

Supplementary material (online only) to the article Toshkov, D. (2023) ‘What Accounts for the Variation in COVID-19 Vaccine Hesitancy in Eastern, Southern and Western Europe?’, *Vaccine*.

Descriptive statistics

Table A1. Table of descriptive statistics

Variable	Mean/N	St. Dev./Share	Min	Max
Region	26106			
... Eastern Europe	11250	43%		
... Southern Europe	5151	20%		
... Western Europe	9705	37%		
Age (ag in years)	45.48	16.79	15	93
Education (age complete)	21.39	4.46	14	81
Gender (male)	0.48	0.50	0	1
Place of residence (city)	0.35	0.48	0	1
Employment	24843			
... employee	1249	50%		
... manual	1513	6%		
... no activity	7870	32%		
... self-employed	2969	12%		
Trust.EU.info	0.23	0.42	0	1
Trust.gov.info	0.18	0.39	0	1
Trust.health.info	0.44	0.50	0	1
Trust.local.info	0.13	0.33	0	1
Trust.doctors.info	0.61	0.49	0	1
Trust.media.info	0.11	0.31	0	1
Trust.web.info	0.08	0.27	0	1
Trust.networks.info	0.057	0.23	0	1
Trust.people.info	0.16	0.36	0	1
Vaccines are safe	0.77	0.42	0	1
Vaccines are effective	0.84	0.37	0	1
Knows ill from COVID-19	0.75	0.44	0	1
Was ill from COVID-19	0.11	0.31	0	1
Fears infection	0.43	0.50	0	1
Vaccine hesitant	0.26	0.44	0	1
Vaccine refusal	0.11	0.32	0	1

Reasons for vaccination and vaccine hesitancy

The public opinion survey also includes questions about the reasons respondents opted to vaccinate or expressed hesitancy or refusal to do so. The usefulness of this data, however, is limited by the fact that different sets of reasons were provided to vaccine-approving and to vaccine-hesitant people. Therefore, we cannot know the overall popularity of different reasons in the total populations or to compare the appeal of different reasons between people with different opinions on vaccination. Nevertheless, we can compare the popularity of different reasons among the subsets of vaccine-approving and vaccine-hesitant respondents across the three European regions.

Figures A1 and A2 plot the means of agreement with different reasons per region. When it comes to vaccine hesitancy, there are not too many big differences in the popularity of different reasons.

