



# Institutional Trust and Compliance with Measures to Fight COVID-19

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**Abstract** The paper investigates the causal relationship between the trust in institutions and compliance with measures introduced to slow down the spread of the novel coronavirus COVID-19 in Slovakia. In addition, the impact of socio-economic characteristics on compliance with introduced measures was analysed. Data were obtained from a survey carried out by the Slovak Academy of Sciences on a representative sample of the Slovak population of 1,000 respondents. To derive the causal relationship between institutional trust and compliance behaviour, a probit regression model was used. Findings suggest that trust in public institutions helps to increase compliance with social distancing. In addition, some socio-economic characteristics such as employment status, age or whether individuals felt endangered by COVID-19 had a positive and statistically significant effect on compliance with measures used to slow the spread of the COVID-19 virus. Institutional trust did not have a statistically significant effect on compliance with face-covering measures.

**Keywords** Institutional trust · Social distancing · Face covering measures · Compliance · COVID-19 · Slovakia

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## Introduction

On the 30th January 2020, the World Health Organization (WHO) declared the novel coronavirus SARS-COVID-19 outbreak as a public health emergency of international concern. In March 2020, its spread was declared a global pandemic (WHO, 2020a). At the beginning of the spread of the virus, western countries had not foreseen that their countries would be hit so hard by the pandemic. Having limited or no recent experience with large epidemiological outbreaks, many governments failed to adequately prepare for the rising numbers of infections.

So far, the COVID-19 pandemic has affected countries around the world, has tested their health care systems and capacities to deal with the increasing infection rates and has had an adverse impact on their economies and social life. To slow down the spread of the virus, the WHO recommends washing hands, wearing face coverings and applying social distancing (WHO, 2020b). Thus, the focus was to increase such behaviour across the population. Consequently, governments introduced measures aimed to decrease the spread of the virus, which have been predominantly linked to social-distancing measures and the wearing of face coverings. However, these measures are effective only if citizens comply with them. Even though compliance with these measures is in society's interest and can limit health and economic costs of the pandemic, people frequently do not act accordingly. Especially in the second wave of the pandemic, people frequently opposed the measures and failed to comply with them. Understanding why people do not comply is key to comprehending how to enhance compliance with these epidemiological measures and thus, their effectiveness. This can help governments overcome the resistance of non-compliant populations and limit health and economic costs of the pandemic. It is important to distinguish between measures that are more difficult to enforce and thus, require greater reliance on voluntary compliance (such as social-distancing measures), and measures for which it is easier to monitor and enforce compliance (such as wearing face coverings).

This paper uses survey data collected by the Slovak Academy of Sciences in Slovakia during the first wave of the pandemic (in April 2020) to study factors affecting compliance with social-distancing measures and wearing face coverings. In particular, apart from socio-economic characteristics, the study examines whether trust in public institutions affects the compliance decisions of individuals.

## Review of Relevant Literature

As data related to the COVID-19 pandemic become available for individual countries and internationally, researchers from different academic fields study various aspects of the pandemic. Social scientists predominantly focus on social aspects, and economic and non-economic consequences of this phenomenon. They analyse how the behaviour of individuals is affected and how to limit economic and social costs of the COVID-19 epidemic.

Efforts to limit the spread of the virus will be successful only if people adhere to recommended behavioural patterns. Based on data obtained from an online survey carried out among U.S. residents in April 2020, Van Rooij et al. (2020) assessed factors that influenced the compliance of respondents with the stay-at-home and social-

distancing measures. They concluded that people tend to comply less when they fear authorities. Moreover, they found that people's capacity to obey rules, to break them, and self-control were positively correlated with compliance with the measures. They also found that compliance significantly depends on intrinsic motivations, such as moral support and on social norms ( $p < 0.01$  or  $p < 0.10$ , respectively).

