

## I.

## BACKGROUND

Several different coronavirus (COVID-19) vaccines have already been authorized and distributed all over the world, including Hungary since December 2020, but vaccination rates and acceptance of the vaccines vary.

## II.

## OBJECTIVE

We aimed to assess the Hungarian populations willingness to pay for COVID-19 vaccinations.

## III.

## METHODS

We conducted a cross-sectional online questionnaire survey in May 2021. To assess the preferences towards the different vaccines available in Hungary at the time of the study, we used a multi-step WTP task.

## IV.

## RESULTS

Altogether 2,000 respondents filled out our survey, with the average age of 49.1 (SD=15.3), out of whom 1374 (67.4%) respondents received at least the first dose of vaccine, while 106 (5.3%) have registered to be vaccinated. Ranking the vaccines by WTP, most respondent preferred the Pfizer-Biontech vaccine in first place (n=462). The second largest subgroup ranked Pfizer and Moderna vaccines in first place with same WTP value (n=224), while the third 217 largest subgroup ranked of respondents ranked all vaccines with the same WTP value (higher, than 0).

**Table 1 – Comparison of WTP for vaccines between vaccinated, registered, and non-vaccinated subgroups (2021 (EUR))**

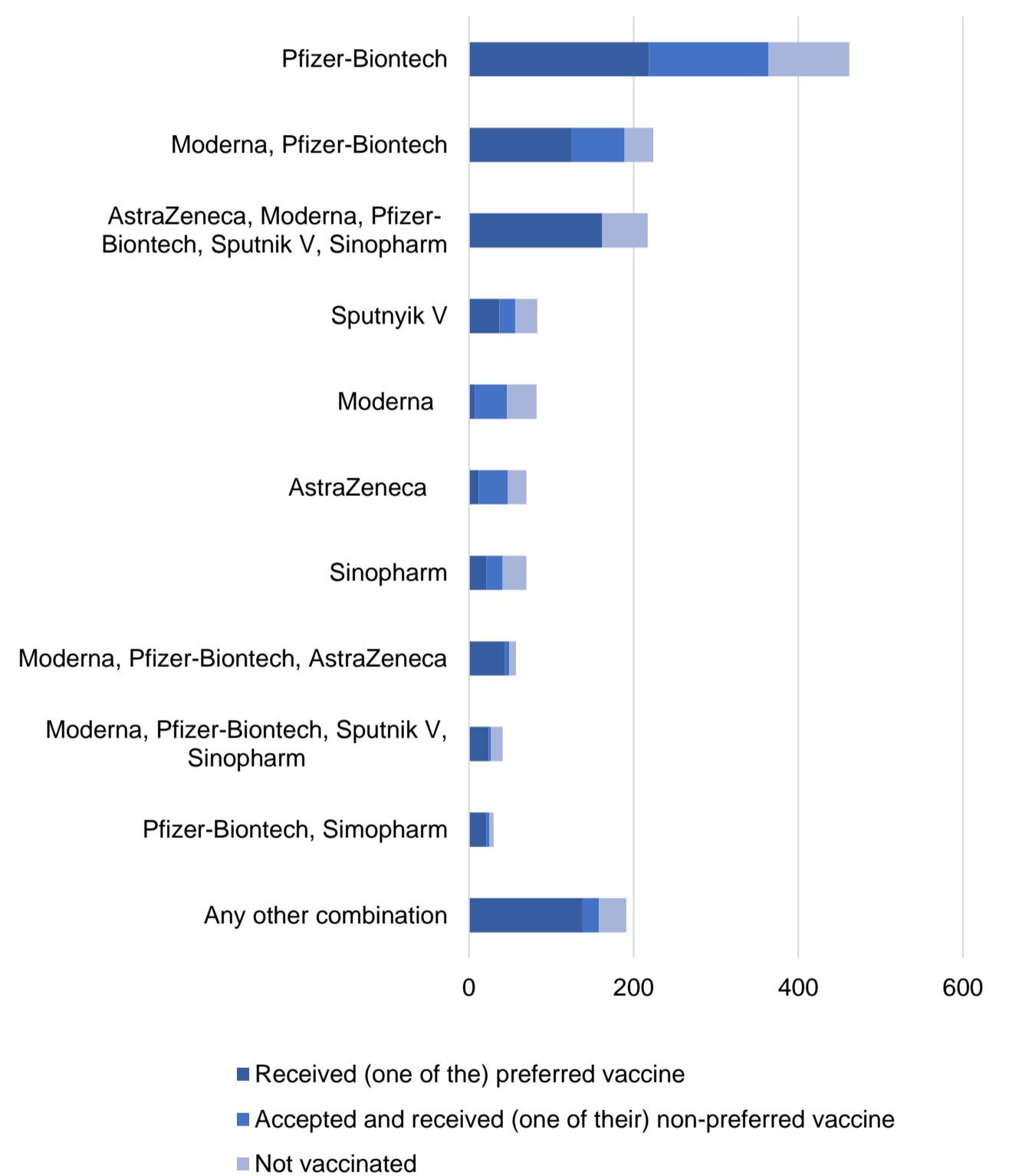
Vaccine*	WTP for vaccines, mean (SD) (EUR)				p	Ranked as highest WTP among vaccinated n (%)**
	Total sample n=2000	Vaccinated n=1374	Registered, but not vaccinated n=106	Non-vaccinated n=547		
<b>Pfizer-Biontech</b>	30.3 (52.3)	39.3 (58.3)	21.0 (29.2)	9.7 (28.8)	0.000	1126 (83.6%)
<b>Moderna</b>	24.4 (48.3)	31.6 (53.9)	16.2 (24.5)	8.1 (29.5)	0.000	734 (54.5%)
<b>Sputnik V</b>	16.1 (37.9)	21.2 (44.2)	9.5 (14.7)	4.8 (13.8)	0.000	532 (39.5%)
<b>AstraZeneca</b>	15.4 (38.9)	20.3 (44.6)	9.4 (18.2)	4.6 (19.8)	0.000	507 (37.6%)
<b>Sinopharm</b>	14.2 (36.5)	18.2 (41.6)	9.6 (24.1)	5.3 (19.0)	0.000	504 (37.4%)

\* We provided the name and the country of origin of the vaccine and did not display any further information (effectiveness, probability of potential side-effects)

\*\* Combined first preferences were allowed, hence the sum of the numbers in the column may exceed the sample size

The average willingness to pay results ranged from 14.2 EUR to 30.3 EUR for the different vaccine types. Vaccinated respondents expressed a higher WTP amount for all five vaccines than the registered, but not vaccinated respondents and the non-vaccinated respondents had the lowest WTP values. The highest willingness to pay amount was observed in vaccinated (39.3 EUR) respondents for the Pfizer-Biontech vaccine. Male respondents, respondents with higher education and income above the median income expressed a higher WTP value for all five vaccines.

**Figure 1 First preferences of vaccines based on WTP answers (n)\***



\*Only includes respondents, who gave a WTP value higher than 0. Where multiple vaccines are listed, the same WTP values were expressed. The lines are mutually exclusive.

## V.

## CONCLUSION

Based on the WTP rankings we found that respondents were able to assert their preferences as the majority) received their first preference of vaccine even though the choice on which vaccine someone could receive was partially limited.