

1 **Women in power:**

2 **Female leadership and public health outcomes during the**  
3 **COVID-19 pandemic**

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24 **NOTE: This preprint reports new research that has not been certified by peer review and should not be used to guide clinical practice.**

25 **Abstract**

26           Some countries have been more successful than others at dealing with the COVID-19  
27 pandemic. When we explore the different policy approaches adopted as well as the underlying  
28 socio-economic factors, we note an interesting set of correlations: countries led by women  
29 leaders have fared significantly better than those led by men on a wide range of dimensions  
30 concerning the global health crisis. In this paper, we analyze available data for 35 countries,  
31 focusing on the following variables: number of deaths per capita due to COVID-19, number of  
32 days with reported deaths, peaks in daily deaths, deaths occurred on the first day of lockdown,  
33 and excess mortality. Results show that countries governed by female leaders experienced  
34 much fewer COVID-19 deaths per capita and were more effective and rapid at flattening the  
35 epidemic's curve, with lower peaks in daily deaths. We argue that there are both contingent  
36 and structural reasons that may explain these stark differences. First of all, most women-led  
37 governments were more prompt at introducing restrictive measures in the initial phase of the  
38 epidemic, prioritizing public health over economic concerns, and more successful at eliciting  
39 collaboration from the population. Secondly, most countries led by women are also those with  
40 a stronger focus on social equality, human needs and generosity. These societies are more  
41 receptive to political agendas that place social and environmental wellbeing at the core of  
42 national policymaking.

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## 50 **1. Introduction: policy approaches and the global pandemic**

51 The coronavirus pandemic is impacting daily lives, communities, economies, and  
52 exacerbating already existing inequalities. Understanding the pandemic in its full complexity  
53 is a difficult task that entails separating intertwined environmental, social, and economic  
54 dynamics. Since 1980, the global number of human infectious disease outbreaks has risen, as  
55 well as the proportion of vector-borne diseases (Smith et al., 2014). The risk of pandemic  
56 outbreaks increases with the loss of natural habitat and biodiversity (IPBES, 2019; Min.  
57 Schulze 02/04/2020). Climate change is already affecting vector-borne disease transmission,  
58 geographic spread and re-emergence, and its impacts are likely to worsen (Rocklöv and  
59 Dubrow, 2020; IPCC, 2018). The outcomes of pandemics depend on how risk-prepared  
60 societies and economies are, including levels of population health (Wood and Jóhannsson  
61 2020), health systems, and financial markets. All of this calls for a better understanding of what  
62 underpins successful prevention and control, and successful policy choices and  
63 implementation.

64 The study of policy responses to COVID-19 can arguably help us understand how to  
65 build future-fit societies, particularly thanks to the heterogeneity of outcomes, which may help  
66 clarify which actions and which structural factors may be more significant at determining  
67 success in dealing with health crises.

68 The short-term impacts of COVID-19 can be limited by “flattening the curve” (i.e.  
69 reducing the spread) of number of cases over time. A higher peak in number of cases implies  
70 a higher risk of overloading health care systems. This in turn causes ineffective treatment for  
71 individuals suffering from COVID-19 (and other conditions), leading to a higher number of  
72 deaths, greater restrictive measures for longer periods, and eventually generating higher  
73 impacts in terms of job losses and economic recession (and their health consequences).

74 To flatten the curve, most countries adopted lockdown measures, recommending that  
75 people stay home, work from home whenever possible, and respect physical distancing. The  
76 containment measures, together with fiscal and monetary measures, as well as employment and  
77 social measures, differed across countries in terms of the timeliness of the implementation,  
78 level of stringency, and extent of interventions (e.g. amount and type of financial aid or income  
79 support). In general, countries that implemented emergency measures early on were more  
80 successful at limiting contagion and required stricter lockdowns only for a shorter period of  
81 time.

82 Responsiveness to COVID-19 implies early testing, tracing and treating (Sheridan,  
83 2020; Normile, 2020), which also depend on resource capacity. However, in medium to high-  
84 income countries the decision to take the pandemic ‘seriously’ was mostly due to political  
85 considerations regarding whether economic priorities should trump healthcare concerns. In this  
86 regard, some commentators have noted how women leaders were less hesitant than men leaders  
87 (Fioramonti et al., 2020; Henley and Roy, 2020; Wittenberg-Cox, 2020).

88 Against this backdrop, we explore differences in COVID-19 outcomes in terms of  
89 number of deaths, number of days with reported deaths, peak in daily deaths, deaths at first day  
90 of lockdown, and excess mortality in countries governed by women as opposed to countries  
91 led by men. Further, we discuss the possible underlying causes of this relationship.