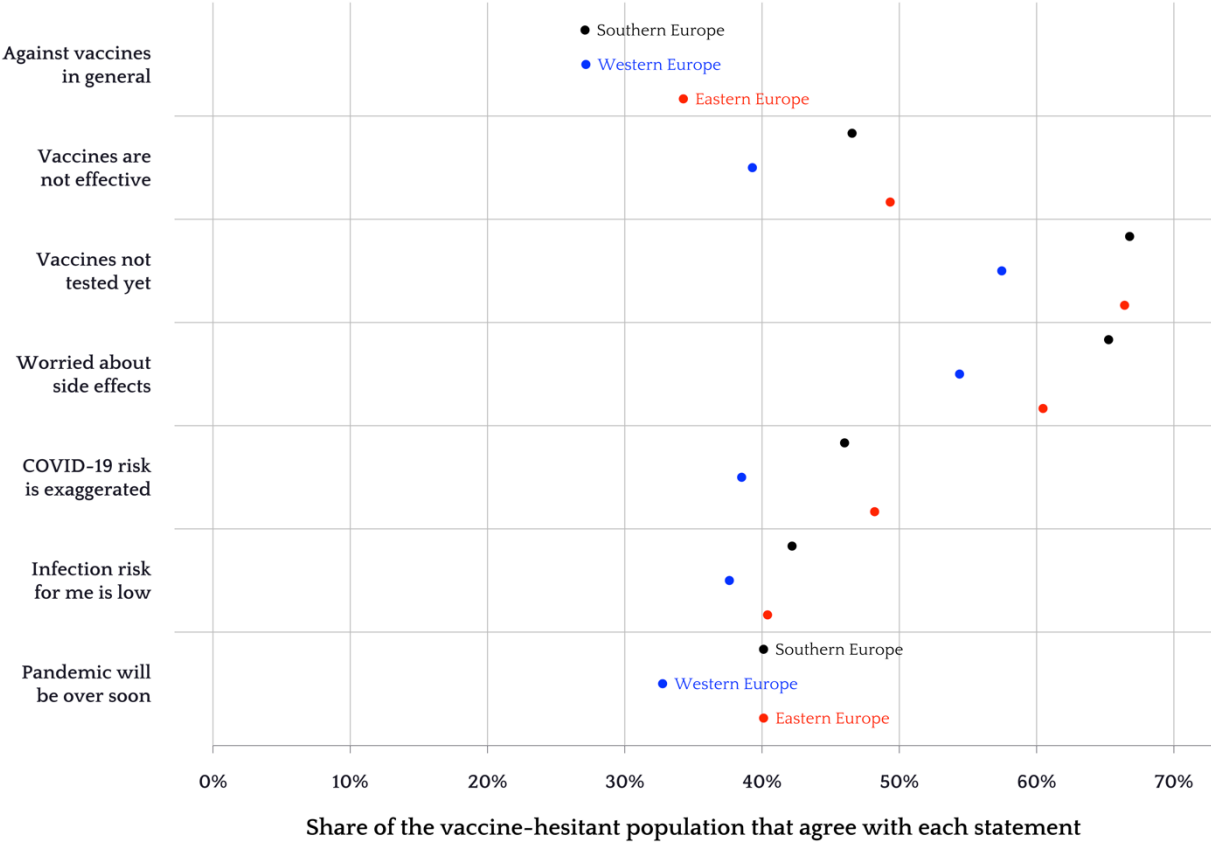


Figure A1. Share of the vaccine-hesitant population in Eastern, Wester and Southern Europe that agree with each reason for non-vaccinating. Data: Flash Eurobarometer 494, May 2021.

However, being against vaccines in general is much more common argument among the vaccine hesitant in Eastern Europe than in the West and the South. The most popular argument in Southern Europe is worry about side effects and that the vaccines have not been properly tested yet. Overall, Western European vaccine-hesitant respondents endorse the least all the possible reasons given. Examining the reasons for vaccination, Southern European vaccine-approving people endorse to the greatest extent all the different possible reasons. For Western Europeans, the appeal of vaccines enabling travel and work is the weakest. Even though the arguments that vaccines will end the pandemic and will protect others are most popular in Eastern Europe compared to other arguments, their level of support is still significantly lower than in Western and Southern Europe. To remind, these differences are of limited use in explaining different *levels* of vaccine hesitancy in Europe, since only vaccine-accepting people were presented with reasons for vaccination and only vaccine-hesitant people were presented with reasons against (and because respondents could choose to endorse as many reasons as they want). But the relative popularity of different arguments *across* regions is still suggestive of the motivation of people to vaccinate or not.



Figure A2. Share of the vaccine-approving population in Eastern, Western and Southern Europe that agree with each reason for vaccinating. Data: Flash Eurobarometer 494, May 2021.

Multivariate models of vaccine refusal and vaccine hesitancy 2

Table A2. Logistic regression models of vaccine refusal

	Model A1	Model A2	Model A3
Characteristic	OR (95% CI)[†]	OR (95% CI)[†]	OR (95% CI)[†]
Region			
<i>Eastern Europe</i>	—	—	—
<i>Southern Europe</i>	0.45 [0.40, 0.51]***	0.44 [0.38, 0.52]***	0.66 [0.56, 0.77]***
<i>Western Europe</i>	0.49 [0.44, 0.54]***	0.50 [0.44, 0.56]***	0.57 [0.51, 0.65]***
Trust.EU.info	0.30 [0.25, 0.34]***	0.24 [0.20, 0.29]***	0.33 [0.27, 0.40]***
Trust.gov.info	0.45 [0.37, 0.54]***	0.45 [0.36, 0.56]***	0.62 [0.49, 0.77]***
Trust.health.info	0.23 [0.21, 0.26]***	0.23 [0.20, 0.27]***	0.33 [0.28, 0.38]***
Trust.local.info	0.60 [0.48, 0.73]***	0.55 [0.42, 0.71]***	0.64 [0.48, 0.83]**
Trust.doctors.info	0.32 [0.29, 0.35]***	0.32 [0.29, 0.35]***	0.48 [0.43, 0.53]***
Trust.media.info	0.61 [0.51, 0.73]***	0.58 [0.47, 0.72]***	0.74 [0.59, 0.93]**
Trust.web.info	1.31 [1.14, 1.51]***	1.37 [1.15, 1.62]***	1.31 [1.09, 1.57]**
Trust.networks.info	1.61 [1.37, 1.88]***	1.72 [1.42, 2.08]***	1.70 [1.38, 2.08]***
Trust.people.info	0.84 [0.75, 0.94]**	0.76 [0.66, 0.87]***	0.74 [0.64, 0.86]***
Age		0.98 [0.98, 0.98]***	0.98 [0.98, 0.99]***
Education		0.99 [0.98, 1.00]	1.00 [0.99, 1.01]
Sex [male]		0.92 [0.83, 1.01]	0.91 [0.82, 1.01]
Residence [city]		0.89 [0.80, 0.99]*	0.91 [0.82, 1.02]
Occupation			
<i>Employee</i>		—	—
<i>Manual worker</i>		1.24 [1.02, 1.50]*	1.09 [0.89, 1.34]
<i>No activity</i>		1.29 [1.14, 1.47]***	1.24 [1.08, 1.42]**
<i>self-employed</i>		1.34 [1.15, 1.55]***	1.27 [1.09, 1.49]**
Vaccines are safe			0.41 [0.36, 0.47]***

