	24	28	26	21	25	7	183	165	183	348
Gampaha	1	7	13	17	31	21	19	9	7	125	0	2	10	19	19	19	19	15	4	107	125	107	232
Kalutara	0	4	8	9	13	7	11	9	1	62	0	3	5	9	11	15	8	2	0	53	62	53	115
Kandy	0	1	2	9	7	17	14	14	1	65	0	2	8	11	6	9	10	14	2	62	65	62	127
Matale	0	1	3	3	4	4	6	7	1	29	0	1	1	4	2	4	3	3	0	18	29	18	47
Nuwara Eliya	0	2	5	5	5	3	5	3	0	28	1	2	5	8	3	4	6	2	0	31	28	31	59
Galle	2	7	7	8	7	13	13	11	8	76	5	10	5	9	5	13	17	11	3	78	76	78	154
Matara	0	0	2	1	6	1	5	7	1	23	0	0	0	2	2	1	1	2	0	8	23	8	31
Hambantota	0	0	0	1	7	1	5	1	0	15	1	1	1	2	5	3	2	2	0	17	15	17	32
Jaffna	0	1	2	12	8	6	8	11	3	51	1	0	8	4	4	5	5	7	2	36	51	36	87
Vavuniya	0	0	1	1	0	1	0	0	0	3	0	0	0	2	1	1	0	0	0	4	3	4	7
Batticaloa	1	0	2	2	3	1	1	1	0	11	0	1	3	0	4	0	4	1	2	15	11	15	26
Ampara	0	0	1	0	2	0	1	1	1	6	0	0	0	0	0	2	0	2	0	4	6	4	10
Kalmunai	0	3	2	0	3	2	4	2	1	17	0	1	3	3	2	3	4	0	1	17	17	17	34
Trincomalee	0	0	1	1	0	1	1	0	1	5	0	0	1	1	4	1	2	0	0	9	5	9	14
Kurunegala	1	2	5	4	12	14	13	10	1	62	0	0	3	7	8	8	6	8	0	40	62	40	102
Puttalam	0	3	2	2	3	12	3	0	0	25	0	0	4	5	3	6	2	1	0	21	25	21	46
Anuradhapura	2	1	5	4	3	7	5	3	0	30	0	0	3	5	2	3	3	1	0	17	30	17	47
Polonnaruwa	1	0	1	1	2	2	1	3	1	12	0	0	5	1	2	1	2	1	1	13	12	13	25
Badulla	0	1	2	9	4	5	9	6	0	36	0	0	5	3	4	4	8	2	0	26	36	26	62
Monaragala	1	0	4	0	4	4	6	3	2	24	0	0	2	3	1	3	0	4	1	14	24	14	38
Ratnapura	1	0	5	8	4	10	12	6	1	47	1	0	3	7	7	7	5	7	3	40	47	40	87
Kegalle	0	0	2	4	5	4	12	8	1	36	0	0	3	3	4	5	7	5	0	27	36	27	63
Mannar	0	0	2	3	4	0	3	1	0	13	0	0	0	0	0	0	0	0	0	0	13	0	13
Mullaitivu	0	2	0	2	2	0	1	0	2	9	0	0	0	0	0	0	1	0	0	1	9	1	10
Kilinochchi	0	0	1	0	0	1	0	1	3	6	0	0	3	1	1	2	2	2	0	11	6	11	17
Total	10	40	99	126	171	168	194	135	38	981	9	28	128	133	128	145	138	117	26	852	981	852	1833

Table 20: Distribution of Treatment Outcome of All forms of TB by Districts in 2020

				Two	tment					Die	d					Loct to	Follow			
District	Total Number Registered	Cı	ıred		oleted	Treatmen	nt Success	Confiremed to		All Othe	r Deaths	All TB	Deaths	Fai	lure		p p	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	1714	735	42.9	597	34.8	1332	77.7	45	2.6	87	5.1	132	7.7	40	2.3	143	8.3	67	3.9	1714
Gampaha	847	308	36.4	346	40.9	654	77.2	45	5.3	37	4.4	82	9.7	8	0.9	39	4.6	64	7.6	847
Kalutara	495	191	38.6	204	41.2	395	79.8	6	1.2	16	3.2	22	4.4	4	0.8	8	1.6	66	13.3	495
Kandy	484	215	44.4	203	41.9	418	86.4	18	3.7	9	1.9	27	5.6	11	2.3	11	2.3	17	3.5	484
Matale	141	65	46.1	56	39.7	121	85.8	3	2.1	9	6.4	12	8.5	0	0.0	1	0.7	7	5.0	141
Nuwara Eliya	217	75	34.6	92	42.4	167	77.0	13	6.0	11	5.1	24	11.1	2	0.9	11	5.1	13	6.0	217
Galle	368	158	42.9	151	41.0	309	84.0	14	3.8	10	2.7	24	6.5	5	1.4	4	1.1	26	7.1	368
Matara	154	86	55.8	45	29.2	131	85.1	5	3.2	1	0.6	6	3.9	2	1.3	1	0.6	14	9.1	154
Hambantota	150	60	40.0	64	42.7	124	82.7	14	9.3	0	0.0	14	9.3	3	2.0	3	2.0	6	4.0	150
Jaffna	218	67	30.7	101	46.3	168	77.1	18	8.3	5	2.3	23	10.6	0	0.0	1	0.5	26	11.9	218
Vavuniya	47	31	66.0	6	12.8	37	78.7	4	8.5	4	8.5	8	17.0	2	4.3	0	0.0	0	0.0	47
Batticaloa	127	66	52.0	38	29.9	104	81.9	8	6.3	11	8.7	19	15.0	0	0.0	2	1.6	2	1.6	127
Ampara	70	32	45.7	29	41.4	61	87.1	6	8.6	1	1.4	7	10.0	1	1.4	0	0.0	1	1.4	70
Kalmunai	142	67	47.2	46	32.4	113	79.6	8	5.6	2	1.4	10	7.0	6	4.2	4	2.8	9	6.3	142
Trincomalee	120	62	51.7	40	33.3	102	85.0	6	5.0	1	0.8	7	5.8	7	5.8	0	0.0	4	3.3	120
Kurunegala	341	176	51.6	125	36.7	301	88.3	8	2.3	17	5.0	25	7.3	5	1.5	5	1.5	5	1.5	341
Puttalam	159	69	43.4	65	40.9	134	84.3	12	7.5	5	3.1	17	10.7	1	0.6	1	0.6	6	3.8	159
Anuradhapura	227	147	64.8	75	33.0	222	97.8	3	1.3	1	0.4	4	1.8	1	0.4	0	0.0	0	0.0	227
Polonnaruwa	126	61	48.4	55	43.7	116	92.1	4	3.2	3	2.4	7	5.6	0	0.0	0	0.0	3	2.4	126
Badulla	232	104	44.8	78	33.6	182	78.4	16	6.9	5	2.2	21	9.1	3	1.3	4	1.7	22	9.5	232
Monaragala	150	69	46.0	56	37.3	125	83.3	5	3.3	5	3.3	10	6.7	1	0.7	3	2.0	11	7.3	150
Ratnapura	337	167	49.6	143	42.4	310	92.0	4	1.2	11	3.3	15	4.5	1	0.3	2	0.6	9	2.7	337
Kegalle	289	165	57.1	95	32.9	260	90.0	16	5.5	9	3.1	25	8.7	2	0.7	0	0.0	2	0.7	289
Mannar	19	7	36.8	7	36.8	14	73.7	1	5.3	2	10.5	3	15.8	2	10.5	0	0.0	0	0.0	19
Mullaitivu	24	10	41.7	14	58.3	24	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	24
Kilinochchi	60	22	36.7	22	36.7	44	73.3	3	5.0	7	11.7	10	16.7	2	3.3	0	0.0	4	6.7	60
Total	7258	3215	44.3	2753	37.9	5968	82.2	285	3.9	269	3.7	554	7.6	109	1.5	243	3.3	384	5.3	7258

