Online Appendix for "Regimes, Leaders, and Lockdowns: Who Responded More Quickly to the COVID-19 Pandemic?"
January 15, 2025

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Table A1: Examples of pandemic-related international meetings of health ministers in the first four months of 2020

Date	Forum	Source
February 3	Group of Seven (G7)	https://www.reuters.com/article/idUSKBN1ZX2IP/
February 13	European Union (EU)	https://www.gov.pl/web/eu/extraordinary-epsco-health-council-meeting-on-coronavirus
February 19	Gulf Cooperation Council (GCC)	https://arab.news/63md9
February 19	Southern Common Market (Mercosur)	https://en.mercopress.com/2020/02/18/mercosur-urgent-health-ministers-meeting-to-address-dengue-measles-and-coronavirus-threat
February 22	African Union (AU)	https://au.int/en/newsevents/20200222/ministerial-meeting-coronavirus-disease-outbreak
March 1	Caribbean Community (CARICOM)*	https://caricom.org/caricom-chair-to-host-meeting-on-covid-19/
March 26	Group of Twenty (G20)	https://www.reuters.com/article/idUSKBN21B0KM/
April 7	Association of Southeast Asian Nations (ASEAN)	https://asean.org/asean-health-ministers-enhance-cooperation-in-fighting-covid-19-pandemic
April 23	South Asian Association for Regional Cooperation (SAARC)	https://www.saarc-sec.org/index.php/press-release/284-press-release-saarc-health-ministers-video-conference-to-address-the-covid-19-pandemic-23-april-2020

Note: This table provides the date and forum for regional and other meetings of health ministers shortly before and after the WHO declared COVID-19 a pandemic on March 11, 2020. The list is illustrative only and we do not claim that it is complete. All links given as sources were last accessed on June 22, 2024.
* This CARICOM meeting also included heads of government, as well as their health ministers and health and other officials.

Table A2: List of health ministers and whether they studied medicine

Country	Health minister	Medical doctor
Afghanistan	Ferozuddin Feroz	Yes
Albania	Ogerta Manastirliu	No
Algeria	Abderrahmane Benbouzid	Yes
Andorra	Joan Martínez Benazet	Yes
Angola	Silvia Lutucuta	Yes
Antigua and Barbuda*	Molwyn Joseph	No
Argentina	Ginés González García	Yes
Armenia*	Arsen Torosyan	Yes
Australia	Greg Hunt	No
Austria	Rudolf Anschober	No
Azerbaijan	Ogtay Shiraliyev	Yes
Bahamas	Duane Sands	Yes
Bahrain	Faeqa bint Saeed Alsaleh	No
Bangladesh	Zahid Maleque	No
Barbados	Jeffrey Bostic	No
Belarus	Vladimir Karanik	Yes
Belgium	Maggie De Block	Yes
Belize	Pablo Marin	Yes
Benin	Benjamin Hounkpatin	Yes
Bhutan	Dechen Wangmo	Yes
Bolivia	Aníbal Cruz	Yes
Bosnia and Herzegovina	Vjekoslav Mandić	Yes
Botswana	Lemogang Kwape	Yes
Brazil	Luiz Henrique Mandetta	Yes
Brunei Darussalam	Haji Md Isham bin Jaafar	Yes
Bulgaria	Kiril Ananiev	No
Burkina Faso	Léonie Claudine Lougué Sorgho	Yes

Burundi	Thaddée Ndikumana	Yes
Cabo Verde	Arlindo Nascimento do Rosário	Yes
Cambodia	Mam Bunheng	Yes
Cameroon	Malachi Manaouda	No
Canada	Patty Hadju	No
Central African Republic	Pierre Somse	Yes
Chad	Mahamoud Youssouf Khayal	No
Chile	Jaime Mañalich	Yes
China	Ma Xiaowei	Yes
Colombia	Juan Pablo Uribe	Yes
Comoros*	Loub Yakout Zaïdou	Yes
Congo (Democratic Republic of the)	Jean Jacques Mbungani	Yes
Congo (Republic of the)	Jacqueline Lydia Mikolo	No
Costa Rica	Daniel Salas Peraza	Yes
Côte d'Ivoire	Eugène Aka-Aouélé	No
Croatia	Vili Beroš	Yes
Cuba	José Angel Portal Miranda	Yes
Cyprus	Constantinos Ioannou	No
Czechia	Adam Vojtěch	No
Denmark	Magnus Heunicke	No
Djibouti	Ahmed Robleh Abdilleh	Yes
Dominica	Irving McIntrye	Yes
Dominican Republic	Rafael Sanchez	Yes
Ecuador	Catalina Andramuño	Yes
Egypt	Hala Mustafa Zayed	Yes
El Salvador	Ana Orellana Bendek	Yes
Equatorial Guinea*	Disadado Vicente Nsue Milang	Yes
Eritrea	Amna Nurhusein	No
Estonia	Tanel Kiik	No

Eswatini	Lizzie Nkosi	No
Ethiopia	Lia Tadesse Gebremedhin	Yes
Fiji	Ifereimi Waqainabete	Yes
Finland	Aino-Kaisa Pekonen	No
France	Agnès Buzyn	Yes
Gabon	Max Limoukou	Yes
Gambia	Ahmadou Lamin Sameteh	Yes
Georgia	Ekaterine Tikaradze	Yes
Germany	Jens Spahn	No
Ghana	Kwaku Agyemang-Manu	No
Greece	Vasilis Kikilias	Yes
Grenada*	Nickolas Steele	No
Guatemala	Hugo Monroy	Yes
Guinea	Remy Lamah	Yes
Guinea-Bissau*	Maria Inácia Có Sanhá	No
Guyana	Volda Lawrence	No
Honduras	Alba Consuelo Flores	No
Hungary	Miklós Kásler	Yes
Iceland	Svandís Svavarsdóttir	No
India	Harsh Vardhan	Yes
Indonesia	Terawan Agus Putranto	Yes
Iran	Saeed Namaki	No
Iraq	Jaafar Sadiq Allawi	Yes
Ireland	Simon Harris	No
Israel	Yaakov Litzman	No
Italy	Roberto Speranza	No
Jamaica	Christopher Tufton	No
Japan	Katsunobu Katō	No
Jordan	Saad Jaber	Yes

Kazakhstan	Yelzhan/Eljan Birtanov	Yes
Kenya	Mutahi Kagwe	No
Kiribati	Tauanei Marea	No**
Kuwait	Basel Humoud Hamad Al-Sabah	Yes
Kyrgyzstan	Kosmosbek Cholponbaev	No
Laos	Bounkong Syhavong	Yes
Latvia	Ilze Viņķele	No
Lebanon	Hamad Hasan	No
Lesotho	Nkaku Kabi	No
Liberia	Wilhelmina Jallah	Yes
Liechtenstein	Mauro Pedrazzini	No
Lithuania	Aurelijus Veryga	Yes
Luxembourg	Etienne Schneider	No
Madagascar	Julio Rakotonirina	Yes
Malawi	Jappie Mhango	No
Malaysia	Dzulkefly Ahmad	No
Maldives*	Abdulla Ameen	N/A
Mali	Michel Sidibé	No
Malta	Chris Fearne	Yes
Marshall Islands*	Bruce Bilimon	No
Mauritania	Mohamed Nedhirou Hamed	Yes
Mauritius	Kailesh Jagutpal	Yes
Mexico	Jorge Alcocer Varela	Yes
Micronesia*	Magdalena A. Walter	No
Moldova	Viorica Dumbrăveanu	No
Monaco	Didier Gamerdinger	No
Mongolia	Davaajantsangiin Sarangerel	No
Montenegro*	Kenan Hrapović	No
Morocco	Khalid Ait Taleb	Yes

Mozambique	Arrmindo Tiago	Yes
Myanmar	Myint Htwe	Yes
Namibia	Kalumbi Shangula	Yes
Nauru*	Isabella Dageago	No
Nepal	Bhanu Bhakta Dhakal	No**
Netherlands	Hugo de Jonge	No
New Zealand	David Clark	No
Nicaragua	Carolina Davila Murillo	Yes
Niger	Idi Illiassou Maïnassara	Yes
Nigeria	Osagie Ehanire	Yes
North Korea*	O Chun-bok	N/A
North Macedonia*	Venko Filipče	Yes
Norway	Bent Høie	No
Oman	Ahmed bin Mohammed bin Obaid Al Sa'eedi	Yes
Pakistan	Zafar Mirza	Yes
Palau*	Emais Roberts	Yes
Panama	Rosario Turner	Yes
Papua New Guinea	Jelta Wong	No
Paraguay	Julio Mazzoleni	Yes
Peru	Elizabeth Hinostroza	Yes
Philippines	Francisco Duque III	Yes
Poland	Łukasz Szumowski	Yes
Portugal	Marta Temido	No
Qatar	Hanah Mohamed Al Kuwari	No
Romania	Victor Costache	Yes
Russia	Mikhail Murashko	Yes
Rwanda	Diane Gashumba	Yes
Saint Kitts and Nevis*	Eugene Hamilton	No
Saint Lucia*	Mary Isaac	No