Characteristic	Model A1	Model A2	Model A3
	OR (95% CI)[†]	OR (95% CI)[†]	OR (95% CI)[†]
Vaccines are effective			0.48 [0.41, 0.55]***
Knows ill from COVID-19			0.93 [0.82, 1.05]
Was ill from COVID-19			1.02 [0.86, 1.20]
Fears infection			0.26 [0.22, 0.30]***
<i>Number of observations</i>	<i>26,106</i>	<i>19,944</i>	<i>19,944</i>
<i>McFadden's Pseudo R-squared</i>	<i>0.18</i>	<i>0.20</i>	<i>0.30</i>
[†] *p<0.05; **p<0.01; ***p<0.001			

Table A3. Logistic regression models of vaccine hesitancy 2 (excluding Don't know and no responses)

	Model A4	Model A5	Model A6
Characteristic	OR (95% CI)^f	OR (95% CI)^f	OR (95% CI)^f
Region			
<i>Eastern Europe</i>	—	—	—
<i>Southern Europe</i>	0.38 [0.33, 0.43]***	0.37 [0.31, 0.43]***	0.54 [0.45, 0.64]***
<i>Western Europe</i>	0.41 [0.37, 0.45]***	0.41 [0.36, 0.46]***	0.44 [0.38, 0.50]***
Trust.EU.info	0.25 [0.21, 0.29]***	0.20 [0.16, 0.24]***	0.29 [0.23, 0.35]***
Trust.gov.info	0.39 [0.33, 0.47]***	0.39 [0.31, 0.48]***	0.54 [0.42, 0.68]***
Trust.health.info	0.19 [0.17, 0.22]***	0.19 [0.17, 0.22]***	0.29 [0.25, 0.34]***
Trust.local.info	0.54 [0.43, 0.66]***	0.47 [0.36, 0.61]***	0.55 [0.40, 0.73]***
Trust.doctors.info	0.26 [0.24, 0.29]***	0.27 [0.24, 0.30]***	0.44 [0.39, 0.49]***
Trust.media.info	0.57 [0.47, 0.68]***	0.54 [0.43, 0.67]***	0.68 [0.53, 0.87]**
Trust.web.info	1.31 [1.12, 1.53]***	1.35 [1.13, 1.62]**	1.27 [1.03, 1.56]*
Trust.networks.info	1.65 [1.39, 1.95]***	1.78 [1.44, 2.19]***	1.79 [1.41, 2.27]***
Trust.people.info	0.88 [0.78, 0.99]*	0.79 [0.68, 0.91]***	0.75 [0.64, 0.89]***
Age		0.97 [0.97, 0.98]***	0.98 [0.97, 0.98]***
Education		0.99 [0.98, 1.00]	1.00 [0.98, 1.01]
Sex [male]		0.86 [0.77, 0.95]**	0.82 [0.73, 0.93]**
Residence [city]		0.88 [0.79, 0.98]*	0.93 [0.82, 1.05]
Occupation			
<i>Employee</i>		—	—
<i>Manual worker</i>		1.49 [1.21, 1.83]***	1.36 [1.07, 1.72]*
<i>No activity</i>		1.41 [1.24, 1.61]***	1.37 [1.18, 1.60]***
<i>self-employed</i>		1.42 [1.22, 1.66]***	1.35 [1.13, 1.61]***
Vaccines are safe			0.32 [0.27, 0.37]***

Characteristic	Model A4	Model A5	Model A6
	OR (95% CI)[†]	OR (95% CI)[†]	OR (95% CI)[†]
Vaccines are effective			0.33 [0.28, 0.38]***
Knows ill from COVID-19			0.85 [0.74, 0.98]*
Was ill from COVID-19			1.12 [0.93, 1.34]
Fears infection			0.21 [0.18, 0.25]***
<i>Number of observations</i>	<i>22,223</i>	<i>17,212</i>	<i>17,212</i>
<i>McFadden's Pseudo R-squared</i>	<i>0.24</i>	<i>0.27</i>	<i>0.41</i>
[†] *p<0.05; **p<0.01; ***p<0.001			

Multivariate models of vaccine hesitancy and refusal with region interactions

Table A4. Logistic regression models with interaction.

