The Coronavirus Pandemic and Voter Turnout: Addressing the Impact of Covid-19 on Electoral Participation

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Abstract

External shocks have been shown to be able to alter countries' political dynamics in a deep manner. The number of works examining the impact of economic crisis, natural disasters or even terrorist attacks are numerous. However, the literature addressing the political effects of the current Coronavirus (COVID-19) pandemic is still in its infancy. Definitively, the pandemic has constituted an unpredictable external shock not only affecting the health of millions around the planet but also damaging the economic and social stability of most countries. Politically, it has forced electoral authorities in some countries to postpone elections (e.g. Kiribati, North Macedonia, Sri Lanka), to suspend voting rights for those infected with the virus (e.g. Galicia and Basque Country in Spain) or to adapt postal vote regulations (e.g. Bavaria in Germany) in order to guarantee citizens' voting rights and diminish electoral fraud. Trying to fill a lacuna in the literature, the goal of this article is to give a first and nuanced examination on how the COVID-19 pandemic has impacted electoral participation all over the world. To that end we have collected data on all parliamentary, presidential and regional elections held worldwide during the first seven months since the COVID-19 outbreak became recognized as a health emergency of global scope and started to affect the organization of elections (March 1st-September 30th, 2020). Our results show that while voter turnout has not generally declined in comparison with those elections held before the pandemic, electoral participation is lower in polities hit by the pandemic the most, both in terms of infections and – especially - deaths. This seems to point to the fact that when faced with a choice (civic duty vs. personal risk), the fear of becoming infected will constrain voters to opt for the former.

Introduction

On November 5th, 1918 midterm elections took place in the United States. Held in the middle of Woodrow Wilson's second term and just a few days before the end of World War I, but after the capitulation of both the Austrian and Ottoman Empires, these elections were also marked by the second wave of the so-called "Spanish Flu".¹

With many soldiers coming back already from the European battlefields, where the flu had also hit hard, and much of the country under quarantine, with social distancing and mask-wearing rules, legislative elections took place as scheduled. The contrary would have been regarded as an assault on American democracy, already affected by the political restrictions imposed on Americans due to the (Great) War ([Barry, 2004](#); [Simpson, 2020](#)). Not surprisingly, levels of electoral turnout decreased dramatically, falling just short of 40 percent: twelve and 10 points lower than in the two previous midterms elections, held in 1910 and 1914, respectively ([McDonald, 2020](#)). For some analysts ([Searcey, 2020](#); [Vesoulis, 2020](#)), such exponential decrease in electoral participation was partly due to the influenza pandemic.

Taken place at the beginning of the highest peak of the First Wave of democracy ([Huntington, 1991](#)), the Spanish flu can be seen as the first world health crisis to have had a direct and recognizable impact on democratic politics.² One hundred years later, the current Coronavirus (COVID-19) pandemic constitutes a second unpredictable external shock that not only has affected the health of millions around the planet, but has also damaged the economic and social stability of most countries. With the consequences this has accordingly had for the development of democracy, and particularly electoral politics, in the world.

¹ This wave was by far the most deadly: in just the month of October, 195,000 Americans died from flu in the US alone ([Klass, 2018](#)).

² No doubt, this was not the first pandemic the world had even seen, but previous ones (e.g. the Justinianic Plague, the Black Death, the "Russian flu") took place at a time where most countries were not yet democratic ([Huntington, 1991](#)).

Faced with a health crisis not seen since 1918, governments have had to choose between continuing business as usual with the toll this has had on human lives (e.g. Brazil in the early stages of the pandemic), adopting targeted-restrictions with the hope of saving the economy (e.g. Sweden, South Korea, Taiwan) or pursuing strict social confinement measures (and lockdowns) that, while having extremely negative economic consequences, might be able to reduce the death toll (e.g. Spain, Italy). Without doubt, the latter type of measures, characterized by the curtailing of civil liberties and the erosion of social capital, have become the most popular ([Fetzer et al., 2020](#)).