Saint Vincent and the Grenadines*	Luke Browne	No
Samoa*	Faimalotoa Kika Stowers	No
Sao Tome and Principe*	Edgar Neves	Yes
Saudi Arabia	Tawfig bin Fawzan AlRabiah	No
Senegal	Abdoulaye Diouf Sarr	No
Serbia	Zlaitbor Loncar	Yes
Seychelles	Jean-Paul Adam	No
Sierra Leone	Alpha Tejan Wurie	No
Singapore	Gan Kim Yong	No
Slovakia	Peter Pellegrini	No
Slovenia	Aleš Šabeder	No
Solomon Islands	Kaitu'u Tautai Angikimua	Yes
Somalia	Fawziya Abikar Nur	No
South Africa	Zweli Mkhize	Yes
South Korea	Park Neung-hoo	No
South Sudan	Riek Gai Kok	No
Spain	Salvador Illa	No
Sri Lanka	Pavithradevi Wanniarachchi	No
Suriname	Antoine Elias	No**
Sweden	Lena Hallengren	No
Switzerland	Alain Berset	No
Syria	Nizar Wahbi Yazigi	Yes
Tajikistan	Nasim Olimzoda	Yes**
Tanzania	Ummy Mwalimu	No
Thailand	Anutin Charnvirakul	No
Timor Leste	Élia António de Araújo dos Reis Amaral	Yes**
Togo	Moustafa Mijiyawa	Yes
Tonga	Amelia Afuha'amango Tu'ipulotu	No
Trinidad and Tobago	Terrence Deyalsingh	No

Tunisia	Sonia Ben Cheikh	Yes
Turkey	Fahrettin Koca	Yes
Turkmenistan	Nurmukhammed Kakabaevich Amannepesov	Yes
Tuvalu*	Isaia Taape	No
Uganda	Jane Aceng	Yes
Ukraine	Zoryana Skaletska	No
United Arab Emirates	Abdul Rahman Mohammed Al Owais	No
United Kingdom	Matt Hancock	No
United States	Alex Azar	No
Uruguay	Jorge Basso Garrido	Yes
Uzbekistan	Alisher Shodmonov	Yes
Vanuatu	Jerome Ludvaune	No
Venezuela	Carlos Alvarado	Yes
Viet Nam	Vu Duc Dam	No
Zambia	Chitalu Chilufya	Yes
Zimbabwe	Obadiah Moyo	No

Notes: Based on authors' collection of biographical data for 188 health ministers in office in January 2020. France, Luxembourg, Rwanda, and Tunisia changed health ministers in February 2020, but in accordance with our coding rule we use office holders as of January 2020. We make two exceptions. Ethiopia had no health minister in January and February 2020, with a new appointment (Lia Tadesse) only in March 2020. However, since she served as State Minister of Health immediately prior to her promotion to Minister of Health, we count her as in place at the beginning of the year. We also make an exception for Kenya, where a new Cabinet Secretary for Health took office in February 2020 (Mutahi Kagwe), but his appointment had been announced already in January.
* There are no COVID-19 response data for this country in the dataset compiled by Hale et al. (2021).
** No detailed education data. In two cases our research suggests these health ministers had medical training (Tajikistan and Timor Leste) and in three that they did not (Kiribati, Nepal, and Suriname). We made attempts to confirm this information by contacting embassies of these countries but were unable to obtain further details. These ministers are excluded from Figure 1 but included in the bivariate and regression analyses.
N/A = Not available; missing data.

Table A3: Leaders with a degree including a natural science or medicine ("scientists")

Country	Political leader	Subjects studied
Bahamas	Hubert Minnis	Biology, medicine
Bhutan	Lotay Tshering	Medicine, management
Germany	Angela Merkel	Physics, chemistry
Grenada*	Keith Mitchell	Chemistry, mathematics, statistics
Guatemala	Alejandro Giammattei	Medicine
Ireland	Leo Varadkar	Medicine
Malaysia	Mahathir Mohamad	Medicine
Morocco	Saadeddine Othmani	Islamic law and theology, psychiatry, medicine
North Korea*	Kim Jong-un	Physics, military
Papua New Guinea	James Marape	Environmental science, business
Syria	Bashar al-Assad	Medicine
Tanzania	John Magufuli	Education, mathematics, chemistry
Trinidad and Tobago	Keith Rowley	Geology
Turkmenistan	Gurbanguly Berdimuhamedow	Medicine
Uruguay	Tabaré Vázquez	Medicine

Notes: Based on authors' collection of biographical data for 188 political leaders in office in January 2020.
* There are no COVID-19 response data for this country in the dataset compiled by Hale et al. (2021).

Table A4: Summary statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Policymaker characteristics					
Populist leader	168	0.107	0.310	0	1
Scientist leader	168	0.077	0.268	0	1
Female leader	168	0.077	0.268	0	1
Doctor health minister	168	0.542	0.500	0	1
Female health minister	168	0.232	0.423	0	1
Regime measures					
Democracy (DD)	168	0.607	0.490	0	1
Democracy (ML)	168	0.708	0.456	0	1
Democracy – parliamentary (DD)	168	0.250	0.434	0	1
Democracy – mixed (DD)	168	0.155	0.363	0	1
Democracy – presidential (DD)	168	0.202	0.403	0	1
Dictatorship – civilian (DD)	168	0.262	0.441	0	1
Dictatorship – military (DD)	168	0.071	0.258	0	1
Dictatorship – royal (DD)	168	0.060	0.237	0	1
Not free (FH)	168	0.262	0.441	0	1
Partly free (FH)	168	0.327	0.471	0	1
Free (FH)	168	0.411	0.493	0	1
Authoritarian (V-Dem)	168	0.315	0.466	0	1
Electoral authoritarian (V-Dem)	168	0.268	0.444	0	1
Minimally democratic (V-Dem)	168	0.417	0.494	0	1
Liberal Democracy Index (V-Dem)	159	0.421	0.263	0.009	0.883
Machine Learning Index (ML)	164	0.687	0.344	0.000	0.997
Lockdown measures					
Stay at home	61,488	0.417	0.493	0	1

Stringent policy	57,270	0.611	0.488	0	1
Close schools	61,488	0.655	0.475	0	1
Close work	61,488	0.534	0.499	0	1
Cancel events	61,488	0.653	0.476	0	1
Restrict gatherings	61,488	0.590	0.492	0	1
Close transport	61,488	0.291	0.454	0	1
Restrict movement	61,488	0.282	0.450	0	1
Travel controls	61,488	0.850	0.357	0	1
Info campaign	61,487	0.864	0.343	0	1
Standard controls					
Chief executive and health minister from different parties	168	0.119	0.325	0	1
Chief executive from left party	168	0.220	0.416	0	1
Chief executive from right party	168	0.220	0.416	0	1
Chief executive's party with legislative majority	168	0.494	0.501	0	1
Confirmed COVID-19 death	61,488	0.705	0.456	0	1
Federal	168	0.131	0.338	0	1
GDP per capita in current US dollars, 2019 (ln)	168	8.743	1.486	5.566	12.152
General government debt, 2019 (% of GDP)	168	57.587	36.419	0.000	236.277
Global Health Security Index 2019	168	42.304	14.193	16.600	83.500
Island	168	0.190	0.394	0	1
Non-partisan / independent health minister	168	0.083	0.277	0	1
Predominant religion (Buddhist)	168	0.054	0.226	0	1
Predominant religion (Christian)	168	0.655	0.477	0	1
Predominant religion (Hindu)	168	0.018	0.133	0	1
Predominant religion (Muslim)	168	0.244	0.431	0	1
Predominant religion (unaffiliated)	168	0.030	0.170	0	1
Presidential	168	0.589	0.493	0	1
Region (Caribbean)	168	0.048	0.214	0	1

Region (Eastern Asia)	168	0.018	0.133	0	1
Region (Eastern Europe and post-Soviet Union)	168	0.155	0.363	0	1
Region (Latin America)	168	0.113	0.318	0	1
Region (North Africa and the Middle East)	168	0.101	0.302	0	1
Region (Pacific)	168	0.036	0.186	0	1
Region (South-Eastern Asia)	168	0.065	0.248	0	1
Region (Southern Asia)	168	0.042	0.200	0	1
Region (Sub-Saharan Africa)	168	0.262	0.441	0	1
Region (Western Europe and North America, incl. Australia and New Zealand)	168	0.161	0.368	0	1
Additional controls					
Fractionalization (ethnic)	165	0.454	0.255	0.002	0.930
Fractionalization (language)	160	0.407	0.280	0.002	0.923
Fractionalization (religion)	165	0.436	0.233	0.003	0.860
Trade openness, 2019	159	88.013	55.567	22.821	382.348

Note: Policymaker, regime, and lockdown measures are listed in chronological order of appearance and other variables in alphabetical order.