Miguel et al. (2021) studied the effect of antisocial traits on compliance of individuals with COVID-19 measures. For a sample of Brazilian adults, antisocial traits, especially lower levels of empathy and higher levels of callousness, deceitfulness, and risk-taking, were directly associated with lower compliance. They consider these factors to provide a partial explanation why people do not adhere to containment measures even if the numbers of cases and deaths increase. In a study based on an online survey among Brazilian residents, Farias and Pilati (2020) found that individuals who supported right-wing parties, were unemployed, young and male had higher levels of intent to violate social-distancing measures. They also found this applicable to people exhibiting higher intolerance of uncertainty, those earning lower wages, or having low job stability. Their research also confirmed that social norms played an important role in compliance with social-distancing measures, but only when using family and friends as referents.

In an analysis of a nationally representative sample of UK residents, Kooistra et al. (2020) concluded that people's compliance with lockdown and social-distancing measures depended on their capacity to comply with rules and the normative obligation to obey the law, i.e., whether people morally believed that measures should be followed. Rather surprisingly, they found a negative association of compliance with whether people feared the disease. Thus, those who were more fearful of the virus were more likely to violate the measures. Moreover, the data showed that the costs of compliance were not associated with compliance. Also, people with more negative emotions were less likely to comply with the lockdown measures. The authors did not find any conclusive evidence that stricter punishment alone could reduce non-compliance.

Almutairi et al. (2020) implemented a cross-sectional study based on a survey carried out in Saudi Arabia. They found that respondents provided very high support for containment measures (over 98%). Female, older, and more educated individuals respected the containment measures more than others. Zhao et al. (2020) analysed compliance with social distancing in association with the mental health of individuals in Hong Kong. Older respondents and respondents having higher educational levels were more likely to comply more with social-distancing measures. Also, women and economically inactive individuals reported significantly better compliance ( $p < 0.01$  and  $p < 0.10$ , respectively) with social distancing. Respondents with higher income were perceived as more compliant with social-distancing measures. The study also looked at the impact of social-distancing measures on stress, anxiety and depression. The authors concluded that adopting more social-distancing measures was significantly ( $p < 0.10$ ) associated with lower stress levels and lower risk of anxiety symptoms. Also, perceived compliance with social-distancing measures and their perceived effectiveness were associated with lower stress levels and lower risk of anxiety and depressive symptoms. On the other hand, more days spent at home were linked to increased anxiety symptoms, especially for older respondents and respondents with lower educational attainment.

Nivette et al. (2021) carried out a longitudinal study using data collected in Zurich, Switzerland among teenagers and young adults during the first weeks of the pandemic, i.e., during the period when Switzerland was still barely hit by the first wave. Non-compliance with hygiene-related measures was more prevalent especially in males and in individuals with higher education, higher socio-economic status and a non-migrant background. Non-compliance was higher among young adults who scored high on indicators of antisocial potential, including low acceptance of moral rules, pre-pandemic legal cynicism, low guilt, low self-control, engagement in delinquent behaviours, and association with delinquent peers. Young adults with low trust, including in the government's measures to fight the virus, were also less compliant. Zajenkowski et al. (2020) used survey data to examine the role of personality traits and individual perceptions of the COVID-19 pandemic situation to account for differences in compliance with governmental restrictions in Poland. They found that the way people perceived the situation explained more variance in compliance than personality traits. Compliance with pandemic measures has also been studied with regard to political views of individuals. Using U.S. geolocation data, Painter and Qiu (2020) found that political beliefs affect the effectiveness of state-level social-distancing orders. Residents in Republican counties were less likely to comply with these orders relative to those in Democratic counties. Using debit card transaction data, they found that Democrats were more likely than Republicans to switch to remote spending after implementation of stay-at-home orders.

Factors affecting trust in institutions were also considered relevant for individual compliance with pandemic measures. Trust and factors affecting trust have been studied with regard to their impact on the behaviour of people in different settings. Kampen et al. (2014) analysed a causal relationship between satisfaction and trust in public agencies in Belgium. Their main findings suggest that experience with public agencies affects trust in them. Also, they found that bad prior experiences had a more pronounced impact on trust in these agencies than positive ones. This conclusion suggests that to increase trust in the government, the degree of dissatisfaction with services of government agencies must be decreased. Jimenez and Iyer (2016) used the trust primacy model introduced by Holtz (2013) to study the relationship between trust in the government and tax-compliance decisions. Specifically, they studied whether the perceived fairness of a tax system mediates the effect of trust in government tax compliance. The results indicate a statistically significant ( $p < 0.05$ ) relationship between trust in the government and tax-compliance decisions, where trust is mediated by perceived fairness.