Beyond their socio-economic impact, such “lockdown policies” have also had important political consequences. First of all, they have led to the postponement of elections in certain countries (from just 8 days in Kiribati to roughly 100 days in North Macedonia or Sri Lanka). Secondly, in certain polities (e.g. Galicia and the Basque Country in Spain) voting rights were suspended for those infected with the virus. Last but not least, in still other regions (e.g. Queensland State in Australia) postal vote, usually considered to be an “extravaganza” prone to electoral fraud ([Wilks-Heeg, 2009](#)), might not necessarily have encouraged voter turnout (as already shown by [Hanmer, 2009](#)). For all these reasons, it is not surprising that a recent IDEA ([2020a](#)) report showed that, with very few exceptions (e.g. South Korea, or Montenegro), electoral participation in elections held after the COVID-19 pandemic began has declined, at least in comparison with previous elections that took place under “normal” conditions.

The goal of this article is to give a first and more nuanced examination on how the COVID-19 pandemic has impacted turnout levels all over the world. To that end we have collected data on all parliamentary, presidential and regional elections held worldwide during the first seven months since the Coronavirus outbreak became recognized as a health

emergency of global scope and started to affect the organization of elections (March 1st-September 30th, 2020).³

The structure of the article is the following. Firstly, we review the literature on the political effects of external shocks in general, and their impact on electoral participation in particular, highlighting possible mechanisms linking the current COVID-19 pandemic and voter turnout. Then, in section three, we explain the methods and data. The fourth presents our empirical results. We conclude with a final discussion and some suggestions for future research.

The political effects of external shocks and their impact on electoral participation

Voting is the very cornerstone of political participation (Gallego, 2015). Not surprisingly, and especially since the publication of Downs' (1957) seminal work,⁴ the answer to the question of why people vote constitutes one of the most thoroughly researched fields in political science (Aldrich and Jenke, 2017). In this respect, scholars (Smets and van Ham, 2013; Wass and Blais, 2017) have identified a large list of factors associated with the decision to vote or to abstain. These can be mainly clustered along two different groups, those that refer to (1) the benefits (e.g. electoral competitiveness, party identification, perceived differences among parties, perceptions of voting as a duty or the relevance of an election), and (2) the costs of voting (e.g. registration requirements, compulsory voting, individuals' resources).

A less numerous current of thought has addressed the effects unexpected shocks might have on both (i.e. benefits and costs of voting). The idea is that while, on the one hand, external

³ While other democratic elections took place after the COVID-19 outbreak in Wuhan (China) became publicly known (December 31st, 2019), these (e.g. Taiwan, Ireland, Slovakia) were not affected and, therefore, are excluded from our analysis. All dates included in this article refer to 2020, except when stated otherwise.

⁴ Using a rational choice approach, and building on economic approximation models, Downs argued that the net payoff of voting (R) should increase with the probability that one's vote affects election outcomes (P) and the party differential (B), while it should decrease with the net costs of voting (C). Summarized by the well-known voting equation ($R = P*B - C$), it has been re-elaborated in many different ways in order to include additional factors.

shocks might increase the former (i.e. benefits), as they reinforce the feeling that elections are important and voting is a duty, producing a mobilizing effect; on the other hand, they might also intensify the latter (i.e. costs), as they reduce individuals' economic resources. In particular, scholars have usually attached the former (i.e. benefits) to terrorist attacks, while the latter (costs) to natural disasters. Thus, looking at the political impact of the 2004 Madrid train bombings,⁵ Montero and Lago show that this event acted as a clear electoral mobilizer, to the point that “5 percent of those surveyed mobilized (to the ballot box) as a direct consequence of the attacks” (2009: 150). Similarly, Bali argued that the terrorist attack in Madrid “mobilized citizens who are traditionally less likely to participate in politics as well as center and leftist voters, and encouraged some of these voters to switch to the opposition” (Bali, 2007: 669). In clear contrast, natural disasters are usually believed to have a net demobilizing effect. Rudolph and Kuhn (2018) have shown the impact the 2002 and 2013 floods had on turnout at the federal and state elections in Saxony and Bavaria (Germany). Analyzing community level turnout data, they found that flood exposure had a consistently negative effect on turnout, even in the wake of a quick and effective government response. Other research is more skeptical. For example, in her assessment of the electoral impact of natural disasters and economic crises in the Caribbean, Remmer (2014) found no effects of natural disasters (e.g. hurricanes) on electoral participation.⁶

The classification of the COVID-19 pandemic as an unexpected and external shock is out of question. Thus, similarly to what happens in the case of a terrorist attack, and taking into consideration that the measures to *combat* the pandemic have often been framed in patriotic terms, even including a recurrent usage of military rhetoric (Holroyd, 2020), one could think

⁵ It took place on March 11th, just three days before a general election, killing 196 persons and wounding more than 2,000.

