# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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WEEKLY EPIDEMIOLOGICAL REPORT - SRI LANKA - 2015

## Tuberculosis

### Background

Tuberculosis (TB) is caused by the bacterium Mycobacterium tuberculosis, that most often affect the lungs. Tuberculosis is curable and preventable.

TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected.

About one-third of the world's population has latent TB, which means people have been infected by TB bacteria but are not (yet) ill with the disease and cannot transmit the disease.

People infected with TB bacteria have a lifetime risk of falling ill with TB of 10%. However persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a much higher risk of falling ill.

When a person develops active TB (disease), the symptoms (cough, fever, night sweats, weight loss etc.) may be mild for many months. This can lead to delays in seeking care, and results in transmission of the bacteria to others. People ill with TB can infect up to 10-15 other people through close contact over the course of a year. Without proper treatment, up to two thirds of people ill with TB will die.

### Who is most at risk?

Tuberculosis mostly affects young adults, in their most productive years. However, all age groups are at risk. Over 95% of cases and deaths are in developing countries.

People who are infected with HIV are 26 to 31 times more likely to become sick with TB. Risk of active TB is also greater in persons suffering from other conditions that impair the immune system.

Over half a million children (0-14 years) fell ill with TB, and 80 000 HIV-negative children died from the disease in 2013.

Tobacco use greatly increases the risk of TB disease and death. More than 20% of TB cases worldwide are attributable to smoking.

### Symptoms

Common symptoms of active lung TB are cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats.

### Diagnosis

Many countries still rely on a long-used method called sputum smear microscopy to diagnose TB. Trained laboratory technicians look at sputum samples under a microscope to see if TB bacteria are present. With three such tests, diagnosis can be made within a day, but this test does not detect numerous cases of less infectious forms of TB.

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

Tuberculosis is particularly difficult to diagnose in children.

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**Treatment**

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

Between 2000 and 2013, an estimated 37 million lives were saved through TB diagnosis and treatment.

**Multidrug-resistant TB**

Standard anti-TB drugs have been used for decades, and resistance to the medicines is widespread. Disease strains that are resistant to a single anti-TB drug have been documented in every country surveyed.

Multidrug-resistant tuberculosis (MDR-TB) is a form of TB caused by bacteria that do not respond to, at least, Isoniazid and Rifampicin, the two most powerful, first-line (or standard) anti-TB drugs.

The primary cause of MDR-TB is inappropriate treatment. Inappropriate or incorrect use of anti-TB drugs, or use of poor quality medicines, can all cause drug resistance.

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

In some cases more severe drug resistance can develop. Extensively drug-resistant TB (XDR-TB) is a form of multi-drug resistant tuberculosis that responds to even fewer available medicines, including the most effective second-line anti-TB drugs.

About 480 000 people developed MDR-TB in the world in 2013. More than half of these cases were in India, China and the Russian Federation. It is estimated that about 9.0% of MDR-TB cases had XDR-TB.

**World TB day**

The world TB day is on 24th March every year. In 2015,it will be held under the theme of "Four thousand Undetected, reach, treat, cure Everyone". The main activity of this year is to continue to call for a global effort to find, treat and cure all people with TB & accelerate progress towards the bold goal of ending TB by 2035.

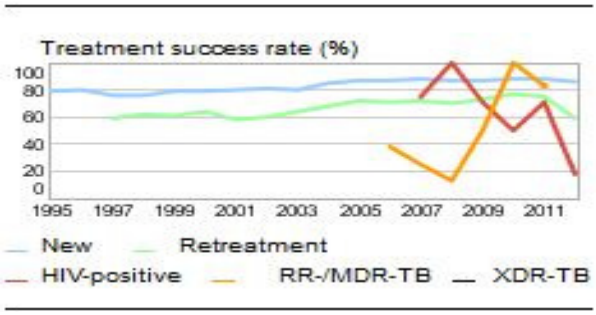
**Sri Lankan Situation**

Sri Lanka is among the low TB prevalence countries in the South East Asia region. The estimated prevalence rate of all forms of TB was 103 per 100,000 population. Sri Lanka has reached & sustained the target of 85% treatment success rate among all new TB cases since 2004.

**Table 1-TB burden in Sri Lanka 2013**

| Population 2013 | | 21 million |
|---|---|---|
| Estimates of TB burden * 2013 | Number (thousands) | Rate (per 100 000 population) |
| Mortality (excludes HIV+TB) | 1.3 (0.99–1.6) | 5.9 (4.7–7.3) |
| Mortality (HIV+TB only) | <0.01 (<0.01–0.01) | 0.03 (0.01–0.05) |
| Prevalence (includes HIV+TB) | 22 (11–36) | 103 (53–170) |
| Incidence (includes HIV+TB) | 14 (13–16) | 66 (59–75) |
| Incidence (HIV+TB only) | 0.025 (<0.01–0.047) | 0.12 (0.04–0.22) |
| Case detection, all forms (%) | 66 (59–74) | |

**Table 2-Treatment success rates**




Even though there were major challenges, TB elimination strategies are carried out. Also there are many activities planned for 2015 as well including expansion of the use of new technology in laboratory diagnostics of TB & MDR-TB, establishment of two regional TB culture laboratories in Galle & Jaffna, strengthening central and peripheral level monitoring mechanisms and many others. The government provides the major part of funding for the TB programme with additional resources from WHO & GF.

