# Appendix

# **Figures**



Figure A1: Baseline covariate balance around the threshold

*Notes:* This figure displays the robust-bias corrected t-statistics and standardized coefficients from our baseline covariates' balance RD estimates. For each indicated variable we run a RD with linear polynomial and uniform kernel specification. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. All estimates account for state fixed-effects following Equation 1. In the t-statistics graph we indicate the 5% significance level thresholds in red. For more details on these estimations see Tables A5 and A7. For variables' description see Table A2.



QO

**•** 50%

**1** 25%

Figure A2: McCrary Test

Notes: This figures displays the McCrary density test for the running variable around the cutoff (McCrary, 2008).

0% Margin of Victory

**.** -25%

0% -

**.** -50%



#### Figure A3: Bandwidth robustness test

*Notes*: This figure displays the bandwidth robustness tests for the effect of female mayors on the number of deaths and hospitalizations by COVID-19 and SARI. Variables are measured in numbers per hundred thousand inhabitants in 2020. Note that COVID-19 numbers are a subset of SARI numbers. Subfigure (a) presents estimates for COVID-19 deaths. Subfigure (b) presents the estimates for SARI deaths. Subfigure (c) presents the estimates for COVID-19 hospitalizations. Subfigure (d) presents the estimates for SARI hospitalizations. We use a linear polynomial and a uniform kernel RD specification. CER and MSE optimal bandwidths are indicated in the figures (Calonico et al., 2014). Following this same work, 90% robust-bias corrected intervals are displayed. All estimates account for state fixed-effects following Equation 1.



Figure A4: Placebo tests around the threshold

*Notes*: This figure displays the effect of female mayors on the number of deaths and hospitalizations by COVID-19 and SARI for different (and placebo) cutoffs. Variables are measured in numbers per hundred thousand inhabitants in 2020. Note that COVID-19 numbers are a subset of SARI numbers. Subfigure (a) presents estimates for COVID-19 deaths. Subfigure (b) presents the estimates for SARI deaths. Subfigure (c) presents the estimates for COVID-19 hospitalizations. Subfigure (d) presents the estimates for SARI hospitalizations. We use a linear polynomial and a uniform kernel RD specification. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, 90% robust-bias corrected intervals are displayed. All estimates account for state fixed-effects following Equation 1.

#### Figure A5: NPIs RD Plots



*Notes:* This figure displays the RD plots for the effect of female mayors in Brazilian municipalities on several non-pharmaceutical interventions outcomes. Figure (a) displays the results for the total number of NPIs adopted; (b) for the adoption of face covering requirement; (c) for the prohibition of gatherings; (d) for the adoption of a *cordon sanitaire*; (e) for the closure of non-essential business; and (f) for the restriction of public transportation. Plots were generated accordingly to Calonico et al. (2015). We use a linear specification and a uniform kernel. Following Calonico et al. (2014), the optimal bandwidths were chosen to minimize the mean squared error of the local polynomial RD point estimator. All estimates account for state fixed-effects following Equation 1. For more details on these estimates see 2 Panel B.



### Figure A6: NPIs Bandwidth Robustness

*Notes:* This figure displays the bandwidth robustness tests for the effect of female mayors in Brazilian municipalities on several non-pharmaceutical interventions outcomes. We use a linear polynomial and uniform kernel RD specification, while varying the bandwidth. Figure (a) displays the results for the total number of NPIs adopted; (b) for the adoption of face covering requirement; (c) for the prohibition of gatherings; (d) for the adoption of a *cordon sanitaire*; (e) for the closure of non-essential business; and (f) for the restriction of public transportation. CER and MSE optimal bandwidths are indicated in the figures (Calonico et al., 2014). Following this same work, 90% robust-bias corrected confidence intervals are displayed. All estimates account for state fixed-effects following Equation 1.



#### Figure A7: NPIs Placebo Thresholds

*Notes:* This figure displays the effect of female mayors in Brazilian municipalities on several non-pharmaceutical interventions outcomes for different (and placebo) cutoffs. Figure (a) displays the results for the total number of NPIs adopted; (b) for the adoption of face covering requirement; (c) for the prohibition of gatherings; (d) for the adoption of a *cordon sanitaire;* (e) for the closure of non-essential business; and (f) for the restriction of public transportation. We use a linear polynomial and uniform kernel RD specification. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, 90% robust-bias corrected confidence intervals are displayed. All estimates account for state fixed-effects following Equation 1.