⁶ For a detailed analysis of the effect of natural disasters on institutional trust, see You *et al.* (2020), Omelicheva (2011) or Abney and Hill (1966). To assess the effect of acts of terrorism on vote choice (especially government support), see Kibris (2011).

of a COVID-19 “mobilizing effect”. On the contrary, and much in the spirit of natural disasters, the pandemic seems to have had a significant negative effect on economic activity in general, and on individuals’ economic resources in particular, which would lead us to expect the contrary (i.e. demobilization).

But the current pandemic diverges also from the previous two types of external shocks in that, similarly to what happens with economic downturns, it is a rather long-lasting phenomenon not especially bounded to a given point in time. In this context, and building on the literature that shows how voters reward parties in government when economic conditions are favorable but punish them when the economy performs poorly ([Lewis-Beck and Stegmaier, 2000](#)), scholars have demonstrated how big economic shocks/crisis like the 1929 Great Depression and the 2008 Great Recession, can affect political trust ([Foster and Frieden, 2017](#)), government support ([Achen and Bartels, 2016](#); [Bartels, 2014](#); [Dassonneville and Lewis-Beck, 2019](#)) or satisfaction with democratic institutions ([Foa and Mounk, 2016](#); [Ruiz-Rufino and Alonso, 2017](#)).

While the literature on the political effects of the COVID-19 pandemic is still in its infancy, a number of recent contributions examining its impact on government support and satisfaction with democracy should be highlighted here. Thus, [Bol *et al.* \(2020\)](#), using what they call “an experiment during a survey” conducted in seven European countries⁷ at the time lockdown measures to detain the spread of the virus were being imposed, found that such dramatic political measures (i.e. social and home confinements) had the effect of not only increasing trust in government, but also promoting satisfaction with democracy as a whole. In a series of survey experiments and social media analyses conducted in Canada, [Merkley *et al.* \(2020\)](#) and [Harell \(2020\)](#) have also arrived at very similar results. Analyzing data for the first months of the pandemic, [Bordandini *et al.* \(2020\)](#) uncover likewise consistent results for the

⁷ Austria, Denmark, France, Italy, Netherlands, Spain, and the United Kingdom.

Italian case. Finally, in an even more recent study using data collected between 8 and 16 days after the state of alarm was imposed in Spain, Amat *et al.* (2020) found a widespread demand for strong leadership and willingness to give up individual freedom.

Considering the conflicting mechanisms and expectations of the literature on external shocks and their (direct or indirect) effects on voter turnout, we formulate the following two-tailed hypothesis:

H1: COVID-19 impacts electoral participation (i.e. voter turnout)

However, while COVID-19 is expected to have an effect on electoral participation, its impact does not necessarily have to be homogeneous. Following the literature on the impact of health on turnout, Mattila *et al.*, using data from different waves of the European Social Survey (2002- 2010) in 30 countries, found that “whereas health problems contribute to lower voting among citizens with poor health, this effect concerns only a relatively small group of the total population” (2013: 889). As a matter of fact, the probability of voting of those who considered their health to be very bad (the 2 percent of the sample) was ten-points lower (0.71 vs. 0.81) than for those with a very good subjective health perception (22 percent of the sample). Similarly, and addressing a specific mental health problem (i.e. depression), Landwehr and Ojeda argue that depression impairs political participation by reducing the motivation and physical energy of the sufferers and, after a series of regressions for several European countries, they find that “the severest depressive symptoms lower the probability of voting by 0.05–0.25 points” (2020: 1).

For all these reasons, and taking into consideration the scarce literature linking health and turnout, one would expect COVID-19’s impact to be stronger there where it has had a major incidence, either particularly in terms of infections or deaths. In fact, as Leininger and

Shaub (2020) have shown in relation to the 2020 local elections in Bavaria (Germany's bigger state), even at the early stages of the pandemic (March 15th), the pace at which the disease spread influenced Bavarians' voting behavior.