Table A5: Expanded version of Table 1 with results for all control variables

	(1)	(2)	(3)	(4)	(5)	(6)
Democracy (DD)	2.523***					
	(1.478 - 4.306)					
Democracy (ML)		1.914**				
		(1.148 - 3.191)				
Democracy – parliamentary (DD)			3.626***			
			(1.791 - 7.342)			
Democracy – mixed (DD)			3.199***			
			(1.708 - 5.992)			
Democracy – presidential (DD)			1.887*			
			(0.997 - 3.571)			
Dictatorship – civilian (DD)				0.359***		
				(0.202 - 0.638)		
Dictatorship – military (DD)				0.602		
				(0.277 - 1.307)		
Dictatorship – royal (DD)				0.264**		
				(0.080 - 0.867)		
Partly free (FH)					2.673***	
					(1.538 - 4.645)	
Free (FH)					3.065***	
					(1.475 - 6.370)	
Electoral authoritarian (V-Dem)						1.784**
						(1.056 - 3.013)
Minimally democratic (V-Dem)						2.123**
						(1.114 - 4.047)
Populist leader	0.675	0.689	0.643	0.684	0.734	0.692
	(0.341 - 1.336)	(0.347 - 1.367)	(0.323 - 1.279)	(0.344 - 1.359)	(0.362 - 1.488)	(0.347 - 1.378)
Scientist leader	1.092	0.939	1.036	1.033	0.920	0.979
	(0.532 - 2.241)	(0.458 - 1.924)	(0.501 - 2.141)	(0.497 - 2.146)	(0.447 - 1.896)	(0.480 - 1.996)
Female leader	0.624	0.599	0.577	0.611	0.560	0.592
	(0.297 - 1.311)	(0.288 - 1.247)	(0.272 - 1.226)	(0.291 - 1.284)	(0.264 - 1.187)	(0.283 - 1.237)
Doctor health minister	0.577***	0.562***	0.559***	0.591**	0.583**	0.588**
	(0.383 - 0.869)	(0.370 - 0.852)	(0.373 - 0.839)	(0.391 - 0.892)	(0.385 - 0.884)	(0.388 - 0.890)
Female health minister	1.153	1.315	1.089	1.123	1.303	1.253
	(0.728 - 1.826)	(0.833 - 2.076)	(0.687 - 1.727)	(0.702 - 1.797)	(0.824 - 2.062)	(0.797 - 1.972)
GDP per capita in current US dollars, 2019 (ln)	1.038	1.103	1.081	1.070	1.042	1.042
	(0.797 - 1.354)	(0.853 - 1.427)	(0.834 - 1.402)	(0.813 - 1.409)	(0.793 - 1.368)	(0.795 - 1.365)
Global Health Security Index 2019	0.993	0.998	0.995	0.991	0.986	0.993
	(0.968 - 1.018)	(0.974 - 1.023)	(0.969 - 1.021)	(0.966 - 1.017)	(0.961 - 1.012)	(0.969 - 1.019)
Confirmed COVID-19 death	1.209	1.138	1.161	1.145	1.134	1.190
	(0.793 - 1.842)	(0.744 - 1.740)	(0.756 - 1.781)	(0.737 - 1.779)	(0.742 - 1.732)	(0.780 - 1.817)
General government debt, 2019 (% of GDP)	1.005	1.005*	1.005*	1.004	1.004	1.005
	(0.999 - 1.010)	(1.000 - 1.011)	(1.000 - 1.011)	(0.998 - 1.010)	(0.998 - 1.010)	(0.999 - 1.010)
Island	0.550*	0.571*	0.519**	0.556*	0.528**	0.550*
	(0.298 - 1.013)	(0.313 - 1.041)	(0.281 - 0.960)	(0.302 - 1.025)	(0.284 - 0.981)	(0.299 - 1.010)
Federal	0.781	0.678	0.848	0.810	0.729	0.694
	(0.423 - 1.444)	(0.370 - 1.242)	(0.453 - 1.587)	(0.437 - 1.502)	(0.393 - 1.352)	(0.377 - 1.278)
Presidential	0.668*	0.656*		0.624*	0.716	0.664*
	(0.426 - 1.048)	(0.417 - 1.032)		(0.385 - 1.010)	(0.453 - 1.130)	(0.421 - 1.048)

Chief executive from left party	0.573**	0.557**	0.549**	0.553**	0.557**	0.562**
	(0.347 - 0.945)	(0.337 - 0.920)	(0.332 - 0.906)	(0.332 - 0.920)	(0.334 - 0.927)	(0.340 - 0.927)
Chief executive from right party	0.489**	0.552**	0.478**	0.467***	0.527**	0.537**
	(0.276 - 0.865)	(0.314 - 0.970)	(0.270 - 0.847)	(0.262 - 0.832)	(0.294 - 0.945)	(0.301 - 0.957)
Chief executive's party with legislative majority	1.278	1.235	1.233	1.371	1.238	1.101
	(0.813 - 2.010)	(0.773 - 1.974)	(0.781 - 1.948)	(0.855 - 2.198)	(0.797 - 1.921)	(0.710 - 1.706)
Chief executive and health minister from different parties	1.380	1.541	1.333	1.380	1.513	1.477
	(0.782 - 2.436)	(0.879 - 2.702)	(0.750 - 2.367)	(0.776 - 2.455)	(0.861 - 2.658)	(0.843 - 2.588)
Non-partisan / independent health minister	1.438	1.429	1.450	1.392	1.178	1.267
	(0.751 - 2.752)	(0.750 - 2.722)	(0.758 - 2.775)	(0.722 - 2.683)	(0.620 - 2.240)	(0.665 - 2.412)
Predominant religion: Christian	0.658	0.676	0.618	0.711	0.571	0.737
	(0.182 - 2.384)	(0.187 - 2.446)	(0.169 - 2.266)	(0.187 - 2.697)	(0.153 - 2.126)	(0.201 - 2.701)
Predominant religion: Muslim	0.556	0.719	0.508	0.609	0.607	0.735
	(0.163 - 1.896)	(0.214 - 2.413)	(0.145 - 1.775)	(0.166 - 2.238)	(0.172 - 2.140)	(0.212 - 2.549)
Predominant religion: Unaffiliated	0.046**	0.056**	0.039***	0.046**	0.048**	0.059**
	(0.004 - 0.519)	(0.005 - 0.621)	(0.003 - 0.444)	(0.004 - 0.516)	(0.004 - 0.559)	(0.005 - 0.670)
Predominant religion: Hindu	1.819	2.278	1.433	1.770	2.037	2.429
	(0.351 - 9.440)	(0.439 - 11.813)	(0.271 - 7.562)	(0.336 - 9.308)	(0.375 - 11.076)	(0.466 - 12.661)
Region: Latin America	1.213	1.428	1.502	1.264	1.403	1.436
	(0.556 - 2.644)	(0.659 - 3.092)	(0.644 - 3.507)	(0.565 - 2.825)	(0.647 - 3.044)	(0.659 - 3.130)
Region: North Africa and the Middle East	1.191	0.796	1.510	1.323	1.025	0.977
	(0.505 - 2.807)	(0.351 - 1.806)	(0.636 - 3.587)	(0.503 - 3.484)	(0.448 - 2.346)	(0.425 - 2.242)
Region: Sub–Saharan Africa	0.390**	0.407**	0.433**	0.371**	0.333***	0.406**
	(0.181 - 0.841)	(0.187 - 0.887)	(0.199 - 0.942)	(0.164 - 0.836)	(0.151 - 0.736)	(0.185 - 0.891)
Region: Western Europe and North America	0.975	0.949	0.873	0.975	1.251	1.084
	(0.394 - 2.414)	(0.385 - 2.337)	(0.355 - 2.148)	(0.397 - 2.392)	(0.492 - 3.186)	(0.429 - 2.737)
Region: Eastern Asia	1.325	1.124	1.289	1.422	1.774	1.506
	(0.095 - 18.525)	(0.080 - 15.714)	(0.091 - 18.231)	(0.100 - 20.145)	(0.127 - 24.820)	(0.108 - 20.985)
Region: South–Eastern Asia	0.410	0.382	0.503	0.423	0.357	0.396
	(0.124 - 1.357)	(0.115 - 1.271)	(0.149 - 1.695)	(0.124 - 1.440)	(0.103 - 1.230)	(0.116 - 1.352)
Region: Southern Asia	0.354	0.454	0.374	0.372	0.343*	0.463
	(0.096 - 1.307)	(0.130 - 1.585)	(0.098 - 1.429)	(0.099 - 1.406)	(0.097 - 1.215)	(0.132 - 1.616)
Region: The Pacific	0.179**	0.268*	0.199**	0.159**	0.189**	0.238**
	(0.043 - 0.736)	(0.068 - 1.047)	(0.047 - 0.842)	(0.039 - 0.654)	(0.046 - 0.767)	(0.060 - 0.943)
Region: The Caribbean	0.387*	0.503	0.436	0.355*	0.404	0.504
	(0.137 - 1.097)	(0.179 - 1.408)	(0.147 - 1.294)	(0.124 - 1.019)	(0.137 - 1.193)	(0.177 - 1.437)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Democracy	Not free	Authoritarian
Religion reference category	Buddhist	Buddhist	Buddhist	Buddhist	Buddhist	Buddhist
Region reference category	Eastern Europe and post-Soviet Union	Eastern Europe and post-Soviet Union	Eastern Europe and post-Soviet Union	Eastern Europe and post-Soviet Union	Eastern Europe and post-Soviet Union	Eastern Europe and post-Soviet Union
Countries	168	168	168	168	168	168
Time at risk / observations	19,974	19,974	19,974	19,974	19,974	19,974
Observations	19,974	19,974	19,974	19,974	19,974	19,974

Notes: This is an expanded version of Table 1 that includes full results for all control variables. Breslow method for ties. We analyze daily observations in the 2020 calendar year with our stay-at-home measure based on Hale et al. (2021) as the failure event. The parentheses contain 95% confidence intervals: *** p<0.01, ** p<0.05, * p<0.1.