Foster and Frieden (2017) analysed socio-economic determinants of trust of Europeans in their governments. In particular, they studied the reasons for a sharp decline in confidence in public institutions after 2009, i.e., after the financial crisis. Using Eurobarometer survey data, they found that the decline in government trust was negatively related to the unemployment rate among debtor countries. These results apply not only at the national level, but also at the European Union (EU) institution level. Rudolph (2009) showed that individuals support government decisions when they perceive the government to be trustworthy. When people do not trust the government, they refuse to support its decisions. Based on these studies, trust in government and relevant government institutions affects the behaviour of citizens towards the measures introduced by the government. Also, socio-economic characteristics were

shown to be relevant predictors of compliance with government measures. The next sections will study how these factors affected the perceptions of Slovak citizens towards compliance with COVID-19 measures.

## Data and Methodology

### Data

The current analysis used data from the survey “How are you Slovakia?, April 2020” (“Ako sa máte, Slovensko?, April 2020”). This online survey was designed and carried out by MNFORCE Ltd., Seesame Ltd., The Institute for Sociology of the Slovak Academy of Sciences (SAV) and The Institute for Research in Communication.<sup>1</sup> It was conducted during the first wave of the COVID-19 pandemic (between 21st and 23rd April 2020) on a sample of 1,000 respondents. The survey platform has 39,000 registered users who were all invited to participate in the survey. The survey response rate was 36%. Typical for representative surveys carried out by MNFORCE, respondents were invited only once to fill out the survey as they are able to collect enough responses to construct a representative sample. Since the data sample was representative of the Slovak population, the risk of selection bias was minimized. Thus, the sample did not face a non-response problem wherein population groups with certain socio-demographic characteristics such as gender, district, size of the city of residence, economic background and educational attainment would be omitted. However, as the survey was conducted online, the sample of older respondents may not be representative of the behavioural patterns of this population group, since only those who had access to the internet and were familiar with the use of internet technologies were included in the survey. The sample did not seek to be representative with regard to computer skills.

The survey tracks people’s perceptions of the COVID-19 pandemic. Particularly, it monitors compliance with pandemic measures, changes in the behaviour of respondents due to COVID-19, and expectations with regard to the duration of the pandemic. It also provides information on changes in employment status and income of respondents. Moreover, the survey also tracks how respondents’ socialising patterns changed as a consequence of the pandemic and how the pandemic and the measures taken affected family relationships.

Table 1 provides information on respondents’ socio-economic characteristics. The sample size was 934 observations because 66 observations from respondents who were indifferent about trusting public institutions were dropped from the overall sample of 1,000 respondents. In the sample, the share of women is approximately 1% higher than the share of men. More than half of the respondents reported being employed or self-employed, followed by pensioners (24.6%) and students (8.5%).

Approximately one quarter of the respondents was over the age of 60. The highest level of education for three quarters of respondents was non-diploma vocational or high

<sup>1</sup> A similar survey was carried out also in March, when the first wave of COVID-19 pandemic began. The data are available to download at: [http://sasd.sav.sk/en/data\\_katalog\\_abs.php?id=sasd\\_2020002](http://sasd.sav.sk/en/data_katalog_abs.php?id=sasd_2020002)

**Table 1** Sample characteristics of survey respondents. (N = 934)

	(1) Share [percentage]	(2) Mean
Gender		
Female	50.6	
Male	49.4	
Age		
18–29 years	18.4	
30–39 years	21.0	
40–49 years	18.4	
50–59 years	16.3	
More than 60 years	25.9	
Education		
Elementary	7.1	
Non-diploma vocational	39	
High school diploma	37	
University degree	16.9	
Employment status		
Employed or Self-employed	53	
Unemployed	5.9	
Student	8.5	
Pensioner	24.6	
Other	8	
Population of the city of residence		
Less than 4999	46.6	
5000–19,999	16.8	
20,000–99,999	24.6	
More than 100,000	12	
Compliance with social distancing measures		
No	2.6	
Yes	97.4	
Compliance with face covering measures		
No	6.6	
Yes	93.4	
Feeling in danger of COVID-19		0.633
Pro-social behaviour		0.414
Number of people in household		2.946
Number of mobile phones		1.182
Trust in government		0.570
Trust in health institutions		0.791
Trust in pandemic committee		0.703
Observations	934	934