# Tables

Variable	Description	Source
COVID-19 deaths per 100k pop.	Number of COVID-19 deaths in 2020	SIVEP <sup>1</sup>
COVID-19 hospitalizations per 100k pop.	Number of COVID-19 hospitalizations in 2020	SIVEP
SARI deaths per 100k pop.	Number of SARI deaths in 2020	SIVEP
SARI hospitalizations per 100k pop.	Number of SARI hospitalizations in 2020	SIVEP
Number of NPIs	Total number of adopted NPIs until July 2020	CNM-Survey <sup>2</sup>
Face covering required	Dummy indicating adoption until July 2020	CNM-Survey
Gatherings prohibition	Dummy indicating adoption until July 2020	CNM-Survey
Cordon sanitaire	Dummy indicating adoption until July 2020	CNM-Survey
Closure of non-essentials	Dummy indicating adoption until July 2020	CNM-Survey
Public transport restriction	Dummy indicating adoption until July 2020	CNM-Survey
$\Delta$ Health municipal spending (2016-19)	Share of total municipal spending dedicated to health issues (variation from 2016 to 2019)	SICONFI <sup>3</sup>
ΔHosp. beds per 100k pop. (2017-2020)	Total hosp. beds variation from Jan 2017 to Jan 2020	CNES <sup>4</sup>
ΔICU beds per 100k pop. (2017-2020)	ICU beds variation from Jan 2017 to Jan 2020	CNES
$\Delta$ Health municipal spending (2019-2020)	Share of total municipal spending dedicated to health issues (variation from 2019 to 2020)	SICONFI
$\Delta$ Hosp. beds per 100k pop. (Fev-Dec20)	Total hosp. beds variation from Feb 2020 to Dec 2020	CNES
$\Delta$ ICU hosp. beds per 100k pop. (Fev-Dec20)	ICU beds variation from Feb 2020 to Dec 2020	CNES
Mayor's years of schooling	Mayor's years of schooling when elected	TSE <sup>5</sup>
Mayor's Age	Mayor's years of age when elected	TSE
Healthcare professional	Dummy indicating if the mayor is a healthcare professional	TSE
Mayor's party ideology*	Mayor's party ideology index when elected. Varies from -1 (far-left) to 1 (far-right)	BLS <sup>6</sup>

### Table A1: Data Description: Epidemiological and policy outcomes

*Notes:* All variables are aggregated at the municipal level.

\* This variable differs from the Ideology Index shown in Table A2 Panel C. The former measures the mayor's party ideology; the second is a measure of municipal ideology.

<sup>1</sup> Sistema de Informação de Vigilância de Gripe (Flu Surveillance Information System) from the Brazilian Ministry of Health.

<sup>2</sup> Survey da Confederação Nacional dos Municípios (Brazilian Confederation of Municipalities survey) (de Souza Santos et al., 2021)

<sup>3</sup> Sistema de Informações Contábeis e Fiscais do Setor Público Brasileiro (Brazilian Public Sector Accounting and Tax Information System) from the Brazilian National Treasury.

<sup>4</sup> *Cadastro Nacional de Estabelecimentos de Saúde* (National Register of Health Establishments) from the Brazilian Ministry of Health.

<sup>5</sup> *Tribunal Superior Eleitoral* (Brazilian Electoral Court), the Brazilian electoral authority.

<sup>6</sup> The Brazilian legislative survey (Power and Rodrigues-Silveira, 2019).