Characteristic	Model A7	Model A8	Model A9
	Vaccine hesitancy	Vaccine refusal	Hesitancy 2
	OR (95% CI) [†]	OR (95% CI) [†]	OR (95% CI) [†]
Region			
<i>Eastern Europe</i>	—	—	—
<i>Southern Europe</i>	0.29 [0.13, 0.65]**	0.50 [0.17, 1.50]	0.21 [0.07, 0.69]**
<i>Western Europe</i>	0.40 [0.22, 0.73]**	0.45 [0.22, 0.94]*	0.18 [0.08, 0.42]***
Trust.EU.info	0.48 [0.41, 0.56]***	0.36 [0.28, 0.45]***	0.32 [0.24, 0.41]***
Trust.gov.info	0.67 [0.54, 0.83]***	0.71 [0.51, 0.97]*	0.59 [0.41, 0.82]**
Trust.health.info	0.48 [0.42, 0.55]***	0.36 [0.30, 0.44]***	0.31 [0.25, 0.38]***
Trust.local.info	0.65 [0.50, 0.84]**	0.51 [0.33, 0.76]**	0.39 [0.24, 0.61]***
Trust.doctors.info	0.62 [0.55, 0.69]***	0.48 [0.42, 0.55]***	0.43 [0.36, 0.50]***
Trust.media.info	0.84 [0.68, 1.03]	0.85 [0.64, 1.12]	0.77 [0.56, 1.05]
Trust.web.info	1.08 [0.88, 1.32]	1.33 [1.04, 1.68]*	1.23 [0.92, 1.62]
Trust.networks.info	1.72 [1.36, 2.17]***	1.82 [1.41, 2.36]***	1.95 [1.42, 2.66]***
Trust.people.info	1.02 [0.88, 1.17]	0.72 [0.61, 0.85]***	0.71 [0.57, 0.86]***
Age	0.98 [0.97, 0.98]***	0.98 [0.98, 0.99]***	0.98 [0.97, 0.98]***
Education	0.99 [0.97, 1.00]	0.99 [0.97, 1.00]	0.98 [0.96, 1.00]
Sex [male]	0.76 [0.68, 0.85]***	0.88 [0.77, 1.01]	0.78 [0.67, 0.92]**
Residence [city]	0.97 [0.87, 1.09]	0.90 [0.78, 1.03]	0.94 [0.80, 1.10]
Occupation			
<i>Employee</i>	—	—	—
<i>Manual worker</i>	1.85 [1.48, 2.31]***	1.19 [0.92, 1.52]	1.60 [1.17, 2.18]**
<i>No activity</i>	1.30 [1.13, 1.51]***	1.23 [1.04, 1.47]*	1.37 [1.12, 1.68]**
<i>Self-employed</i>	1.25 [1.05, 1.48]**	1.10 [0.89, 1.35]	1.21 [0.95, 1.54]

