

# Vaccination Resistance

## Abstract

People who are reluctant to vaccinate have often been portrayed in the media as conspiracy theorists. Is this an anecdotal phenomenon? A stable correlation? Research in the humanities and social sciences has looked into this question, as well as into the broader relationship with vaccination: do undecided people change their minds over time? What policies are likely to turn them off? Is the obligation to present a document proving vaccination to access collective spaces or cultural activities an effective way to encourage vaccination? What is driving the change in vaccine mistrust? Memorandum 13: overview of the studies and projects registered on WPRN database

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### Conspiracy mentality correlated with anti-vaccine positions

Several studies in the WPRN database examine the relationship between conspiracy beliefs and rejection of vaccination. All of them confirm that adherence to conspiracy theories reduces the intention to vaccinate. Conducted notably in [France](#), [Cameroon](#) or [Serbia](#), these studies confirm in the context of the COVID-19 pandemic a correlation established by previous research.

### When conspiracies have no connection with the vaccine...

A conspiracy theory about the origin of the virus should not necessarily affect vaccination intention: if one believes that the virus was created by the Chinese government, one may think it is dangerous and want to protect oneself with a vaccine. Yet the [Serbia](#) and [France](#) studies highlight that even when conspiracy beliefs are unrelated to the vaccine, reluctance to be vaccinated against COVID-19 increases. In the French survey, none of the conspiracies studied referred to the dangers of vaccines: «The French government is using the pandemic to keep important reforms quiet»; «Manufacturers will use the pandemic to justify higher prices and make profits»; «COVID-19 is a bacteriological weapon used by the Chinese Communist Party to create panic in the West», etc.

The more respondents believed in these conspiracies, the less likely they were to have a positive attitude toward vaccination. Previous studies had already found that adherence to «classic» conspiracy beliefs unrelated to vaccination (JFK assassination, moon landing, etc.) was associated with negative attitudes toward vaccines. According to the researchers from the University of Belgrade, a conspiratorial mindset, i.e. a propensity to subscribe to theories that attribute responsibility for societal phenomena to malicious actors, may lead to the belief that key information is systematically hidden from the general public and excluded from the official discourse (origin of the pandemic, harmfulness of vaccines, etc.)

### Local specificities: the case of Cameroon

While the relationship between conspiracy beliefs and refusal to be vaccinated against COVID-19 is found in many nations, the conspiracies evoked sometimes have local particularities. For example, in [Cameroon](#), theories invoke plots by foreign (mainly Western) forces to harm the population. Two narratives predominate: the testing of vaccines on Cameroonians, and the attempt to exterminate them by injecting the vaccine. All of this is said to be done with the complicity of corrupt local elites - misinformation about acts of corruption is prevalent and difficult to detect because of the high level of actual corruption, in the country. Another specificity is that information not controlled by the authorities is rare in Cameroon, so «fake news» is seen as a manifestation of freedom of expression, and a right to an alternative truth is claimed by anti-vax groups (evangelical churches and alternative medicine advocates).

### Correlation or causation ?

In some cases, a prior distrust of vaccination for non-conspiratorial reasons (religious, for example) could lead to the subscription to conspiracy theories after the fact to legitimize this point of view. This reverse pathway, whose [hypothesis](#) is underlined by the researchers of the University of la Côte d'Azur, seems however not to be common.

### Most reluctant people are concerned about vaccine safety

Indeed, a [study](#) conducted by the University of Southern California tells us that only 6% of people who are reluctant to be vaccinated against COVID-19 would have this inclination because of antivax positions. The main reason for hesitating about the vaccine? Doubts about the safety of the vaccine. Half of the respondents who were reluctant to be vaccinated indicated that they were concerned that the COVID-19 vaccine was not safe (40% of «maybes», 68% of refusals). This U.S. population-based study also observes that other reasons for distrusting or rejecting the vaccine vary by group: fear that the vaccine is too expensive for 24% of racialized respondents and 16% of whites; carelessness about SARS-Cov-2 among 27% of white respondents versus 14% of racialized people.

## Inform without persuading

To avoid damaging already shaken trust, research conducted by Ghent University on 200,000 people recommends transparent communication about the efficacy and potential side effects of vaccines (the [study](#), titled «Motivation Barometer,» can be found on WPRN). Another German-Dutch [research](#) tells us that those who perceive communication about a vaccine as clear and consistent show both greater trust in institutions and higher vaccination intentions. It also points out that transparent information about the limitations of vaccines does not reduce vaccination intentions. Conversely, exaggerating the risk of COVID-19 in vaccination communication undermines the credibility of scientific experts, which in turn predicts acceptance of vaccine and potential boosters.