In our view, the distinctive trait of the COVID-19 pandemic is that, in contrast to other types of natural disasters or other - less widely spread - diseases, it increases the costs of voting, given the risks of becoming infected when going to the polls. These costs will therefore depend to a large extent on the information given to citizens about its incidence which, in turn, will have an impact on the fear of voters to go out and cast their votes. Fear has been generally shown to lead to pessimistic risk estimates and risk-averse choices (Lerner and Keltner, 2001) which would reduce the likelihood of going to the polls if doing so entails health-related risks.⁸ Consequently, and assuming that health risks (the risk of being infected) matter for most citizens, we formulate the following two hypotheses:

H2a: The higher the number of deaths in a given polity (e.g. country, region, territory), the lower the level of turnout.

H2b: The higher the number of infections in a given polity (e.g. country, region, territory), the lower the level of turnout.

Data and methods

We have collected data from all parliamentary, presidential, and regional elections that took place in democratic polities, including countries, regions and autonomous territories, since March 1st, when the COVID-19 pandemic started to have an electoral impact (in terms of organization, postponements) of elections, to the end of September 2020. Operationally, we

⁸ This is not the case, however, in authoritarian regimes, where fear and coercion constitute a mobilizing factor (Burchard, 2020; Martinez i Coma and Morgenbesser, 2020).

consider polities to be democratic if and only if they are classified as such with a score of at least six in the Polity IV index (Marshall et al., 2020) or two in the Freedom House (2020) index. As our scope is not restricted to countries but also includes all those regions and autonomous territories with national assemblies and/or legislative powers, dependencies of the United Kingdom like Anguilla or autonomous regions like Bougainville (in Papua New Guinea) are also included. Niue, an island country in the South Pacific Ocean in free association with New Zealand, has been excluded due to both partisan and data unavailability.

In practical terms, this means that the first election in our database is the Israeli parliamentary election held on March the 2nd and the last one the regional elections in the Sabah autonomous region of Malaysia, held on September the 26th. Table 1 spells out the full list of elections covered in this study, indicating for each of them the type, the date, the polity (i.e. country, region, territory) name, and the ISO label. The only polity we could not include in our analyses has been Bougainville (Papua Guinea’s autonomous region), as turnout data for the 2020 regional elections was not available.⁹

Table 1. Parliamentary, presidential and regional elections held during the COVID-19 pandemic

Election level	Election date	Polity	ISO label
Parliamentary elections	02-Mar-20	Israel	ISR
	02-Mar-20	Guyana	GUY
	19-Mar-20	Vanuatu	VUT
	14-Apr-20	Kiribati	KIR
	15-Apr-20	South Korea	KOR
	25-May-20	Suriname	SUR
	05-Jun-20	Saint Kitts & Nevis	KNA
	21-Jun-20	Serbia	SRB
	24-Jun-20	Mongolia	MNG
	05-Jul-20	Croatia	HRV
	05-Jul-20	Dominican Republic	DOM

⁹ Turnout data for Kiribati’s 2016 parliamentary elections is also missing.

	15-Jul-20	North Macedonia	MKD
	05-Aug-20	Sri Lanka	LKA
	10-Aug-20	Trinidad and Tobago	TTO
	30-Aug-20	Montenegro	MNE
	03-Sep-20	Jamaica	JAM
Presidential elections	25-May-20	Iceland	ISL
	22-Jun-20	Kiribati	KIR
	23-Jun-20	Malawi	MWI
	28-Jun-20	Poland	POL
Regional elections	29-Jun-20	Anguilla (United Kingdom)	AIA
	12-Jul-20	Basque Country (Spain)	ES-PV
	12-Jul-20	Galicia (Spain)	ES-GA
	22-Aug-20	Northern Territory (Australia)	AU-NT
	14-Sep-20	New Brunswick (Canada)	CA-NB
	20-Sep-20	Aosta Valley (Italy)	IT-23
	20-Sep-20	Apulia (Italy)	IT-75
	20-Sep-20	Campania (Italy)	IT-72
	20-Sep-20	Liguria (Italy)	IT-41
	20-Sep-20	Marche (Italy)	IT-57
	20-Sep-20	Tuscany (Italy)	IT-52
	20-Sep-20	Veneto (Italy)	IT-34
	26-Sep-20	Sabah (Malaysia)	MY-12

Notes: The period under study goes from March 1st to September 30th, 2020. To distinguish between Kiribati's parliamentary (April 14th) and presidential (June 22nd) elections, we use the KIR(PA) and KIR(PR) slightly modified versions of its KIR ISO-3 polity code. The only polity we could not include in our analyses has been Bougainville (Papua Guinea's autonomous region), as turnout data for the 2020 regional elections was not available.