**Sources**

Tuberculosis, available at *http://www.who.int/mediacentre/factsheets/fs104/en/*

Tuberculosis control in South East Asia region-Annual TB report 2015 by WHO

**Compiled by Dr. C U D Gunasekara of the Epidemiology Unit.**

**Table 1: Selected notifiable diseases reported by Medical Officers of Health 14th – 20th Mar 2015 (12th Week)**

| RDHS Division | Dengue Fever | | Dysentery | | Encephalitis | | Enteric Fever | | Food Poisoning | | Leptospirosis | | Typhus Fever | | Viral Hepatitis | | Human Rabies | | Chickenpox | | Meningitis | | Leishmaniasis | | WRCD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | T* | C** |
| Colombo | 102 | 3273 | 3 | 54 | 0 | 4 | 2 | 22 | 1 | 20 | 11 | 68 | 0 | 1 | 0 | 14 | 1 | 2 | 20 | 124 | 2 | 9 | 0 | 0 | **75** | **25** |
| Gampaha | 42 | 1448 | 1 | 21 | 0 | 2 | 0 | 7 | 0 | 10 | 8 | 125 | 0 | 3 | 5 | 48 | 0 | 0 | 4 | 47 | 1 | 5 | 0 | 0 | **53** | **47** |
| Kalutara | 16 | 542 | 0 | 27 | 1 | 3 | 0 | 14 | 0 | 13 | 12 | 94 | 0 | 0 | 0 | 9 | 0 | 1 | 4 | 79 | 0 | 10 | 0 | 0 | **77** | **23** |
| Kandy | 5 | 412 | 0 | 34 | 0 | 0 | 0 | 9 | 0 | 1 | 0 | 14 | 0 | 17 | 0 | 49 | 0 | 0 | 0 | 62 | 0 | 4 | 0 | 1 | **13** | **87** |
| Matale | 6 | 276 | 1 | 18 | 0 | 0 | 0 | 3 | 0 | 3 | 1 | 17 | 0 | 3 | 0 | 11 | 0 | 0 | 3 | 7 | 0 | 2 | 0 | 3 | **85** | **15** |
| NuwaraEliya | 2 | 72 | 10 | 78 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 8 | 1 | 23 | 1 | 31 | 0 | 0 | 0 | 16 | 1 | 18 | 0 | 0 | **92** | **8** |
| Galle | 0 | 282 | 0 | 23 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 54 | 0 | 22 | 0 | 4 | 0 | 0 | 0 | 59 | 0 | 13 | 0 | 0 | **5** | **95** |
| Hambantota | 6 | 114 | 0 | 9 | 0 | 0 | 0 | 4 | 0 | 4 | 9 | 28 | 0 | 13 | 0 | 15 | 0 | 0 | 1 | 23 | 0 | 4 | 23 | 87 | **67** | **33** |
| Matara | 13 | 159 | 4 | 23 | 3 | 3 | 0 | 3 | 0 | 44 | 6 | 55 | 1 | 16 | 0 | 10 | 0 | 0 | 6 | 74 | 0 | 8 | 0 | 17 | **100** | **0** |
| Jaffna | 32 | 927 | 11 | 180 | 0 | 7 | 10 | 114 | 9 | 21 | 1 | 9 | 12 | 432 | 0 | 7 | 0 | 0 | 10 | 54 | 1 | 5 | 0 | 0 | **100** | **0** |
| Kilinochchi | 2 | 32 | 1 | 28 | 0 | 0 | 0 | 3 | 0 | 25 | 0 | 1 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | **75** | **25** |
| Mannar | 1 | 67 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 8 | 2 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **80** | **20** |
| Vavuniya | 3 | 53 | 0 | 8 | 0 | 4 | 3 | 17 | 0 | 2 | 0 | 9 | 0 | 10 | 0 | 1 | 0 | 0 | 0 | 4 | 1 | 3 | 1 | 1 | **100** | **0** |
| Mullaitivu | 1 | 60 | 1 | 9 | 1 | 2 | 1 | 3 | 0 | 1 | 0 | 2 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | **80** | **20** |
| Batticaloa | 32 | 816 | 6 | 60 | 1 | 3 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 12 | 1 | 10 | 0 | 0 | **71** | **29** |
| Ampara | 0 | 19 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 63 | 0 | 3 | 0 | 0 | **57** | **43** |
| Trincomalee | 6 | 260 | 0 | 10 | 0 | 0 | 0 | 14 | 0 | 22 | 0 | 5 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 20 | 0 | 2 | 0 | 0 | **50** | **50** |
| Kurunegala | 22 | 579 | 2 | 50 | 0 | 2 | 0 | 3 | 1 | 8 | 1 | 81 | 0 | 11 | 0 | 12 | 0 | 0 | 13 | 127 | 0 | 5 | 2 | 23 | **89** | **11** |
| Puttalam | 1 | 354 | 1 | 13 | 0 | 2 | 0 | 1 | 0 | 6 | 1 | 17 | 0 | 7 | 0 | 1 | 0 | 0 | 2 | 25 | 0 | 6 | 1 | 1 | **69** | **31** |
| Anuradhapura | 3 | 216 | 2 | 20 | 0 | 1 | 0 | 0 | 1 | 34 | 4 | 95 | 0 | 10 | 0 | 6 | 0 | 0 | 5 | 46 | 0 | 10 | 2 | 63 | **63** | **37** |
| Polonnaruwa | 2 | 105 | 3 | 20 | 1 | 2 | 0 | 5 | 0 | 0 | 2 | 36 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 40 | 0 | 11 | 1 | 29 | **71** | **29** |
| Badulla | 3 | 274 | 0 | 43 | 0 | 1 | 0 | 3 | 0 | 4 | 1 | 19 | 2 | 29 | 1 | 39 | 0 | 2 | 2 | 35 | 2 | 15 | 1 | 4 | **65** | **35** |
| Monaragala | 4 | 86 | 1 | 34 | 0 | 1 | 0 | 8 | 0 | 2 | 2 | 75 | 0 | 23 | 1 | 16 | 1 | 1 | 3 | 31 | 1 | 5 | 0 | 8 | **91** | **9** |
| Ratnapura | 17 | 337 | 4 | 90 | 0 | 3 | 2 | 11 | 0 | 1 | 7 | 93 | 1 | 19 | 0 | 113 | 0 | 0 | 2 | 23 | 0 | 11 | 0 | 3 | **67** | **33** |
| Kegalle | 9 | 187 | 3 | 25 | 0 | 2 | 4 | 27 | 0 | 0 | 7 | 69 | 0 | 12 | 2 | 39 | 0 | 0 | 6 | 59 | 1 | 10 | 0 | 0 | **91** | **9** |
| Kalmune | 3 | 328 | 1 | 37 | 0 | 0 | 0 | 0 | 1 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 40 | 0 | 2 | 0 | 0 | **85** | **15** |
| **SRILANKA** | **333** | **11278** | **55** | **932** | **7** | **43** | **22** | **288** | **13** | **241** | **75** | **991** | **20** | **679** | **10** | **430** | **2** | **6** | **94** | **1079** | **11** | **173** | **31** | **242** | **68** | **32** |