## The «fact box», an ethical information tool

A communication tool respecting all these recommendations has been developed by German and Dutch researchers. Using the Harding Center's guidelines on transparent risk communication, these scientists have designed a «fact box» dedicated to COVID-19 vaccination. Available on WPRN, this easily understandable [fact box](#) presents available data on the potential benefits and harms of vaccination in a graphically appealing format. [Studying](#) this type of information box for 90 seconds would increase the likelihood of changing one's mind about the vaccine by 1.3 . However, that is not the purpose of this tool. It is designed to inform without attempting to persuade (marketing) or seduce (nudging), so as not to violate the ethics of health care decision making. Its ultimate goal is to enable informed decision-making, while respecting the rights of undecided and skeptical citizens.

## What antagonizes the undecided

The Motivation Barometer shows that ethical communication is beneficial in many ways. After interacting with a health worker in an empowering style, respondents report that they will think more about vaccination and show a greater willingness to be vaccinated. Conversely, coercive communication has a negative impact on message consideration and intention to vaccinate. The [study](#) shows that vaccine-averse people should not perceive vaccination as an infringement on their autonomy and that if a government introduces mandatory vaccination, timing is crucial. In the right context, compulsory vaccination can be seen by the undecided as a fair way to mute their doubts and preferences and to contribute to a collective goal of protecting each other and regaining collective freedom. The numbers presented in this report published in July 2021, indicate that the requirement would be premature at this point. The researchers recommend not stigmatizing the unvaccinated in order to maintain social harmony and to continue to invest in other strategies to increase support for vaccination: presenting it as an act of solidarity, encouraging people to have a specific person in mind for whom they are vaccinated, specifying the vaccination goals to be achieved before easing restrictions, etc.

## Health pass to encourage vaccination ?

Conversely, the use of material rewards (gifts, tax breaks, vaccination passports with privileges, etc.) undermines the value of the social incentive and further alienates vaccine sceptics, as they are perceived as pressure. However, this effect would not be felt if, in the same message, a negative PCR test is presented as a truly equivalent alternative to vaccination. The [barometer](#) also notes the importance of linking the use of a health pass to COVID alert thresholds. On the one hand, this emphasizes the temporary nature of the measure: if the numbers improve, the pass will be removed. On the other hand, the use of thresholds shows that this is a tool to avoid overloading hospitals and to ensure the health of the population, not to restrict freedom or to convince reluctant people to get vaccinated.

## Give the undecided some time

Another report from the Motivation Barometer tells us that giving people time to think about vaccination is a tool that should not be neglected. Over time, the majority of those who are hesitant become pro-vaccination: 79% of Belgians who had doubts about vaccination in April 2021 were vaccinated by June 2021. And over the months, almost none of the undecideds developed a negative attitude towards vaccination.

## How to reduce the impact of conspiracy beliefs ?

As for conspiracy holdouts, the [study](#) conducted at the Université de la Côte d'Azur points out that exposure to anti-conspiracy arguments before and after exposure to conspiracy theories can restore vaccination intention. It also points to previous [research](#) that found that pre-existing knowledge about the HPV vaccine negated the impact of exposure to antivax conspiracy theories on vaccination intentions. Proactive outreach initiatives before the public is exposed to misinformation are therefore relevant. The

Cameroon [study](#) also recommends building capacity to detect conspiracy theories (civic education in schools, television programs), valuing local scientific knowledge, and promoting «truth-telling» among politicians: informing citizens about situations of uncertainty, financial or scientific challenges, and publicly admitting shortcomings.

## A wealth of research

Many other dimensions related to the pandemic and the vaccine are dissected by research referenced on the WPRN platform: The impact of Astra Zeneca vaccine side effects on vaccination [intentions](#) (none in the UK, but a drop in vaccination intentions in Germany, France, Spain and Italy), the fact that a vote in favor of Brexit does not predict a [specific stance](#) on vaccination, or that in the US, more frequent social media consumption seems to increase reluctance to get vaccinated... One can also find in the WPRN database a [tracker](#) of treatments and vaccines against COVID-19 being developed on the planet proposed by Stanford University, or an [algorithm](#) developed by Duke University to rationally allocate vaccines (its efficiency is 30 to 80% higher than the scenario where vaccines are randomly distributed). Research on the ethics surrounding the vaccine is also prominent, with, for example, [studies](#) questioning legal regulation and intellectual property issues or the [deliberate infection](#) of volunteers with COVID-19 for research.