

Vaccine motivation

By Dr Dean Murphy, Research Fellow, Kirby Institute, UNSW, Sydney and Alfred Health, Melbourne.

There's a lot of resources and hope being channelled into a vaccine for COVID-19. However, what do we know about people's willingness to take a vaccine when – or *if* – one becomes available?

A large survey of over 4,000 people in Australia found that 86% intended to get the vaccine (1). This proportion is greater than in the US and the UK, where around 67–69% and 64% respectively of people say they would be willing to get the vaccine (2-4).

These overall rates, however, mask some quite wide variations within countries, most notably in the US, where in some areas, less than half of people would be willing to be vaccinated (4). Elsewhere, willingness to get vaccinated ranges from 31% in Poland (5) to 93% in Indonesia (6).

A number of factors are related to people's willingness, or its corollary, 'hesitancy'. Some of these are socio-cultural factors. For example, women are less likely to be willing, as are young people (4, 7), those on lower incomes (8), and those with lower education levels (1, 4). Also, in the US, non-white and non-Asian Americans are less willing to be vaccinated (4).

Other factors include political opinions and beliefs. In France, for example, those who had voted for a far left or far right candidate in the last presidential election – as well as those who abstained from voting – were much more likely to say that they would refuse to be vaccinated (8). This relationship with political views is consistent with other vaccines, and overlaps with general mistrust among these groups (at each end of the political spectrum) of government, of media (4), and of the health system (3, 7). Therefore, not surprisingly, one of the other strongest predictors of willingness to get vaccinated against COVID-19 is in fact having been vaccinated against seasonal influenza last year (3, 9).

A number of recent studies have also been looking at specific attitudes related to COVID-19 and COVID-19 vaccines. More positive attitudes towards a vaccine – and greater likelihood of taking up the (hypothetical) offer of vaccination – are associated with: perceiving oneself to be at greater risk of exposure to, or infection with, SARS-CoV-2 (2, 7); perceiving COVID-19 to be a severe disease; believing that the vaccine was safe (2, 3); and believing that the vaccine would be efficacious (2, 3). The Australian study found that levels of health literacy were also associated with willingness to be vaccinated against COVID-19 (1).

However, the efforts of governments, researchers, and industry around the world to develop an efficacious vaccine may now also face an additional hurdle – and one that may grow in consequence over time. In places like Germany, the proportion of people who say they don't want to get a vaccine or are unsure about it due to concerns about its safety and potential side-effects is *increasing* as time passes (10). So, there's still a lot to do – maybe more than ever – in terms of building community confidence in a vaccine, and ensuring that enough people take it to have a population-level effect.

References

1. Dodd RH, Cvejic E, Bonner C, Pickles K, McCaffery KJ, Sydney Health Literacy Lab C-g. Willingness to vaccinate against COVID-19 in Australia. *The Lancet Infectious diseases*. 2020:S1473-3099(20)30559-4.
2. Reiter PL, Pennell ML, Katz ML. Acceptability of a COVID-19 vaccine among adults in the United States: How many people would get vaccinated? *Vaccine*. 2020.
3. Sherman SM, Smith LE, Sim J, Amlôt R, Cutts M, Dasch H, et al. COVID-19 vaccination intention in the UK: Results from the COVID-19 Vaccination Acceptability Study (CoVAccS), a nationally representative cross-sectional survey. *medRxiv*. 2020:2020.08.13.20174045.
4. Malik AA, McFadden SM, Elharake J, Omer SB. Determinants of COVID-19 vaccine acceptance in the US. *EClinicalMedicine*. 2020.
5. Malesza M. Acceptability of COVID-19 vaccination during pandemic phase of coronavirus in Poland: population based cross-sectional survey 2020 [Available from: https://www.researchgate.net/publication/343140383_Acceptability_of_COVID-19_vaccination_during_pandemic_phase_of_coronavirus_in_Poland_population_based_cross-sectional_survey].
6. Harapan H, Wagner AL, Yufika A, Winardi W, Anwar S, Gan AK, et al. Acceptance of a COVID-19 Vaccine in Southeast Asia: A Cross-Sectional Study in Indonesia. *Frontiers in Public Health*. 2020;8(381).
7. Padhi BK, A. Almohaithef M. Determinants of COVID-19 vaccine acceptance in Saudi Arabia: a web-based national survey. *medRxiv*. 2020:2020.05.27.20114413.
8. Peretti-Watel P, Seror V, Cortaredona S, Launay O, Raude J, Verger P, et al. A future vaccination campaign against COVID-19 at risk of vaccine hesitancy and politicisation. *The Lancet Infectious Diseases*. 2020;20(7):769-70.
9. Dror AA, Eisenbach N, Taiber S, Morozov NG, Mizrahi M, Zigran A, et al. Vaccine hesitancy: the next challenge in the fight against COVID-19. *European Journal of Epidemiology*. 2020;35(8):775-9.
10. Deutsche Welle. Fewer Germans willing to get coronavirus vaccine, survey shows 2020 [updated 12 July. Available from: <https://www.dw.com/en/coronavirus-vaccine-germany/a-54146673>].