

Conference Paper

Tuberculosis Epidemiological Surveillance in the Kolaka Regency Southeast Sulawesi

Muhammad Fadhil, Ramadhan Tosepu*, Devi Savitri Effendy

Public Health Study Program, Postgraduate Program Halu Oleo University, Kendari, Indonesia

Abstract.

Tuberculosis is an infectious disease caused by the germ *Mycobacterium tuberculosis*. The group of Mycobacterium bacteria in addition to the Mycobacterium tuberculosis that can cause disorders of the airways is known as MOTT (Mycobacterium Other Than Tuberculosis), which can sometimes interfere with the enforcement of TB diagnosis and treatment. Tuberculosis (TB) is a high burden for Indonesia, which is not only because of the TB itself, but also its resistant to several first-line TB drug variance, namely multidrug resistant tuberculosis (MDR- TB). The development of tuberculosis in the Kolaka Regency has fluctuated every year. The highest number of cases in 2018 amounted to 426 patients. Enforcement of a diagnosis of tuberculosis requires several examinations, the administration of the drug for 6-12 months depending on the clinical criteria.

Keywords: Tuberculosis, Development

Corresponding Author:

Ramadhan Tosepu; email:

ramadhan.tosepu@uho.ac.id

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1. Introduction

Tuberculosis is an infectious disease caused by the germ *Mycobacterium tuberculosis*. The group of Mycobacterium bacteria in addition to Mycobacterium tuberculosis that can cause disorders of the airways known as MOTT (Mycobacterium Other Than Tuberculosis) which can sometimes interfere with the enforcement of tb diagnosis and treatment.

Indonesia's tb prevalence rate in 2014 was 297 per 100,000 population. Tb elimination is also one of the government's three main focuses in the health sector. The number of new cases of TB in Indonesia was 420,994 cases in 2017. Based on gender, the number of new cases of tuberculosis in 2017 in men was four times greater than in women.

Tuberculosis (TB) still becomes a high burden for Indonesia, which is not only because of the TB itself, but also its resistant to several first-line TB drug variance, namely multidrug resistant tuberculosis (MDR- TB).

The term tropical disease implies the relationship between climate and disease, climate being an important component of the spatial and temporal distribution of vector-borne diseases, acting both to limit their spread and to influence the dynamics of

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trans missions. The climate, however, cannot account for all of the natural history of transmitted disease.

Kolaka Regency in 2020 the number of suspected tuberculosis (suspects) as many as 1,514 people and all get services according to standards (100%). A suspected tuberculosis person is someone who shows symptoms of cough >2 weeks accompanied by body heat. This disease if not treated or treatment is not complete can cause dangerous complications until death.

2. Method

Kolaka Regency is part of the part of Southeast Sulawesi Province that definitively becomes Level II Area. Geographically Kolaka Regency is located at coordinates 121o05' - 121o46' East Longitude and 3o37' - 4o38' South Latitude. The land area of Kolaka Regency is 3,283.64 km² and sea waters covering an area of 15,000 km² with a coastline length of 293.45 km.

In this study, it used kolaka health profile data in 2020. Data taken from tuberculosis in 2016-2020. Data taken from the health profile will be made into a graphic format.

3. Results

Based on observations from 2016 to 2020, the number of tuberculosis cases between suspected TB and the number of all TB cases decreased in 2020, the incidence of TB suspects was highest in 2019, while the number of all lung TB cases decreased in 2019.

Graph 1 shows there is a significant decrease in TB cases in 2020 both the number of cases in absolute terms and the percentage of TB positive cases. There are 2 speculations that can arise, the first is that tb positive cases are actually decreasing and the second that the number of case detections is decreasing due to limited case detection efforts due to the Covid-19 pandemic.

4. Discussion

In Kolaka Regency in 2020 the number of suspected tuberculosis (suspects) as many as 1,514 people and all get services according to standards (100%). Of the suspected tuberculosis, 305 people tested positive or by 20%, so it can be calculated the Notification Rate of All Cases of Tuberculosis / Case Notification Rate (CNR) is 114 per 100,000 population and the treatment coverage of all cases of Tuberculosis / Case Detection

TABLE 1: Number of cases of Disease By Regency and Types of Diseases in Southeast Sulawesi, 2020