#### Table A2: Data Description: Baseline Covariates

Variable	Description	Source
Panel A: Hospitalization and health outcomes		
Municipal health spending	Avg. share of municipal spending dedicated to health issues across 2013-16	SICONFI <sup>1</sup>
Hosp. beds per 100k pop.	Total hosp. beds in Jan 2017	CNES <sup>2</sup>
Num. of Medical Doctors per 100k pop.	Number of MDs in 2014	IBGE <sup>3</sup>
Municipal health council	Dummy indicating the existence in 2014	IBGE
Municipal health fund	Dummy indicating the existence in 2014	IBGE
Community health agents program	Dummy indicating the existence in 2014	IBGE
Emergency care services	Dummy indicating the existence in 2014	IBGE
Has health surveillance services	Dummy indicating the existence in 2014	IBGE
Epidemiological surveillance services	Dummy indicating the existence in 2014	IBGE
Has communication channel	Dummy indicating the existence in 2014	IBGE
Panel B: Sociodemographic characteristics		
Population	Estimated population in 2020	IBGE
Population density	Estimated population density in 2020	IBGE
Urban pop. rate	Fraction of municipal population regarded as urban in 2017	IBGE
Average vearly income	GDP per capita in 2018	IBGE
Literacy rate	% of literate pop. in 2010	IBGE 2010 Census <sup>4</sup>
Pop. % with 55+ years of age	% of pop. with 55+ years of age in 2010	IBGE 2010 Census
Pop. % with $8+$ years of schooling	% of pop. with $8+$ years of schooling in 2010	IBGE 2010 Census
% Male pop.	% of pop. that was male in 2010	IBGE 2010 Census
% Black pop.	% of black pop. in 2010	IBGE 2010 Census
Municipal guard staff per 100k pop.	Number of municipal guards in 2014	IBGE
Panel C. Political characteristics		
Bolsonaro % valid votes (first round)	Balsonaro's vote-chare in the 2018 Brazilian presidential first round election	TSF
Bolsonaro % valid votes (second round)	Bolsonaro's vote share in the 2018 Brazilian presidential second round election	TSF <sup>5</sup>
Ideology Index*	Municipal ideological score in 2016 Varies from -1 (far-left) to 1 (far-right)	TSF / BI S <sup>6</sup>
Flected mayor was the incumbent	Dummy indicating if the elected candidated was the incumbent	TSE
Elected mayor was from some party**	Ten different dummies each indicating if the elected candidated was from a given party**	TSE
	Ten emerent dummes cach mateuring is the elected canadated was nonit a given party	101

*Notes:* All variables are aggregated at the municipal level.

\* This variable differs from the "Mayor's party ideology" shown in Table A1. The former measures municipal ideology; the second measures the mayor's party ideology. \*\* DEM, PDT, PMDB, PP, PR, PSB, PSD, PSDB, PT or PTB.

<sup>1</sup> Sistema de Informações Contábeis e Fiscais do Setor Público Brasileiro (Brazilian Public Sector Accounting and Tax Information System) from the Brazilian National Treasure.

<sup>2</sup> Cadastro Nacional de Estabelecimentos de Saúde (National Register of Health Establishments) from the Brazilian Ministry of Health.

<sup>3</sup> Instituto Brasileiro de Geografia e Estatística (Brazil's National Bureau of Statistics).

<sup>4</sup> IBGE's demographic census in 2010. It is the most recent available country-covering census in Brazil.

<sup>5</sup> Tribunal Superior Eleitoral (Brazilian Electoral Court), the Brazilian electoral authority.

<sup>6</sup> The Brazilian legislative survey (Power and Rodrigues-Silveira, 2019).

	Male				Femal	e	Full Sample				
Variable	Ν	Mean	Sd	N	Mean	Sd	Mean	Sd	Min	Median	Max
COVID-19 deaths per 100k pop.	686	58.69	47.02	528	57.47	47.3	58.16	47.13	0	48.8	358.79
COVID-19 hospitalizations per 100k pop.	686	154.53	129.44	528	149.4	125.31	152.3	127.63	0	124.69	1299.44
SARI deaths per 100k pop.	686	80.73	59.36	528	79.05	56.12	58.16	47.13	0	48.8	358.79
SARI hospitalizations per 100k pop.	686	260.14	194.06	528	252.96	191.91	152.3	127.63	0	124.69	1299.44
Number of NPIs	454	3.72	0.93	339	3.76	0.89	3.74	0.91	0	4	5
Face covering required	452	0.96	0.18	337	0.97	0.17	0.97	0.18	0	1	1
Gatherings prohibition	452	0.97	0.17	338	1	0.05	0.98	0.13	0	1	1
Cordon Sanitaire	454	0.59	0.49	339	0.6	0.49	0.59	0.49	0	1	1
Closure of non-essentials	452	0.79	0.41	338	0.77	0.42	0.78	0.41	0	1	1
Public transport restriction	445	0.43	0.5	333	0.43	0.5	0.43	0.5	0	0	1
$\Delta$ Healh per capita spending (2016 to 2019)	665	141.89	136.01	500	153.46	152.72	146.86	143.47	-611.95	127.07	1287.9
$\Delta$ Hosp. beds per 100k pop. (Jan 2017 to Jan 2020)	688	-2.11	69.32	532	-2.7	50.29	-2.37	61.73	-448.37	0	1204.2
$\Delta$ ICU hosp. beds per 100k pop. (Jan 2017 to Jan 2020)	688	0.09	1.36	532	0.12	2.09	0.1	1.72	-14.79	0	33.66
$\Delta$ Health per capita spending (2019 to 2020)	573	185.26	129.14	422	187.44	186.19	149.51	-977.27	166.96	1737.22	
$\Delta$ Hosp. beds per 100k pop. (Feb 2020 to Dec 2020)	689	5.76	35.54	533	4.65	31.8	5.28	33.95	-475.51	0	338.84
$\Delta$ ICU hosp. beds per 100k pop. (Feb 2020 to Dec 2020)	689	0.72	4.85	533	0.47	3.65	0.61	4.36	-1.91	0	67.65
Mayor's years of schooling	689	13.24	3.39	533	14.78	2.26	13.91	3.05	0	16	16
Mayor's Age	689	48.63	10.96	533	47.84	10.3	48.29	10.68	21	48	88
Healthcare professional	689	0.08	0.27	533	0.1	0.3	0.09	0.29	0	0	1
Mayor's party ideology	689	0.28	0.37	533	0.29	0.36	0.28	0.37	-0.84	0.42	0.76