Characteristic	Model A7	Model A8	Model A9
	Vaccine hesitancy	Vaccine refusal	Hesitancy 2
	OR (95% CI) [†]	OR (95% CI) [†]	OR (95% CI) [†]
Vaccines are safe	0.35 [0.31, 0.41]***	0.43 [0.36, 0.51]***	0.32 [0.26, 0.39]***
Vaccines are effective	0.34 [0.28, 0.40]***	0.50 [0.41, 0.59]***	0.30 [0.24, 0.37]***
Knows ill from COVID-19	0.74 [0.64, 0.85]***	0.97 [0.82, 1.14]	0.83 [0.68, 1.02]
Was ill from COVID-19	1.32 [1.13, 1.54]***	0.96 [0.79, 1.17]	1.13 [0.89, 1.42]
Fears infection	0.37 [0.32, 0.41]***	0.24 [0.20, 0.29]***	0.19 [0.15, 0.23]***
<i>Southern Europe * trust.EU.info</i>	1.11 [0.81, 1.52]	0.76 [0.39, 1.38]	0.72 [0.36, 1.33]
<i>Western Europe * trust.EU.info</i>	0.73 [0.52, 1.00]	0.74 [0.41, 1.28]	0.73 [0.40, 1.28]
<i>Southern Europe * trust.gov.info</i>	0.79 [0.52, 1.20]	0.75 [0.35, 1.51]	0.75 [0.34, 1.56]
<i>Western Europe * trust.gov.info</i>	0.94 [0.68, 1.31]	0.80 [0.47, 1.32]	0.89 [0.51, 1.51]
<i>Southern Europe * trust.health.info</i>	0.92 [0.71, 1.20]	0.73 [0.44, 1.17]	0.73 [0.44, 1.18]
<i>Western Europe * trust.health.info</i>	0.88 [0.71, 1.09]	0.80 [0.56, 1.13]	0.86 [0.60, 1.23]
<i>Southern Europe * trust.local.info</i>	0.91 [0.55, 1.48]	0.82 [0.30, 1.97]	0.88 [0.30, 2.24]
<i>Western Europe * trust.local.info</i>	1.17 [0.80, 1.72]	1.91 [1.06, 3.45]*	2.34 [1.25, 4.41]**
<i>Southern Europe * trust.doctors.info</i>	1.19 [0.94, 1.51]	0.98 [0.70, 1.38]	1.07 [0.74, 1.55]
<i>Western Europe * trust.doctors.info</i>	0.97 [0.80, 1.18]	0.96 [0.74, 1.24]	1.02 [0.77, 1.34]
<i>Southern Europe * trust.media.info</i>	1.05 [0.65, 1.66]	0.62 [0.25, 1.37]	0.56 [0.21, 1.34]
<i>Western Europe * trust.media.info</i>	1.04 [0.73, 1.47]	0.70 [0.40, 1.18]	0.79 [0.44, 1.39]
<i>Southern Europe * trust.web.info</i>	1.66 [1.11, 2.47]*	1.05 [0.60, 1.79]	1.15 [0.63, 2.07]
<i>Western Europe * trust.web.info</i>	1.27 [0.90, 1.79]	0.88 [0.57, 1.36]	1.05 [0.65, 1.68]
<i>Southern Europe * trust.networks.info</i>	0.87 [0.53, 1.42]	0.96 [0.49, 1.82]	1.03 [0.49, 2.10]
<i>Western Europe * trust.networks.info</i>	0.70 [0.46, 1.04]	0.78 [0.47, 1.28]	0.76 [0.43, 1.32]
<i>Southern Europe * trust.people.info</i>	1.04 [0.69, 1.54]	0.99 [0.52, 1.79]	0.98 [0.49, 1.87]
<i>Western Europe * trust.people.info</i>	1.23 [0.97, 1.57]	1.17 [0.83, 1.63]	1.30 [0.90, 1.87]
<i>Southern Europe * Age</i>	1.00 [0.99, 1.01]	0.99 [0.98, 1.01]	1.00 [0.98, 1.01]