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## 93 **2. Methods and Data**

### 94 **2.1 Country selection and measures of COVID-19 impacts**

95 Public data on confirmed cases and deaths from COVID-19 is available from the European  
96 Centre for Disease Prevention and Control (ECDC) (<https://www.ecdc.europa.eu/> last accessed  
97 31 July 2020). Cases and deaths are reported on a daily basis from December 31, 2019. The  
98 total number of cases and deaths from COVID-19 in the ECDC dataset are in accordance with

99 the World Health Organization (WHO) COVID-19 Dashboard (<https://covid19.who.int/>).

100 From the ECDC dataset, we selected countries with 1) continuous data from December 31,

101 2019 to June 11, 2020, 2) Gross National Income per capita higher than \$3,956 (upper-middle

102 income to high income countries), 3) high to very high Human Development Index (HDI)

103 (which includes life expectancy), and 4) a democratic regime (according to the 2019

104 Democracy Index). Finally, we excluded countries (Thailand and Sri Lanka) without a distinct

105 peak in daily deaths over the study period. These selection criteria ensure good quality of data

106 and robust cross-country comparisons with regards to the impacts of COVID-19, thus

107 excluding that poverty, lack of liberties or state capacity may determine the differences in

108 outcomes. Furthermore, concerns have been raised by good governance advocates that

109 authoritarian governments may not have been transparent with COVID-19 data, and there is

110 no mechanism for the WHO to verify these numbers (Winter, 2020; The Economist 18

111 February 2020), hence our decision to only select established democracies. We made one

112 exception to this particular selection criterion for China, for its relevant role as the first country

113 with a COVID-19 outbreak. For each of the 35 countries selected we calculated 1) the count of

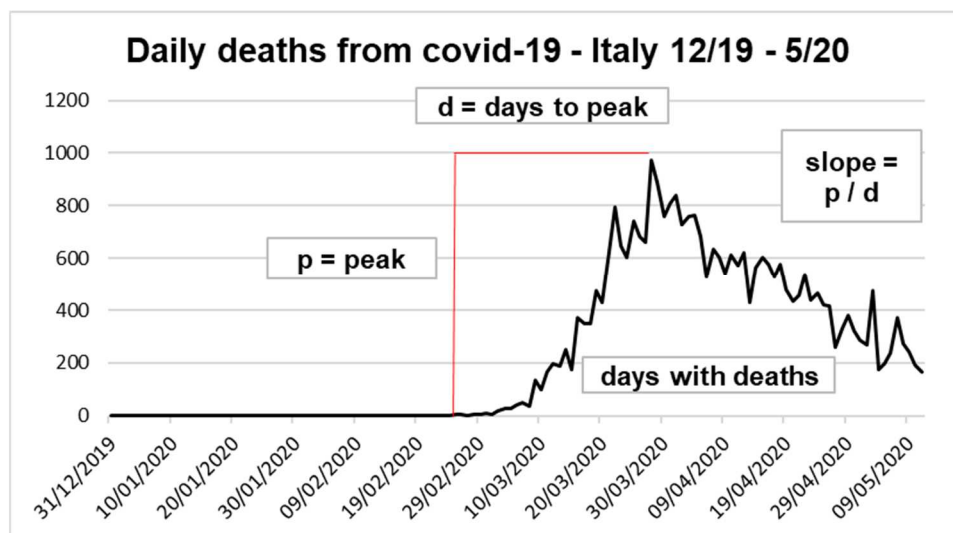
114 confirmed deaths from COVID-19 and the mortality rate (deaths/total population), 2) the

115 number of days with at least one reported death, 3) and the highest daily number of deaths over

116 population. Further, we calculated the slope of the curve of deaths, as the ratio of the peak in

117 daily deaths and the number of days from first confirmed death to the day of the peak (Fig. 1).

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120 **Figure 1.** Main measures of impacts of COVID-19 used in this study, using Italy as an example.

121 Days to peak ( $d$ ) are calculated from first day with deaths. Number of deaths and peak are then  
122 divided by population.

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125 As an indicator of the effectiveness and promptness of the policy responses since the  
126 outset of the epidemic, we considered the number of deaths in the population at first day of  
127 national lockdown. We excluded countries with no lockdown or with only sub-national  
128 lockdowns in place to ensure consistency across countries. In order to control for levels of  
129 mortality, we analyzed excess mortality from the Financial Times database on “excess  
130 mortality during the COVID-19 pandemic” compiled from multiple official sources (the full  
131 dataset is available at <https://github.com/Financial-Times/coronavirus-excess-mortality-data>).  
132 From this database, we extracted weekly data of excess mortality and excess of deaths per  
133 capita for 18 countries between December 31, 2019 and June 11, 2020.

