



AKADEMIA POLONIJA  
POLONIA UNIVERSITY

**Polonia University in Częstochowa**

International scientific conference

**DEVELOPMENT  
OF THE HEALTHCARE SECTOR  
IN UKRAINE: THE PATH TOWARDS  
THE EUROPEAN UNION**

December 6–7, 2023



IZDEVNIECĪBA  
**BALTĪJA**  
PUBLISHING

**2023**

## SECTION 5. PREVENTIVE MEDICINE: THE CURRENT STATE AND PROSPECTS

DOI <https://doi.org/10.30525/978-9934-26-387-3-18>

### EFFECTIVENESS OF THE VACCINATION STRATEGY AGAINST COVID-19 IN UKRAINE DURING ITS PANDEMIC

### ЕФЕКТИВНІСТЬ СТРАТЕГІЇ ВАКЦИНАЦІЇ ПРОТИ COVID-19 В УКРАЇНІ ПІД ЧАС ПАНДЕМІЇ

**Korolenko V. V.**

*Assistant Professor at the Epidemiology  
and Evidence-based Medicine  
Department  
Bogomolets National Medical  
University  
Kyiv, Ukraine*

**Короленко В. В.**

*асистент кафедри епідеміології та  
доказової медицини,  
Національний медичний університет  
імені О. О. Богомольця  
м. Київ, Україна*

**Mohort H. A.**

*Candidate of Medical Sciences,  
Associate Professor at the Epidemiology  
and Evidence-based Medicine  
Department,  
Bogomolets National Medical  
University  
Kyiv, Ukraine*

**Мохорт Г. А.**

*кандидат медичних наук,  
доцент кафедри епідеміології та  
доказової медицини,  
Національний медичний університет  
імені О. О. Богомольця  
м. Київ, Україна*

**Introduction.** About 70.6% of the world's population has received at least one dose of the COVID-19 vaccine. [1] Worldwide, as of Nov 22, 2023, 13,595,583,125 doses of the vaccine against COVID-19 have been administered. [2] Only 32.9% of people in low-income countries received at least one dose. In Ukraine, this indicator is 36.2% as of the end of February 2022 [1].

The purpose of our study is to determine the impact of vaccination against the new coronavirus infection on the hospitalization of vaccinated and unvaccinated persons in Ukraine for the period from Oct 11, 2021 to Feb 19, 2022

**Methods.** Epidemiological and statistical methods were used. We calculated the chi-square test. Calculations were made in Microsoft Excel.

The research used data from the website of the State Institution "Public Health Center of the Ministry of Health of Ukraine" on laboratory-confirmed cases of coronavirus disease, on the number of vaccinated among confirmed cases, and on the number of hospitalized patients with a diagnosis of COVID-19 depending on the vaccination history for the period from Oct 11, 2021 to Feb 19, 2022.

**Results.** The percentage of hospitalizations among the vaccinated is 16.4%, and among the unvaccinated is 18.7%, that is, the difference between the vaccinated and the unvaccinated (2.3%) in favor of the vaccinated can be estimated as epidemiologically insignificant, but it is statistically significant, since  $\chi^2$  is 1099.4, which indicates more than 99.999% reliability of the result or less than 0.001% probability of its error.

**Conclusions.** Vaccination statistically significantly reduces the percentage of hospitalizations among the vaccinated compared to the unvaccinated by 2.3%. The relatively insignificant effect of vaccination on the risk of hospitalization from COVID-19 may be explained by the lack of standardization of data by age and number of vaccine doses administered.

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