Table 21: Distribution of Treatment Outcome of All Forms of New (PTB and EPTB) Cases by District in 2020

				Trea	tment	Trea	tment		Die	ed										
District	Total Number Registered	Cu	red		pleted	Suc			as not due to	All Othe	r Deaths	All D	eaths	Fai	lure	Lost to 1	Follow up	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	1529	653	42.7	555	36.3	1208	79.0	44	2.9	74	4.8	118	7.7	35	2.3	112	7.3	56	3.7	1529
Gampaha	772	282	36.5	331	42.9	613	79.4	41	5.3	33	4.3	74	9.6	8	1.0	23	3.0	54	7.0	772
Kalutara	471	179	38.0	198	42.0	377	80.0	6	1.3	16	3.4	22	4.7	4	0.8	8	1.7	60	12.7	471
Kandy	454	193	42.5	197	43.4	390	85.9	18	4.0	9	2.0	27	5.9	11	2.4	9	2.0	17	3.7	454
Matale	136	63	46.3	55	40.4	118	86.8	3	2.2	8	5.9	11	8.1	0	0.0	1	0.7	6	4.4	136
Nuwara Eliya	204	68	33.3	88	43.1	156	76.5	13	6.4	11	5.4	24	11.8	2	1.0	9	4.4	13	6.4	204
Galle	334	142	42.5	140	41.9	282	84.4	14	4.2	9	2.7	23	6.9	4	1.2	3	0.9	22	6.6	334
Matara	142	79	55.6	42	29.6	121	85.2	3	2.1	1	0.7	4	2.8	2	1.4	1	0.7	14	9.9	142
Hambantota	136	54	39.7	61	44.9	115	84.6	12	8.8	0	0.0	12	8.8	3	2.2	2	1.5	4	2.9	136
Jaffna	203	59	29.1	97	47.8	156	76.8	18	8.9	4	2.0	22	10.8	0	0.0	1	0.5	24	11.8	203
Vavuniya	43	27	62.8	6	14.0	33	76.7	4	9.3	4	9.3	8	18.6	2	4.7	0	0.0	0	0.0	43
Batticaloa	120	62	51.7	38	31.7	100	83.3	8	6.7	8	6.7	16	13.3	0	0.0	2	1.7	2	1.7	120
Ampara	65	28	43.1	29	44.6	57	87.7	5	7.7	1	1.5	6	9.2	1	1.5	0	0.0	1	1.5	65
Kalmunai	127	60	47.2	40	31.5	100	78.7	8	6.3	2	1.6	10	7.9	5	3.9	4	3.1	8	6.3	127
Trincomalee	112	58	51.8	40	35.7	98	87.5	5	4.5	1	0.9	6	5.4	4	3.6	0	0.0	4	3.6	112
Kurunegala	317	157	49.5	122	38.5	279	88.0	8	2.5	15	4.7	23	7.3	5	1.6	5	1.6	5	1.6	317
Puttalam	156	67	42.9	64	41.0	131	84.0	12	7.7	5	3.2	17	10.9	1	0.6	1	0.6	6	3.8	156
Anuradhapura	208	131	63.0	73	35.1	204	98.1	3	1.4	1	0.5	4	1.9	0	0.0	0	0.0	0	0.0	208
Polonnaruwa	124	59	47.6	55	44.4	114	91.9	4	3.2	3	2.4	7	5.6	0	0.0	0	0.0	3	2.4	124
Badulla	222	98	44.1	76	34.2	174	78.4	15	6.8	5	2.3	20	9.0	3	1.4	3	1.4	22	9.9	222
Monaragala	139	63	45.3	55	39.6	118	84.9	5	3.6	4	2.9	9	6.5	1	0.7	3	2.2	8	5.8	139
Ratnapura	304	149	49.0	130	42.8	279	91.8	4	1.3	9	3.0	13	4.3	1	0.3	2	0.7	9	3.0	304
Kegalle	271	148	54.6	95	35.1	243	89.7	15	5.5	9	3.3	24	8.9	2	0.7	0	0.0	2	0.7	271
Mannar	17	6	35.3	7	41.2	13	76.5	1	5.9	2	11.8	3	17.6	1	5.9	0	0.0	0	0.0	17
Mullaitivu	24	10	41.7	14	58.3	24	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	24
Kilinochchi	57	20	35.1	22	38.6	42	73.7	3	5.3	6	10.5	9	15.8	2	3.5	0	0.0	4	7.0	57
Total	6687	2915	43.6	2630	39.3	5545	82.9	272	4.1	240	3.6	512	7.7	97	1.5	189	2.8	344	5.1	6687

Table 22: Distribution of Treatment Outcome of All New PTB Cases by District in 2020