Table A6: Continuous measures of democracy

	(1)	(2)
Liberal Democracy Index (V-Dem)	5.106**	
	(1.334 - 19.550)	
Machine Learning Index (ML)		2.623**
		(1.196 - 5.751)
Populist leader	0.752	0.653
	(0.365 - 1.549)	(0.324 - 1.314)
Scientist leader	1.064	0.986
	(0.502 - 2.255)	(0.479 - 2.028)
Female leader	0.725	0.754
	(0.340 - 1.545)	(0.355 - 1.604)
Doctor health minister	0.580**	0.570***
	(0.374 - 0.901)	(0.373 - 0.872)
Female health minister	1.249	1.320
	(0.785 - 1.987)	(0.835 - 2.087)
Controls	Full	Full
Countries	159	164
Time at risk / observations	18,946	19,709

Notes: Results with two continuous measures of democracy, V-Dem's Liberal Democracy Index (Coppedge et al. 2022, Pemstein et al. 2022) and the Machine Learning Index (Gründler and Krieger 2021). For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Table A7: Efron method for ties

	(1)	(2)	(3)	(4)	(5)	(6)
Democracy (DD)	2.621***					
	(1.531 - 4.489)					
Democracy (ML)		1.970***				
		(1.178 - 3.297)				
Democracy – parliamentary (DD)			3.832***			
			(1.883 - 7.799)			
Democracy – mixed (DD)			3.393***			
			(1.805 - 6.377)			
Democracy – presidential (DD)			1.920**			
			(1.011 - 3.647)			
Dictatorship – civilian (DD)				0.343***		
				(0.192 - 0.613)		
Dictatorship – military (DD)				0.589		
				(0.271 - 1.283)		
Dictatorship – royal (DD)				0.245**		
				(0.074 - 0.810)		
Partly free (FH)					2.749***	
					(1.578 - 4.789)	
Free (FH)					3.244***	
					(1.555 - 6.766)	
Electoral authoritarian (V-Dem)						1.800**
						(1.062 - 3.050)
Minimally democratic (V-Dem)						2.213**
						(1.157 - 4.235)
Populist leader	0.662	0.673	0.627	0.672	0.715	0.674
	(0.332 - 1.318)	(0.337 - 1.344)	(0.313 - 1.256)	(0.336 - 1.344)	(0.350 - 1.460)	(0.336 - 1.353)
Scientist leader	1.092	0.925	1.032	1.031	0.914	0.974
	(0.530 - 2.252)	(0.449 - 1.906)	(0.497 - 2.144)	(0.494 - 2.154)	(0.442 - 1.892)	(0.476 - 1.996)
Female leader	0.595	0.570	0.545	0.581	0.529*	0.563
	(0.281 - 1.258)	(0.272 - 1.194)	(0.255 - 1.167)	(0.274 - 1.229)	(0.248 - 1.129)	(0.268 - 1.184)
Doctor health minister	0.563***	0.546***	0.544***	0.576***	0.567***	0.573***
	(0.373 - 0.849)	(0.359 - 0.831)	(0.361 - 0.818)	(0.381 - 0.873)	(0.373 - 0.861)	(0.377 - 0.869)
Female health minister	1.161	1.335	1.092	1.128	1.314	1.266
	(0.731 - 1.842)	(0.843 - 2.113)	(0.687 - 1.736)	(0.703 - 1.810)	(0.828 - 2.084)	(0.803 - 1.994)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Democracy	Not free	Authoritarian
Controls	Full	Full	Excl. Presidential	Full	Full	Full
Countries	168	168	168	168	168	168
Time at risk / observations	19,974	19,974	19,974	19,974	19,974	19,974

Notes: Main models with Efron method for ties. For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Table A8: Estimation with logistic regression

	(1)	(2)	(3)	(4)	(5)	(6)
Democracy (DD)	2.829***					
	(1.520 - 5.264)					
Democracy (ML)		1.689				
		(0.781 - 3.652)				
Democracy – parliamentary (DD)			3.580***			
			(1.625 - 7.886)			
Democracy – mixed (DD)			2.850**			
			(1.248 - 6.511)			
Democracy – presidential (DD)			2.726***			
			(1.399 - 5.312)			
Dictatorship – civilian (DD)				0.314***		
				(0.154 - 0.639)		
Dictatorship – military (DD)				0.490		
				(0.159 - 1.513)		
Dictatorship – royal (DD)				0.483		
				(0.152 - 1.530)		
Partly free (FH)					3.077***	
					(1.422 - 6.660)	
Free (FH)					2.969**	
					(1.245 - 7.080)	
Electoral authoritarian (V-Dem)						1.901*
						(0.911 - 3.969)
Minimally democratic (V-Dem)						2.454**
						(1.192 - 5.053)
Populist leader	0.571	0.601	0.550	0.563	0.670	0.622
	(0.252 - 1.296)	(0.253 - 1.426)	(0.244 - 1.239)	(0.249 - 1.271)	(0.289 - 1.554)	(0.258 - 1.499)
Scientist leader	0.860	0.820	0.860	0.788	0.741	0.818
	(0.332 - 2.229)	(0.273 - 2.466)	(0.330 - 2.238)	(0.299 - 2.074)	(0.234 - 2.347)	(0.279 - 2.400)
Female leader	0.899	0.916	0.913	0.905	0.872	0.896
	(0.321 - 2.516)	(0.326 - 2.579)	(0.317 - 2.625)	(0.320 - 2.559)	(0.304 - 2.504)	(0.320 - 2.507)
Doctor health minister	0.642*	0.645*	0.629*	0.665	0.670	0.643*
	(0.389 - 1.059)	(0.392 - 1.064)	(0.378 - 1.046)	(0.404 - 1.095)	(0.416 - 1.080)	(0.389 - 1.063)
Female health minister	1.062	1.161	1.025	1.007	1.192	1.131
	(0.611 - 1.845)	(0.660 - 2.041)	(0.592 - 1.773)	(0.588 - 1.724)	(0.685 - 2.072)	(0.654 - 1.959)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Democracy	Not free	Authoritarian
Controls	Full	Full	Excl. Presidential	Full	Full	Full
Countries	19,974	19,974	19,974	19,974	19,974	19,974
Time at risk / observations	168	168	168	168	168	168

Notes: Main models using random-effects logistic regression. The table reports odds ratios and the parentheses contain 95% confidence intervals from standard errors clustered by country. Refer to the notes with Table 1 for details about the dependent variable and controls. *** p<0.01, ** p<0.05, * p<0.1.

Table A9: Trade openness as additional control

	(1)	(2)	(3)	(4)	(5)	(6)
Democracy (DD)	2.418***					
	(1.404 - 4.165)					
Democracy (ML)		1.905**				
		(1.115 - 3.256)				
Democracy – parliamentary (DD)			3.037***			
			(1.477 - 6.247)			
Democracy – mixed (DD)			3.169***			
			(1.666 - 6.030)			
Democracy – presidential (DD)			1.801*			
			(0.928 - 3.495)			
Dictatorship – civilian (DD)				0.373***		
				(0.208 - 0.670)		
Dictatorship – military (DD)				0.611		
				(0.276 - 1.351)		
Dictatorship – royal (DD)				0.336*		
				(0.097 - 1.166)		
Partly free (FH)					2.285***	
					(1.297 - 4.027)	
Free (FH)					2.671***	
					(1.285 - 5.550)	
Electoral authoritarian (V-Dem)						1.463
						(0.842 - 2.542)
Minimally democratic (V-Dem)						1.949**
						(1.017 - 3.735)
Populist leader	0.564	0.598	0.528*	0.570	0.620	0.576
	(0.280 - 1.137)	(0.295 - 1.209)	(0.260 - 1.074)	(0.281 - 1.155)	(0.302 - 1.277)	(0.283 - 1.173)
Scientist leader	0.971	0.860	0.904	0.918	0.842	0.928
	(0.458 - 2.057)	(0.404 - 1.827)	(0.423 - 1.934)	(0.426 - 1.974)	(0.392 - 1.808)	(0.440 - 1.958)
Female leader	0.939	0.931	0.894	0.913	0.776	0.906
	(0.412 - 2.140)	(0.408 - 2.121)	(0.386 - 2.075)	(0.400 - 2.085)	(0.335 - 1.797)	(0.396 - 2.076)
Doctor health minister	0.640**	0.619**	0.621**	0.653*	0.633**	0.637**
	(0.416 - 0.983)	(0.401 - 0.957)	(0.405 - 0.950)	(0.423 - 1.007)	(0.408 - 0.982)	(0.413 - 0.984)
Female health minister	1.230	1.390	1.161	1.181	1.375	1.305
	(0.770 - 1.965)	(0.870 - 2.220)	(0.724 - 1.859)	(0.733 - 1.904)	(0.859 - 2.201)	(0.822 - 2.073)
Trade openness	1.005**	1.005**	1.005**	1.005**	1.004	1.005**
	(1.000 - 1.009)	(1.000 - 1.009)	(1.001 - 1.009)	(1.000 - 1.009)	(0.999 - 1.008)	(1.000 - 1.009)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Democracy	Not free	Authoritarian
Controls	Full	Full	Excl. Presidential	Full	Full	Full
Countries	159	159	159	159	159	159
Time at risk / observations	19,208	19,208	19,208	19,208	19,208	19,208

