

COVID-19 vaccine effectiveness and fewer common side effects most important factors in whether adults choose vaccination

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Concerns about the common side effects of COVID-19 vaccines and their effectiveness are key to determining whether adults in Germany and the UK choose to get vaccinated against the virus, according to new research being presented at this year's [ESCMID Global Congress](#) (formerly ECCMID) in Barcelona, Spain (27-30 April).

In contrast, timing of COVID-19 and [influenza vaccines](#) and their type have little influence on people's willingness to get vaccinated in both countries.

The survey and discrete choice experiment involved 1,000 adults (500 from Germany and 500 from the UK, with 250 who were fully vaccinated and 250 who were willing to receive a COVID-19 vaccine but were not up to date on their vaccine in each country. These "vaccine-hesitant" people included 230/250 participants from the UK who were partially vaccinated, and 20 who were unvaccinated, respectively; and 226/250 from Germany who were partially vaccinated, and 24 who were unvaccinated, respectively. Fully vaccinated was defined as participants who believed they were fully vaccinated, having received the initial primary series and additional COVID-19 booster doses. Un/partially vaccinated consisted of those who did not receive all primary series or booster doses available to them.

The study by Professor Jeffrey Lazarus from the Barcelona Institute for Global Health in Spain and international colleagues offers important insights into the drivers of behavior that might boost COVID-19 vaccine uptake, especially in those who are vaccine-hesitant.

"With vaccination fatigue growing alongside vaccine disinformation and hesitancy, our research suggests that educating the public about the benefits of vaccines, with messaging focusing largely on [vaccine safety](#)

and efficacy, will get more people to roll up their sleeves," says Professor Lazarus. "What's more, a better understanding of the importance of the perceptions of possible vaccine side effects will be essential to developing more appropriate messaging to reduce vaccine hesitancy."

Despite medical evidence of the importance and safety of COVID-19 vaccines, some of the public is hesitant and/or opposed to COVID-19 vaccination. Understanding the public's preferences for different COVID-19 vaccines and drivers of vaccine hesitancy is critical for implementing effective strategies to increase vaccine uptake.

To identify the most important factors when choosing to be vaccinated against COVID-19, the researchers first conducted an [online survey](#) of 1,000 adults in Germany (average age 47 years; 50% women) and the UK (average age 50 years; 49% women) between July and August 2023, to find out their preferences and experiences with SARS-CoV-2 infections and COVID-19 vaccines.

Participants were recruited using a specialist patient recruitment agency called Global Perspectives (GP). GP identified eligible participants through their panel databases, as well as through [support groups](#), word of mouth, internet advertising, email blasts, and social media. Recruitment messages were used to support this process. The sample was stratified by country, vaccination status, and disease risk status.

Then the study went a step further to examine which of six attributes of a COVID-19 vaccine were the most important in making a decision to be vaccinated or not—vaccine type (mRNA or protein), level of protection against COVID infection, level of protection against severe COVID-19 disease, chance of experiencing common side effects (i.e., reactogenicity events), risk of serious side effects (i.e., myocarditis/pericarditis), or joint and separate administration of influenza and COVID-19 vaccines.

This was done by giving each participant an illustrative choice task in which they viewed 11 unique vaccine profiles with a different combination of the six vaccine attributes. Participants were asked to choose between two different vaccine profiles at a time, and to pick which vaccine they would choose if there were only those two vaccine options, or they could select that they would prefer neither of the two options. Using this approach, researchers were able to understand the relative importance of each attribute to each participant.

In the baseline survey that asked participants how they felt about different attributes individually, 59% of German and 46% of UK respondents reported being moderately to extremely worried about COVID-19. More than three-quarters of those surveyed in both countries considered that being able to choose a COVID-19 vaccine to be moderately to extremely important. Additionally, around two-thirds of German and around half (45%) of UK participants reported that they were moderately to extremely worried about serious vaccine side effects.

The survey results differed substantially between the vaccinated and unvaccinated/partially vaccinated groups (based on ranking moderately to severely combined)—while concerns about COVID-19 were higher in the vaccinated group, having a choice of vaccine, vaccine type and concerns of side effects were all rated higher in the unvaccinated/partially vaccinated groups, with the trend followed in both countries.

However, when these attributes were put together in a combined profile in the discrete choice experiment (i.e., when considered together with efficacy, side effects, timing, etc.), the results showed that the most important considerations when deciding whether to be vaccinated in respondents from both countries were vaccine effectiveness against COVID-19 infection and severe disease, followed by common side effects.

Interestingly, the relative importance of common side effects was nearly 10% higher among Germany participants than their UK counterparts, while the importance of serious side effects was less than half as important as common side effects in both countries.

The researchers' next steps involve examining the rate at which participants experience common side effects and the impact on individuals' activities.

The authors note several limitations, including that the study used self-reported/stated preferences that might not always match preferences/decision-making in real-world situations.

More information: Poster abstract P0344 at the ESCMID Global Congress (formerly ECCMID).

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