				Trea	tment	Trea	tment		Die	ed										
District	Total Number Registered	Cu	red	Comp	pleted	* * * *	cess		as not due to B	All Othe	r Deaths	All D	eaths	Fai	lure	Lost to 1	Follow up	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	1153	653	56.6	241	20.9	1208	104.8	32	2.8	62	5.4	94	8.2	27	2.3	100	8.7	38	3.3	1153
Gampaha	552	282	51.1	155	28.1	613	111.1	29	5.3	27	4.9	56	10.1	5	0.9	20	3.6	34	6.2	552
Kalutara	330	179	54.2	94	28.5	377	114.2	5	1.5	9	2.7	14	4.2	3	0.9	8	2.4	32	9.7	330
Kandy	324	193	59.6	83	25.6	390	120.4	15	4.6	8	2.5	23	7.1	5	1.5	7	2.2	13	4.0	324
Matale	93	63	67.7	14	15.1	118	126.9	3	3.2	7	7.5	10	10.8	0	0.0	1	1.1	5	5.4	93
Nuwara Eliya	121	68	56.2	23	19.0	156	128.9	8	6.6	10	8.3	18	14.9	2	1.7	6	5.0	4	3.3	121
Galle	215	142	66.0	42	19.5	282	131.2	9	4.2	8	3.7	17	7.9	4	1.9	2	0.9	8	3.7	215
Matara	98	79	80.6	2	2.0	121	123.5	2	2.0	1	1.0	3	3.1	2	2.0	1	1.0	11	11.2	98
Hambantota	90	54	60.0	20	22.2	115	127.8	9	10.0	0	0.0	9	10.0	2	2.2	2	2.2	3	3.3	90
Jaffna	116	59	50.9	35	30.2	156	134.5	12	10.3	2	1.7	14	12.1	0	0.0	0	0.0	8	6.9	116
Vavuniya	38	27	71.1	2	5.3	33	86.8	4	10.5	3	7.9	7	18.4	2	5.3	0	0.0	0	0.0	38
Batticaloa	86	62	72.1	9	10.5	100	116.3	5	5.8	6	7.0	11	12.8	0	0.0	2	2.3	2	2.3	86
Ampara	47	28	59.6	12	25.5	57	121.3	4	8.5	1	2.1	5	10.6	1	2.1	0	0.0	1	2.1	47
Kalmunai	106	60	56.6	25	23.6	100	94.3	6	5.7	2	1.9	8	7.5	4	3.8	4	3.8	5	4.7	106
Trincomalee	90	58	64.4	20	22.2	98	108.9	5	5.6	1	1.1	6	6.7	4	4.4	0	0.0	2	2.2	90
Kurunegala	234	157	67.1	46	19.7	279	119.2	6	2.6	14	6.0	20	8.5	5	2.1	4	1.7	2	0.9	234
Puttalam	109	67	61.5	22	20.2	131	120.2	9	8.3	5	4.6	14	12.8	1	0.9	1	0.9	4	3.7	109
Anuradhapura	151	131	86.8	16	10.6	204	135.1	3	2.0	1	0.7	4	2.6	0	0.0	0	0.0	0	0.0	151
Polonnaruwa	94	59	62.8	29	30.9	114	121.3	4	4.3	2	2.1	6	6.4	0	0.0	0	0.0	0	0.0	94
Badulla	147	98	66.7	18	12.2	174	118.4	9	6.1	5	3.4	14	9.5	3	2.0	2	1.4	12	8.2	147
Monaragala	104	63	60.6	25	24.0	118	113.5	5	4.8	3	2.9	8	7.7	0	0.0	2	1.9	6	5.8	104
Ratnapura	209	149	71.3	44	21.1	279	133.5	3	1.4	7	3.3	10	4.8	1	0.5	1	0.5	4	1.9	209
Kegalle	190	148	77.9	26	13.7	243	127.9	7	3.7	7	3.7	14	7.4	1	0.5	0	0.0	1	0.5	190
Mannar	12	6	50.0	2	16.7	13	108.3	1	8.3	2	16.7	3	25.0	1	8.3	0	0.0	0	0.0	12
Mullaitivu	12	10	83.3	2	16.7	24	200.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12
Kilinochchi	44	20	45.5	11	25.0	42	95.5	3	6.8	5	11.4	8	18.2	2	4.5	0	0.0	3	6.8	44
Total	4765	2915	61.2	1018	21.4	5545	116.4	198	4.2	198	4.2	396	8.3	75	1.6	163	3.4	198	4.2	4765

Table 23: Distribution of Treatment Outcome of New Sputum Positive PTB Cases by District in 2020

				Tu 4		Т	4		Die	d						T 4 4 -	Follow			
District	Total Number Registered	Cu	red	Treat Comp		Suc	tment cess	Confirem	ed as not o TB	All Othe	r Deaths	All D	eaths	Fa	ilure		p p	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	1153	653	56.6	241	20.9	894	77.5	32	2.8	62	5.4	94	8.2	27	2.3	100	8.7	38	3.3	1429
Gampaha	552	282	51.1	155	28.1	437	79.2	29	5.3	27	4.9	56	10.1	5	0.9	20	3.6	34	6.2	778
Kalutara	330	179	54.2	94	28.5	273	82.7	5	1.5	9	2.7	14	4.2	3	0.9	8	2.4	32	9.7	421
Kandy	324	193	59.6	83	25.6	276	85.2	15	4.6	8	2.5	23	7.1	5	1.5	7	2.2	13	4.0	384
Matale	93	63	67.7	14	15.1	77	82.8	3	3.2	7	7.5	10	10.8	0	0.0	1	1.1	5	5.4	101
Nuwara Eliya	121	68	56.2	23	19.0	91	75.2	8	6.6	10	8.3	18	14.9	2	1.7	6	5.0	4	3.3	141
Galle	215	142	66.0	42	19.5	184	85.6	9	4.2	8	3.7	17	7.9	4	1.9	2	0.9	8	3.7	254
Matara	98	79	80.6	2	2.0	81	82.7	2	2.0	1	1.0	3	3.1	2	2.0	1	1.0	11	11.2	125
Hambantota	90	54	60.0	20	22.2	74	82.2	9	10.0	0	0.0	9	10.0	2	2.2	2	2.2	3	3.3	76
Jaffna	116	59	50.9	35	30.2	94	81.0	12	10.3	2	1.7	14	12.1	0	0.0	0	0.0	8	6.9	192
Vavuniya	38	27	71.1	2	5.3	29	76.3	4	10.5	3	7.9	7	18.4	2	5.3	0	0.0	0	0.0	40
Batticaloa	86	62	72.1	9	10.5	71	82.6	5	5.8	6	7.0	11	12.8	0	0.0	2	2.3	2	2.3	92
Ampara	47	28	59.6	12	25.5	40	85.1	4	8.5	1	2.1	5	10.6	1	2.1	0	0.0	1	2.1	76
Kalmunai	106	60	56.6	25	23.6	85	80.2	6	5.7	2	1.9	8	7.5	4	3.8	4	3.8	5	4.7	128
Trincomalee	90	58	64.4	20	22.2	78	86.7	5	5.6	1	1.1	6	6.7	4	4.4	0	0.0	2	2.2	97
Kurunegala	234	157	67.1	46	19.7	203	86.8	6	2.6	14	6.0	20	8.5	5	2.1	4	1.7	2	0.9	268
Puttalam	109	67	61.5	22	20.2	89	81.7	9	8.3	5	4.6	14	12.8	1	0.9	1	0.9	4	3.7	117
Anuradhapura	151	131	86.8	16	10.6	147	97.4	3	2.0	1	0.7	4	2.6	0	0.0	0	0.0	0	0.0	172
Polonnaruwa	94	59	62.8	29	30.9	88	93.6	4	4.3	2	2.1	6	6.4	0	0.0	0	0.0	0	0.0	111
Badulla	147	98	66.7	18	12.2	116	78.9	9	6.1	5	3.4	14	9.5	3	2.0	2	1.4	12	8.2	183
Monaragala	104	63	60.6	25	24.0	88	84.6	5	4.8	3	2.9	8	7.7	0	0.0	2	1.9	6	5.8	94
Ratnapura	209	149	71.3	44	21.1	193	92.3	3	1.4	7	3.3	10	4.8	1	0.5	1	0.5	4	1.9	245
Kegalle	190	148	77.9	26	13.7	174	91.6	7	3.7	7	3.7	14	7.4	1	0.5	0	0.0	1	0.5	225
Mannar	12	6	50.0	2	16.7	8	66.7	1	8.3	2	16.7	3	25.0	1	8.3	0	0.0	0	0.0	19
Mullaitivu	12	10	83.3	2	16.7	12	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	21
Kilinochchi	44	20	45.5	11	25.0	31	70.5	3	6.8	5	11.4	8	18.2	2	4.5	0	0.0	3	6.8	38
Total	4765	2915	61.2	1018	21.4	3933	82.5	198	4.2	198	4.2	396	8.3	75	1.6	163	3.4	198	4.2	5827