134 We grouped countries by the gender of the head of state and government, also  
135 considering leaders elected and appointed by a governing committee or parliament where heads  
136 of state or government are not directly elected by citizens, excluding women chosen by a  
137 hereditary monarch. Of the 35 countries considered, 10 have a woman-led government

138 (Belgium, Denmark, Estonia, Finland, Germany, Greece, Iceland, New Zealand, Norway and  
139 Taiwan) while 25 a male-led government (Australia, Austria, Brazil, Canada, China, Croatia,  
140 Czechia, Ecuador, France, Ireland, Israel, Italy, Japan, Lithuania, Luxembourg, Mexico,  
141 Netherlands, Romania, Russia, South Korea, Spain, Sweden, Switzerland, UK, USA).

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## 143 **2.2 Measures of social performance and inequality**

144 Some of the countries currently led by women are also those with the highest global  
145 standards in terms of social progress. This is why we have used the Social Progress Index (SPI)  
146 2019 total score, as well as the score of its three main components, namely Basic Human Needs,  
147 Foundations of Wellbeing, and Opportunity. Each of these components include four sub-  
148 dimensions with three to five indicators each (please refer to <https://www.socialprogress.org/>  
149 for data and the full list of indicators). In order to explore possible relations between female  
150 leadership, impacts of COVID-19, and economic inequality, we have used the Gini coefficient,  
151 as well as the income share held by poorest 10% of the population (both from  
152 <https://data.worldbank.org/>). To focus further on gender equality, we have used the Gender  
153 Inequality Index (GII) (available from <https://hdr.undp.org/>), which measures gender  
154 inequalities in reproductive health, measured by maternal mortality ratio and adolescent birth  
155 rates; empowerment, measured by proportion of parliamentary seats occupied by females and  
156 proportion of adult females and males aged 25 years and older with at least some secondary  
157 education; and economic status, expressed as labor market participation and measured by labor  
158 force participation rate of female and male populations aged 15 years and older. Being an  
159 inequality index, higher values of the GII reflect higher gender disparities.

160 We explored correlations of the GII with the SPI and its sub-dimensions and the global  
161 rank in Happiness and Generosity score (from the World Happiness Report 2019; Helliwell et  
162 al., 2019) as measures of subjective wellbeing.