**Source: Weekly Returns of Communicable Diseases (WRCD).**

*T=Timeliness refers to returns received on or before 20th March , 2015 Total number of reporting units 337 Number of reporting units data provided for the current week: 233 C**-Completeness

## Table 2: Vaccine-Preventable Diseases & AFP

14th – 20th March 2015 (12th Week)

| Disease | No. of Cases by Province | | | | | | | | | Number of cases during current week in 2015 | Number of cases during same week in 2014 | Total number of cases to date in 2015 | Total number of cases to date in 2014 | Difference between the number of cases to date in 2014& 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | C | S | N | E | NW | NC | U | Sab | | | | | |
| AFP* | 01 | 00 | 01 | 00 | 00 | 00 | 00 | 01 | 00 | 03 | 03 | 18 | 22 | -18.1% |
| Diphtheria | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | % |
| Mumps | 02 | 01 | 01 | 00 | 02 | 00 | 00 | 01 | 00 | 07 | 15 | 87 | 198 | -56.1% |
| Measles | 29 | 01 | 03 | 00 | 01 | 03 | 03 | 05 | 07 | 52 | 96 | 445 | 1134 | -61.1% |
| Rubella | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 | 04 | 05 | -20% |
| CRS** | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | % |
| Tetanus | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 | 03 | 06 | -50% |
| Neonatal Tetanus | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | % |
| Japanese Encephalitis | 01 | 00 | 00 | 00 | 00 | 00 | 00 | 01 | 00 | 02 | 01 | 06 | 17 | -65.1% |
| Whooping Cough | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 02 | 23 | 15 | +53.3% |
| Tuberculosis | 178 | 18 | 22 | 17 | 23 | 11 | 19 | 11 | 28 | 327 | 180 | 2305 | 2538 | -9.2% |

### Key to Table 1 & 2

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

**RDHS Divisions:** **CB**: Colombo, **GM**: Gampaha, **KL**: Kalutara, **KD**: Kandy, **ML**: Matale, **NE**: Nuwara Eliya, **GL**: Galle, **HB**: Hambantota, **MT**: Matara, **JF**: Jaffna, **KN**: Killinochchi, **MN**: Mannar, **VA**: Vavuniya, **MU**: Mullaitivu, **BT**: Batticaloa, **AM**: Ampara, **TR**: Trincomalee, **KM**: Kalmunai, **KR**: Kurunegala, **PU**: Puttalam, **AP**: Anuradhapura, **PO**: Polonnaruwa, **BD**: Badulla, **MO**: Moneragala, **RP**: Ratnapura, **KG**: Kegalle.

**Data Sources:**

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

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

**CRS**** =Congenital Rubella Syndrome

**AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH**

### Dengue Prevention and Control Health Messages

**Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them**

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

**ON STATE SERVICE**

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