Table 24: Distribution of Treatment Outcome of New Sputum Negative PTB Cases by District in 2020

					Die	d										
District	Total Number Registered	Treatment Con	pleted	Confiremed to		All Othe	r Deaths	All D	eaths	Fai	lure	Lost to 1	Follow up	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	223	175	78.5	6	2.7	12	5.4	18	8.1	3	1.3	13	5.8	14	6.3	223
Gampaha	137	106	77.4	6	4.4	6	4.4	12	8.8	0	0.0	4	2.9	15	10.9	137
Kalutara	33	22	66.7	3	9.1	2	6.1	5	15.2	0	0.0	1	3.0	5	15.2	33
Kandy	95	77	81.1	5	5.3	2	2.1	7	7.4	1	1.1	2	2.1	8	8.4	95
Matale	20	13	65.0	2	10.0	1	5.0	3	15.0	0	0.0	0	0.0	4	20.0	20
Nuwara Eliya	33	23	69.7	3	9.1	4	12.1	7	21.2	0	0.0	2	6.1	1	3.0	33
Galle	48	41	85.4	0	0.0	2	4.2	2	4.2	0	0.0	0	0.0	5	10.4	48
Matara	3	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3	3
Hambantota	26	20	76.9	3	11.5	0	0.0	3	11.5	0	0.0	0	0.0	3	11.5	26
Jaffna	24	16	66.7	4	16.7	0	0.0	4	16.7	0	0.0	0	0.0	4	16.7	24
Vavuniya	5	1	20.0	2	40.0	1	20.0	3	60.0	1	20.0	0	0.0	0	0.0	5
Batticaloa	10	9	90.0	0	0.0	1	10.0	1	10.0	0	0.0	0	0.0	0	0.0	10
Ampara	13	10	76.9	1	7.7	1	7.7	2	15.4	0	0.0	0	0.0	1	7.7	13
Kalmunai	21	12	57.1	4	19.0	2	9.5	6	28.6	0	0.0	1	4.8	2	9.5	21
Trincomalee	13	9	69.2	2	15.4	1	7.7	3	23.1	0	0.0	0	0.0	1	7.7	13
Kurunegala	50	42	84.0	2	4.0	4	8.0	6	12.0	0	0.0	1	2.0	1	2.0	50
Puttalam	24	22	91.7	1	4.2	0	0.0	1	4.2	0	0.0	0	0.0	1	4.2	24
Anuradhapura	16	16	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16
Polonnaruwa	33	29	87.9	2	6.1	2	6.1	4	12.1	0	0.0	0	0.0	0	0.0	33
Badulla	40	26	65.0	3	7.5	1	2.5	4	10.0	0	0.0	2	5.0	8	20.0	40
Monaragala	32	24	75.0	1	3.1	1	3.1	2	6.3	0	0.0	1	3.1	5	15.6	32
Ratnapura	30	26	86.7	1	3.3	1	3.3	2	6.7	0	0.0	1	3.3	1	3.3	30
Kegalle	28	24	85.7	2	7.1	1	3.6	3	10.7	0	0.0	0	0.0	1	3.6	28
Mannar	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Mullaitivu	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Kilinochchi	13	7	53.8	1	7.7	3	23.1	4	30.8	1	7.7	0	0.0	1	7.7	13
Total	974	756	77.6	54	5.5	48	4.9	102	10.5	6	0.6	28	2.9	82	8.4	974

Table 25: Distribution of Treatment Outcome of EPTB Cases by District in 2020

		Troo	tment		Die	ed										
District	Total Number Registered		pleted		as not due to	All Othe	r Deaths	All E	Deaths	Fai	lure	Lost to	Follow up	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	376	314	83.5	12	3.2	12	3.2	24	6.4	8	2.1	12	3.2	18	4.8	376
Gampaha	220	176	80.0	12	5.5	6	2.7	18	8.2	3	1.4	3	1.4	20	9.1	220
Kalutara	141	104	73.8	1	0.7	7	5.0	8	5.7	1	0.7	0	0.0	28	19.9	141
Kandy	130	114	87.7	3	2.3	1	0.8	4	3.1	6	4.6	2	1.5	4	3.1	130
Matale	43	41	95.3	0	0.0	1	2.3	1	2.3	0	0.0	0	0.0	1	2.3	43
Nuwara Eliya	83	65	78.3	5	6.0	1	1.2	6	7.2	0	0.0	3	3.6	9	10.8	83
Galle	119	98	82.4	5	4.2	1	0.8	6	5.0	0	0.0	1	0.8	14	11.8	119
Matara	44	40	90.9	1	2.3	0	0.0	1	2.3	0	0.0	0	0.0	3	6.8	44
Hambantota	46	41	89.1	3	6.5	0	0.0	3	6.5	1	2.2	0	0.0	1	2.2	46
Jaffna	87	62	71.3	6	6.9	2	2.3	8	9.2	0	0.0	1	1.1	16	18.4	87
Vavuniya	5	4	80.0	0	0.0	1	20.0	1	20.0	0	0.0	0	0.0	0	0.0	5
Batticaloa	34	29	85.3	3	8.8	2	5.9	5	14.7	0	0.0	0	0.0	0	0.0	34
Ampara	18	17	94.4	1	5.6	0	0.0	1	5.6	0	0.0	0	0.0	0	0.0	18
Kalmunai	21	15	71.4	2	9.5	0	0.0	2	9.5	1	4.8	0	0.0	3	14.3	21
Trincomalee	22	20	90.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	9.1	22
Kurunegala	83	76	91.6	2	2.4	1	1.2	3	3.6	0	0.0	1	1.2	3	3.6	83
Puttalam	47	42	89.4	3	6.4	0	0.0	3	6.4	0	0.0	0	0.0	2	4.3	47
Anuradhapura	57	57	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	57
Polonnaruwa	30	26	86.7	0	0.0	1	3.3	1	3.3	0	0.0	0	0.0	3	10.0	30
Badulla	75	58	77.3	6	8.0	0	0.0	6	8.0	0	0.0	1	1.3	10	13.3	75
Monaragala	35	30	85.7	0	0.0	1	2.9	1	2.9	1	2.9	1	2.9	2	5.7	35
Ratnapura	95	86	90.5	1	1.1	2	2.1	3	3.2	0	0.0	1	1.1	5	5.3	95
Kegalle	81	69	85.2	8	9.9	2	2.5	10	12.3	1	1.2	0	0.0	1	1.2	81
Mannar	5	5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5
Mullaitivu	12	12	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12
Kilinochchi	13	11	84.6	0	0.0	1	7.7	1	7.7	0	0.0	0	0.0	1	7.7	13
Total	1922	1612	83.9	74	3.9	42	2.2	116	6.0	22	1.1	26	1.4	146	7.6	1922