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### 164 3. Results

#### 165 3.1 Countries with women leaders are better at reducing negative impacts of COVID-

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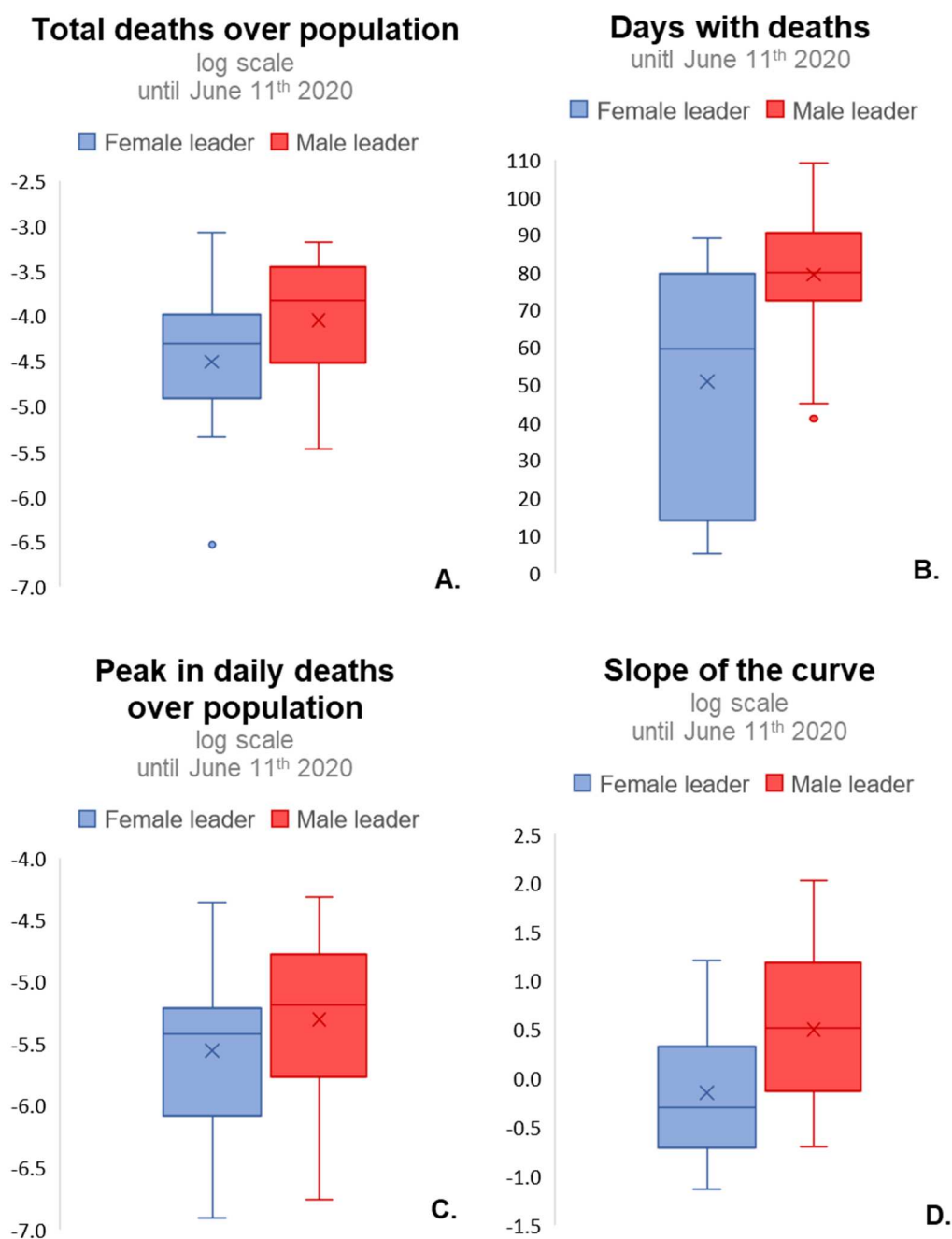
167 Countries with women in position of leadership have suffered six times as few deaths from  
168 COVID-19 than countries with governments led by men. When we normalize the data per  
169 population, we find that countries led by women had 1.6-times fewer deaths per capita than  
170 their male-dominated counterparts (Fig. 2A). Female-led countries reported 1,983 ( $\pm$  2,724;  
171 95% CI) deaths, while men-led countries 13,276 ( $\pm$  9,848; 95% CI), by considering average  
172 values. The peak in daily deaths was seven times as low in women-led countries (1.5-times  
173 lower per capita), where the average highest number of daily COVID-19 deaths was 91 ( $\pm$  122;  
174 95% CI) across countries, and 643 ( $\pm$  435; 95% CI) for men-led countries (Fig. 2B). The  
175 number of days with confirmed COVID-19 deaths was, on average, 50 ( $\pm$  23; 95% CI) days in  
176 women-led countries and 79 ( $\pm$  7; 95% CI) in male-led countries (Fig. 2C). Female-led  
177 governments managed to flatten the curve more effectively and faster than male-led  
178 governments: the slope of the curve of daily deaths from COVID-19 is 4-times less steep in  
179 female-led countries (Fig 2D).

180 As further evidence of different timeliness in implementing emergency response, the  
181 average deaths over population at first day of national lockdown was 1.6-times higher in male-  
182 led ( $7.38\text{E-}07 \pm 6.88\text{E-}07$ ; 95% CI) than in female-led countries ( $1.17\text{E-}06 \pm 1.11\text{E-}06$ ; 95%  
183 CI). Average excess mortality per capita was 4.8 ( $\pm$ 13; 95% CI) in female-led countries, and  
184 21 ( $\pm$ 24; 95% CI) in men-led countries. This latter result is of particular relevance as excess  
185 mortality is acknowledged as the fairest way to compare COVID-19 deaths internationally  
186 (Krelle et al., 2020). Furthermore, we found significant positive correlations between deaths



187 over population at first day of lockdown and days with deaths, deaths over population and  
188 excess of mortality (Fig. S1)

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191 **Figure 2.** Box-plot of main impacts of COVID-19 in countries with male leaders and countries  
192 with female leaders.

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### 195 **3.2 Impacts of COVID-19 are lower in more equal countries**

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197 We found significant positive correlations between economic inequality (higher values  
198 of Gini coefficient and lower values of income share held by poorest 10%), and deaths from  
199 COVID-19 (total deaths – Fig. 3A, B; and excess mortality – Fig. 3C).