Source: Own computations based on data from MNFORCE et al., April 2020.

school diploma. Almost half of the respondents lived in areas with less than 5,000 inhabitants. The characteristics of the sample of respondents as depicted in Table 1 suggest that the sample is representative of the demographic characteristics of the Slovak population. In addition, compliance with social-distancing and face-covering measures was high, approximately 97 and 93%, respectively. The descriptive analysis suggests that 63% of respondents felt in danger of COVID-19 and 41% of respondents behaved pro-socially, i.e., had a positive attitude towards vaccination. The sample means also indicate that the government is the least trusted among public institutions (57% of respondents).

## Methodology

The methodology and empirical strategy used to estimate the causal relationship between the trust in public institutions (namely the Slovak government, health care institutions and the pandemic commission, which is comprised of Slovak epidemiologists and health care experts) and individual compliance with the rules were based on the following model specification. The importance of respondents' socio-economic characteristics for compliance decisions was also considered. Proxies were used for pro-social behaviour and the intensity of social media use. The empirical data were analysed using probit regression and STATA survey mode.

The dependent variables were compliance with social-distancing measures and compliance with face-covering requirements. The outcome variables were binary variables, taking the value of one if a respondent reported compliance with the measure of interest, and zero otherwise.

To derive the causal effect, the analysis uses the following probit model specification:

$$\Pr(i \text{ complies}) = \alpha + \beta \text{Trust}_{ij} + \delta X_i + \varepsilon_i, \quad (1)$$

where the dependent variable is compliance with social-distancing/face-covering measures.  $\text{Trust}_{ij}$  is a binary variable indicating whether an individual,  $i$ , trusts a public institution,  $j$ .  $X_i$  is a vector of socio-economic characteristics, their pro-social behaviour and intensity of engagement with social media.  $\varepsilon_i$  is the error term. The coefficient  $\beta$  reflects the causal relationship between institutional trust and compliance behaviour, and  $\delta$  reflects the relationship between an individual's socio-economic characteristics and their compliance behaviour.

Whether an individual was planning to get vaccinated was used as a proxy for their pro-social behaviour, since people getting a vaccination do not only protect themselves, but also the people around them. Thus, the hypothesis is that people behaving in a pro-social way (i.e., planning to get vaccinated) would be more likely to comply with social-distancing and face-covering measures. The number of cell phones in an individual's possession served as a proxy for the intensity of their social media use. It was expected that people having more than one cell phone would use their phones more intensively and for a longer period of time. It was also expected that trust in public institutions and some socio-demographic characteristics would affect compliance of individuals with epidemiological measures.

## Results

This section presents the estimation results and the analysis of subpopulations of compliers and non-compliers with social-distancing and face-covering measures. Even though the number of observations is smaller than the sample size (i.e., 934), the sample is sufficiently large to achieve robust results, which was confirmed by the F-test. The reported  $p$ -values of the F-test were smaller than the 5% critical value (Online Supplemental Appendix Table 1). Therefore, the null hypothesis was rejected. The independent variables were significant, reliably predicted the dependent variables and were robust. Correlation analysis among the independent variables showed that the coefficients for the model control variables generally did not exceed 0.25 (Online Supplemental Appendix Table 2). However, due to high correlation between age and the dummy variables for pensioners (correlation coefficient was 0.57), age was not included in the analysis. Also, the correlation between trust in the pandemic commission and trust in the government was high (correlation coefficient was 0.59). Thus, both were not included in the same analysis together. Since the pandemic commission is comprised of health experts, medical practitioners and government officials, this might explain why this variable was highly correlated with trust in government.