72

Table 26: Distribution of Treatment Outcome of Re-Treatment TB Cases by District in 2020

				Trea	tment	Trea	tment		Died	ı						Lost to	Follow			
District	Total Number Registered	Cı	ıred	Comp	pleted	Suc		Confiremed to '		All Othe	r Deaths	All D	eaths	Fai	lure	ι	ıp	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	180	80	44.4	40	22.2	120	66.7	1	0.6	13	7.2	14	7.8	5	2.8	30	16.7	11	6.1	180
Gampaha	75	26	34.7	15	20.0	41	54.7	4	5.3	4	5.3	8	10.7	0	0.0	16	21.3	10	13.3	75
Kalutara	24	12	50.0	6	25.0	18	75.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	25.0	24
Kandy	30	22	73.3	6	20.0	28	93.3	0	0.0	0	0.0	0	0.0	0	0.0	2	6.7	0	0.0	30
Matale	5	2	40.0	1	20.0	3	60.0	0	0.0	1	20.0	1	20.0	0	0.0	0	0.0	1	20.0	5
Nuwara Eliya	13	7	53.8	4	30.8	11	84.6	0	0.0	0	0.0	0	0.0	0	0.0	2	15.4	0	0.0	13
Galle	34	16	47.1	11	32.4	27	79.4	0	0.0	1	2.9	1	2.9	1	2.9	1	2.9	4	11.8	34
Matara	12	7	58.3	3	25.0	10	83.3	2	16.7	0	0.0	2	16.7	0	0.0	0	0.0	0	0.0	12
Hambantota	14	6	42.9	3	21.4	9	64.3	2	14.3	0	0.0	2	14.3	0	0.0	1	7.1	2	14.3	14
Jaffna	15	8	53.3	4	26.7	12	80.0	0	0.0	1	6.7	1	6.7	0	0.0	0	0.0	2	13.3	15
Vavuniya	4	4	100.0	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4
Batticaloa	7	4	57.1	0	0.0	4	57.1	0	0.0	3	42.9	3	42.9	0	0.0	0	0.0	0	0.0	7
Ampara	5	4	80.0	0	0.0	4	80.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	5
Kalmunai	15	7	46.7	6	40.0	13	86.7	0	0.0	0	0.0	0	0.0	1	6.7	0	0.0	1	6.7	15
Trincomalee	8	4	50.0	0	0.0	4	50.0	1	12.5	0	0.0	1	12.5	3	37.5	0	0.0	0	0.0	8
Kurunegala	24	19	79.2	3	12.5	22	91.7	0	0.0	2	8.3	2	8.3	0	0.0	0	0.0	0	0.0	24
Puttalam	3	2	66.7	1	33.3	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3
Anuradhapura	19	16	84.2	2	10.5	18	94.7	0	0.0	0	0.0	0	0.0	1	5.3	0	0.0	0	0.0	19
Polonnaruwa	2	2	100.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Badulla	10	6	60.0	2	20.0	8	80.0	1	10.0	0	0.0	1	10.0	0	0.0	1	10.0	0	0.0	10
Monaragala	11	6	54.5	1	9.1	7	63.6	0	0.0	1	9.1	1	9.1	0	0.0	0	0.0	3	27.3	11
Ratnapura	33	18	54.5	13	39.4	31	93.9	0	0.0	2	6.1	2	6.1	0	0.0	0	0.0	0	0.0	33
Kegalle	18	17	94.4	0	0.0	17	94.4	1	5.6	0	0.0	1	5.6	0	0.0	0	0.0	0	0.0	18
Mannar	2	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	2
Mullaitivu	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kilinochchi	3	2	66.7	0	0.0	2	66.7	0	0.0	1	33.3	1	33.3	0	0.0	0	0.0	0	0.0	3
Total	566	298	52.7	121	21.4	419	74.0	13	2.3	29	5.1	42	7.4	12	2.1	53	9.4	40	7.1	566

Table 27: Distribution of Treatment Outcome of Other TB Cases by District in 2020

	m 4 1N 1	C	ıred	Trea	tment		Died	l		Foi	lure	Lost to	Follow	Not En	aluated	
District	Total Number Registered	Ci	irea	Comp	oleted	Confiremed to	d as not due TB	All Othe	r Deaths	Fai	iure	u	ıp	NOL EV	aiuateu	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	5	2	40.0	2	40.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	7
Gampaha	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kalutara	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kandy	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Matale	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Nuwara Eliya	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Galle	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Matara	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Hambantota	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Jaffna	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Vavuniya	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Batticaloa	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Ampara	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kalmunai	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Trincomalee	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kurunegala	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Puttalam	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anuradhapura	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Polonnaruwa	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Badulla	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Monaragala	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Ratnapura	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kegalle	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Mannar	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Mullaitivu	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kilinochchi	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total	5	2	40.0	2	40.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	5

Table 28: Distribution of Sputum Conversion of New PTB Cases at the End of the Intensive Phase by District in 2020