**Table A3:** Summary Statistics: Epidemiological and policy outcomes

*Notes:* This table reports the summary statistics for our epidemiological and policy outcomes. Variables' description in Table A1.

## Table A4: Summary Statistics: Baseline Covariates

		Male			Femal	e		]	Full Sample		
Variable	N	Mean	Sd	N	Mean	Sd	Mean	Sd	Min	Median	Max
Panel A: Hospitalization and health outcomes											
Municipal health spending (share of total spd.)	684	0.23	0.04	527	0.24	0.04	0.23	0.04	0.03	0.23	0.5
Hosp. beds per 100k pop.	688	127.6	156.26	532	127.19	150.83	127.42	153.86	0	100.98	1415.12
Num. of Medical Doctors per 100k pop.	684	81.28	64.67	529	85.27	62.04	83.02	63.54	0	67.91	715.91
Municipal health council	689	1	0.05	533	1	0	1	0.04	0	1	1
Municipal health fund	689	1	0	533	1	0	1	0	1	1	1
Community health agents program	689	0.73	0.45	533	0.72	0.45	0.73	0.45	0	1	1
Emergency care services	689	0.85	0.36	533	0.87	0.33	0.86	0.35	0	1	1
Has health surveillance services	689	0.99	0.09	533	0.99	0.1	0.99	0.09	0	1	1
Epidemiological surveillance services	683	0.95	0.21	528	0.97	0.18	0.96	0.2	0	1	1
Has communication channel	689	0.97	0.18	533	0.97	0.17	0.97	0.18	0	1	1
Panel B: Sociodemographic characteristics											
Population	689	30117.4	121440.7	533	23933.4	43106.7	27420.09	95546.05	1118	11320.5	2886698
Population density	689	96.9	540	533	90.7	306.3	94.17	453.01	0.04	24.69	11670.9
Urban pop. rate	689	46.33	33.73	533	46.93	33.34	46.59	33.55	0	52.54	98.6
Average yearly income	689	21748.9	24653.3	533	22080.9	33115	21893.7	28640.83	5062.94	14119.61	583171.85
Literacy rate	689	0.814	0.099	533	0.816	0.094	0.81	0.1	0.53	0.82	0.98
Pop. % with 55+ years of age	689	0.158	0.041	533	0.158	0.039	0.16	0.04	0.05	0.16	0.31
Pop. % with 8+ years of schooling	689	0.336	0.091	533	0.337	0.085	0.34	0.09	0.12	0.33	0.66
% Male pop.	689	0.507	0.016	533	0.506	0.015	0.51	0.02	0.46	0.51	0.59
% Black pop.	689	0.571	0.223	533	0.571	0.219	0.57	0.22	0.02	0.63	0.93
Municipal guard staff per 100k pop.	687	20.16	58.33	531	28.41	80.04	23.76	68.74	0	0	660.35
Panel C: Political characteristics											
Bolsonaro % valid votes (first round)	689	0.349	0.196	533	0.348	0.187	0.35	0.19	0.03	0.32	0.81
Bolsonaro % valid votes (second round)	689	0.418	0.231	533	0.417	0.22	0.42	0.23	0.04	0.38	0.88
Ideology Index	689	0.23	0.13	533	0.23	0.13	0.23	0.13	-0.32	0.24	0.64
Elected mayor was the incumbent	633	0.27	0.44	500	0.22	0.41	0.25	0.43	0	0	1

*Notes:* This table reports the summary statistics for our baseline covariates. For parties' variables summary statistics see Table A6. For covariates variables description see Table A2.

