



The relation between vaccination and protection against COVID-19 infection

With the outbreak of the COVID-19 pandemic in December 2019¹, mobilization also began for the discovery of the anti-covid vaccine, to curb the spread of the infection. One year later, in December 2020, the Pfizer vaccine² was approved for emergency use by the **Food and Drug Administration** and, after a short time, other types were also approved: Astra Zeneca, Moderna, Johnson & Johnson, etc.

All types of vaccines above are currently available for people 5 years of age and older³. According to the Centers for Disease Control and Prevention in the United States (US) “all types of vaccines approved to date are safe, effective, and reduce the risk of disease”⁴. For a person to be considered fully vaccinated, two weeks must pass after inoculation with two doses of the vaccine from Astra Zeneca, Pfizer and Moderna, and one dose with the Johnson & Johnson vaccine. However, the duration of antibodies acquired after vaccination also depends on the person’s immunity, as the effect of the vaccine varies from one person to another.

However, full vaccination doesn’t mean that the vaccinated person cannot be infected with COVID-19. There are several cases where even people who have received both doses of the vaccine have been infected, or re-infected, with COVID-19. However, in most cases, vaccination offers protection from more severe symptoms and hospitalization as a result of COVID-19. According

1 Arsenault, Anisa. ‘A Timeline of Coronavirus (COVID-19)’. *Very Well Health*. December 22, 2020. <https://dpl.us/gbw>. (last accessed on November 9, 2021).

2 U.S Food & Drug. ‘FDA Takes Key Action in Fight Against COVID-19 By Issuing Emergency Use Authorization for First COVID-19 Vaccine’. December 11, 2020. <https://dpl.us/5pk>. (last accessed on November 9, 2021).

3 Centers for Disease Prevention and Control. ‘Various types of the vaccine’. November 24, 2021. <https://dpl.us/uuv>. (last accessed on November 10, 2021).

4 Ibidem.

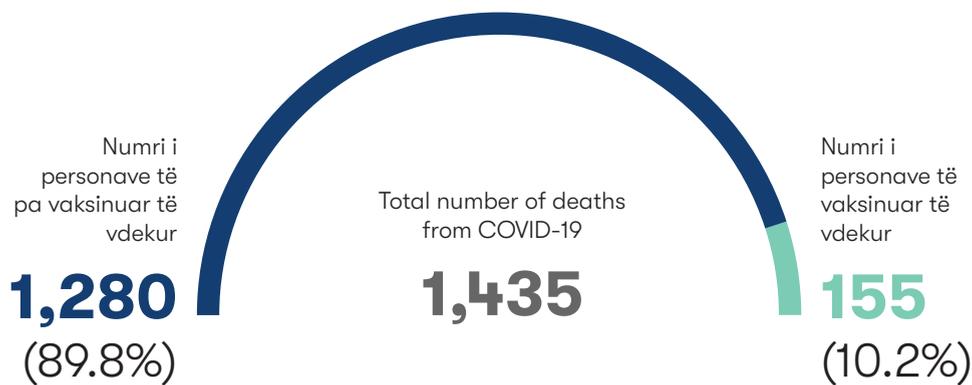
to a study conducted by the US Centers for Disease Control, of 10,262 cases of COVID-19 infection, after vaccination, 2,725 were asymptomatic, 995 were hospitalized and 160 died⁵.

Situation in Kosovo

The number of positive cases with COVID-19 in Kosovo in the period August 1 - October 1, 2021, went up to 2,000 a day, while the number of vaccinated persons was rather low⁶. During this time, the largest number of people hospitalized because of the pandemic were those unvaccinated.

According to the Ministry of Health (MoH), from August 1 to December 1, 2021 a total of 1,435 people died as a result of infection with COVID-19, of whom 1,280 were unvaccinated (89%). MoH released this data to inform the public that vaccines play a key role in preventing infection, death, and hospitalization from COVID-19⁷.

FIGURE 1: Number of unvaccinated and vaccinated persons who have died from COVID-19



In addition to two doses of the vaccine, the emergence of the new COVID-19 variant - 'Omicron' - in December this year meant there is a need to strengthen the immunity of vaccinated people, taking a third booster dose. In Kosovo, immunization with the third dose started on August 9, 2021⁸. According to MoH, "the third dose is given to persons who have received two doses of vaccine against COVID-19, but who have not developed adequate level of immunity, due to their weak immunity or due to associated diseases, with a doctor's recommendation. The third dose is given no earlier than 8 weeks and no more than 6 months after receiving the second dose⁹."

⁵ Fischer, Marc. 'Loss of protection against the COVID-19 vaccine reported to the CDC - United States, January 1 - April 30, 2021'. Centers for Disease Control and Prevention. May 28, 2021. <https://dpl.us/yvy>. (last accessed on November 11, 2021).

⁶ Our World in Data. 'COVID-19 vaccine doses, ICU patients, and confirmed deaths'. December 20, 2021.

⁷ Koha Ditore. 'In four months, 89% of COVID-19 related deaths in Kosovo were unvaccinated persons. December 13, 2021. <https://dpl.us/h79abd>. (last accessed on December 12, 2021).

⁸ Ministry of Health. 'MoH decides on the booster dose'. December 8, 2021. <https://dpl.us/hgp>. (last accessed on November 11, 2021).

⁹ Ibidem.

According to recent studies, this variant may become prevalent in many countries, particularly in the United Kingdom. However, researchers find that vaccinated persons face lighter symptoms from this variant, and that taking a booster dose has the potential to mitigate its spread¹⁰.

CONCLUSION:

Full vaccination (two doses) is essential for protected from COVID-19, as well as a third booster dose for persons with weak immunity or with associated diseases. Even if vaccinations do not offer total protection from COVID-19 infection, they lower the chance of hospitalization and severe symptoms. However, vaccination does not imply that we shouldn't use masks and apply social distancing 1.5 meters. Thus, the recommendations of health experts and measures imposed by the Government should be applied without exception by vaccinated persons, in the same way as the unvaccinated persons. This is essential to protect individual and collective health from COVID-19.

¹⁰ Barnard, Rosanna C & Davies, Nicholas G. 'Modeling the potential consequences of the Omicron SARS-CoV-2 variant in the UK'. *Centre for Mathematical Modelling of Infectious Diseases*. December 11, 2021. <https://dpl.us/cji>. (last accessed on November 11, 2021).

