

## Vaccine reluctance in Luxembourg, France and Germany

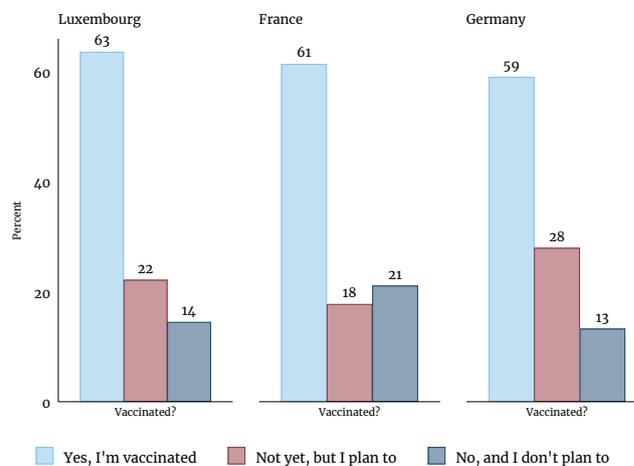
Using nationally representative data from France, Germany and Luxembourg from the COME-HERE survey, we compared some key demographic, socioeconomic, and psychological factors that characterize vaccine hesitant individuals. The analysis below refers to the June 2021 sweep of the COME-HERE survey that is based on 643 participants in Luxembourg, 961 individuals in France, and 703 respondents in Germany.

Overall incidence

In June 2021, over 85% of participants in Luxembourg and Germany were either vaccinated or waiting for their turn to get the jab. The figures are slightly lower in France where 79% of participants were vaccine accepting. Concerning vaccine reluctance, 21% of French respondents are not planning to take the vaccine, which is much higher than the respective figures in Luxembourg (14%) and Germany (13%).

Overall incidence

Figure 1: Vaccination status in Luxembourg, France and Germany in June 2021



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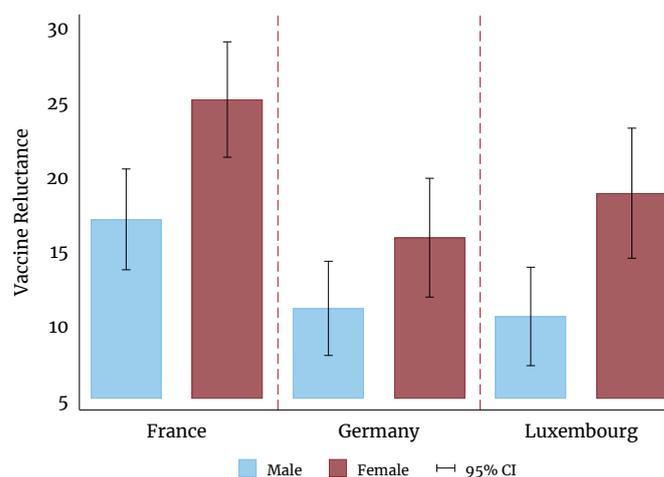
**Sponsors:** Agence Nationale de la Recherche (ANR), Fonds National de la Recherche Luxembourg (FNR), Losch Foundation, Art2Cure, CARGOLUX.

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### Sociodemographic indicators

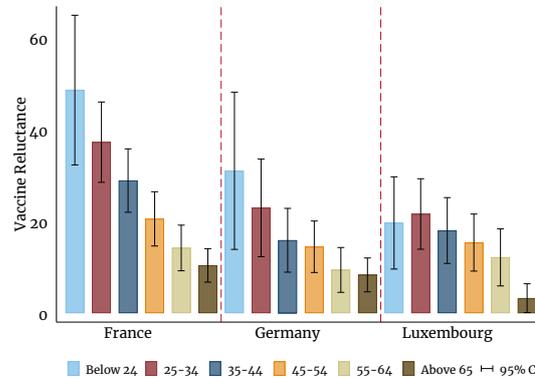
There is a clear gender difference in terms of vaccine status in all three countries. Women are less likely to have already been vaccinated and more likely to refuse the vaccine. 25% of French women are reluctant to take the vaccine compared to 19% in Luxembourg and 16% in Germany. These gender differences in vaccine attitude are statistically significant in all three countries (although only at 10% significance level in Germany). Vaccine reluctance among men is very similar in Luxembourg and Germany (11%) and slightly higher in France (17%).

Figure 2: Vaccination reluctance in Luxembourg, France and Germany in June 2021, by gender



In all three countries, there is a similar age profile of vaccine reluctance. The proportion of people who do not plan to take the vaccine is highly concentrated in early adulthood and declines with age. The difference between the youngest and oldest age groups is always statistically significant. These age differences are particularly strong in France where almost half of the respondents in the age group 18-24 are vaccine reluctant. Compared to respondents younger than 55, the elderly (65 and over) in both France and Luxembourg are significantly less likely to resist the vaccine. These results call for a more targeted messaging of vaccine efficacy to young adults.

