How was Big Data Predicting Lung Cancer - Several Studies from Country in Asia

Devi Yulia Rahmi

Management Department, Universitas Andalas

# Introduction

Lung cancer is a disease characterized by uncontrolled cell growth in lung tissue.

Nowadays, science has been developing. Many researchers use big data to predict lung cancer.

Lung cancer is the deadliest cancer world wide and the most common cancer in Asia (Pakzad et al., 2015).

The study aims to identify research in Asia using big data for predicting lung cancer.

Method
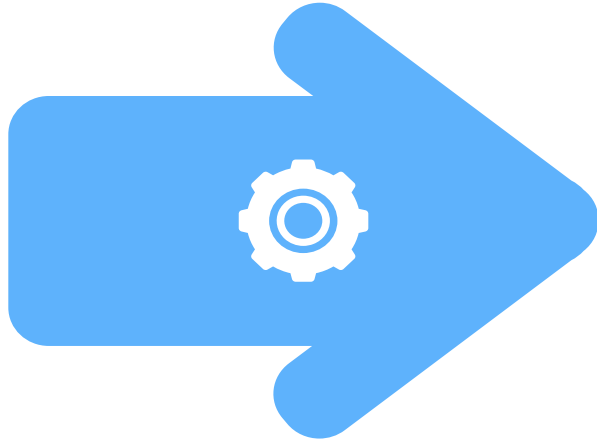
This research uses bibliomecric systematic reviewed method.
We collected articles from 2010-2022 from an electronic database (pubmed.gov, springer, science direct, gleneagles).

We see the conclusion and we get the keywords using "big data", "lung cancer" and "asia". Then as many as ten selected articles were reviewed to answer the aim of this study.
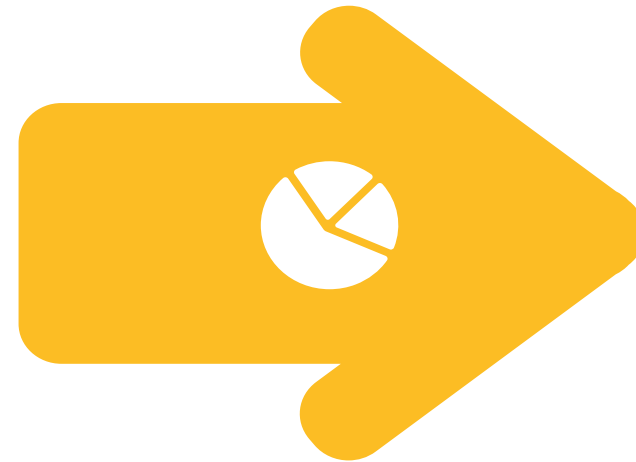
Result

Researchers in Asia have used big data to predict lung cancer. For example, in Singapore, researchers found personalized risk assessment tools that can predict the survival rate and treatment outcomes of early-stage lung cancer patients (Asianscientist, 2018).

Research from Pakzad et al. (2015) using the HDI index found that the five countries with the highest standardized incidence and mortality rates of lung cancer were the Democratic Republic of Korea, China, Armenia, Turkey, and Timor-Leste, respectively. Researchers in Indonesia also analyzed big data (Purnawati, 2021).

The study results showed variations in the picture of the pattern of primary lung cancer in Indonesia compared to theories and results from previous studies. This is due to differences in lung cancer risk factors in various regions in Indonesia.

Conclusion

Big data has been developed for predicting lung cancer in Asia.

Several countries try to research using big data—for example, Singapore and other countries.

Reference

Asian Scientist Newsroom. 2018, **Using Big Data To Personalize Cancer Treatment.** https://www.asianscientist.com/2018/04/in-the-lab/big-data-lung-cancer-treatment/

- Purnamawati, P., Tandrian, C., Sumbayak, E. M., & Kertadjaja, W. (2021). Analisis Kejadian Kanker Paru Primer di Indonesia pada Tahun 2014-2019 *Jurnal Kedokteran Meditek*, *27*(2), 164–172. https://doi.org/10.36452/jkdoktmeditek.v27i2.2066
- Pakzad, R., Mohammadian-Hafshejeni. A., Ghoncheh. M., Pakzad. I., and Salehiniya. H. (2015). The incidence and mortality of lung cancer and their relationship to development in Asia. Translational Lung Cancer Research 4(6): 763-774