Kabupaten/ Kota	Malaria	TB Paru	Pneumonia Pada Balita	Campak Measles	KLB Diare (2)	DBD	Kasus Baru AIDS (3)
Buton	17	76	58	0	0	10	0
Muna	90	157	64	0	0	67	1
Konawe	13	80	151	0	0	30	5
Kolaka	19	90	0	45	0	44	0
Konawe Selatan	32	127	237	0	0	125	7
Bombana	12	110	24	0	0	15	0
Wakatobi	12	31	3	1	0	52	0
Kolaka Utara	17	105	34	1	0	17	6
Buton Utara	17	15	25	0	0	2	3
Konawe Utara	0	77	5	0	0	32	0
Kolaka Timur	11	52	36	0	0	19	0
Konawe Kepulauan	7	19	0	0	0	0	0
Muna Barat	10	53	14	0	0	13	0
Buton Tengah	32	95	9	0	0	0	0
Buton Selatan	36	39	33	0	0	20	9
Kota Kendari	52	262	80	2	0	305	7
Kota Baubau	18	91	90	0	0	73	37
Sulawesi Tenggara	395	1479	863	49	0	824	75

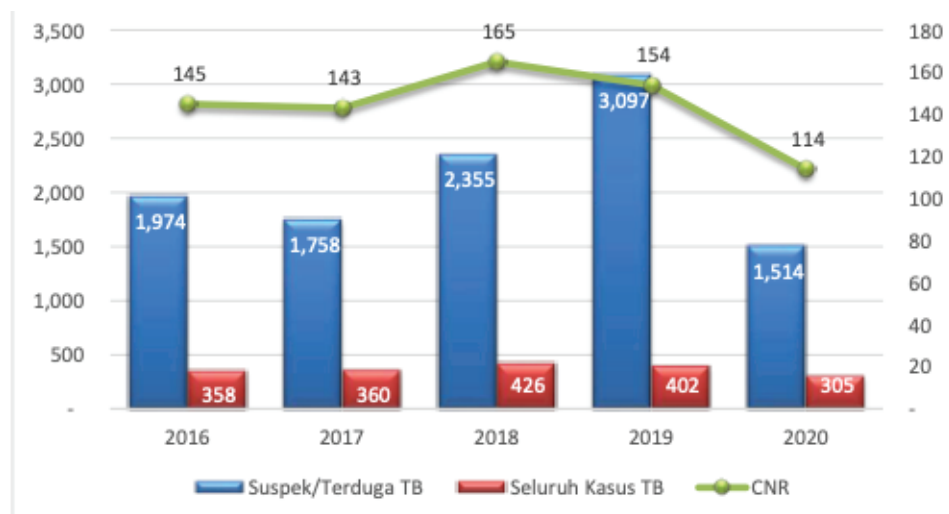


Figure 1: Number of *Tuberculosis* cases In Kolaka Regency 2016 to 2020. Source: Section of Prevention & Control of Infectious Diseases (2020).

Rate (CDR) is 71.4% where the estimated incidence of TB (Absolute) based on Modeling in 2018 amounted to 427 cases. While the discovery of cases of childhood tuberculosis

(0-14 years) as many as 1 child with a percentage of coverage of 2%, where this case is in Pomalaa Subdistrict.

In National TB control, the diagnosis of pulmonary TB in adults must be confirmed first with a bacteriological examination (microscopy smear examination, breeding or rapid test). If the results of bacteriological examination are negative, then the diagnosis of pulmonary TB can be done by clinically both clinical and supporting examination (thoracic photo) and determined by a TB-trained doctor. Diagnosis of TB is not justified using serological examinations only, thoracic photos only, or tuberculin only.

Family support is a part of everyone's life and can not be separated. Patients will feel happy and at ease when getting the attention and support of her/his family, because with such support would cause her/his confidence to deal with or manage the disease well, and then they want to follow the advice given by the family to the management of the disease. This study is in line with research Goddess who said that there is significant correlation between family support with pulmonary TB medication adherence.

In addition to how to make a diagnosis in Riskesdas 2018 can also describe the proportion of treatments that have been or are being received by respondents. Currently, the anti-tb drug (OAT) alloy used in Indonesia follows the recommendations of the World Health Organization (WHO) and the International Standard for TB Care (ISTC). The National Drug Alloy TB Control Program in Indonesia includes: 1) Fixed Dose Combination (FDC) or a combination of fixed doses (KDT) which is a package of drugs for one treatment period; 2) Kombipak is a package of loose drugs consisting of Isoniasid (H), Rifampisin (R), Pirazinamid (Z) and Etambutol (E) packaged in blister form and categorized as a loose drug; and 3) Loose Drugs that are single drug preparations / not packages, given by health workers in separate forms with doses based on clinical decisions.

5. Conclusions.

The development of tuberculosis in Kolaka Regency has increased and decreased every year. The highest number of cases in 2018 amounted to 426 patients. Enforcement of a diagnosis of tuberculosis requires several examinations, up to the administration of the drug for 6-12 months depending on the clinical criteria.

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