Notes: Main models with trade openness as additional control. For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Table A10: Fractionalization measures as additional controls

	(1)	(2)	(3)	(4)	(5)	(6)
Democracy (DD)	2.530***					
	(1.430 - 4.476)					
Democracy (ML)		1.970**				
		(1.152 - 3.370)				
Democracy – parliamentary (DD)			3.810***			
			(1.790 - 8.110)			
Democracy – mixed (DD)			3.379***			
			(1.661 - 6.873)			
Democracy – presidential (DD)			1.927*			
			(0.996 - 3.728)			
Dictatorship – civilian (DD)				0.373***		
				(0.203 - 0.683)		
Dictatorship – military (DD)				0.526		
				(0.225 - 1.227)		
Dictatorship – royal (DD)				0.255**		
				(0.073 - 0.897)		
Partly free (FH)					2.795***	
					(1.546 - 5.054)	
Free (FH)					3.284***	
					(1.466 - 7.354)	
Electoral authoritarian (V-Dem)						1.811**
						(1.041 - 3.152)
Minimally democratic (V-Dem)						2.132**
						(1.055 - 4.308)
Populist leader	0.660	0.685	0.602	0.665	0.720	0.693
	(0.320 - 1.359)	(0.331 - 1.418)	(0.291 - 1.246)	(0.322 - 1.373)	(0.341 - 1.521)	(0.335 - 1.434)
Scientist leader	1.048	0.901	0.999	1.028	0.883	0.936
	(0.506 - 2.171)	(0.436 - 1.860)	(0.480 - 2.080)	(0.489 - 2.162)	(0.424 - 1.840)	(0.455 - 1.923)
Female leader	0.569	0.529	0.533	0.559	0.488*	0.520*
	(0.260 - 1.247)	(0.244 - 1.150)	(0.241 - 1.181)	(0.255 - 1.225)	(0.220 - 1.083)	(0.238 - 1.133)
Doctor health minister	0.553***	0.522***	0.547***	0.563***	0.545***	0.554***
	(0.361 - 0.848)	(0.338 - 0.806)	(0.359 - 0.834)	(0.366 - 0.867)	(0.353 - 0.840)	(0.360 - 0.851)
Female health minister	1.067	1.212	1.012	1.047	1.251	1.169
	(0.647 - 1.759)	(0.736 - 1.995)	(0.610 - 1.678)	(0.630 - 1.740)	(0.760 - 2.059)	(0.714 - 1.913)
Fractionalization (ethnic)	1.029	0.919	1.226	1.117	0.755	0.809
	(0.236 - 4.476)	(0.222 - 3.796)	(0.269 - 5.589)	(0.250 - 4.986)	(0.182 - 3.141)	(0.196 - 3.348)
Fractionalization (language)	1.350	1.391	1.130	1.228	1.486	1.494
	(0.376 - 4.849)	(0.400 - 4.831)	(0.308 - 4.153)	(0.340 - 4.434)	(0.438 - 5.041)	(0.435 - 5.132)
Fractionalization (religion)	0.723	0.561	0.991	0.700	0.651	0.570
	(0.241 - 2.168)	(0.191 - 1.644)	(0.319 - 3.076)	(0.234 - 2.093)	(0.222 - 1.911)	(0.192 - 1.688)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Democracy	Not free	Authoritarian
Controls	Full	Full	Excl. Presidential	Full	Full	Full
Countries	160	160	160	160	160	160
Time at risk / observations	19,255	19,255	19,255	19,255	19,255	19,255

Notes: Main models with fractionalization measures by Alesina et al. (2003) as additional controls. For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Table A11: Alternative measure of lockdown (broader stringent policy measure)

	(1)	(2)	(3)	(4)	(5)	(6)
Democracy (DD)	1.471					
	(0.891 - 2.429)					
Democracy (ML)		1.768**				
		(1.079 - 2.895)				
Democracy – parliamentary (DD)			1.715			
			(0.842 - 3.491)			
Democracy – mixed (DD)			1.892*			
			(0.994 - 3.603)			
Democracy – presidential (DD)			1.256			
			(0.712 - 2.214)			
Dictatorship – civilian (DD)				0.673		
				(0.394 - 1.150)		
Dictatorship – military (DD)				0.674		
				(0.319 - 1.425)		
Dictatorship – royal (DD)				0.884		
				(0.258 - 3.032)		
Partly free (FH)					1.819**	
					(1.058 - 3.128)	
Free (FH)					1.684	
					(0.834 - 3.402)	
Electoral authoritarian (V-Dem)						1.513
						(0.911 - 2.512)
Minimally democratic (V-Dem)						1.573
						(0.861 - 2.875)
Populist leader	0.615	0.660	0.598	0.612	0.667	0.650
	(0.323 - 1.168)	(0.346 - 1.259)	(0.315 - 1.135)	(0.321 - 1.168)	(0.346 - 1.285)	(0.338 - 1.249)
Scientist leader	0.837	0.767	0.762	0.829	0.781	0.803
	(0.443 - 1.584)	(0.402 - 1.465)	(0.396 - 1.465)	(0.434 - 1.586)	(0.409 - 1.491)	(0.424 - 1.524)
Female leader	1.734	1.620	1.723	1.749	1.711	1.673
	(0.881 - 3.412)	(0.825 - 3.182)	(0.876 - 3.388)	(0.888 - 3.442)	(0.864 - 3.386)	(0.851 - 3.287)
Doctor health minister	0.840	0.815	0.838	0.847	0.876	0.853
	(0.550 - 1.284)	(0.536 - 1.240)	(0.550 - 1.277)	(0.551 - 1.302)	(0.576 - 1.332)	(0.557 - 1.306)
Female health minister	1.111	1.146	1.064	1.102	1.176	1.113
	(0.710 - 1.738)	(0.732 - 1.793)	(0.679 - 1.668)	(0.703 - 1.730)	(0.749 - 1.847)	(0.708 - 1.749)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Democracy	Not free	Authoritarian
Controls	Full	Full	Excl. Presidential	Full	Full	Full
Countries	166	166	166	166	166	166
Time at risk / observations	14,544	14,544	14,544	14,544	14,544	14,544

Notes: Main models with alternative dependent variable based on when a country reaches a "stringency index" score of 50 or greater according to Hale et al. (2021). No "stringency index" data are available for Eritrea and Turkmenistan, so the country sample is reduced from 168 to 166. For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Table A12: Individual measures from "stringency index" as dependent variables