### Effect of Individual Characteristics on Compliance with Social-Distancing Measures

The analysis focused predominantly on the impact of individuals' trust in selected institutions on compliance with epidemiological measures. Individuals complying with social-distancing measures were more likely to trust public institutions (Table 2). The results suggest that almost 80% of compliers with social-distancing measures trust health institutions. A similar pattern can be seen when considering trust in the pandemic commission as 71.4% of compliers trust this institution. If the subpopulation of non-compliers is considered, individuals not complying with social-distancing measures are less likely to trust the government. The results suggest that approximately 71% of non-

**Table 2** Institutional trust in the subpopulation of compliers and non-compliers with social-distancing measures

	Sample subpopulations	
	Compliers with social-distancing measures	Non-compliers with social-distancing measures
Trust in health institutions	Yes	79.78
	No	20.22
Trust in government	Yes	57.58
	No	42.42
Trust in pandemic commission	Yes	71.43
	No	28.57

Source: Own computations based on data from MNFORCE et al., April 2020.

compliers trust the pandemic commission, but do not follow their measures on social distancing.

Table 3 summarises the estimation results of the impact of institutional trust and socio-economic characteristics on compliance with social-distancing measures. The first column considers the impact of respondents' trust in health institutions, the second column considers trust in government, and the third column considers trust in the pandemic commission. In column four, the joint effect of trust in the government and health institutions on compliance with the introduced measures is assessed. The significance of respondent socio-economic characteristics and other variables was also analysed in each regression.

The results in column 1 suggest that trust in health institutions has a positive and statistically significant impact on compliance with social-distancing measures. Those who trust health institutions are 62% more likely to follow social-distancing measures ( $p < 0.01$ ). The second column shows that those who trust the government are 45% more likely to comply with social-distancing measures ( $p < 0.05$ ). Considering the individual effect of trust in the pandemic commission (column 3), the results suggest that individuals trusting this institution are approximately 91% more likely to practice social distancing ( $p < 0.01$ ). Finally, when trust in the government and health institutions was jointly considered (trust in the pandemic commission was not taken into account as it is highly correlated with trust in government), only trust in health institutions has a positive and statistically significant impact on compliance with social-distancing measures. Those who trust health institutions are 51% more likely to follow social-distancing rules ( $p < 0.05$ ). Hence, the estimation results indicate that when trying to enhance compliance with social-distancing measures, governments should build citizens' trust in the government and other relevant public institutions.

Examining now the impact of individual socio-economic characteristics, employed individuals tended to be significantly more compliant ( $p < 0.01$ ) with social-distancing measures. Employed individuals were 65 to 74% more likely to comply with social-distancing measures. This is understandable since the virus can spread easily in the work place. Compliance with social-distancing measures would reduce the probability that employees contract it. Pensioners were also significantly more likely to comply with social-distancing measures, particularly in the model including trust in the pandemic commission. Since older people are more vulnerable to the virus, this can be a key factor explaining the higher compliance of this group.

The results also suggest that individuals feeling endangered by COVID-19 are about 50% more likely to comply with social-distancing measures. This implies the importance of spreading objective mass information about disease risks (and in other contexts) to make people fully aware of the health consequences of non-compliance and contracting the disease. With respect to pro-social behaviour, pro-social individuals were significantly more compliant with social-distancing measures (primarily  $p < 0.05$ ). On the other hand, intensive social media users tended to be significantly less compliant with social-distancing measures ( $p < 0.05$ ). They were approximately 41 to 44% less likely to follow these rules. Increased exposure to social media may also be related to greater exposure to fake news about the virus and its effects. Thus, more extensive use of online social media could create confusion and lead to lower compliance with social-distancing measures.