Characteristic	Model A7	Model A8	Model A9
	Vaccine hesitancy	Vaccine refusal	Hesitancy 2
	OR (95% CI) [†]	OR (95% CI) [†]	OR (95% CI) [†]
<i>Western Europe * Age</i>	0.99 [0.99, 1.00]*	1.00 [0.99, 1.01]	1.00 [0.99, 1.01]
<i>Southern Europe * Education</i>	1.02 [0.99, 1.05]	1.03 [0.99, 1.07]	1.05 [1.00, 1.09]*
<i>Western Europe * Education</i>	1.02 [1.00, 1.04]	1.02 [0.99, 1.05]	1.02 [0.99, 1.06]
<i>Southern Europe * Male</i>	1.0 [0.79, 1.26]	1.19 [0.85, 1.67]	1.23 [0.85, 1.77]
<i>Western Europe * Male</i>	0.99 [0.82, 1.19]	1.05 [0.82, 1.34]	1.07 [0.81, 1.40]
<i>Southern Europe * City</i>	0.93 [0.74, 1.18]	1.07 [0.76, 1.50]	1.02 [0.70, 1.47]
<i>Western Europe * City</i>	0.84 [0.68, 1.03]	1.00 [0.76, 1.31]	0.91 [0.67, 1.22]
<i>Southern Europe * manual</i>	0.56 [0.32, 0.96]*	0.28 [0.09, 0.71]*	0.23 [0.07, 0.64]**
<i>Western Europe * manual</i>	0.80 [0.56, 1.14]	0.95 [0.59, 1.50]	0.79 [0.46, 1.34]
<i>Southern Europe * no activity</i>	1.23 [0.92, 1.63]	1.39 [0.91, 2.10]	1.47 [0.93, 2.31]
<i>Western Europe * no activity</i>	0.92 [0.72, 1.17]	0.85 [0.62, 1.17]	0.84 [0.59, 1.19]
<i>Southern Europe * self-employed</i>	1.01 [0.73, 1.39]	1.52 [0.98, 2.36]	1.40 [0.87, 2.26]
<i>Western Europe * self-employed</i>	1.04 [0.76, 1.40]	1.36 [0.92, 1.98]	1.17 [0.77, 1.78]
<i>Southern Europe * vaccines.safe</i>	0.86 [0.62, 1.18]	0.91 [0.59, 1.42]	0.97 [0.60, 1.56]
<i>Western Europe * vaccines.safe</i>	0.95 [0.75, 1.21]	0.90 [0.66, 1.23]	1.01 [0.72, 1.42]
<i>Southern Europe * vaccines.effective</i>	1.44 [0.99, 2.10]	0.89 [0.56, 1.41]	1.13 [0.67, 1.89]
<i>Western Europe * vaccines.effective</i>	1.19 [0.90, 1.57]	0.86 [0.62, 1.20]	1.17 [0.81, 1.69]
<i>Southern Europe * knows.ill.covid</i>	1.23 [0.93, 1.63]	0.86 [0.59, 1.26]	1.00 [0.66, 1.52]
<i>Western Europe * knows.ill.covid</i>	1.08 [0.87, 1.34]	0.96 [0.74, 1.27]	1.07 [0.79, 1.45]
<i>Southern Europe * was.ill.covid</i>	0.85 [0.57, 1.25]	0.96 [0.52, 1.70]	0.83 [0.43, 1.55]
<i>Western Europe * was.ill.covid</i>	0.82 [0.60, 1.11]	1.30 [0.86, 1.94]	1.06 [0.68, 1.64]
<i>Southern Europe * fears.covid</i>	0.96 [0.76, 1.22]	1.05 [0.71, 1.54]	1.07 [0.70, 1.61]
<i>Western Europe * fears.covid</i>	1.14 [0.93, 1.40]	1.17 [0.83, 1.63]	1.39 [0.97, 1.96]
<i>Number of observations</i>	<i>19,944</i>	<i>19,944</i>	<i>17,212</i>

	Model A7 Vaccine hesitancy	Model A8 Vaccine refusal	Model A9 Hesitancy 2
Characteristic	OR (95% CI)[†]	OR (95% CI)[†]	OR (95% CI)[†]
<i>McFadden's Pseudo R-squared</i>	<i>0.31</i>	<i>0.31</i>	<i>0.41</i>

[†] *p<0.05; **p<0.01; ***p<0.001

Mediation analysis

The analyses above are useful for discovering significant associations between demographic, information-based and other variables with vaccine hesitancy and exploring the reasons for (non)vaccination, but they are not sufficient to identify causal effects of these variables as such, partly for the reason that the models do not consider the causal ordering of the variables included. While the observational and cross-sectional nature of the data preclude making valid causal inference without very strong assumptions, we can estimate a structural model of vaccine hesitancy that can provide estimates of direct, indirect and total effects of different variables. In particular, we propose a 2-step sequential mediation model, in which demographic variables (age and education) affect the likelihood to trust the Internet as a source of information on COVID-19 vaccines, which in its turn affects beliefs in the safety of the vaccines, which in their turn affect vaccine hesitancy. In addition, age and education affect directly beliefs about vaccine safety and vaccine hesitancy, and trust in the Internet affects directly vaccine hesitancy as well.

We estimate the mediation model sketched above using the *lavaan* package for R. The results are summarized in Figure A3, which shows the path coefficients for the direct effects and the estimates of the indirect effects and the total effects in the box. According to the model, the total effect of age on vaccine hesitancy is negative, and most of the effect is exercised directly. The indirect effects of age via vaccine beliefs and via trust in the Internet are significant, but much smaller in size and importance. The total effect of education is also estimated to be negative and is mostly exercised directly. In fact, there does not seem to be a significant effect of education on trust in the Internet as a source of information on COVID-19 vaccines, which precludes the two-step mediation effect. The direct effect of education on belief in the safety of vaccines is large, positive and significant. The effect of trust in the Internet on vaccine hesitancy is positive, large and significant both directly and indirectly via the belief that vaccines are safe.