	RD	Robust I	nference	CCT-Optimal	Eff. Number
Variable	Estimator	p-value	Conf. Int.	Bandwidth	Observations
Panel A: Hospitalization and health outcomes					
Municipal health spending (share of total spd.)	0.006	0.333	[-0.0063, 0.0185]	10.685	577
Hosp. beds per 100k pop.	14.967	0.501	[-28.6405, 58.5744]	10.167	558
Num. of Medical Doctors per 100k pop.	-0.627	0.942	[-17.5521, 16.2974]	14.914	752
Municipal health council	0.011	0.227	[-0.0068, 0.0286]	13.580	702
Community health agents program	-0.064	0.346	[-0.197, 0.0691]	12.605	651
Emergency care services	0.012	0.813	[-0.0882, 0.1123]	12.843	667
Has health surveillance services	0.000	0.982	[-0.0315, 0.0322]	14.850	757
Epidemiological surveillance services	0.020	0.499	[-0.0385, 0.079]	13.793	701
Has communication channel	-0.011	0.675	[-0.0604, 0.0391]	14.818	755
Panel B: Sociodemographic characteristics					
Log pop.	-0.180	0.302	[-0.5215, 0.1617]	8.853	502
Log pop. density	0.126	0.535	[-0.2713, 0.523]	9.577	537
Urban pop. rate	-5.367	0.274	[-14.9861, 4.2524]	14.669	749
Log average yearly income	-0.040	0.614	[-0.1943 <i>,</i> 0.1148]	10.510	580
Literacy rate	-0.008	0.360	[-0.0238, 0.0087]	11.537	612
Pop. % with 55+ years of age	-0.003	0.595	[-0.0117, 0.0067]	12.830	667
Pop. % with 8+ years of schooling	-0.002	0.840	[-0.0239, 0.0194]	10.686	584
% Male pop.	-0.004	0.175	[-0.0091, 0.0017]	9.837	548
% Black pop.	0.017	0.368	[-0.0194, 0.0524]	9.880	549
Municipal Guard staff per 100k pop.	-15.579	0.161	[-37.357, 6.199]	11.361	601
Panel C: Political characteristics					
Bolsonaro % valid votes (first round)	-0.009	0.599	[-0.0408, 0.0236]	10.899	591
Bolsonaro % valid votes (second round)	-0.014	0.420	[-0.0495, 0.0206]	10.750	586
Ideology Index	0.024	0.250	[-0.017, 0.0654]	10.765	586
Elected mayor was the incumbent	-0.042	0.599	[-0.1991, 0.115]	10.389	530

Table A5: Formal Continuity-Based Analysis for Covariates (Full Mixed Races Sample)\*

*Notes:* This table displays the RD balance test for our baseline covariates. For each indicated variable we run a RD with linear polynomial and uniform kernel specification. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates account for state fixed-effects following Equation 1. Variables' description are in Table A2.

\* For the RD balance test for the parties' dummies see Table A7.

		Male			Female			Full Sample			
Party	N	Mean	Sd	N	Mean	Sd	Mean	Sd	Min	Median	Max
DEM	689	0.05	0.21	533	0.06	0.23	0.05	0.22	0	0	1
PDT	689	0.06	0.23	533	0.05	0.23	0.06	0.23	0	0	1
PMDB	689	0.18	0.38	533	0.2	0.4	0.18	0.39	0	0	1
PP	689	0.09	0.29	533	0.08	0.26	0.09	0.28	0	0	1
PR	689	0.06	0.23	533	0.08	0.27	0.07	0.25	0	0	1
PSB	689	0.08	0.26	533	0.08	0.27	0.08	0.27	0	0	1
PSD	689	0.1	0.3	533	0.11	0.31	0.1	0.3	0	0	1
PSDB	689	0.15	0.36	533	0.13	0.34	0.14	0.35	0	0	1
PT	689	0.04	0.19	533	0.05	0.21	0.04	0.2	0	0	1
PTB	689	0.04	0.2	533	0.05	0.22	0.05	0.21	0	0	1

Table A6: Summary Statistics: Parties' variables

*Notes:* This table displays summary statistics for parties' dummies variables. Each party dummy indicates if the elected mayor in 2016 municipal election was from a given party.