			Spu	ıtum a	t 2nd N	lonth			Sp	outum	at 3rd	Month						N	ot	
DISTRICT	Total Number Registered	Nege	etive	Pos	sitive	Not A	vilable	Neg	etive	Pos	sitive	Not A	/ilable	Di	ed	Defa	ulted	Evalu		Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
COLOMBO	930	578	62.2	95	10.2	185	19.9	47	5.1	13	1.4	2	0.2	65	7.0	33	3.5	194	20.9	930
GAMPAHA	409	257	62.8	40	9.8	77	18.8	52	12.7	12	2.9	47	11.5	32	7.8	6	1.5	50	12.2	409
KALUTARA	295	216	73.2	19	6.4	60	20.3	18	6.1	0	0.0	2	0.7	4	1.4	7	2.4	50	16.9	295
KANDY	227	167	73.6	45	19.8	4	1.8	36	15.9	7	3.1	3	1.3	7	3.1	3	1.3	7	3.1	227
MATALE	74	62	83.8	5	6.8	0	0.0	2	2.7	0	0.0	0	0.0	6	8.1	0	0.0	4	5.4	74
NUWARAELIYA	85	62	72.9	14	16.5	2	2.4	1	1.2	4	4.7	1	1.2	10	11.8	2	2.4	6	7.1	85
GALLE	167	129	77.2	20	12.0	5	3.0	8	4.8	4	2.4	0	0.0	12	7.2	1	0.6	13	7.8	167
MATARA	97	49	50.5	37	38.1	5	5.2	5	5.2	1	1.0	0	0.0	2	2.1	0	0.0	40	41.2	97
HAMBANTOTA	64	54	84.4	3	4.7	1	1.6	0	0.0	0	0.0	1	1.6	4	6.3	0	0.0	6	9.4	64
JAFFNA	92	32	34.8	6	6.5	39	42.4	35	38.0	2	2.2	8	8.7	5	5.4	0	0.0	18	19.6	92
VAVUNIYA	33	24	72.7	6	18.2	2	6.1	4	12.1	0	0.0	0	0.0	3	9.1	0	0.0	2	6.1	33
BATICALOA	76	61	80.3	5	6.6	2	2.6	5	6.6	0	0.0	1	1.3	6	7.9	0	0.0	4	5.3	76
AMPARA	35	28	80.0	2	5.7	0	0.0	2	5.7	0	0.0	0	0.0	3	8.6	0	0.0	2	5.7	35
KALMUNAI	86	52	60.5	15	17.4	12	14.0	1	1.2	2	2.3	0	0.0	2	2.3	0	0.0	29	33.7	86
TRINCOMALEE	76	57	75.0	15	19.7	4	5.3	11	14.5	1	1.3	0	0.0	4	5.3	0	0.0	3	3.9	76
KURUNEGALA	186	153	82.3	23	12.4	1	0.5	19	10.2	3	1.6	0	0.0	9	4.8	0	0.0	2	1.1	186
PUTTALAM	88	73	83.0	9	10.2	0	0.0	5	5.7	2	2.3	0	0.0	6	6.8	0	0.0	2	2.3	88
ANURADAPURA	135	116	85.9	15	11.1	0	0.0	10	7.4	1	0.7	0	0.0	4	3.0	0	0.0	4	3.0	135
POLONNARUWA	61	40	65.6	19	31.1	6	9.8	13	21.3	0	0.0	0	0.0	1	1.6	0	0.0	7	11.5	61
BADULLA	107	92	86.0	10	9.3	3	2.8	0	0.0	0	0.0	0	0.0	5	4.7	0	0.0	10	9.3	107
MONARAGALA	73	53	72.6	13	17.8	0	0.0	13	17.8	0	0.0	1	1.4	7	9.6	0	0.0	0	0.0	73
RATNAPURA	179	158	88.3	14	7.8	1	0.6	10	5.6	3	1.7	0	0.0	8	4.5	0	0.0	0	0.0	179
KEGALLE	164	147	89.6	6	3.7	11	6.7	3	1.8	1	0.6	0	0.0	9	5.5	0	0.0	4	2.4	164
MANNAR	10	8	80.0	2	20.0	0	0.0	0	0.0	0	0.0	0	0.0	2	20.0	0	0.0	0	0.0	10
MULLAITIVU	10	10	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10
KILINOCHCHI	30	21	70.0	2	6.7	1	3.3	1	3.3	0	0.0	0	0.0	4	13.3	0	0.0	4	13.3	30
TOTEL	3789	2699	1947	440	328.6	421	166.96	301	204.8	56	28.27	66	1.7	220	167	52	11.66	461	241.2	3789

Table 29: Distribution of Sputum Conversion of Re-Treatment PTB Cases at the End of the Intensive Phase by District in 2020

			Spi	utum a	t 3rd M	onth			Spu	ıtum at	4th Mo	nth						N	ot	
DISTRICT	Total Number Registered	Neg	etive	Pos	itive	Not A	vilable	Neg	etive	Posi	itive	Not A	vilable	Di	ed	Defa	ulted		uated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
COLOMBO	139	78	56.1	7	5.0	38	27.3	2	1.4	2	1.4	0	0.0	4	2.9	14	10.1	39	28.1	139
GAMPAHA	60	22	36.7	2	3.3	15	25.0	7	11.7	0	0.0	3	5.0	5	8.3	6	10.0	20	33.3	60
KALUTARA	19	12	63.2	1	5.3	5	26.3	1	5.3	0	0.0	0	0.0	0	0.0	5	26.3	1	5.3	19
KANDY	23	19	82.6	2	8.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.3	3	13.0	23
MATALE	4	3	75.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	4
NUWARAELIYA	9	7	77.8	0	0.0	2	22.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	22.2	9
GALLE	23	20	87.0	1	4.3	1	4.3	0	0.0	0	0.0	1	4.3	1	4.3	0	0.0	2	8.7	23
MATARA	9	6	66.7	3	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	33.3	9
HAMBANTOTA	8	5	62.5	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	2	25.0	8
JAFFNA	11	7	63.6	0	0.0	2	18.2	0	0.0	0	0.0	0	0.0	1	9.1	0	0.0	3	27.3	11
VAVUNIYA	3	1	33.3	1	33.3	0	0.0	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	1	33.3	3
BATICALOA	6	4	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	33.3	0	0.0	0	0.0	6
AMPARA	4	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4
KALMUNAI	11	2	18.2	3	27.3	5	45.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	81.8	11
TRINCOMALEE	7	4	57.1	1	14.3	0	0.0	0	0.0	2	28.6	0	0.0	1	14.3	0	0.0	0	0.0	7
KURUNEGALA	21	19	90.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.8	0	0.0	1	4.8	21
PUTTALAM	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
ANURADAPURA	17	15	88.2	2	11.8	0	0.0	2	11.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17
POLONNARUWA	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
BADULLA	4	3	75.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0	0	0.0	4
MONARAGALA	7	7	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7
RATNAPURA	23	22	95.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.3	23
KEGALLE	17	15	88.2	1	5.9	0	0.0	0	0.0	1	5.9	0	0.0	1	5.9	0	0.0	0	0.0	17
MANNAR	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
MULLAITIVU	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
KILINOCHCHI	3	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3	0	0.0	0	0.0	3
TOTEL	432	281	65.0	24	5.6	69	16.0	12	2.8	6	1.4	4	0.9	19	4.4	27	6.3	87	20.1	432