In order to discuss our hypothesis regarding COVID-19's general impact on electoral participation (H1), we create a figure (see Figure 1 below) in which we show the evolution of turnout in the last elections for all the polities listed in Table 1.¹⁰ To test the particular effects of infections (H2a) and deaths (H2b) due to COVID-19 on voter turnout, we run regression models in which the latter is the dependent variable and the number of COVID-related infections and deaths are the key independent variables. To that end, we have collected data on turnout as well as on COVID-related infections and deaths for all the polities and elections

¹⁰ We complement this first figure with an exploratory scatterplot showing the turnout deviation in the COVID-19 elections for different levels of COVID-19 infections and deaths (Figure 2, see details below).

displayed in Table 1. Although we include all the polities that have held parliamentary, presidential or regional elections - for which data is available - during the period under study, its number remains moderate (33). For that reason, we decided to test a parsimonious model including only two controls: namely, the number of years of democracy and a binary variable of election type (1 = regional elections, 0 = presidential or parliamentary elections). The models we estimate are the following:

$$\text{H2a: Turnout} = \alpha + \beta_1 (\text{Deaths}) + \beta_2 (\text{YoD}) + \beta_3 (\text{ToE}) + \varepsilon$$

$$\text{H2b: Turnout} = \alpha + \beta_1 (\text{Infections}) + \beta_2 (\text{YoD}) + \beta_3 (\text{ToE}) + \varepsilon$$

For the sake of comparability (see IDEA, 2020a), and to properly capture the effect of COVID-19 on electoral participation, we also look at pre-COVID-19 elections. Following previous scholarship ([Casal Bértoa and Weber, 2018](#); [Chiaramonte and Emanuele, 2019](#); [Nwokora and Pelizzo, 2014](#); [Scarrow, 2006](#)), we collected turnout data in the very same polities and for the same electoral levels for the three previous elections. All in all, our final database has 131 observations¹¹ (33 polities times four elections in each, that belongs to 25 countries). Given that the dependent variable (i.e. voter turnout) is cardinal and that the 131 elections are clustered in the 33 polities, we employ random intercepts mixed regressions (multilevel least squares regressions) to take into account the hierarchical structure of our data (elections being level one observations and polities, level two observations).

Data on voter turnout in presidential and parliamentary elections was obtained from IDEA's ([2020b](#)) database. With the exceptions of Kiribati and Vanuatu, information on the population as well as the total number of COVID-19 related infections and deaths was retrieved

¹¹ We do not have turnout information for Kiribati in 2016, that is why instead of 132 observations we have 131

from the Ourworldindata database ([Roser et al., 2020](#)).¹² Population for Kiribati and Vanuatu was retrieved from the United Nations ([2019](#)) database, and the COVID-19 data for these two, from the webpage of the World Health Organization ([2020](#)).

Voter turnout data for regions and autonomous territories was retrieved from their respective countries' Electoral Commissions. Population and COVID-19 related data for these sub-national polities was obtained from different sources. For the Spanish regions of Galicia and the Basque Country, voter turnout data was obtained from the Galician Government's official website ([Xunta de Galicia, 2020](#)) and the Basque Government's Department of Security ([Gobierno Vasco, 2020a](#)); population data was obtained from official records of the Spanish National Statistical Office [Instituto Nacional de Estadística] ([INE, 2020](#)),¹³ and information on the total number of infected and dead by COVID-19 was obtained from the Galician Health Service of the Galician Government ([SERGAS, 2020](#)), and the Department of Health of the Basque regional government ([Gobierno Vasco, 2020b](#)). For Australia's Northern Territory, population data was obtained from the Northern Territory Government's Department of Treasury and Finance ([Northern Territory Government, 2020](#)),¹⁴ and the COVID-19 related data, from the Australian Government's Department of Health ([Australian Government, 2020](#)). For the Papua Guinea's autonomous region of Bougainville, population data and COVID-19 infection data were all obtained from the Papua New Guinea's Health Department ([Papua New Guinea Health Department, 2020](#)).¹⁵ For the Canadian's province of New Brunswick, population data were obtained from Canada's National Statistical Office ([Government of](#)

¹² As explained below, we use population data to compute measures of the COVID-19 incidence (i.e. infections, deaths) relative to the population size. For Guyana the first available data in the Ourworldindata database is March 13th (11 days after the elections). This has no implications whatsoever for our results.