	RD	Robust I	nference	CCT-Optimal	Eff. Number
Party	Estimator	p-value	Conf. Int.	Bandwidth	Observations
DEM	0.031	0.400	[-0.0416, 0.1041]	9.911	549
PDT	-0.026	0.529	[-0.1051, 0.054]	12.325	636
PMDB	0.009	0.867	[-0.1011, 0.12]	12.107	629
PP	0.079	0.100	[-0.0153, 0.1742]	9.884	549
PR	0.022	0.635	[-0.0679, 0.1112]	8.136	474
PSB	-0.071	0.203	[-0.1793, 0.038]	10.040	554
PSD	0.062	0.161	[-0.0248, 0.1495]	14.414	737
PSDB	0.030	0.601	[-0.0828, 0.1431]	11.369	602
PT	0.003	0.910	[-0.0524, 0.0588]	14.512	742
PTB	-0.055	0.117	[-0.1248, 0.0139]	9.548	536

Table A7: Parties Balance Table

*Notes:* This table displays the RD balance test for the partie's dummies variables. Each party variable is a dummy indicating if the elected mayor in 2016 municipal election was from a given party. For each of these variables we run a RD with linear polynomial and uniform kernel specification. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates account for state fixed-effects following Equation 1. Variables' description are in Table A2 Panel C.

	RD	<u>Robust I</u>	nference	CCT-Optimal	Eff. Number
State	Estimator	p-value	Conf. Int.	Bandwidth	Observations
AC	-0.001	0.924	[-0.0248, 0.0225]	18.067	849
AL	0.018	0.489	[-0.0335, 0.0701]	14.048	722
AM	-0.015	0.387	[-0.0489, 0.019]	12.102	628
AP	0.010	0.467	[-0.0168, 0.0366]	16.398	814
BA	-0.068	0.135	[-0.1569, 0.0211]	14.130	724
CE	0.019	0.547	[-0.0431, 0.0814]	14.160	724
ES	-0.010	0.428	[-0.0356, 0.0151]	7.934	470
GO	0.044	0.168	[-0.0184, 0.1056]	10.775	586
MA	0.029	0.490	[-0.0534, 0.1115]	12.504	647
MG	0.045	0.355	[-0.0504, 0.1407]	12.862	668
MS	-0.009	0.601	[-0.0449, 0.026]	12.458	644
MT	-0.052	0.102	[-0.1146, 0.0104]	11.333	601
PA	-0.041	0.159	[-0.0981, 0.0161]	15.163	772
PB	-0.016	0.693	[-0.0975, 0.0649]	10.684	584
PE	-0.035	0.308	[-0.1031, 0.0325]	12.283	636
PI	-0.039	0.264	[-0.1074, 0.0294]	18.713	868
PR	0.037	0.206	[-0.0201, 0.0933]	11.240	600
RJ	0.020	0.255	[-0.0144, 0.0545]	10.185	561
RN	0.019	0.623	[-0.0573, 0.0956]	13.296	692
RO	-0.025	0.139	[-0.059, 0.0082]	13.618	702
RR	-0.016	0.277	[-0.0448, 0.0128]	8.086	473
RS	-0.009	0.816	[-0.0803, 0.0633]	12.992	679
SC	0.012	0.714	[-0.0529, 0.0773]	14.343	734
SE	0.036	0.165	[-0.0147, 0.0862]	11.130	599
SP	0.093	0.080*	[-0.0111, 0.198]	10.421	568
TO	0.011	0.622	[-0.0327, 0.0548]	11.208	599

Table A8: States Balance Table

*Notes:* This table displays the RD balance test for the state's dummies variables. Each state variable is a dummy indicating if the elected mayor in 2016 municipal election was from a given state. For each of these variables we run a RD with linear polynomial and uniform kernel specification. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. No controls are included.

