

## Effect of peer-education on the willingness to vaccinate against COVID-19 among high school students

Oskar Pasek

O Pasek<sup>1</sup>, J Michalska<sup>1</sup>, M Piechowicz<sup>1</sup>, M Stoliński<sup>1</sup>, M Ganczak<sup>2</sup>

<sup>1</sup>Collegium Medicum, University of Zielona Gora, Zielona Gora, Poland

<sup>2</sup>Department of Infectious Diseases, Collegium Medicum, University of Zielona Gora, Zielona Gora, Poland

Contact: pasek.oskar@gmail.com

### Introduction:

The willingness to vaccinate against COVID-19 among adolescents remains low. Peer-education about SARS-CoV-2 may positively influence attitudes to vaccinate among this group.

### Objective:

To assess the influence of peer-based educational intervention on the willingness to vaccinate against COVID-19 among Polish high school students.

### Methods:

In the Polish Lubuskie province, a peer education campaign was introduced among final year high school students from 24 randomly selected schools. Before and after the 45-minute lecture, conducted online by 13 medical students in 51 classes with science and other programs, the willingness to vaccinate was checked using an anonymous questionnaire. The p-value was calculated with the use of chi-square and Wilcoxon signed rank tests.

### Results:

Out of 883 students, 638 responded (72%); 268 males (42%), mean age:  $18.4 \pm 0.6$  years, 69% lived in cities with <100,000 inhabitants, 32% were in the science program. The willingness to vaccinate improved from 31.8% to 35.2% after education ( $p < 0.001$ ); in females from 29.7% to 33.1%; in males from 34% to 37.7% ( $p < 0.002$ ;  $p < 0.01$  respectively). Before intervention 43.5% students living in the large cities and 26.5% in small cities wanted to be vaccinated, this increased to 48.0% and 29.5% respectively ( $p < 0.003$ ;  $p < 0.005$ ) after intervention. There were significant between-locations and between-programs differences in the willingness to vaccinate before and after intervention ( $p < 0.001$ ;  $p < 0.001$  and  $p < 0.001$ ;  $p < 0.001$  respectively). The improvement in the science program was from 44.3% to 47.8%; in the other programs from 26.1% to 29.5% ( $p < 0.01$ ;  $p < 0.002$  respectively).

### Conclusions:

Adolescents' willingness to vaccinate against COVID-19 was alarmingly low, especially among females, students from small cities and attending the non-science program. Concise integrated teaching designed to address mistrust and knowledge deficiencies can be effective in improving the uptake.

### Key messages:

- Research provide data about students' attitudes towards COVID-19 vaccination and indicate the need for universal educational campaigns.
- Online education is an effective method which may substantially increase COVID-19 vaccination rate in Poland.