¹³ Figures as of January 1st.

¹⁴ Figures as of December 31st, 2019.

¹⁵ Data released as of August 17th. COVID-19 infection data are reported as of the day of the election (August 12th), and population data as of July 26th. While this source reports three deaths within the country up to the election day, it does not report the specific regions where they happened. However, a review of press releases shows that none of them took place in Bougainville, as two happened in Port Moresby and the other one in the National Capital (see *Papua New Guinea Today*, 2020a, 2020b; *The Sunday Bulletin*, 2020).

Canada - Statistics Canada, 2020),¹⁶ and COVID-19 deaths from an open data site made available by the Government of New Brunswick (2020). For the seven Italian regions, population data were consulted at the Italian National Statistical Office (ISTAT, 2020),¹⁷ and COVID-19 related data, at the Italian Ministry of Health (Ministero della Salute, 2020).¹⁸ Finally, for Malaysia's autonomous region of Sabah, we obtained information on voter turnout from the Electoral Commission of Malaysia (Suruhanjaya Pilihan Raya Malaysia, 2020), population data from the official portal of the Department of Statistics of Malaysia (2020), and COVID-19 figures from the Sabah State Government (2020).¹⁹

Results

Figure 1 depicts the evolution of voter turnout during the four waves of elections in all the polities analyzed. As the figure below shows, when only elections taking place during COVID-19 (in circles) are considered, we see that voter turnout has neither been systematically lower nor higher than in previous elections, whether we compare it with the elections immediately before the pandemic (in squares), two periods before (in diamonds) or three (in triangles). Therefore, initial evidence does not appear to support a consistently lower level of turnout during the COVID-19 pandemic than in previous elections.

¹⁶ The population figure is for July 1st, 2020 (the latest data point available as of September 25th).

¹⁷ Population data as of January 1st.

¹⁸ The Ministry offers detailed daily information here: <https://tinyurl.com/uotgdqk>. Figures consulted for the day in which the seven Italian regions had elections (September 20th).

¹⁹ See also www.sabahoutbreak.com.

Figure 1. Evolution of voter turnout in the last four elections, by polity

Notes: T-1 refers to elections just before the beginning of the COVID-19 pandemic, T-2 to the second elections previous to the latter, and T-3 to third elections before that.

However, as already mentioned in the literature review, it might well be that COVID-19 effect on electoral participation is dependent on its specific incidence in a polity, especially in relation to the number of deaths. For that reason, we distinguish for the present (COVID-19) wave between polities which only experienced low (grey circles) and high levels (black circles) of COVID-19 related deaths. We use the two-digit levels of per-million dead as the threshold for belonging to the first or the second group: that is, we consider one-digit levels of per-million dead as low levels of COVID-19 related deaths, as opposed to over 10 dead per million, which we regard as high levels. This threshold allows us to split the 33 polities in almost two perfect halves (17 with low and 16 with high levels of COVID-19 related deaths).

Looking at Figure 1 more closely and distinguishing between grey and black circles, it becomes clear that it is the latter (i.e. cases with high incidence of COVID-19 deaths) that are systematically below the levels of turnout of the previous elections in their respective polities.

In fact, elections that took place during the COVID-19 pandemic in polities with a high incidence of COVID-19 deaths (black circles) usually display the lowest level of turnout in each country and, when this is not the case, they tend to be the second lowest (the main exceptions to this trend being Montenegro and Poland).²⁰ Hence, our initial exploratory analysis suggests that the COVID-19 pandemic did have a (decreasing) impact on voter turnout, but only in those territories where the pandemic took a noticeable death toll.