Dependent variable	(1) Close schools	(2) Close work	(3) Cancel events	(4) Restrict gatherings	(5) Close transport	(6) Stay at home	(7) Restrict movement	(8) Travel controls	(9) Info campaign
Democracy (DD)	1.558*	1.625**	1.676**	1.644*	1.365	2.427***	1.597*	0.870	1.613*
	(0.941 - 2.579)	(1.016 - 2.598)	(1.005 - 2.793)	(0.995 - 2.716)	(0.799 - 2.333)	(1.411 - 4.175)	(0.923 - 2.763)	(0.543 - 1.393)	(0.962 - 2.703)
Populist leader	0.557*	0.305***	0.610	0.554*	0.606	0.683	0.897	1.114	1.051
	(0.285 - 1.089)	(0.144 - 0.646)	(0.311 - 1.196)	(0.279 - 1.101)	(0.309 - 1.187)	(0.347 - 1.346)	(0.475 - 1.696)	(0.585 - 2.121)	(0.557 - 1.983)
Scientist leader	0.913	0.971	1.004	1.227	1.146	1.286	1.722	1.219	1.312
	(0.457 - 1.826)	(0.491 - 1.921)	(0.500 - 2.013)	(0.612 - 2.460)	(0.595 - 2.205)	(0.620 - 2.667)	(0.892 - 3.325)	(0.600 - 2.474)	(0.686 - 2.509)
Female leader	1.178	1.334	1.194	1.917*	0.577	0.613	1.741	2.220**	2.092**
	(0.601 - 2.309)	(0.669 - 2.660)	(0.585 - 2.438)	(0.895 - 4.107)	(0.250 - 1.335)	(0.291 - 1.291)	(0.850 - 3.565)	(1.084 - 4.548)	(1.077 - 4.066)
Doctor health minister	0.910	0.810	0.712	0.619**	0.928	0.595**	1.042	0.931	1.054
	(0.608 - 1.360)	(0.540 - 1.215)	(0.470 - 1.078)	(0.414 - 0.927)	(0.590 - 1.461)	(0.394 - 0.901)	(0.661 - 1.641)	(0.630 - 1.376)	(0.693 - 1.604)
Female health minister	1.590**	1.104	0.795	1.423	0.802	1.135	0.734	2.287***	1.348
	(1.022 - 2.475)	(0.707 - 1.724)	(0.507 - 1.247)	(0.924 - 2.189)	(0.493 - 1.306)	(0.714 - 1.804)	(0.455 - 1.185)	(1.493 - 3.503)	(0.877 - 2.070)
Regime reference category	Dictatorship	Dictatorship	Dictatorship	Dictatorship	Dictatorship	Dictatorship	Dictatorship	Dictatorship	Dictatorship
Controls	Full	Full	Full	Full	Full	Full	Full	Full	Full
Countries	166	166	166	166	166	166	166	166	166
Time at risk / observations	13,563	16,905	14,822	16,249	27,912	19,525	22,119	8,932	8,161

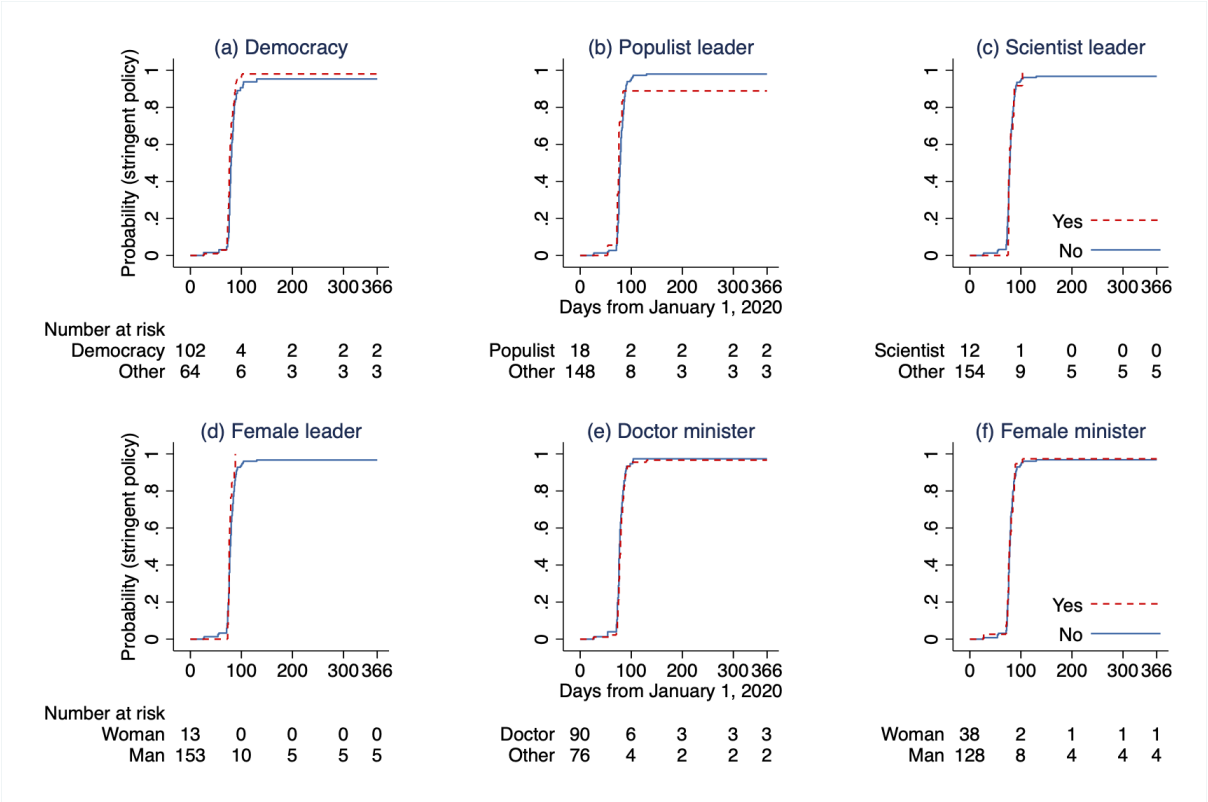
Notes: Independent variables as in column 1 of Table A11. The dependent variables are indicators based on each of the nine individual policy measures aggregated in the "stringency index" according to Hale et al. (2021). The country sample is consistent with Table A10 and excludes Eritrea and Turkmenistan, for which "stringency index" scores are not available. For this reason, the estimates in column 6 are not identical to the estimates in column 1 of Table 1. For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Table A13: Augmented model with interaction between regime and doctor health minister

	(1)	(2)	(3)	(4)
Democracy (DD)	2.597**			
	(1.240 - 5.440)			
Democracy (DD) x Doctor health minister	0.952			
	(0.400 - 2.265)			
Democracy (ML)		2.153**		
		(1.025 - 4.525)		
Democracy (ML) x Doctor health minister		0.823		
		(0.340 - 1.991)		
Partly free (FH)			2.137*	
			(0.933 - 4.895)	
Free (FH)			3.280**	
			(1.152 - 9.336)	
Partly free (FH) x Doctor health minister			1.423	
			(0.528 - 3.838)	
Free (FH) x Doctor health minister			0.880	
			(0.299 - 2.592)	
Electoral authoritarian (V-Dem)				1.372
				(0.623 - 3.020)
Minimally democratic (V-Dem)				2.267*
				(0.930 - 5.524)
Electoral authoritarian (V-Dem) x Doctor health minister				1.549
				(0.590 - 4.066)
Minimally democratic (V-Dem) x Doctor health minister				0.855
				(0.317 - 2.306)
Doctor health minister	0.594	0.643	0.528	0.542*
	(0.308 - 1.148)	(0.306 - 1.350)	(0.238 - 1.171)	(0.268 - 1.098)
Regime reference category	Dictatorship	Dictatorship	Not free	Authoritarian
Controls	Full	Full	Full	Full
Countries	168	168	168	168
Time at risk / observations	19,974	19,974	19,974	19,974

Notes: Main models 1-2 and 5-6 in Table 1 augmented with an interaction between regime type and the indicator for doctor as health minister. All other variables are included but not displayed. For all other details, refer to the notes with Table 1. *** p<0.01, ** p<0.05, * p<0.1.

Figure A1: Kaplan-Meier functions by regime and policymaker characteristics (broader stringent policy measure)



Notes: Log-rank tests indicate a significant difference only across political regimes (panel a: chi-squared of 8.38, p = .004).

B. Variable descriptions and sources

Policymaker characteristics (chronological order based on Table 1)

Populist leader: Indicator equal to 1 if a chief executive (prime minister or president) in office as of January 1, 2020, is a populist, 0 otherwise, according to Kyle and Meyer (2020). We add Boris Johnson, the UK Prime Minister, to their list of populists.

Scientist leader: Indicator equal to 1 if a chief executive (prime minister or president) in office as of January 1, 2020, has a university degree in medicine or the life or physical sciences, 0 otherwise. We provide a listing of "scientist" leaders in Table A3.

Female leader: Indicator equal to 1 if a chief executive (prime minister or president) in office as of January 1, 2020, is a woman, 0 otherwise.

Doctor health minister: Indicator equal to 1 if a health minister in office as of January 1, 2020, has a medical degree, 0 otherwise. Ethiopia had no health minister at the start of the year and we code the official appointed in March 2020. In Kenya, we code the Cabinet Secretary for Health who took office in February 2020 as this had been announced in January. See Appendix Table A2.

Female health minister: Indicator equal to 1 if a health minister in office as of January 1, 2020, is a woman, 0 otherwise. Ethiopia had no health minister at the start of the year so we code the official appointed in March 2020. In Kenya, we code the Cabinet Secretary for Health who took office in February 2020 as this had been announced in January.

Regime measures (chronological order based on Tables 1 and A6)

Democracy (DD): Indicator equal to 1 if a country is a democracy in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Democracy (ML): Indicator equal to 1 if a country is a democracy in 2019, 0 otherwise. This is the dichotomous version of the Machine Learning measure. Source: Gründler and Krieger (2021).