	Panel A: Investment in Health								
		Pre-Outbreak			Post-Outbreak				
	$\Delta$ Health spending	$\Delta$ Total hosp. beds	$\Delta$ ICU hosp. beds	$\Delta$ Health spending	$\Delta$ Total hosp. beds	$\Delta$ ICU hosp. beds			
	(share of total spd.)	per 100k pop.	per 100k pop.	(share of total spd.)	per 100k pop.	per 100k pop.			
RD Estimator	-0.001	-9.549	-0.375	0.004	-3.64	-0.212			
Robust p-value	0.934	0.35	0.228	0.752	0.554	0.785			
Robust conf. int.	[-0.02, 0.0184]	[-29.572, 10.4732]	[-0.9849, 0.2352]	[-0.0219, 0.0303]	[-15.7007, 8.4212]	[-1.7386, 1.3138]			
CCT-Optimal BW	20.295	24.072	16.241	29.326	18.348	13.424			
Eff. Number Obs.	837	977	809	828	860	693			
		Ра	anel B: Non-Pharma	ceutical Interventions	3				
35	Number of	Face covering	Gatherings	Cordon	Closure of	Public transport			
	NPIs	required	prohibition	sanitaire	non-essentials	restriction			
RD Estimator	0.308	0.086	0.068	0.141	-0.106	0.109			
Robust p-value	0.168	0.058*	0.043**	0.144	0.253	0.321			
Robust conf. int.	[-0.1302, 0.7468]	[-0.0031, 0.1752]	[0.0021, 0.1335]	[-0.0481, 0.3303]	[-0.2875, 0.0757]	[-0.1068, 0.3257]			
CCT-Optimal BW	17.295	27.093	20.06	20.231	15.186	21.621			
Eff. Number Obs.	533	658	567	572	487	589			

**Table A9:** Impact of female leadership on health investment and non-pharmaceutical interventions, RDD estimates - Robustness using quadratic specification

*Notes:* This table reports our RD estimates of the association between female mayors and several outcomes. The level of observation is the municipality. Panel A reports results on health investment-related outcomes. This panel is divided into pre and post pandemic outbreak outcomes. In the first column of Panel A, the outcome is the variation in the share of municipal spending dedicated to health issues between 2016 and 2019. In the second column, the outcome is the variation of total hospital beds per 100k inhabitants between Jan 2017 and Jan 2020; in the third column, the ICU hospital beds per 100k inhabitants variation between Jan 2017 and Jan 2020. The fourth column reports the estimate of the variation in the share of municipal spending dedicated to health issues between 2019 and 2020. Lastly, the fifth and sixth columns show estimates for the variation of hospital beds per 100k inhabitants between Feb 2020 and Dec 2020 - total beds and ICU beds, respectively. Panel B describes results for the main non-pharmaceutical interventions adopted by mayors until July 2020. The first column outcome is the total number of NPIs adopted. The remaining columns are dummies variables indicating whether a specific NPI was adopted. In any case, we are estimating a second-degree polynomial using a uniform kernel. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates account for state fixed-effects following Equation 1. Coefficients significantly different from zero at 99% (\*\*), 95% (\*\*) and 90% (\*) confidence level.

	Mayor's years	Mayor's	Healthcare	Mayor's party
	of schooling	Age	professional	ideology
Panel A: Linear specification				
RD Estimator	0.9535	-0.6532	-0.0207	0.1011
Robust p-value	0.044**	0.7	0.68	0.099*
Robust conf. int.	[0.0261, 1.881]	[-3.9316, 2.6253]	[-0.118, 0.0767]	[-0.0189, 0.2211]
CCT-Optimal BW	13.6258	13.0304	12.3187	10.7246
Eff. Number Obs.	703	681	636	585
Panel B: Quadratic specification				
RD Estimator	0.2496	-1.0919	0.0012	0.1183
Robust p-value	0.7	0.627	0.985	0.067*
Robust conf. int.	[-1.0024, 1.5016]	[-5.4941, 3.3102]	[-0.1259, 0.1283]	[-0.008, 0.2446]
CCT-Optimal BW	16.2465	15.3507	16.4033	20.5549
Eff. Number Obs.	811	780	814	905

Table A10: Mayor's characteristics balance around the threshold

*Notes:* This table reports our RD estimates of the association between female mayors and four outcomes. In the first column, the outcome variable is the mayor's years of schooling. In the second column, the outcome variable is the mayor's age. The third column show results for a dummy indicating if the mayor is a healthcare professional. In the fourth and last column, the outcome variable is a mayor's party ideology index that varies from -1 (far-left) to 1 (far-right). Panel A shows the results for a first-degree polynomial estimation. Panel B shows the results for a second-degree polynomial estimation. Every specification uses a uniform kernel. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates account for state fixed-effects following Equation 1. Coefficients significantly different from zero at 99% (\*\*\*), 95% (\*\*) and 90% (\*) confidence level.