**Table 3** Effect of trust in public institutions and other individual characteristics on compliance with social-distancing measures

VARIABLES	(1)	(2)	(3)	(4)
Gender	-0.128 (0.198)	-0.149 (0.195)	-0.130 (0.205)	-0.124 (0.201)
Population of city=5000–19,999	-0.0881 (0.262)	-0.0817 (0.256)	-0.0444 (0.265)	-0.0862 (0.261)
Population of city=20,000–99,999	-0.0729 (0.225)	-0.0645 (0.221)	-0.106 (0.235)	-0.0786 (0.226)
Population of city=more than 100,000	0.133 (0.333)	0.113 (0.327)	0.158 (0.345)	0.134 (0.331)
Employed	0.665*** (0.224)	0.650*** (0.211)	0.736*** (0.226)	0.657*** (0.222)
Number of people in household	0.0498 (0.0584)	0.0437 (0.0582)	0.0411 (0.0645)	0.0519 (0.0580)
Pensioner	0.447* (0.269)	0.432* (0.261)	0.571** (0.256)	0.438 (0.271)
Student	-0.0398 (0.330)	0.0102 (0.325)	0.0346 (0.322)	-0.0320 (0.325)
Feeling endangered by COVID-19	0.529*** (0.200)	0.495** (0.196)	0.513** (0.209)	0.533*** (0.202)
Pro-social behaviour	0.390** (0.197)	0.374* (0.198)	0.478** (0.197)	0.397** (0.200)
Exposure to social media	-0.424** (0.174)	-0.405** (0.170)	-0.438** (0.174)	-0.422** (0.175)
Trust in health institutions	0.622*** (0.207)			0.510** (0.199)
Trust in government		0.450** (0.193)		0.286 (0.188)
Trust in pandemic commission			0.911*** (0.200)	
Constant	1.230*** (0.397)	1.483*** (0.352)	1.158*** (0.370)	1.160*** (0.395)
Number of observations	934	934	934	934

Notes: The dependent variable is compliance with social-distancing measures. Estimated using a Probit regression. Standard errors in parentheses. \*, \*\*, \*\*\* significant at 10, 5 and 1% level. Source: Own computations based on data from MNFORCE et al., April 2020.

### Effect of Individual Characteristics on Compliance with Face-Covering Measures

Table 4 summarises trust in institutions by looking at the subpopulations of (non)compliers with face-covering measures and their trust in public institutions. Looking at the percentage shares, there is no clear pattern for trust in these institutions among compliers that would distinguish them from non-compliers.

**Table 4** Analysis of trust considering the subpopulation of compliers and non-compliers with face-covering measures

	Sample subpopulations		
	Compliers with face-covering measures	Non-compliers with face-covering measures	
Trust in health institutions	Yes	78.67	85.48
	No	21.33	14.52
Trust in government	Yes	57.22	53.23
	No	42.78	46.77
Trust in pandemic commission	Yes	70.3	70.97
	No	29.7	29.03

Source: Own computations based on data from MNFORCE et al., April 2020.

The results suggest that the majority of compliers and non-compliers with face-covering measures trust health institutions and the pandemic commission. However, it is striking that a larger share of non-compliers than compliers trust health institutions. This is surprising since health institutions and health experts have highlighted the importance of face coverings to slow the spread of the virus from the onset of the pandemic. Thus, even though people trust these institutions, they do not comply with mask-wearing measures imposed by them.

Table 5 presents results of the analysis of compliance with face-covering measures, i.e., the obligation to wear face masks. In contrast to the results presented in the previous section, the analysis did not find a statistically significant relationship between trust in institutions and compliance with face-covering measures. This holds when considering the effect of trust variables independently as well as the joint impact of trust in health institutions and government on compliance behaviour. However, this result may be explained by the compulsory nature of wearing face coverings at the time of the survey.

Some individual characteristics had a positive and significant impact on compliance with wearing face coverings. The results presented in Table 5 suggest that individuals feeling endangered by COVID-19 were about 25% more likely to comply with face-covering measures, but this estimate is only marginally significant ( $p < 0.10$ ). The results also suggest that individuals living in cities with a population larger than 20,000 and smaller than 100,000 were 45% more likely to comply with face-covering measures ( $p < 0.05$ ). Finally, the size of the household had a significant positive impact on compliance with face-covering measures ( $p < 0.05$ ). Contrary to the analysis in the previous section, exposure to social networks and pro-social behaviour had no significant impact on compliance with face-covering measures. Also, there was no significant relationship between being a pensioner or being employed and face-covering measure compliance.