Democracy – parliamentary (DD): Indicator equal to 1 if a country is a parliamentary democracy in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Democracy – mixed (DD): Indicator equal to 1 if a country is a mixed (semi-presidential) democracy in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Democracy – presidential (DD): Indicator equal to 1 if a country is a presidential democracy in 2019, 0 otherwise. (Note that when we include this indicator in model 3 of Table 1, we drop the variable Presidential, which indicates a presidential system irrespective of political regime and is listed under "standard controls" below.) Source: Bjørnskov and Rode (2020), dataset version 4.3.

Dictatorship – civilian (DD): Indicator equal to 1 if a country has a civilian dictatorship in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Dictatorship – military (DD): Indicator equal to 1 if a country has a military dictatorship in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Dictatorship – royal (DD): Indicator equal to 1 if a country has a royal dictatorship in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Not free (FH): Indicator equal to 1 if a country is classified as "not free" by Freedom House in 2019, 0 otherwise. Source: Freedom House (2020).

Partly free (FH): Indicator equal to 1 if a country is classified as "partly free" by Freedom House in 2019, 0 otherwise. Source: Freedom House (2020).

Free (FH): Indicator equal to 1 if a country is classified as "free" by Freedom House in 2019, 0 otherwise. Source: Freedom House (2020).

Authoritarian (V-Dem): Indicator equal to 1 if a country is classified as "authoritarian" by V-Dem in 2019, 0 otherwise, using their three-category version of the Liberal Democracy Index. Source: Coppedge et al. (2022), e_v2x_libdem_3C.

Electoral authoritarian (V-Dem): Indicator equal to 1 if a country is classified as "electoral authoritarian" by V-Dem in 2019, 0 otherwise, using their three-category version of the Liberal Democracy Index. Source: Coppedge et al. (2022), e_v2x_libdem_3C.

Minimally democratic (V-Dem): Indicator equal to 1 if a country is classified as "minimally democratic" by V-Dem in 2019, 0 otherwise, using their three-category version of the Liberal Democracy Index. Source: Coppedge et al. (2022), e_v2x_libdem_3C.

Liberal Democracy Index (V-Dem): V-Dem Liberal Democracy Index in 2019. Source: Coppedge et al. (2022), v2x_libdem.

Machine Learning Index (ML): Continuous Machine Learning Index of democracy in 2019. Source: Gründler and Krieger (2021).

Lockdown measures (main measure from Table 1 and alternative measures from Tables A11 and A12 in chronological order)

Stay at home: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide "stay-at-home" recommendation or order, 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C6 (stay at home requirements) 1 or greater and with a flag set to 1, indicating general geographic scope.

Stringent policy: Indicator equal to 1 for any day in 2020 the national government reached a "stringency index" score of 50 or higher as measured by Hale et al. (2021), 0 otherwise.

Close schools: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide recommendation or order to close schools and universities (or other significant alterations), 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C1 (school closing) 1 or greater and with a flag set to 1, indicating general geographic scope.

Close work: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide recommendation or order to close businesses or to work from home (or other significant alterations), 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C2 (workplace closing) 1 or greater and with a flag set to 1, indicating general geographic scope.

Cancel events: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide recommendation or order to cancel public events, 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C3 (cancel public events) 1 or greater and with a flag set to 1, indicating general geographic scope.

Restrict gatherings: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide restriction on gatherings, 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C4 (restrictions on gatherings) 1 or greater and with a flag set to 1, indicating general geographic scope.

Close transport: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide recommendation or order to close (or significantly restrict) public transport, 0 otherwise. This indicator switches on when Hale et al. (2021) code their

item C5 (close public transport) 1 or greater and with a flag set to 1, indicating general geographic scope.

Restrict movement: Indicator equal to 1 for any day in 2020 when the national government had issued a nationwide recommendation or order to restrict internal movement, 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C7 (restrictions on internal movement) 1 or greater and with a flag set to 1, indicating general geographic scope.

Travel controls: Indicator equal to 1 for any day in 2020 when the national government had issued a restriction on foreign travel, 0 otherwise. This indicator switches on when Hale et al. (2021) code their item C8 (international travel controls) 1 or greater.

Info campaign: Indicator equal to 1 for any day in 2020 when the national government undertook a public information campaign urging caution about COVID-19, 0 otherwise. This indicator switches on when Hale et al. (2021) code their item H1 (public information campaigns) 1 or greater and with a flag set to 1, indicating general geographic scope.

Standard controls (alphabetical order)

Chief executive and health minister from different parties: Indicator equal to 1 when the minister of health listed in Table A2 is from a different political party than the chief executive (prime minister or president), 0 otherwise.

Chief executive from left party: Indicator equal to 1 for a chief executive (prime minister or president) as of January 1, 2020, from a communist, socialist, social democratic, or left-wing party, 0 otherwise (Scartascini et al. 2020, execrlc). Data for Chile is missing; we code it as not having a chief executive from a left party. For countries not in the Database of Political Institutions, we coded Dominica, Seychelles, and Tonga as having a chief executive from a left party, but not Andorra, Kiribati, Liechtenstein, Monaco, and Serbia.

Chief executive from right party: Indicator equal to 1 for a chief executive (prime minister or president) as of January 1, 2020, from a conservative, Christian democratic, or right-wing party, 0 otherwise (Scartascini et al. 2020, execrlc). Data for Chile is missing; we code it as having a chief executive from a right party. For countries not in the Database of Political Institutions, we coded Andorra, Liechtenstein, and Monaco as having a chief executive from a right party, but not Dominica, Kiribati, Serbia, Seychelles, and Tonga.

Chief executive's party with legislative majority: Indicator equal to 1 when the party of the chief executive (prime minister or president) as of January 1, 2020, has a majority of seats in the legislature (or the lower house in a bicameral legislature), 0 otherwise. We code a majority when the Database of Political Institutions reports the largest government party has half or more of all seats (Scartascini et al. 2020, gov1seat and totalseats). For countries not in the database, we coded Dominica, Kiribati, Monaco, and Tonga

as having a chief executive from a party with a legislative majority, but not Andorra, Liechtenstein, Serbia, and Seychelles.

Confirmed COVID-19 death: Indicator that switches to 1 on the first day in 2020 the government officially confirmed at least one COVID-19 death, 0 otherwise. Source: Hale et al. (2021), confirmeddeaths.

Federal: Indicator equal to 1 for federal systems listed by Hueglin and Fenna (2015: Table 3.1), 0 otherwise. We add Nepal to their list of federal countries to reflect constitutional changes in 2015.

GDP per capita in current US dollars, 2019 (ln): Natural log of GDP per capita in 2019 US$ (International Monetary Fund 2022). We add data for Cuba, Liechtenstein, Monaco, Somalia, and Syria from the World Bank (2022). For Syria, we use data for 2018, the most recent available.

General government debt, 2019 (% of GDP): General government debt as a share of GDP in 2019 (International Monetary Fund 2022). This source excludes recent debt figures for Cuba, Liechtenstein, Monaco, Somalia, and Syria. Liechtenstein and Monaco have no public debt, so we record a zero. For remaining gaps, we use 2017 public debt figures for Cuba, Somalia, and Syria from the Central Intelligence Agency's (CIA) *World Factbook* database at https://www.cia.gov/the-world-factbook/field/public-debt/ (accessed December 12, 2022). Mbaye et al. (2018) provide alternative data on central government debt, but with more missing observations, so we do not use their dataset.

Global Health Security Index 2019: Overall score on the Global Health Security Index in 2019. Source: Nuclear Threat Initiative et al. (2019).

Island: Indicator equal to 1 for island countries without an international land border, 0 otherwise. We include Australia, Cyprus, and the United Kingdom in the list of island countries.

Non-partisan / independent health minister: Indicator equal to 1 when the minister of health listed in Table A2 is an independent or not officially a member of a political party, 0 otherwise.

Predominant religion (fixed effects): Indicators equal to 1 if a country's predominant religion is either Buddhist, Christian, Hindu, Muslim, or the largest group is unaffiliated, 0 otherwise. We identify the most predominant religion according to Pew Research Center (2012). The dataset is for 2010, so before our study. In all but six cases, the most predominant is at least 50% of the population. The only exceptions are: South Korea, where "unaffiliated" is the largest group at 46%; Nigeria at 49% and Ivory Coast and Togo at 44% for Christianity; Singapore at 34% for Buddhism; and Vietnam at 45% for folk religions. Vietnam is the only country where the

largest group is in the latter category and there is some uncertainty about its religious composition. The CIA's *World Factbook* describes most of the population as "culturally Buddhist" and we include Vietnam in that category. There is only one country that has a majority Jewish population, and we include Israel under Christianity. There is one case from Pew, Nigeria, where the proportions were close for 2010, and where we suspected a change later in the decade. Indeed, the *World Factbook* codes Nigeria as majority Muslim by 2018, and we use this coding in our study.

Presidential: Indicator equal to 1 for presidential system in 2019, 0 otherwise. Source: Bjørnskov and Rode (2020), dataset version 4.3.