Figure 2 goes further, trying to examine in more detail the relationship between the incidence of the pandemic (not just in terms of deaths, but also infections) and voter turnout in different territories. In both scatterplots the vertical axis depicts the voter turnout deviation in COVID-19 elections, defined as the voter turnout level in the 2020 elections minus the average turnout in the three previous elections. By subtracting the latter instead of just deducing the voter turnout experienced in the immediately preceding election, the figure in the vertical axis is less dependent on any particular contingency in that election in a given polity. Negative values of voter turnout change mean that electoral participation dropped during COVID-19 elections, while positive values mean that participation increased as compared to the most recent elections before the pandemic.

²⁰ The 2020 Montenegrin legislative and Polish presidential elections were characterised by high levels of polarization ([Batrićević, 2020](#); [Zagórski and Casal Bértoa, 2020](#)).

Figure 2. Incidence of COVID-19 and voter turnout change

While the left-hand-side scatterplot depicts the log of the number of COVID-19 related deaths per million inhabitants in the horizontal axis, the right-hand-side scatterplot does the same for the log of the number of people infected by COVID-19 per million inhabitants. In both cases, the usage of logged variables in the horizontal axis prevents large figures from distorting the graph.²¹ The negative slope in both panels confirms that there is a negative relationship between the incidence of the COVID-19 pandemic and voter turnout, irrespectively of whether the former is measured by the (logged) number of infected or dead per million. In other words, the higher the incidence of the pandemic in a polity, the larger the decrease in turnout.

Finally, and for the sake of robustness, we used ordinary least squares (OLS) and mixed regression models to formally test the abovementioned (negative) relationship between

²¹ Notice that the left-hand side scatterplot (i.e. the one that uses the log of COVID-19 deaths per million) is constructed on the basis of fewer cases, because some countries had infections but not deaths and, consequently, it is not possible to take the log of zero. The final numbers are 30 countries for infections and 25 for deaths.

COVID-19 incidence and voter turnout. First, we restrict the attention to the relationship between turnout levels and COVID-19 incidence for all the elections that took place between March the 1st and September the 30th, 2020. With this aim, we test OLS models where the key independent variables are COVID-19 infections and deaths. As in Figure 2, we use measures per million, logged; and run different models for infections and deaths as their correlation is too high (0.88) to include them in the same model. The dependent variable is turnout (models 1 and 2, left panel). Because we want to take into account the relationship among voter turnout levels in different elections within a given polity, we also test the models for an alternative dependent variable, turnout deviation with regard to the mean of the three former elections (models 3 and 4, right panel).²²

Despite our quest for incorporating all the parliamentary, presidential and regional elections that took place across the globe during the first seven months of the COVID-19 pandemic, the number of observations from different polities – as mentioned before - is still low: just 33 polities with information on the dependent and key independent variables. Thus, we proceeded to test a very parsimonious model controlling only for years of democracy and election type (see previous section). The results are shown in Figure 3 (Table A1 in the online appendix displays the regression table).

²² For an explanation of how it is constructed, please see discussion in relation to Figure 2 above.

Figure 3. Effect of COVID-19 deaths and infections on voter turnout, 2020 elections

Notes: Confidence intervals at the 95% level (wider intervals: two-tailed tests; shorter: one-tailed tests). Plots based on ordinary least squares regressions.

Consistently with our hypotheses, results for the turnout models clearly show that COVID-19 had a depressing effect on electoral participation, whether we pay attention to the COVID-19 related deaths (darker circles) or infections (brighter diamonds). The results for the turnout deviation models run in the same direction, as the effect of both deaths and infections have a negative effect, but these effects fail to reach statistical significance. The models with turnout deviation as the dependent variable constitute a first step for taking into account the previous levels of turnout in our 33 polities.

Complementing such analysis with a more sophisticated approach, we also run mixed as opposed to ordinary least squares (OLS) regressions. Given that mixed regressions are ideal to control for many factors that change within a polity, we proceeded to test a similarly parsimonious model (Figure 4) controlling only for years of democracy and election type (see

previous section). The results of the underlying regressions can be found in Table A2 in the online appendix.²³

Figure 4. Effect of COVID-19 deaths and infections on voter turnout, mixed regressions

Notes: Confidence intervals at the 95% level (wider intervals: two-tailed tests; shorter: one-tailed tests). Plots based on mixed regressions (multi-level random-intercepts regressions).