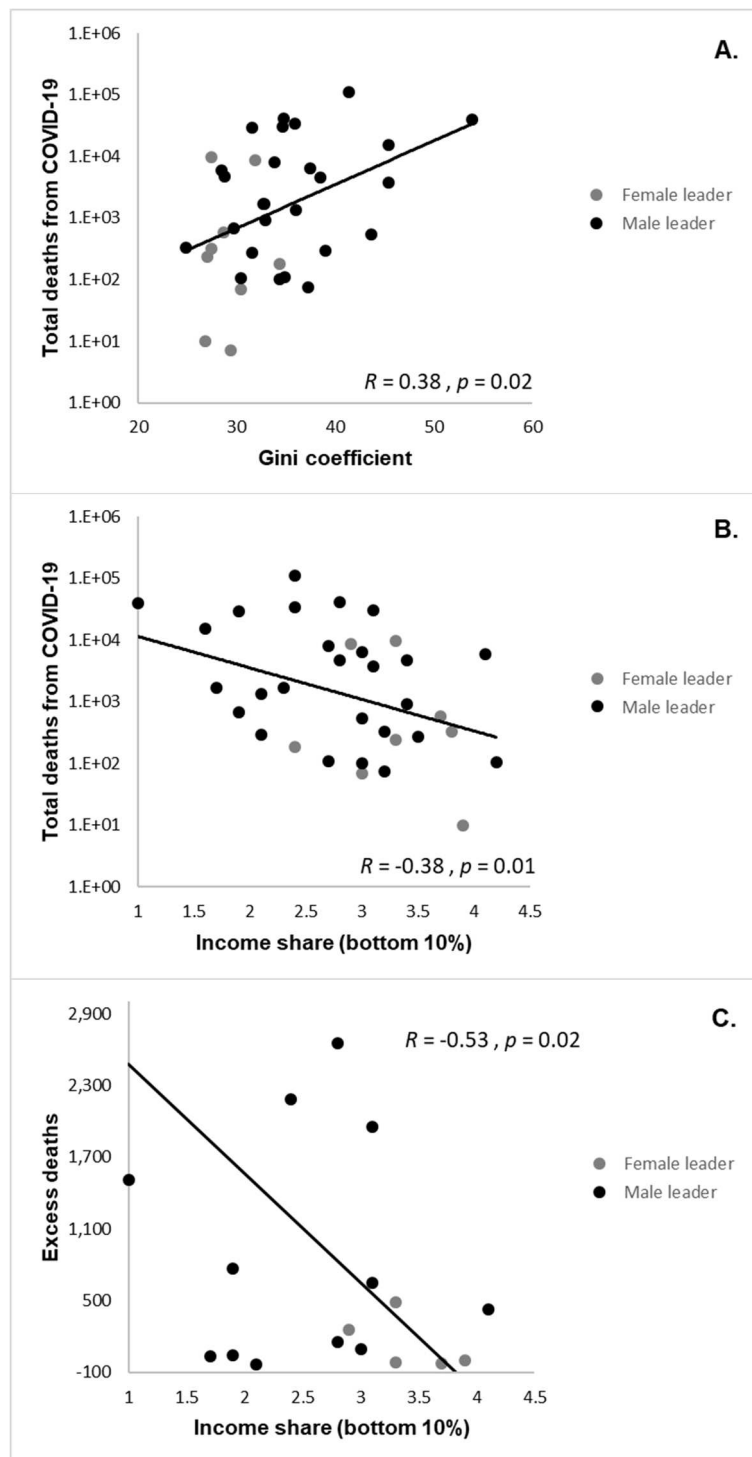
200 Female-led countries have higher scores in all the social progress and equality measures  
201 we considered (Fig. 4). The average SPI was 87.87 ( $\pm 2.22$ ; 95% CI) in female led-countries,  
202 and 81.99 ( $\pm 3.16$ ; 95% CI) in men-led countries. Basic Human Needs was 95.46 ( $\pm 1.63$ ; 95%  
203 CI) in female-led countries, and 91.48 ( $\pm 2.22$ ; 95% CI) in men-led countries. Foundations of  
204 Wellbeing was 88 ( $\pm 2.01$ ; 95% CI) in female-led countries, and 83.6 ( $\pm 2.82$ ; 95% CI) in men-  
205 led countries. Opportunity was 80.16 ( $\pm 3.39$ ; 95% CI) in female-led countries, and 70.89 ( $\pm$   
206 4.44; 95% CI) in men-led countries. The Gini coefficient was 29.2 ( $\pm 1.9$ ; 95% CI) in female-  
207 led countries, and 35.7 ( $\pm 2.5$ ; 95% CI) in men-led countries. The GII was 0.07 ( $\pm 0.02$ ; 95%  
208 CI) in female-led countries, and 0.15 ( $\pm 0.04$ ; 95% CI) in men-led countries. The average global  
209 rank in happiness score was 21 in female-led countries, and 32 in men-led countries, and the  
210 rank in generosity was 44 in female-led countries and 59 in men-led countries.

