JCHR

Journal of Community Health Research 2022; 11(2): 57-58.

How Do Non-Communicable Diseases Increase COVID-19 Deaths?

Moslem Taheri Soodejani [1], Mohammad Mohammadi Abnavi [2], Mohammad Hassan Lotfi *[1]

1. Center for Healthcare Data Modeling, Departments of Biostatistics and Epidemiology, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
2. Master student of Epidemiology, School of health, Shiraz University of Medical Sciences, Shiraz, Iran

ARTICLE INFO

Letter to the Editor

Received: 10 February 2022
Accepted: 3 April 2022

Corresponding Author:
Mohammad Hassan Lotfi
mhlotfi56359@gmail.com

How to cite this paper:
Taheri Soodejani M, Mohammadi Abnavi M, Lotfi MH. How do Non-Communicable Diseases Increase COVID-19 Deaths?. J Community Health Research. 2022; 11(2): 57-58.

Coronavirus 2019 (COVID-19) is a novel respiratory viral disease which has caused a worldwide emergency due to its rapid spread and high mortality rate causing severe disorders (1). According to the latest reports by World Health Organization (WHO), as of May 2, 2021, 151.8 million people have been infected and 3.2 million deaths have been reported worldwide, most of which occurred in the United States, India, Brazil, France and Turkey respectively. In Iran, 2.5 million people have been infected and 72,000 deaths have been reported (2).

According to a study conducted by the WHO in 155 countries around the world, the prevention and treatment of non-communicable diseases has been severely disrupted since the beginning of the Covid-19 pandemic(3). (53% of services for hypertension disease, 49% of services for diabetes, 42% of services for cancer and 31% of services cardiovascular disease). This condition is inducing a considerable concern because people with non-communicable diseases are at higher risk of severe form of COVID-19 and deaths caused by it (4).

With increasing average of life expectancy, the number of elderly in countries has increased which has led to an increase in the prevalence of non-communicable diseases and its following problems (5). According to the WHO, 41 million people die from non-communicable diseases (NCDs) annually worldwide, which is about 71% of all world's deaths, and more than 15 million people aging between 30 to 69 die each year with the cause of non-communicable diseases. 85% of all premature deaths and 77% of all deaths caused by non-communicable diseases occur in low- and middle-income countries (6). Cardiovascular diseases, cancer, chronic respiratory diseases and diabetes are the most common non-communicable diseases. Non-communicable disease mortality has increased dramatically in most countries lately (7) as cardiovascular diseases show the highest mortality due to NCD (17.9 million per year), followed by cancers (9.3 million), chronic respiratory diseases (4.1 million) and diabetes (1.5 million). These four groups of diseases account for more than 80% of all premature deaths due to NCD (6).

Previous studies have shown that people who has at least one underlying disease are at higher risk for severe form of COVID-19, its complications, and death (8), given that 60 to 90% of deaths due to Covid-19 is attributed to co-

Copyright: ©2022 The Author(s); Published by Shahid Sadoughi University of Medical Sciences. This is an open-access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

[Downloaded from jhr.ssu.ac.ir on 2024-10-12]

[DOI: 10.18502/jchr.v11i2.9991]

occurrence of NCDs, especially diabetes, hypertension and cardiovascular diseases (9, 10). Chinese Center for Disease Control and Prevention has stated that the mortality rate of people with cardiovascular disease due to COVID-19 is 10.5% higher than people with chronic respiratory disease or cancer (11). Patients with diabetes are more likely to get infected with COVID-19 and die from it, and also to be hospitalized and transferred to the intensive care unit (ICU) (12).

COVID-19 is a disease which has caused a worldwide emergency. The people with non-communicable diseases are at higher risk of severe form of COVID-19 and deaths caused by it. The prevalence of non-communicable diseases and associated mortality is increasing worldwide. As well as the deaths due to Covid-19 is attributed to co-occurrence of NCDs, especially diabetes, hypertension and cardiovascular diseases. So NCDs and comorbidity could be impact on increasing COVID-19 deaths.

Acknowledgement

This work hove no fund.

Conflict of interest

All authors declared no conflict of interest.

Authors' contribution

All authors contributed to the study conception and design.

References

1. Yang L, Liu S, Liu J, Zhang Z, Wan X, Huang B, et al. COVID-19: immunopathogenesis and Immunotherapeutics. Signal Transduction and Targeted Therapy. 2020;5(1).
2. World Health Organization. Available from: https://covid19.who.int/. . 2021.
3. Sefidkar R, Madadizadeh F. A summary of the main actions of the Iranian government during the Covid-19: From March 5 until December 20 in 2020. Journal of Community Health Research. 2021;10(1):1-3.
4. Jazieh AR. COVID-19 Pandemic as a Catalyst for Healthcare Transformation: Finding the Silver Lining in a Global Catastrophe. Innovative Healthcare Institute; 2020.
5. Fereydoun Azizi. Lifestyle changes to prevent important non-communicable diseases. Iranian Journal of Endocrinology and Metabolism. 1381 [cited 2021May07]; 4 (2 (Series 14)): 81-84. Available from: https://www.sid.ir/fa/journal/ViewPaper.aspx?id=28223. 1381.
6. https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases. 2021.
7. . !!! INVALID CITATION !!! (6).
8. Sun J, Wang B, Niu Y, Tan Y, Fan C, Zhang N, et al. Complexity analysis of EEG, MEG, and fMRI in mild cognitive impairment and Alzheimer's disease: a review. Entropy. 2020;22(2):239.
9. Basu S. Non-communicable Disease Management in Vulnerable Patients During Covid-19. Indian journal of medical ethics. 2020(2):103-5.
10. Bahariniya S, Asar ME, Madadizadeh F. COVID-19: Pros and cons of different caring techniques of elderly patients. Journal of Education and Health Promotion. 2021;10.
11. Chang A, Cullen M, Harrington R, Barry M. The impact of novel coronavirus COVID-19 on noncommunicable disease patients and health systems: a review. Journal of Internal Medicine. 2020.
12. Sanyaolu A, Okorie C, Marinkovic A, Patidar R, Younis K, Desai P, et al. Comorbidity and its Impact on Patients with COVID-19. SN Comprehensive Clinical Medicine. 2020:1-8.

[Downloaded from jhr.ssu.ac.ir on 2024-10-12]

[DOI: 10.18502/jchr.v11i2.9991]