



**KALC 2022**

Korean Association for Lung Cancer International Conference  
November 10-11, 2022 | Lotte Hotel World, Seoul, Korea

# Prevalence of *Pulmonary TB disease* and Its Correlation as Lung Cancer Risk Factors in Indonesia

Anna Farhana

Department Animal of Science and Biotechnology, Universitas Gadjah Mada,  
Yogyakarta, Indonesia



# Aims

*Pulmonary TB disease* was a contagious infectious disease caused by the bacterium *Mycobacterium tuberculosis* that can enter the respiratory tract, digestive tract, and open wounds in the skin area. *Pulmonary TB disease* take fourth place for the highest number of cases in the world.

This study aimed to analyze prevalence of *Pulmonary TB disease* and its correlation as lung cancer risk that occur in Indonesia.

# Methods

This literature study method was carried out using a search through Google scholar, kemenkes data and reputable health journals by reviewing some previous article which published in the last five years, from 2017 to 2022 with the keywords risk factor of lung cancer, prevalence *Pulmonary TB disease*, and Indonesia.

# Results

The incidence of pulmonary TB disease can be identified based on age, gender, nutritional status, alcohol consumption, smoking habits, education and knowledge.

Based on the similarity of the dependent variables there are that correlation significant between prevalence of *Pulmonary TB disease* with respondents of productive age (15-64 years) (96.6%), and male (61.0%), having higher smoking habits than female patients, namely 24.3%. The others literature explained that level of education and knowledge also affects the increase of the prevalence of *Pulmonary TB disease* in Indonesia, reaching 69.5%.

# Results

**Table 1. Prevalence of Pulmonary TB based on History of Doctor's Diagnosis by Province, Riskesdas 2018**

Province	Prevalence of TB		
	%	95% CI	N
Aceh	0,49	0,4 - 0,6	20.244
Sumatera Utara	0,30	0,2 - 0,4	55.351
Sumatera Barat	0,31	0,2 - 0,4	20.663
Riau	0,22	0,2 - 0,3	26.085
Jambi	0,27	0,2 - 0,4	13.692
Sumatera Selatan	0,53	0,4 - 0,8	32.126
Bengkulu	0,41	0,3 - 0,5	7.531
Lampung	0,33	0,3 - 0,4	32.148
Bangka Belitung	0,09	0,1 - 0,2	5.592
Kepulauan Riau	0,29	0,2 - 0,5	8.173
DKI Jakarta	0,51	0,4 - 0,7	40.210
Jawa Barat	0,63	0,6 - 0,7	186.809
Jawa Tengah	0,36	0,3 - 0,4	132.565
DI Yogyakarta	0,16	0,1 - 0,2	14.602
Jawa Timur	0,29	0,3 - 0,3	151.878
Banten	0,76	0,6 - 0,9	48.621
Bali	0,13	0,1 - 0,2	16.481
Nusa Tenggara Barat	0,32	0,2 - 0,4	19.247
Nusa Tenggara Timur	0,27	0,2 - 0,3	20.599

# Results

Kalimantan Barat	0,36	0,3 - 0,5	19.190
Kalimantan Tengah	0,39	0,3 - 0,5	10.189
Kalimantan Selatan	0,41	0,3 - 0,5	16.043
Kalimantan Timur	0,33	0,2 - 0,5	13.977
Kalimantan Utara	0,52	0,3 - 0,8	2.733
Sulawesi Utara	0,39	0,3 - 0,5	9.542
Sulawesi Tengah	0,39	0,3 - 0,5	11.548
Sulawesi Selatan	0,36	0,3 - 0,4	33.693
Sulawesi Tenggara	0,41	0,3 - 0,5	10.167
Gorontalo	0,42	0,3 - 0,6	4.547
Sulawesi Barat	0,31	0,2 - 0,5	5.195
Maluku	0,39	0,2 - 0,7	6.801
Maluku Utara	0,30	0,2 - 0,5	4.723
Papua Barat	0,53	0,4 - 0,8	3.588
Papua	0,77	0,6 - 0,9	12.736
<b>INDONESIA</b>	<b>0,42</b>	<b>0,4 - 0,4</b>	<b>1.017.290</b>

# Results

Table 2. Prevalence of Pulmonary TB based on History of Doctor's Diagnosis by Characteristics, Riskesdas 2018

Characteristics	Prevalence of TB		
	%	95% CI	N
<b>Age Factors</b>			
< 1	0,1	0,0 - 0,2	18.225
1-4	0,3	0,3 - 0,4	73.188
5-14	0,2	0,2 - 0,2	182.338
15-24	0,2	0,2 - 0,3	165.644
25-34	0,4	0,3 - 0,4	159.708
35-44	0,4	0,4 - 0,5	151.539
45-54	0,6	0,5 - 0,6	124.652
55-64	0,8	0,7 - 0,9	83.251
65-74	1,0	0,9 - 1,2	40.180
75+	0,8	0,7 - 1,0	18.565
<b>Gender Factors</b>			
Male	0,5	0,4 - 0,5	510.714
Female	0,4	0,3 - 0,4	506.576

# Conclusions

Pulmonary TB disease in Indonesia is still relatively high. Efforts are needed to prevent the spread of pulmonary TB disease by eating nutritious foods, improving environmental health and checking phlegm if coughing is more than 2 weeks.



# References

- **Apriyani, Mujiyanto, E., Habibi, M.** 2018. Pengaruh Pencahayaan dan Riwayat Merokok terhadap kejadian Tuberkulosis di Wilayah Kerja UPT Puskesmas Temindung Kota Samarinda Tahun 2018. E-ISSN, 4(2): 53-60.
- **Dian Wahyu Laily, Dina V. Rombot, enedictus S. Lampus.** 2015. Karakteristik Pasien Tuberkulosis Paru di Puskesmas Tuminting Manado. Jurnal Kedokteran Komunitas dan Tropik.
- **Dotulong, J.F.J., Sapulete, M.R, Kandau, G.D.** 2015. Hubungan Faktor resiko Umur, Jenis Kelamin dan Kepadatan Hunian dengan Kejadian Penyakit TB Paru di Desa Wori Kecamatan Wori. Jurnal Kedokteran Komunitas dan Tropik, 3(3): 57-65.
- **Ernawati, Y, Sabrina, E, Deddy, H and Russilawati.** 2019. Lung Cancer Risk Factors in Women Cared for in the Lung Section RSUP Dr. M. Djamil Padang and RSUD Solok: Case Control Research. Andalas Health Journal, 8(2): 1-7.
- **Hery Unita Versitaria, Haryoto Kusnoputrant.** 2011. Tuberkulosis Paru di Palembang, Sumatera Selatan. National Public Health Journal, 5(5): 2-7.
- **Made Agus Nurjana.** 2015. Risk Factors Of Pulmonary Tuberculosis On Productive Age 15-49 Yearsold In Indonesia. Media Litbangkes, 25(3):165-170.
- **Riskesdas, Badan Penelitian dan Pengembangan Kesehatan.** 2018. Pokok-Pokok Hasil Riskesdas Indonesia tahun 2017-2018. Jakarta: Lembaga Penerbit Blitbangkes.
- **Rukmini, Chatarina UW.** 2011. Faktor-faktor yang berpengaruh terhadap kejadian TB Paru Dewasa di Indonesia (Analisis Data Riset Kesehatan dasar Tahun 2010). Bul Penelit Sist Kesehat, 14(4): 320-331.

Thank You!