## Conclusions and Discussion

The estimation results indicate that trust in public institutions is an important factor when considering the impact of epidemiological measures, which are not easily monitored. This finding is relevant for increasing compliance with epidemiological

**Table 5** Effect of trust in public institutions and other individual characteristics on compliance with face-covering measures

VARIABLES	(1)	(2)	(3)	(4)
Gender	-0.0269 (0.132)	-0.0153 (0.131)	-0.0148 (0.132)	-0.0347 (0.132)
Population of city=5000–19,999	-0.0224 (0.174)	-0.0456 (0.172)	-0.0328 (0.174)	-0.0367 (0.173)
Population of city=20,000–99,999	0.448** (0.188)	0.445** (0.189)	0.447** (0.188)	0.448** (0.189)
Population of city=more than 100,000	-0.0492 (0.188)	-0.0466 (0.187)	-0.0435 (0.187)	-0.0561 (0.188)
Employed	-0.0302 (0.130)	-0.0210 (0.130)	-0.0254 (0.129)	-0.0275 (0.130)
Number of people in household	0.0949** (0.0459)	0.0951** (0.0454)	0.0959** (0.0452)	0.0950** (0.0459)
Pensioner	0.204 (0.158)	0.214 (0.158)	0.207 (0.158)	0.210 (0.159)
Student	0.236 (0.253)	0.217 (0.252)	0.218 (0.252)	0.242 (0.253)
Feeling in danger of COVID-19	0.238* (0.130)	0.247* (0.129)	0.250* (0.128)	0.233* (0.129)
Pro-social behaviour	0.0312 (0.131)	0.0212 (0.131)	0.0261 (0.131)	0.0232 (0.131)
Exposure to social media	0.147 (0.144)	0.138 (0.143)	0.143 (0.144)	0.143 (0.144)
Trust in health institutions	-0.214 (0.174)			-0.277 (0.172)
Trust in government		0.0844 (0.127)		0.152 (0.126)
Trust in Pandemic commission			-0.0410 (0.139)	
Constant	0.980*** (0.328)	0.759** (0.308)	0.825*** (0.308)	0.962*** (0.333)
Observations	934	934	934	934

Note: The dependent variable is compliance with face covering measures. Estimated using a Probit regression. Standard errors in parentheses. \*, \*\*, \*\*\* significant at 10, 5 and 1% level. Source: Own computations based on data from MNFORCE et al., April 2020.

measures implemented to address the COVID-19 pandemic. Using survey data from Slovakia, trust in institutions such as the pandemic commission, health institutions and government had a statistically significant positive impact on compliance with social-distancing measures. However, there was no significant effect of trust on compliance with face-covering measures, which can be explained by the compulsory nature of wearing face masks at the time the survey was implemented, and easy monitoring of

compliance with these measures. However, earlier results suggest that to increase voluntary compliance with COVID-19 measures, public health campaigns should be implemented fostering trust in government and other relevant public authorities involved in the decision making and implementing measures to slow the spread of the COVID-19 virus.

Socio-economic characteristics such as employment also had a positive significant impact on compliance with social distancing. Furthermore, individuals feeling in danger of COVID-19 and pensioners were also more likely to comply with social-distancing rules, as were individuals having more pro-social attitudes (proxied by acceptance towards vaccination).

When considering compliance with face-covering measures, individuals feeling in danger of COVID-19 were more likely to comply, suggesting that those who are aware of the health risks that the virus poses tended to adjust their behaviour accordingly. The use of well targeted nudging focused on less compliant individuals should contribute to increased compliance with epidemiological measures. Access to online networks, a proxy for social media use, has been shown to negatively affect compliance with social-distancing measures. More intensive use of social media can generate confusion, expose individuals to fake news and consequently reduce compliance.

This research measuring the impact of trust in public institutions on compliance with epidemiological measures provides further support for the role of trust in public institutions in democratic societies. Thus, it is important that governments and other government institutions build and sustain the trust of their citizens not only in challenging and uncertain times such as the COVID-19 pandemic.

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