Table 30: All TB Case Detection by category by District of Registration in 2020

				New C	ases					Ret	reatmen	t Cases				0	ther T	reatment	History unk	nown		
	Ва		gy conf	orm				Ва	cteriolo		rm						ogy co	nform				
District	Sputu m PTB sp+ve	m PTBs p-ve Cultur	m PTBs p-ve wRD	Total	Clinically Diagnosis (Sputum Negative)	ЕРТВ	Total	Sputu m PTB sp+ve	m PTBsp- ve Cultur	Sputu m PTBsp- ve wen	Total	Clinically Diagnosis (Sputum Negative)	ЕРТВ	Total	um PTB sp+v	um PTB sp-	um PTB sp-	Total	Clinically Diagnosis (Sputum Negative)	ЕРТВ	Total	Grand Total
Colombo	607	14	304	925	214	348	1487	100	3	42	145	25	22	192	4	0	3	7	2	2	11	1690
Gampaha	372	12	58	442	149	232	823	41	1	8	50	12	8	70	0	0	1	1	1	0	2	895
Kalutara	237	2	21	260	26	115	401	28	1	1	30	1	4	35	0	0	0	0	0	0	0	436
Kandy	191	1	12	204	104	127	435	15	0	3	18	4	5	27	0	0	0	0	0	0	0	462
Matale	53	0	3	56	10	47	113	2	0	1	3	1	0	4	0	0	0	0	0	0	0	117
Nuwara Eliya	68	0	0	68	40	59	167	8	1	0	9	0	1	10	0	0	0	0	0	0	0	177
Galle	144	0	10	154	47	154	355	15	0	1	16	5	3	24	0	0	0	0	0	1	1	380
Matara	51	0	14	65	8	31	104	4	0	0	4	0	0	4	0	0	0	0	0	0	0	108
Hambantota	29	1	8	38	34	32	104	3	1	1	5	1	1	7	0	0	0	0	0	0	0	111
Jaffna	58	0	12	70	31	87	188	4	0	4	8	1	2	11	0	0	0	0	0	0	0	199
Vavuniya	31	0	6	37	2	7	46	5	0	0	5	2	0	7	0	0	0	0	0	0	0	53
Batticaloa	54	3	19	76	16	26	118	3	0	1	4	1	1	6	0	0	0	0	0	0	0	124
Ampara	21	1	4	26	8	10	44	3	0	0	3	0	0	3	0	0	0	0	0	0	0	47
Kalmunai	62	3	9	74	20	34	128	6	2	3	11	1	1	13	0	0	0	0	0	0	0	141
Trincomalee	61	2	3	66	8	14	88	10	1	1	12	1	0	13	0	0	0	0	0	0	0	101
Kurunegala	138	16	19	173	47	102	322	15	2	2	19	1	0	20	0	0	0	0	0	0	0	342
Puttalam	81	4	7	92	13	46	151	5	0	1	6	0	0	6	0	0	0	0	0	0	0	157
Anuradhapura	83	1	16	100	14	47	161	8	0	3	11	1	0	12	0	0	0	0	0	0	0	173
Polonnaruwa	57	1	11	69	29	25	123	1	0	3	4	1	1	6	0	0	0	0	0	0	0	129
Badulla	71	10	11	92	30	62	184	5	1	1	7	0	1	8	0	0	0	0	0	0	0	192
Monaragala	44	0	2	46	15	38	99	3	0	0	3	0	2	5	0	0	0	0	0	0	0	104
Ratnapura	125	2	36	163	43	87	293	6	0	5	11	1	2	14	0	0	0	0	0	0	0	307
Kegalle	126	3	23	152	14	63	229	4	0	0	4	1	2	7	0	0	0	0	0	0	0	236
Mannar	11	2	0	13	3	13	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
Mullaitivu	9	0	3	12	3	10	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Kilinochchi	9	0	1	10	5	17	32	3	0	0	3	0	1	4	0	0	0	0	0	0	0	36
Total	2793	78	612	3483	933	1833	6249	297	13	81	391	60	57	508	4	0	4	8	3	3	14	6771

Table 31: Distribution of Treatment Outcome of WRD TB Cases by District in 2020

									Di	ed										
District	Total Number Registered	Cı	ıred	Treatment	t Completed	Treatmen	nt Success		as not due to	All Othe	r Deaths	All D	eaths	Fai	lure	Lost to 1	Follow up	Not Ev	aluated	Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	234	149	63.7	26	11.1	175	74.8	7	3.0	12	5.1	19	8.1	5	2.1	29	12.4	6	2.6	234
Gampaha	39	12	30.8	19	48.7	31	79.5	2	5.1	2	5.1	4	10.3	0	0.0	0	0.0	4	10.3	39
Kalutara	27	22	81.5	1	3.7	23	85.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	14.8	27
Kandy	23	20	87.0	1	4.3	21	91.3	0	0.0	0	0.0	0	0.0	0	0.0	1	4.3	1	4.3	23
Matale	4	3	75.0	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0	4
Nuwara Eliya	6	5	83.3	0	0.0	5	83.3	1	16.7	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	6
Galle	22	18	81.8	0	0.0	18	81.8	2	9.1	1	4.5	3	13.6	1	4.5	0	0.0	0	0.0	22
Matara	21	18	85.7	0	0.0	18	85.7	0	0.0	0	0.0	0	0.0	1	4.8	1	4.8	1	4.8	21
Hambantota	12	11	91.7	0	0.0	11	91.7	1	8.3	0	0.0	1	8.3	0	0.0	0	0.0	0	0.0	12
Jaffna	15	9	60.0	5	33.3	14	93.3	1	6.7	0	0.0	1	6.7	0	0.0	0	0.0	0	0.0	15
Vavuniya	7	6	85.7	0	0.0	6	85.7	1	14.3	0	0.0	1	14.3	0	0.0	0	0.0	0	0.0	7
Batticaloa	9	7	77.8	0	0.0	7	77.8	1	11.1	1	11.1	2	22.2	0	0.0	0	0.0	0	0.0	9
Ampara	4	2	50.0	2	50.0	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4
Kalmunai	11	2	18.2	8	72.7	10	90.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	9.1	11
Trincomalee	7	6	85.7	0	0.0	6	85.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	14.3	7
Kurunegala	21	20	95.2	0	0.0	20	95.2	1	4.8	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0	21
Puttalam	7	5	71.4	0	0.0	5	71.4	1	14.3	0	0.0	1	14.3	0	0.0	1	14.3	0	0.0	7
Anuradhapura	14	14	100.0	0	0.0	14	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14
Polonnaruwa	6	6	100.0	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6
Badulla	6	5	83.3	0	0.0	5	83.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	16.7	6
Monaragala	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	1
Ratnapura	45	32	71.1	9	20.0	41	91.1	0	0.0	3	6.7	3	6.7	0	0.0	0	0.0	1	2.2	45
Kegalle	20	18	90.0	0	0.0	18	90.0	1	5.0	1	5.0	2	10.0	0	0.0	0	0.0	0	0.0	20
Mannar	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Mullaitivu	3	3	100.0	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3
Kilinochchi	2	2	100.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Total	566	395	69.8	71	12.5	466	82.3	19	3.4	20	3.5	39	6.9	7	1.2	32	5.7	22	3.9	566

Table 32: Distribution of Treatment Outcome of Sputum Negative Culture Positive TB Cases by District in 2020

	Total Number	Cı	red		tment		Di	ed		Fai	lure	Lost to I	Follow up	Not Ev	aluated	
District	Registered	J.		Сотр	oleted	Confiremed : T	as not due to B	All Othe	r Deaths			200000		1,002		Total
		No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	
Colombo	31	8	25.8	16	51.6	1	3.2	1	3.2	0	0.0	3	9.7	2	6.5	31
Gampaha	19	6	31.6	10	52.6	1	5.3	2	10.5	0	0.0	0	0.0	0	0.0	19
Kalutara	4	2	50.0	2	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4
Kandy	8	8	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8
Matale	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1
Nuwara Eliya	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Galle	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Matara	3	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3	3
Hambantota	4	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4
Jaffna	2	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Vavuniya	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Batticaloa	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Ampara	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Kalmunai	4	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	1	25.0	0	0.0	4
Trincomalee	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kurunegala	12	11	91.7	0	0.0	0	0.0	0	0.0	0	0.0	1	8.3	0	0.0	12
Puttalam	9	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9
Anuradhapura	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Polonnaruwa	4	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4
Badulla	18	16	88.9	0	0.0	2	11.1	0	0.0	0	0.0	0	0.0	0	0.0	18
Monaragala	2	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Ratnapura	1	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1
Kegalle	5	4	80.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	5
Mannar	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Mullaitivu	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Kilinochchi	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1
Total	132	81	61.4	34	25.8	5	3.8	4	3.0	0	0.0	5	3.8	3	2.3	132