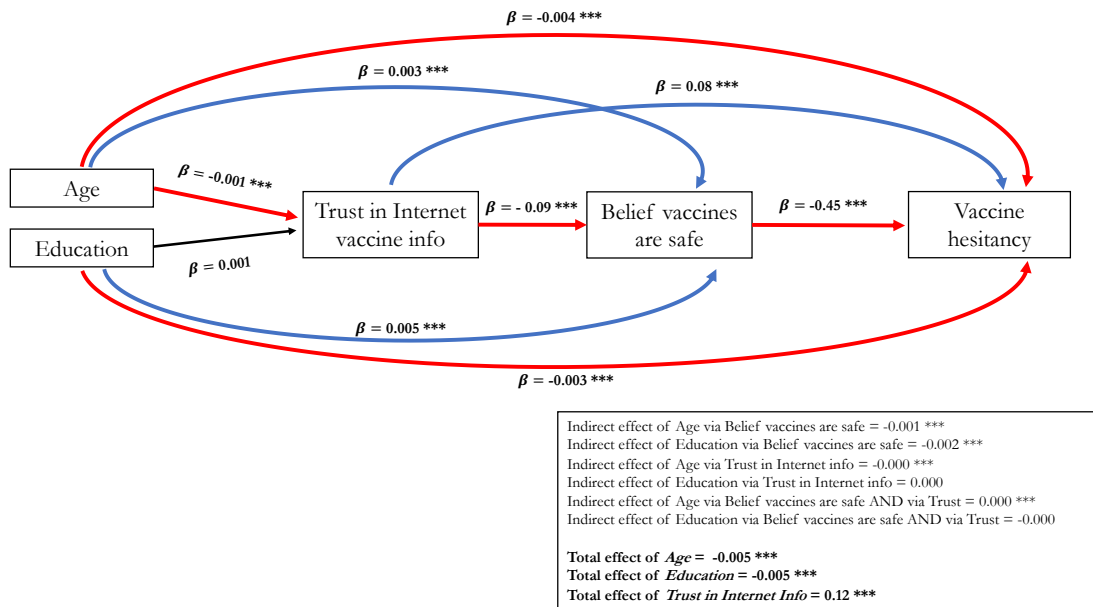
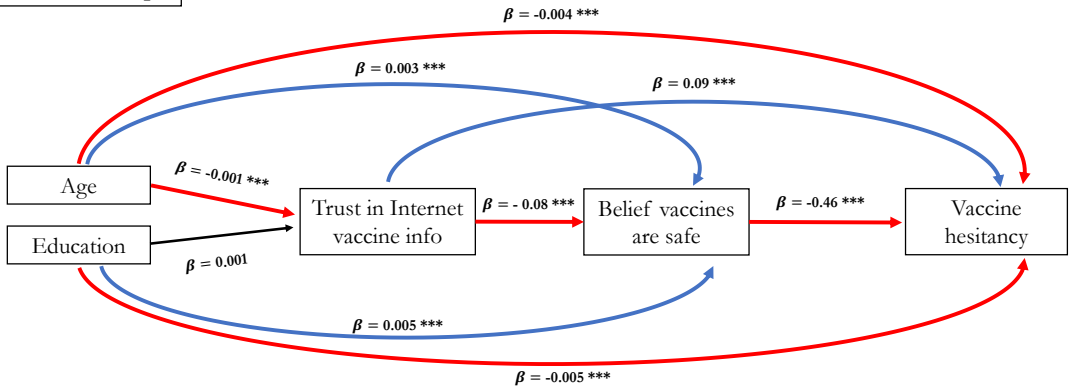


Figure A3. Results from mediation analysis of vaccine hesitancy (two-step sequential mediation model) estimated with the *lavaan* package for R. Logit links are specified for the three equations, since the outcome variables are all binary. Significant positive links are in blue and negative ones are in red; non-significant links are in black. Standardized coefficients are reported (standard errors are not printed); stars indicate levels of statistical significance: *** < 0.001; ** < 0.01, * < 0.05