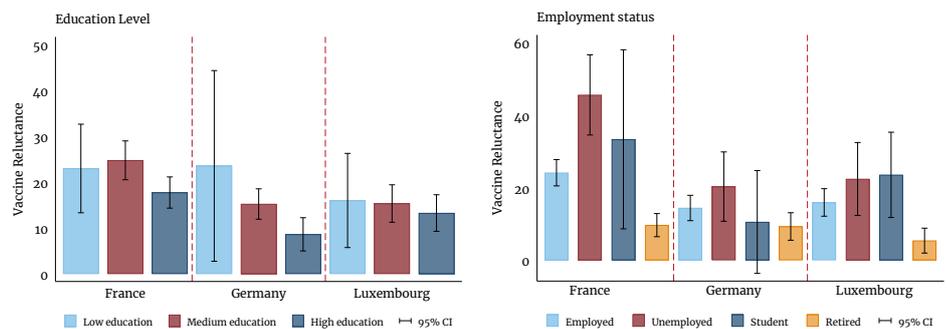
Figure 3: Vaccine reluctance in Luxembourg, France and Germany in June 2021, by age



There is only a weak correlation between education status and vaccine reluctance in all three countries. In France and Germany, compared to respondents with medium education level, those with a college degree or higher are significantly less likely to be vaccine reluctant. The group differences between lower and higher educational status are mostly statistically indistinguishable.

There is, however, an apparent correlation between labour force status and vaccine reluctance. In France, the unemployed are more likely to refuse the vaccine compared to the employed and the retired. In all three countries, the retired are less likely to be vaccine reluctant compared to both the employed and the unemployed. Even though students report high vaccine reluctance in both France (33%) and Luxembourg (24%), the difference between students and the other employment groups is not statistically significant.

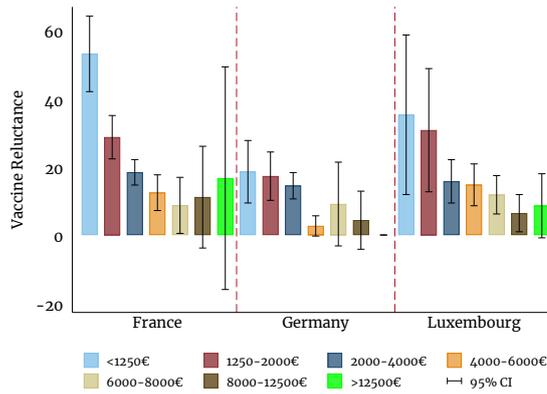
Figure 4: Socioeconomic determinants of vaccine reluctance in Luxembourg, France and Germany



We observe a similar negative correlation between vaccine reluctance and household income in all three countries. More than half of the respondents in France that reside in households with a monthly net income of 1250 Euros or less are vaccine reluctant. This is in stark contrast to respondents in households with a monthly income of 6000 Euros or more. The vaccine attitudes of the bottom earners in France are significantly different from all other groups (except the top group).

Even though there is a clear negative correlation between income and vaccine reluctance in Luxembourg, the differences among the income groups are not statistically significant. In Germany, vaccine reluctance is not at all observed in respondents with a monthly household income of over 12500 Euros. Once again, the result implies that socio-economic characteristics are important predictors of vaccine hesitancy, and a policy focus is required in reaching out to low-income families.

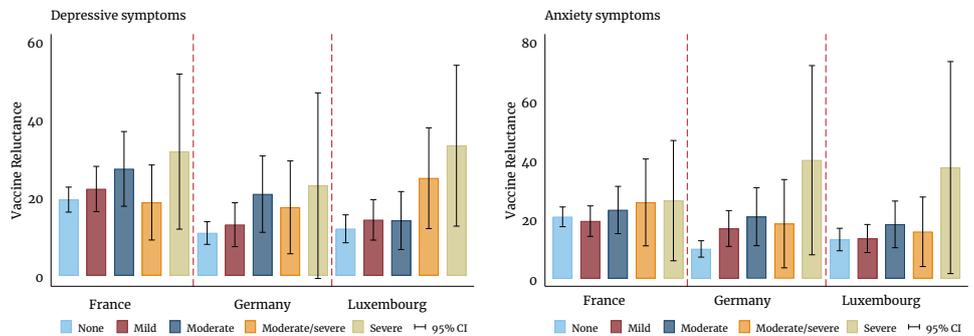
Figure 5: Vaccine reluctance in Luxembourg, France and Germany, by net monthly household income



Psychological indicators

There is only a weak relationship between mental health and vaccine attitudes. Individuals with higher levels of both depression and anxiety are more likely to be vaccine reluctant, but these differences are not statistically significant.

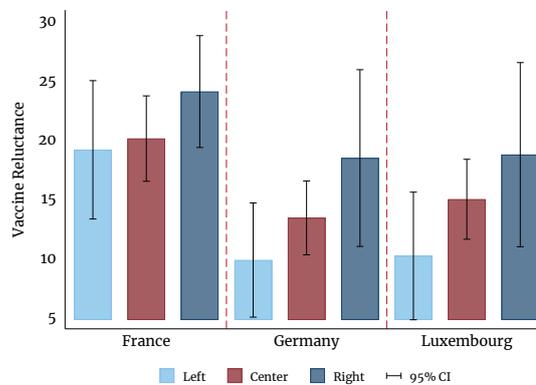
Figure 6: Mental health and vaccine reluctance in Luxembourg, France and Germany



Political beliefs

In Luxembourg and Germany, the proportion of respondents who do not plan to get vaccinated rises from the Left to the Right of the political spectrum, with the figure for self-identified right-wingers being twice that for those who say they are left-wing. Even though more self-identified right-wingers report to be vaccine reluctant, the difference is not statistically significant.

Figure 7: Political orientation and vaccine reluctance in Luxembourg, France and Germany



Research sponsors

Faculty of Humanities, Education and Social Sciences



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Summary

Our data demonstrate several potential predictors for vaccine hesitancy: age, employment status, and income. The patterns we identified highlight the need for awareness raising efforts targeted towards populations with higher vaccine hesitancy (the young, unemployed, and low earners) to counter low vaccination rates.