



## A Reflection on the Situation of Coronavirus Vaccination in Iran and Turkey

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### Abstract

#### Dear Editor-in-Chief,

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019 (1, 2). The first known case was identified in Wuhan, China, in December 2019 (1). The disease has since spread worldwide, leading to an ongoing pandemic (3). With the continued distribution of various vaccines against Covid-19, some parts of the world are distributing vaccines to their citizens at a higher rate than some struggling countries. According to statistics on 22 August 2021, the rate of vaccinations in the top ten countries with the highest injection dose is as follows: (numbers in parentheses are the percentage of corona vaccination to the total population). It is interesting that Turkey, a neighboring country of Iran, is ranked 8th in this list in terms of vaccination while having almost the same population as Iran (4, 5) (Figure.1).

**Key Words:** Covid-19, Iran, Turkey, Vaccination.

\*Please cite this article as: Akef E, Eslahtalab A, Dehghani N, Mardani E. A Reflection on the Situation of Coronavirus Vaccination in Iran and Turkey. Med Edu Bull 2021; 2(2): 209-12. DOI: [10.22034/MEB.2021.301943.1023](https://doi.org/10.22034/MEB.2021.301943.1023)

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Received date: Mar. 10, 2021; Accepted date: Jun.22, 2021

🇹🇷 Turkey	
Total doses given	89,651,157
People fully vaccinated	35,408,683
<i>% of population</i>	42.6%
People given at least one dose	46,317,869
<i>% of population</i>	55.7%
🇮🇷 Iran	
Total doses given	19,894,523
People fully vaccinated	4,381,064
<i>% of population</i>	5.3%
People given at least one dose	15,513,459
<i>% of population</i>	18.6%

**Fig.1:** Comparison of Covid-19 vaccination in Iran and Turkey.

## INTRODUCTION

More than 5.18 billion vaccine doses have been administered worldwide, equal to 67 doses for every 100 people. There is already a stark gap between vaccination

programs in different countries; China ranks first in the world in terms of the number of vaccines injected, followed by India and the United States (**Table.1**) (6).

**Table-1:** Number of vaccine doses administrated in the top 10 countries.

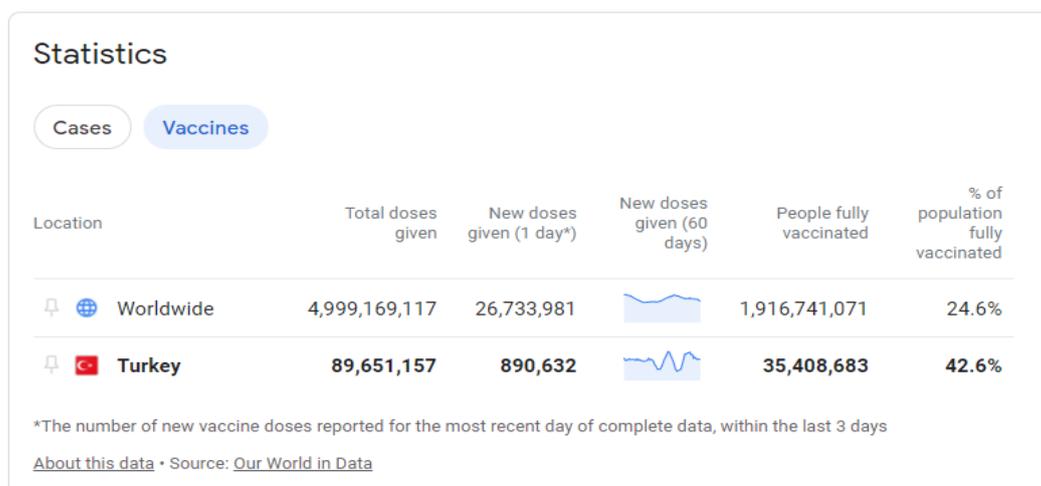
Country	Number of vaccine doses administrated	Percentage
China	1,924,390,000	60.7
India	573,205,000	26
USA	360,634,287	57
Brazil	173,650,317	48
Japan	115,739,998	40
Germany	99,042,466	61
UK	88,617,595	70
Turkey	87,195,547	49
France	82,393,710	62
Italy	74,804,729	64

\*The numbers are the percentage of corona vaccination to the total population.