211 These results point to female leadership as a marker for healthier and more equal societies,  
212 where policymaking prioritizes long-term social wellbeing over short-term economic  
213 considerations.

214 Our results with regards to the GII further confirm the relationship between (gender)  
215 equality and social well-being. We found that countries with higher female participation and  
216 lower gender inequality, besides having higher SPI scores ( $R = -0.8$ ;  $p = 2.61E-10$ ), are also  
217 happier ( $R = -0.5$ ;  $p = 0.004$ ) and more generous ( $R = -0.5$ ;  $p = 4.81E-04$ ) (Fig. S2).

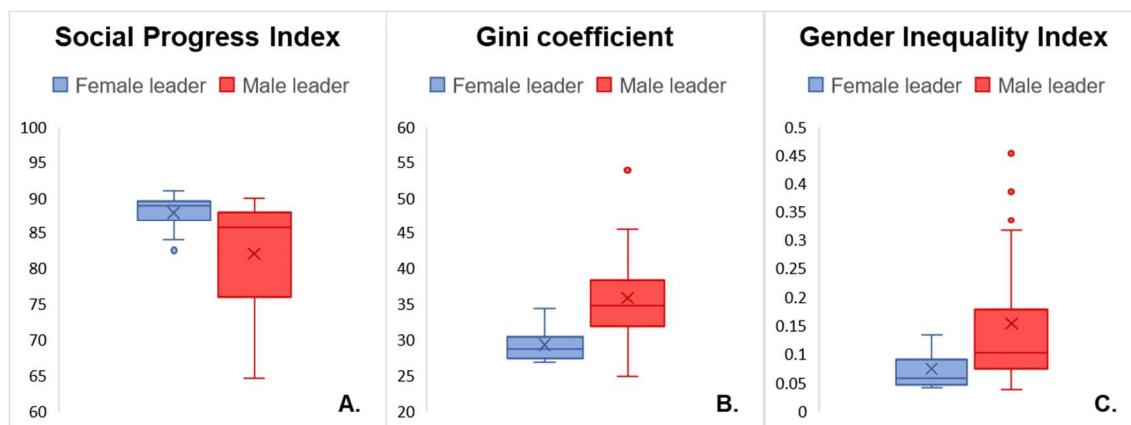
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**Figure 3.** More unequal countries (Gini coefficient) have higher deaths from COVID-19 (A); countries with higher income share held by lowest 10% have lower deaths (B), and lower excess mortality (C), from COVID-19.



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232 **Figure 4.** Box-plot of Social Progress Index (A), Gini coefficient (B) and Gender Inequality  
233 Index (C) in countries with male leaders and countries with female leaders.

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235 As two out of three dimensions of the SPI include aspects related to gender equality  
236 (i.e. Foundations of Wellbeing includes “Gender parity in secondary enrollment”, and  
237 Opportunity includes “Equality of political power by gender”,  
238 <https://www.socialprogress.org/>) we further explored if more gender equal countries perform  
239 better on Basic Human Needs (the one SPI dimension not directly including gender equality  
240 indicators). We found that higher scores in the Basic Human Needs dimension of the SPI  
241 negatively correlate to the GII ( $R = -0.8$ ;  $p = 9.93E-13$ ) (Fig. S3).

242 To explore if female leadership relates with less negative impacts from COVID-19 even  
243 among equal countries with good social performance, we repeated the analysis by considering  
244 a sub-set of countries with below-average values of Gini coefficient and GII, and above-  
245 average values of SPI. The results confirmed the pattern observed across all 35 countries. In  
246 particular, among the 18 countries with below-average Gini coefficient, female-led countries  
247 have 26 less days with deaths, 1.12-times fewer deaths over population, and 33.5-times lower  
248 excess mortality per capita. Among the 25 countries with below-average GII, female-led  
249 countries have 17 less days with deaths, 1.6-times fewer deaths over population, and 6.5-times  
250 lower excess mortality per capita. Finally, among the 24 countries with above-average SPI,

251 female-led countries have 29 less days with deaths, 1.8-times fewer deaths over population,  
252 and 10.8-times lower excess mortality per capita.

253

#### 254 **4. Discussion**

255 From a policy perspective, the COVID-19 crisis has been characterised by three  
256 overarching elements: (1) it has threatened the priority goals of the decision-making unit,  
257 namely economic growth; (2) it has compressed the time necessary to develop an appropriate  
258 decision; and 3) its eruption has taken the members of the decision-making unit by surprise  
259 (Hermann, 1979; de Swielande, 2020).