The results of the analyses displayed in Figure 4 are mixed. On the one hand, and as expected, the sign of the effect of COVID-19 incidence in a polity on voter turnout is negative, irrespectively of whether the number of COVID-19 related deaths or infections is considered.²⁴ However, on the other hand, such negative relationship is only significant (for a one-tailed test)²⁵ in the former case. Although, given the limited number of cases, these findings should

²³ We also repeated the estimation using the two available small-sample inference methods for unbalanced data (given that we lack the information on Kiribati's 2016 parliamentary elections), namely the Kenward-Roger and the Satterthwaite methods for restricted maximum likelihood estimation, and both yield qualitatively the same results as those reported here.

²⁴ It is important to note here that, although not significant, both controls have the expected sign.

²⁵ Or, equivalently, the 10% level in a two-tailed hypothesis.

not be overstated, these results seem to suggest that COVID-19 had a “demobilizing effect”, but only in those polities more seriously (in terms of deaths) affected. In other words, while the number of infected in a polity might serve as a deterrent for people to cast their ballots, it is the death toll that, not surprisingly, generates enough fear among the population to the point of preventing them from voting.

Conclusions

Ever since the Coronavirus outbreak started to spread around the world at the beginning of 2020, and especially after most countries started to adopt counter-measures, especially lockdowns, in order to prevent or diminish the transmission of the disease, scholars have begun to look at the political effects, especially in terms of government support and democratic backsliding, of the pandemic. Until now, however, few have looked at the impact of COVID-19 on electoral participation. And the ones who did, have done so in a very anecdotal or limited (e.g. country) manner.

The current article tries to address this question in a more sophisticated manner not only by looking at all democratic elections taken place in the world during the first seven months of the pandemic, but also, and especially, by examining the mechanisms by which COVID-19 might have had an impact on electoral participation. While we observed how voter turnout during the pandemic has increased in some countries (e.g. Montenegro, Poland, South Korea), while decreased in others (e.g. Croatia, North Macedonia, Serbia), we also found that in those polities most affected by COVID-19, especially in terms of the number of deaths, electoral participation substantially decreased. As the great American essayist Ralph Waldo Emerson once put it: “fear *defeats* more people than any other thing in the world” (our italics). As a result, when faced with the choice of exercising their civic (democratic) duty and avoiding a personal (health) risk, voters will tend to opt for the latter.

More research, including more politics and elections, is still needed. Future research might look at other mechanisms, including the readiness to hold elections during a pandemic (e.g. special booths, electronic voting) or the type of restrictions imposed on voters (e.g. postal voting in health centers, legal disqualification). Scholars might also want to research how the pandemic affected electoral volatility by fostering significant changes in turnout levels. But perhaps the most interesting venue for future research is to see if other previous pandemics (e.g. the 1918 Spanish flu) produced similar effects.

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Appendix

Table A1. Effect of COVID-19 deaths and infections on voter turnout, 2020 elections

	Turnout		Turnout deviation	
	Model 1	Model 2	Model 3	Model 4
<i>Covid-related factors</i>				
Dead per million (logged)	-1.6025+ (0.7853)		-0.2323 (0.7394)	
Infected per million (logged)		-1.6970* (0.6399)		-0.3224 -0.6358
<i>Controls</i>				
Years of democracy	0.0105 (0.0900)	-0.0072 (0.0730)	0.0158 (0.0847)	-0.0517 -0.0725
Regional elections	1.4085 (4.1247)	1.7672 (3.3943)	-3.1614 (3.8836)	-0.5792 -3.3725
Observations	25	30	25	30

Notes: Standard errors in parentheses. Key: + $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Ordinary least squares regressions.

Table A2. Effect of COVID-19 deaths and infections on voter turnout, mixed regressions

	Model 5	Model 6
<i>Covid-related factors</i>		
Total dead (thousands)	-3.8231+ (-1.77)	
Total infected (thousands)		-0.2103 (-1.60)
<i>Controls</i>		
Years of democracy	0.0196 (0.37)	0.0183 (0.34)
Regional elections	-0.5054 (-0.22)	-0.8697 (-0.38)
Total number of observations	131	131
Observations from different countries	33	33

Notes: Standard errors in parentheses. Key: + $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Mixed regressions (multi-level random-intercepts regressions).