Region (fixed effects): Indicators equal to 1 if a country is in one of ten politico-geographic world regions, 0 otherwise. The ten regions are Caribbean; Eastern Asia; Eastern Europe and post-Soviet Union; Latin America; North Africa and the Middle East; Pacific; South-Eastern Asia; Southern Asia; Sub-Saharan Africa; Western Europe and North America, incl. Australia and New Zealand. Source: Coppedge et al. (2022), e_regionpol.

Additional controls (from Tables A9 and A10)

Fractionalization (ethnic): The probability that two randomly selected people from a given country will not share the same ethnicity, as calculated by Alesina et al. (2003).

Fractionalization (language): The probability that two randomly selected people from a given country will not share the same home language, as calculated by Alesina et al. (2003).

Fractionalization (religion): The probability that two randomly selected people from a given country will not share the same religion, as calculated by Alesina et al. (2003).

Trade openness, 2019: The sum of exports and imports of goods and services as a share of GDP in 2019 (World Bank 2024).

C. Analysis of the first government press conferences on COVID-19 identified by GPT-4o

We accessed GPT-4o through OpenAI's ChatGPT and asked it to collect the data on the first press conference on COVID-19 in each country that the national government gave. We were interested in the date of the press conference, who spoke, and the content of the press conference. The query we used is as follows:

> "When did the government of [state name] have a first press conference on Covid, who attended, and what was the content? Please also use non-English language sources."

As an example, for France we received the following reply on May 30, 2024:

> "The first press conference regarding COVID-19 in France took place on January 24, 2020. This event was led by Agnès Buzyn, who was the Minister of Solidarity and Health at the time. The press conference also included Jérôme Salomon, the Director-General of Health.
>
> During this press conference, the French government confirmed the first three cases of COVID-19 in the country, making France the first European nation to report cases of the novel coronavirus. The officials provided details about the confirmed cases, all of which were individuals who had recently traveled from Wuhan, China.
>
> The content of the conference focused on the measures being taken to prevent the spread of the virus, including isolation procedures for the patients and contact tracing efforts. Agnès Buzyn emphasized the importance of hygiene practices and reassured the public about the preparedness of the French healthcare system to handle the outbreak. They also highlighted ongoing coordination with international health organizations such as the World Health Organization (WHO) to monitor and respond to the situation.
>
> For further details, you can refer to sources such as La Croix and France24 which covered the progression of the pandemic in France and the government's responses in more depth."

Data was collected the last two weeks of May 2024. We attempted to have ChatGPT produce tables with multiple countries in the same Table, but we found that it provided fewer details when we included multiple countries.

This is new technology, and one can question its reliability. To check on the accuracy of the data, we did the following:

We reran the code for several countries on different days. The content concerning who spoke and their main points were generally the same. The date of the press conference, however, sometimes varied by one or two days. We wondered whether the "date" calculated was based on a central location for ChatGPT, such as California, rather than local time, but somewhat different prompts ("What time locally") did not seem to lead to different outcomes.

We also did spot checks on the results. For France, for example, we could verify the information. At a press conference on January 24, 2020, Minister of Solidarity and Health Agnès Buzyn confirmed the first cases (and described the risk of transmission as very low: "*les risques de propagation du virus dans la population sont très faibles*"; see https://www.bfmtv.com/politique/coronavirus-en-france-les-risques-de-propagation-du-virus-dans-la-population-sont-tres-faibles-selon-agnes-buzyn_VN-202001240157.html, accessed June 3, 2024).

Yet not all results were as reliable. In the case of New Zealand we did find the press conference on March 24, 2020 that ChatGPT identified (https://www.youtube.com/watch?v=8SC67XDsKIM, accessed June 3, 2024). This was the announcement of a nationwide lockdown by Prime Minister Jacinda Ardern, who ChatGPT told us was a participant. However, another participant was Finance Minister Grant Robertson, whereas ChatGPT listed the Director-General of Health Ashley Bloomfield, who was not present. Using internet searches we found an earlier press conference on 28 February, where Health Minister David Clark announced the first case in New Zealand, in this case together with the Director-General of Health (https://www.youtube.com/watch?v=T7jNPeHqd9c, accessed June 3, 2024). See Figure A2 below for visuals from these press conferences and the policymakers involved.

In summary, we find the list of the first major press conference on COVID-19 returned by ChatGPT is not fully reliable, although many entries appear plausible. Specifically, our spot checks indicate that ChatGPT does not always identify the most relevant event, makes minor errors with the timing of some events, and does not always identify the correct individuals who attended. Nonetheless, we also find that the individuals ChatGPT identified were relevant actors during this period. Despite some errors, the dataset thus allows us to approximate salient features of the target events including their timing, content, and participants.

In terms of timing, the first press conference identified by ChatGPT was on January 13, 2020, in Thailand. The median conference was on March 10, and 90% of the conferences on this list took place by March 31, 2020.

In terms of the content, in 165 of 188 cases (88%) the listed press conferences covered the reported first case in the country. In another 21 cases, the press conferences explained measures that the government was taking without a named discussion of a first case. In two cases, Comoros and Turkmenistan, the government had a press conference to announce that it had no reported cases.

In terms of participants, ChatGPT claims that in 90% of the press conferences the health minister was involved. In a further 12 of the

cases where the health minister was not named, ChatGPT noted the presence of "other health ministry officials." For 39% of the listed conferences, ChatGPT told us that the government's leader (usually president or prime minister) was involved.

The full results returned by ChatGPT are available in our replication archive. Note also that due to the nature of this tool, any new run may not produce the exact same results, especially with different versions of GPT.

Figure A2: Examples of press conferences announcing the first detected cases

Example 1 (identified by ChatGPT): French Minister of Solidarity and Health Agnès Buzyn at her press conference announcing the first three cases detected in the country and in Europe, on January 24, 2020.

Example 2 (not identified by ChatGPT): New Zealand Health Minister David Clark (centre) and Director-General of Health Ashley Bloomfield (left; with a sign language interpreter on the right) at their press conference announcing the first case detected in the country, on February 28, 2020.

D. Google Trends and Nexis News data

To assess the relative salience of lockdowns in global public debate during the first wave of the pandemic in 2020, we used Google Trends (https://trends.google.com/trends/; accessed January 2, 2025) and the Nexis News database (https://advance.lexis.com; accessed December 16, 2024). We use these sources to compare worldwide internet searches and news citations for "lockdown" vis-à-vis several other important policy-relevant terms, i.e., "Covid test", "quarantine", "school closure", and "vaccine".

Google provides data for worldwide internet searches normalized on a scale from 0-100, with the latter indicating peak popularity. A comparison of the five terms in Table A14 reveals "lockdown" as the most popular search on average in 2020. Its popularity peaked in April 2020. In that month, interest in the term "lockdown" was about twice that for "quarantine", thrice that for "vaccine", seven times that for "Covid test", and 100 times that for "school closure".

Table A14: Google Trends data for selected pandemic-related search terms

	(1) Lockdown	**(2)** Vaccine	**(3)** Covid test	**(4)** Quarantine	**(5)** School closure
January	1	10	0	2	<1
February	2	11	<1	5	<1
March	92	34	8	59	3
April	100	31	14	44	1
May	95	29	16	28	<1
June	47	25	20	19	<1
July	44	38	30	24	<1
August	30	34	29	23	<1
September	33	28	40	17	<1
October	52	27	42	15	<1
November	60	42	46	12	<1
December	58	93	57	13	<1
Average	**51**	**34**	**25**	**22**	**0**

Notes: The table shows monthly Google Trends data (accessed January 2, 2025) for worldwide internet searches using five pandemic-related terms (see column headers). The data are for the 2020 calendar year. Google normalizes the results relative to the most popular of the search terms. This indicates peak popularity is for "lockdown" in April 2020.

The Nexis News database covers major news outlets, such as newspapers, web-based publications, newswires and press releases, and other news-related sources. We searched the worldwide database without exclusions. To facilitate comparison with Google Trends, we normalized the results in the same way. Table A15 shows news items related to "lockdown" were the most frequent. The largest number of monthly results for these terms was in May 2020, with half a million news items for "lockdown", roughly thrice the amount for "quarantine", five times that for "Covid test", six times that for "vaccine", and 50 times that for "school closure".

Table A15: Nexis News data for selected pandemic-related search terms

	(1)	(2)	(3)	(4)	(5)
	Lockdown	Quarantine	Vaccine	Covid test	School closure
January	3	3	4	0	0
February	4	12	5	1	1
March	35	38	12	16	6
April	93	36	15	21	3
May	100	31	16	18	2
June	73	24	11	16	1
July	65	23	15	17	1
August	51	20	14	16	1
September	48	16	16	17	1
October	53	15	17	19	1
November	59	12	30	15	1
December	49	13	50	15	1
Average	**53**	**20**	**17**	**14**	**2**

Notes: The table is based on the number of monthly Nexis News database results (accessed December 16, 2024) from a search of worldwide news sources using five pandemic-related terms (see column headers). The data are for the 2020 calendar year. To enable comparison with Google Trends, we normalized the reported numbers of search results using the largest monthly total, which is 503,139 for "lockdown" in May 2020.

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