## RESULTS

The COVID-19 vaccination campaign in Turkey began on 14 January 2021 (7). As of 11 August 2021, 42.614.705 people have received their first dose and 30.590.286 people have been fully vaccinated (8). There are several COVID-19 vaccines at various stages of

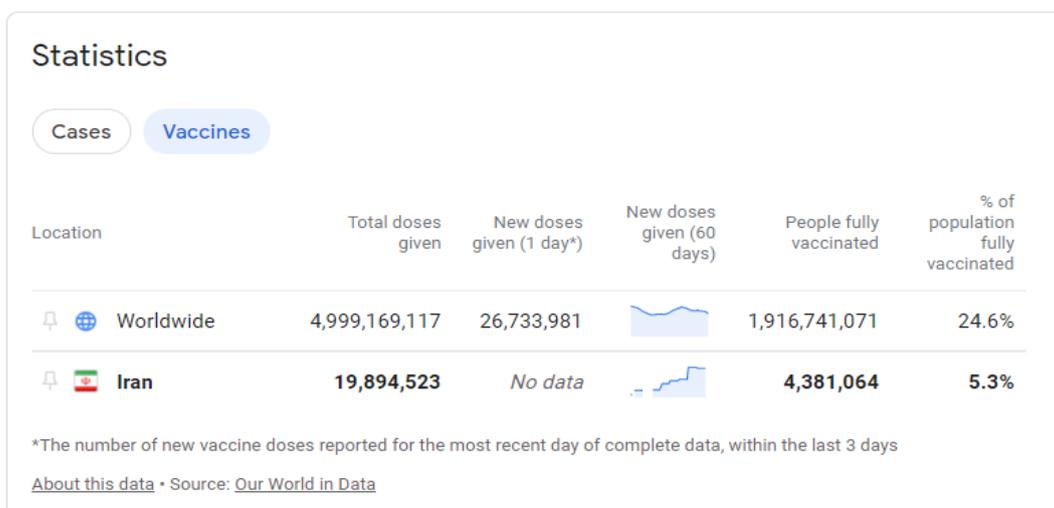
development around the world. Turkey currently uses three different vaccines (9, 10). The three licensed vaccines in Turkey are Pfizer-BioNTec, SINOVAV, and Sputnik V (10). The comparison between the rate of vaccination in the world and Turkey shows the satisfactory situation of vaccination in this country (**Figure.2**).



**Fig.2:** Comparison of vaccination rates in Turkey and other countries.

Iran, however, is not in a good position in the world in terms of vaccination rate and according to the latest reports, only 5.3%

of the country's population has been fully vaccinated (**Figure.3**).



**Fig.3:** Comparison of vaccination rates in Iran and other countries.

Vaccines that have been approved for use in Iran so far are Bharat (India), AstraZeneca (South Korea), Sputnik V (Russia), SINOPHARM (China), and Cobarkat (Iran). It is worth noting that the Cobarkat vaccine is in the clinical studies phase and has not yet been licensed by the World Health Organization. According to the official statistics of the Ministry of Health of Iran, the country has currently 647,510 patients suffering from COVID-19, which is the highest number among all countries after the United States and

Britain. The statistics also show that 7,587 patients with coronavirus in Iran are hospitalized in the intensive care units due to their deteriorating physical condition. This is the highest number in the world after the United States, India, Brazil, and Colombia (12). The resurgence of the coronavirus disease and the mortality rate rising to 500 per day emphasize the dire need to provide and inject vaccines. If the basic dose of vaccination is two per person, 120 million doses of vaccine are required to vaccinate approximately 70%

of the population of the country to achieve herd immunity. Also, if the vaccination program is to be completed within a year, 10 million doses per month must be provided to the health system. This means vaccinating five million people per month, equivalent to approximately 210,000 people per day (13, 14).

## CONCLUSION

The term vaccine is a staple in the world today. Vaccines are valuable substances, and while their effectiveness and side effects are yet to be confirmed, can be promising in the endeavors to return to the pre-COVID-19 pandemic world. In Iran, however, the question remains as to when the expectations are met and when effective vaccination is available to the general public. Inaccurate estimates of domestic production capacity and delays in the import of corona vaccines have paved the way for the fifth wave of the outbreak, unlike many countries where the prevalence of the delta variant is suppressed through public vaccination. The latest outbreak of the coronavirus in Iran has more worrying dimensions than the previous waves. This is confirmed by the daily mortality rate and coronary heart disease complications confirm this claim. Therefore, we urge those in charge to stand up and relieve people from fear, anxiety, and the death bell as soon as possible by providing vaccination for the general population and all the necessary medicines and medical equipment for corona patients.

*\*Note:* Article information was updated at the time of publication.

## AUTHORS' CONTRIBUTIONS

Study conception or design: EA, and EM; Data analyzing and draft manuscript preparation: ND, and EM, Critical revision of the paper: EA and ND, Supervision of the research: EA, and EM; Final approval of the version to be published: EA, ND, and EM.

**CONFLICT OF INTEREST:** None.

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