260 As COVID-19 deaths began to add up, national leaders were faced with an urgent decision:  
261 prioritize economic growth and market openness or shift toward people's wellbeing. Leaders  
262 who opted for the former demonstrated a short-term vision and lack of understanding of the  
263 fact that social wellbeing (and a healthy environment) is the *basis* for a healthy economy. Our  
264 results show that this is the case for most men leaders, while women leaders did not hesitate to  
265 adopt precautionary measures, even when they posed immediate economic costs.

266 George Lakoff (2010) has argued that conservative and liberal/progressive political views  
267 stem ultimately from conceptions of the family and the metaphor of government as parent.

268 Conservative politics corresponds with a hierarchical "strict father" model of the family.  
269 In this model the father's (and by analogy the political leader's) authority is absolute and final.  
270 The alternative is the "nurturing mother" model corresponding to liberal/progressive politics.  
271 The role of the family (and by analogy the government) is to nurture and enable individual and  
272 societal progress. "We are all in this together" is an important way of structuring the family  
273 and society. When faced with an illness, the strict father might advise working through it while  
274 the nurturing mother would advise staying home until you get better.

275 All modern societies are a mixture of both of these models and they are better adapted  
276 to different circumstances. For fighting a war, the hierarchical strict father model works better.  
277 But for fighting a pandemic, the nurturing mother model can prove more successful. Countries  
278 that lean toward the nurturing mother model of the family and government are more likely to  
279 elect progressive female leaders. The fact that countries, such as the United States, supposedly  
280 best prepared to fight a pandemic, ended up failing to contain it and suffered more deaths than  
281 other nations is evidence of leaders' failure to take appropriate decisions at the right time. Not  
282 taking the COVID-19 crisis seriously led to slow responses and higher social and economic  
283 impacts.

284 In the United States (US), President Donald Trump took much longer than most world  
285 leaders to acknowledge the coronavirus crisis (de Swielande, 2020), wasting precious time in  
286 managing the crisis and ignoring recommendations from public health experts. Similarly, the  
287 UK government overlooked experts calls for early lockdown and the need for widespread and  
288 repeated testing (Peto et al., 2020). In Brazil, President Jair Bolsonaro repeatedly called for  
289 states to end quarantine measures and fired his health minister Mr. Mandetta, who defended  
290 stay-at-home orders (Londoño, 2020; Leonhardt and Leatherby, 2020).

291 On February 28, 2020, Trump tweeted about COVID-19: "*like a miracle, it will disappear.*"  
292 On March 9, his tweet stated: "*The Fake News Media and their partner, the Democrat Party,*  
293 *is doing everything within its considerable power to inflame the Coronavirus situation, far*  
294 *beyond what the facts would warrant*", clearly downplaying the relevance of the crisis and the  
295 urgency for acting.

296 British PM Boris Johnson missed the first five meetings of the key UK committee on the  
297 epidemic, allowing on March 10 to 13 over 250,000 people to gather at the Cheltenham  
298 Festival, a clear sign of his underestimation of the crisis and its effects at a time where over  
299 700 cases of COVID-19 were already confirmed in the UK. He visited hospitals and admitted

300 shaking hands and “high-fiving” COVID-19 patients, in a blunt disrespect of any social  
301 distancing precautions.

302 On the opposite side of the spectrum, a number of women leaders heeded scientific  
303 advice and took immediate action to manage the crisis. Taiwan’s Prime Minister Tsai Ing-wen,  
304 building on the country’s previous experience with SARS, introduced targeted measures and  
305 medical checks early on, while the epidemic was still in its initial phase in the Chinese city of  
306 Wuhan (Wang et al., 2020). This massively reduced the risk of an outbreak and therefore made  
307 a lockdown unnecessary. Most other East Asian countries with male leaders, including the  
308 equally small Singapore, also affected by SARS in 2002/2003, did not take immediate  
309 measures and suffered several waves of contagion.

310 Iceland’s Prime Minister Katrin Jakobsdottir started crowd restrictions of no more than  
311 20 people gatherings on March 16, 2020. Universities and high-schools went into remote  
312 teaching, while primary schools and nurseries were kept open. Businesses were mostly run  
313 from employee’s homes. As the number of COVID-19 cases started dropping at the beginning  
314 of April, 2020, crowd restrictions became progressively less stringent.

315 New Zealand’s government of Prime Minister Jacinda Ardern was also prompt in  
316 implementing restrictive measures early on, resulting in limited contagion and a much shorter  
317 lockdown than neighboring countries in the Pacific. On March 14, New Zealand announced  
318 the earliest and toughest self-isolation measures of any country. On the same day, the PM  
319 Jacinda Ardern declared "*We're going hard and we're going early, ... we only have 102 cases,*  
320 *but so did Italy once.*" One week later New Zealand was in complete lockdown.