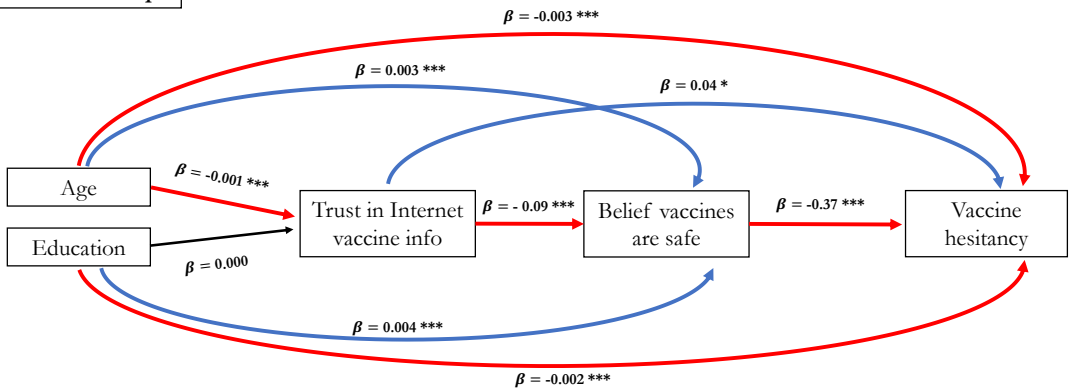
Below we present this mediation model estimated in each region in Europe to explore how the patterns differ. There are no major differences between Eastern and Western Europe, but the model for Southern Europe has all direct and indirect effects of education as insignificant. The total effect of trust in the Internet is smallest in Western Europe and greatest in Eastern Europe.

Eastern Europe



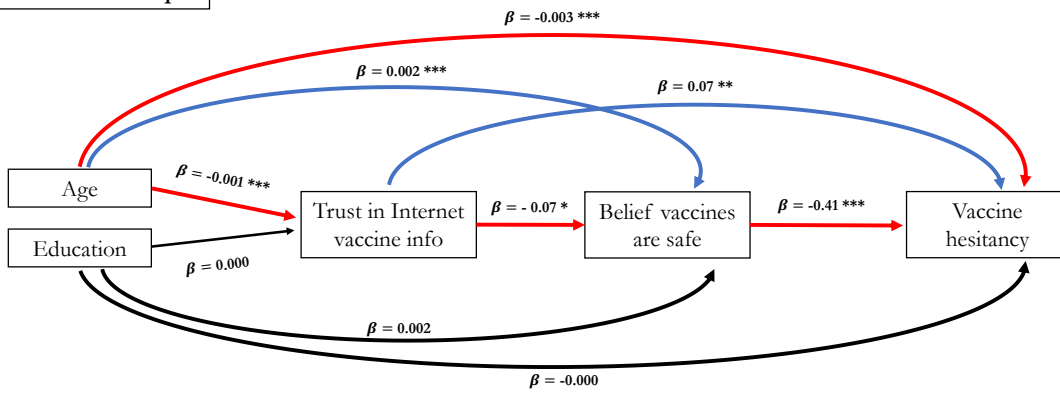
Indirect effect of Age via Belief vaccines are safe = -0.001 ***
 Indirect effect of Education via Belief vaccines are safe = -0.002 ***
 Indirect effect of Age via Trust in Internet info = -0.000 ***
 Indirect effect of Education via Trust in Internet info = 0.000
 Indirect effect of Age via Belief vaccines are safe AND via Trust = 0.000 ***
 Indirect effect of Education via Belief vaccines are safe AND via Trust = -0.000
 Total effect of Age = -0.006 ***
 Total effect of Education = -0.007 ***
 Total effect of Trust in Internet Info = 0.13 ***

Western Europe



Indirect effect of Age via Belief vaccines are safe = -0.001 ***
 Indirect effect of Education via Belief vaccines are safe = -0.002 ***
 Indirect effect of Age via Trust in Internet info = -0.000 ***
 Indirect effect of Education via Trust in Internet info = 0.000
 Indirect effect of Age via Belief vaccines are safe AND via Trust = 0.000
 Indirect effect of Education via Belief vaccines are safe AND via Trust = -0.000
 Total effect of Age = -0.004 ***
 Total effect of Education = -0.003 ***
 Total effect of Trust in Internet Info = 0.07 ***

Southern Europe



Indirect effect of Age via Belief vaccines are safe = -0.001 ***
 Indirect effect of Education via Belief vaccines are safe = -0.001
 Indirect effect of Age via Trust in Internet info = -0.000
 Indirect effect of Education via Trust in Internet info = 0.000
 Indirect effect of Age via Belief vaccines are safe AND via Trust = 0.000
 Indirect effect of Education via Belief vaccines are safe AND via Trust = -0.000

Total effect of Age = -0.003 ***
Total effect of Education = -0.001
Total effect of Trust in Internet Info = 0.10 ***