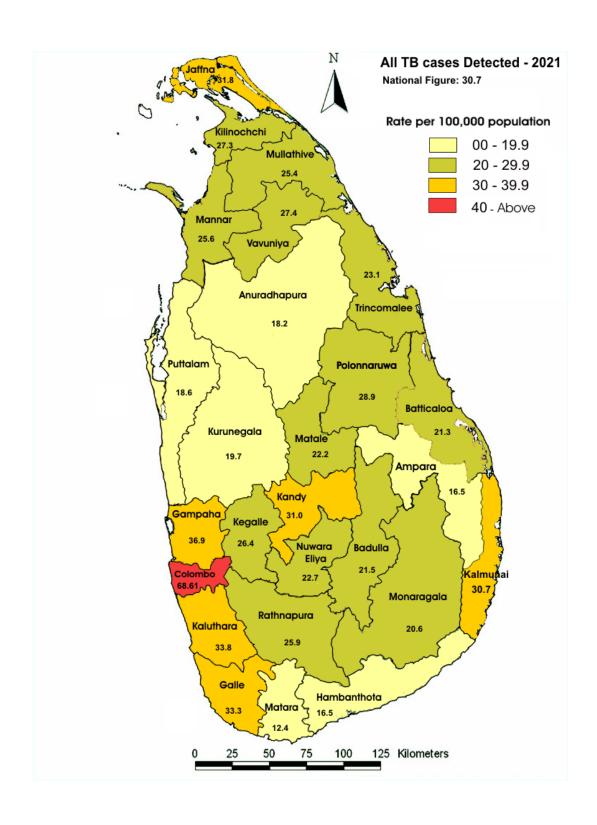


Figure 30: All TB cases detected in 2021

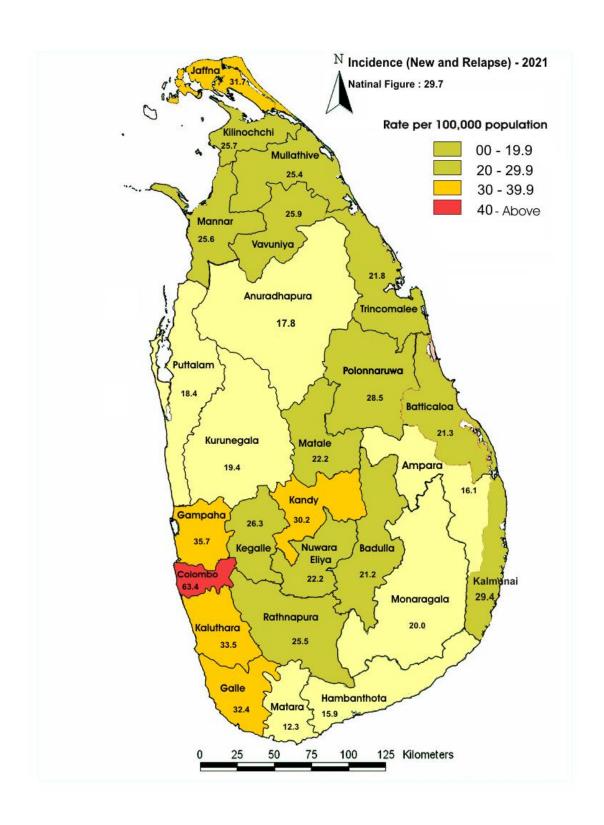


Figure 31: Incidence new and relapse - 2021

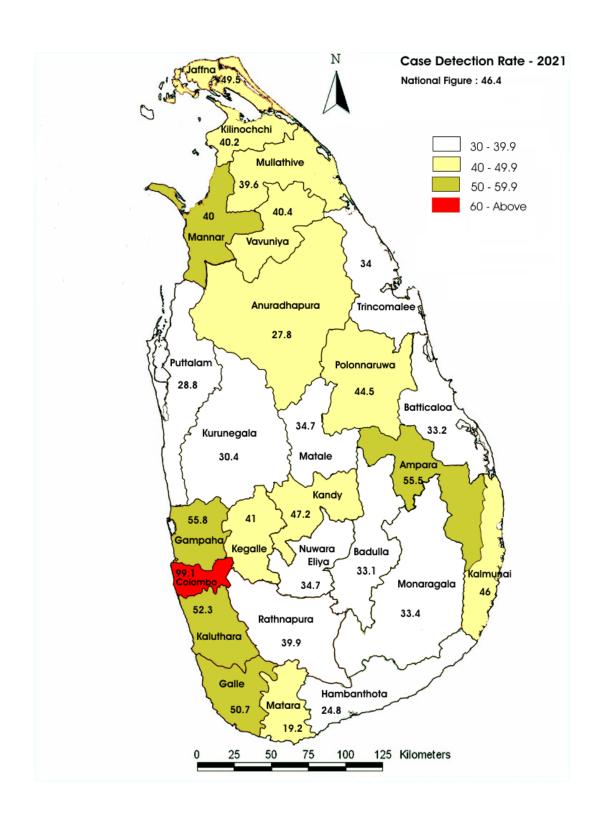


Figure 32: Case detection rate - 2021

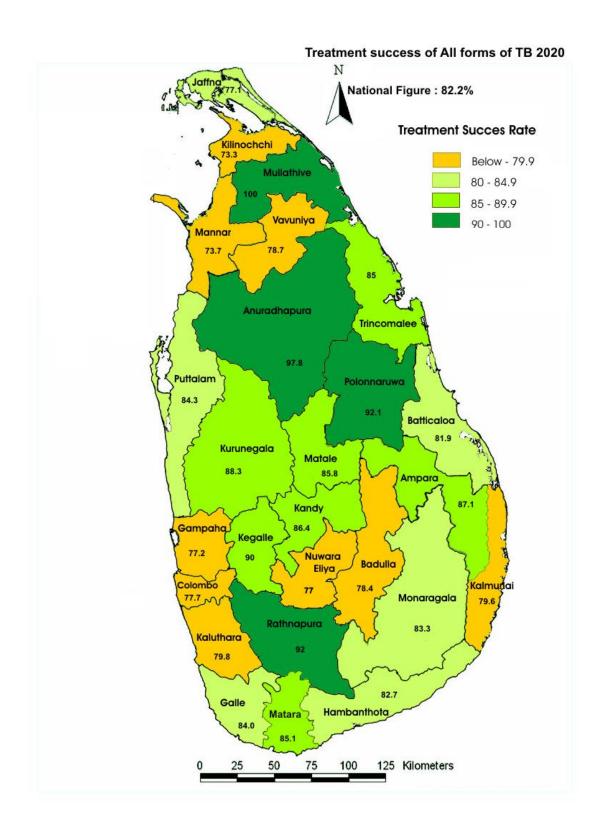


Figure 33: Treatment success of all forms of TB – 2020