321 In Scandinavia, the only country that prioritised economic objectives and, as a  
322 consequence, did not impose any serious restrictions was Sweden (led by a male prime  
323 minister), while all other countries of the region (led by women) took immediate measures.

324 While Norway implemented strict lockdown for almost two months, and Denmark closed  
325 upper primary schools (above age 12) from 13 March to 17 May, Sweden opted for a ‘herd  
326 immunity’ approach, placing economic priorities ahead of health concerns, keeping primary  
327 schools (under age 16) open and only isolating, as much as possible, people over 70 (OCED,  
328 2020). This resulted in the highest COVID-19 mortality rate across Nordic countries by the  
329 end of May 2020, with 40.5 deaths per 100,000 population, compared to 9.7 for Denmark and  
330 4.4 for Norway.

331 The cases above are examples of a more general trend, with female leaders  
332 demonstrating more effective management of the pandemic by taking the problem seriously,  
333 listening to health experts, and acting quickly. This trend seems to confirm that progressive  
334 female leadership is more engaged on issues of health and wellbeing, social equality,  
335 sustainability, and innovation, making societies more resilient. Some of these governments  
336 have also launched an international alliance to promote, share and further implement wellbeing  
337 policies taking the focus off economic growth and putting it on issues that lead to social and  
338 ecological wellbeing (<https://wellbeingeconomy.org/wego>).

339 In business, there is a tendency for preferential selection of female leaders in times of crisis  
340 known as the ‘glass cliff’ effect (Ryan et al., 2011). However, women still represent only 29%  
341 of senior leadership in companies (Catalyst 2019). Recognizing the effectiveness of women  
342 political leaders in reacting to this coronavirus crisis is one step towards understanding the  
343 underlying conditions for effective leadership to emerge.

344 Implementing policies with short-term economic returns and long-term negative health and  
345 social impacts is more common in hierarchical, autocratic societies. These policies often imply  
346 pursuing self-interests and attempting to spur dynamics for re-election. There is evidence for  
347 women to be more likely to take up positions of political leadership in societies that value  
348 equity, solidarity, nurturing, and collaboration, which are usually associated with healthier



349 communities (Wilkinson and Pickett, 2009). Such societal views arose in the 1970s and 80s  
350 with the Red Stocking Movement and demand for women being on the lists of political parties  
351 and being members of parliaments and local governments (Schneir, 1994).

352 Women's status suffers where there is a stronger dominance hierarchy and the "strict  
353 father" approach to politics and governance. In more nurturing, sociable (and egalitarian)  
354 societies, where position and authority count for less, women's status tends to be better  
355 (Wilkinson and Pickett, 2009). Women's status is thus a marker for the more egalitarian and  
356 sociable societies in which health is less affected by the costs of competition for dominance.

357 Our results support these points, showing how hierarchical, unequal societies paid higher  
358 costs in terms of a broad range of impacts from COVID-19. Our results also show that more  
359 equal societies tend to be happier and more generous and tend to better perform better in terms  
360 of social progress and environmental quality. Furthermore, even among equal societies, female  
361 leaders were more successful than male leaders at dealing with the COVID-19 pandemic.

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## 363 **5. Conclusion.**

364 We are facing increasing risk of pandemics due to climate change and increasing  
365 destruction of ecosystems and biodiversity (IPCC, 2018; IPBES, 2019). While changing our  
366 consumption patterns and acting on further drivers of impact is crucial, so it is to build  
367 economies and societies that are equal in terms of gender and wealth, with good public health,  
368 and are resilient to shocks. The COVID-19 crisis is showing us how political decisions directly  
369 affect health and social wellbeing. Women are elected and lead in societies where social and  
370 environmental wellbeing is at the core of national policymaking, and this affects a broad range  
371 of impacts from COVID-19.

372 Our results show that female-led countries have consistently less deaths from COVID-19  
373 per capita, a shorter number of days with confirmed deaths, a lower peak in daily deaths per

374 capita, and a lower excess mortality. Female leaders acted quickly, implementing measures of  
375 lockdown early on as recommended by national health experts. Our results also show that  
376 women are more likely to take up positions of leadership in societies that value equity,  
377 nurturing, solidarity, and collaboration, which are usually associated with healthier  
378 communities, more resilient to external shocks.

379 Current data about economic growth forecasts also point out that countries that have taken  
380 more determined containment measures will also be rewarded in economic terms: they will  
381 suffer much less severe recessions than countries that have hesitated, thus spreading the  
382 contagion further afield.

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