COVID-19 deaths **COVID-19** hospitalizations SARI deaths SARI hospitalizations per 100k pop. per 100k pop. per 100k pop. per 100k pop. Panel A: Linear specification **RD** Estimator -26.2774 -46.1559 -20.6819 -50.4271 Robust p-value 0.0001\*\*\* 0.015\*\* 0.025\*\* 0.063\* Robust conf. int. [-41.8046, -10.7502] [-83.4677, -8.8441] [-38.7906, -2.5733] [-103.5197, 2.6655] **CCT-Optimal BW** 9.0783 8.5562 9.4467 8.7588 Eff. Number Obs. 525 510 486 492 Panel B: Quadratic specification **RD** Estimator -23.4372 -21.6216 -61.5871 -51.5783 0.009\*\*\* 0.02\*\* 0.03\*\* 0.046\*\* Robust p-value Robust conf. int. [-41.1054, -5.7691] [-95.1134, -8.0433] [-41.3816, -1.8615] [-121.9694, -1.2049] **CCT-Optimal BW** 15.5193 15.2278 15.97 16.4266 Eff. Number Obs. 799 808 779 769

Table A11: Impact of female leadership on COVID-19 deaths and cases, RDD estimates - Robustness controlling for mayor's characteristics

*Notes:* This table reports our RD estimates of the effect of female mayors on the number of deaths and hospitalizations by COVID-19 and SARI per hundred thousand inhabitants in 2020 in Brazilian municipalities. Note that COVID-19 numbers are a subset of SARI numbers. Estimation proceeded over the 1222 municipalities in our mixed-gender elections sample. Panel A shows the results for a first-degree polynomial estimation. Panel B shows the results for a second-degree polynomial estimation. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates controls for mayor's party ideology and mayor's years of schooling. Following Equation 1, all estimates also account for state fixed-effects. Coefficients significantly different from zero at 99% (\*\*\*), 95% (\*\*) and 90% (\*) confidence level.

**Table A12:** Impact of female leadership on health investment and non-pharmaceutical interventions, RDD estimates - Robustness controlling for mayor's characteristics

	Panel A: Investment in Health								
		Pre-Outbreak			Post-Outbreak				
	$\Delta$ Health spending	$\Delta$ Total hosp. beds	$\Delta$ ICU hosp. beds	$\Delta$ Health spending	$\Delta$ Total hosp. beds	$\Delta$ ICU hosp. beds			
	(share of total spd.)	per 100k pop.	per 100k pop.	(share of total spd.)	per 100k pop.	per 100k pop.			
RD Estimator	-0.004	-13.512	-0.314	0.005	-2.736	-0.216			
Robust p-value	0.704	0.165	0.29	0.651	0.567	0.719			
Robust conf. int.	[-0.0266, 0.018]	[-32.5942, 5.5701]	[-0.8956, 0.2674]	[-0.0182, 0.0292]	[-12.101, 6.6286]	[-1.3929, 0.9611]			
CCT-Optimal BW	16.884	17.545	8.251	25.797	12.866	11.671			
Eff. Number Obs.	767	839	486	795	668	614			
		Ра	anel B: Non-Pharma	ceutical Intervention	5				
38	Number of	Face covering	Gatherings	Cordon	Closure of	Public transport			
	NPIs	required	prohibition	sanitaire	non-essentials	restriction			
RD Estimator	0.377	0.089	0.062	0.147	-0.085	0.121			
Robust p-value	0.053*	0.027**	0.05**	0.066*	0.33	0.253			
Robust conf. int.	[-0.0045, 0.7577]	[0.0101, 0.1675]	[-1e-04, 0.1232]	[-0.0098, 0.3044]	[-0.2554, 0.0859]	[-0.0862, 0.3281]			
CCT-Optimal BW	10.256	14.954	8.604	12.86	9.873	11.025			
Eff. Number Obs.	353	478	315	417	347	366			

*Notes:* This table reports our RD estimates of the association between female mayors and several outcomes. The level of observation is the municipality. Panel A reports results on health investment-related outcomes. This panel is divided into pre and post pandemic outbreak outcomes. In the first column of Panel A, the outcome is the variation in the share of municipal spending dedicated to health issues between 2016 and 2019. In the second column, the outcome is the variation of total hospital beds per 100k inhabitants between Jan 2017 and Jan 2020; in the third column, the ICU hospital beds per 100k inhabitants variation between Jan 2017 and Jan 2020. The fourth column reports the estimate of the variation in the share of municipal spending dedicated to health issues between 2019 and 2020. Lastly, the fifth and sixth columns show estimates for the variation of hospital beds per 100k inhabitants between Feb 2020 and Dec 2020 - total beds and ICU beds, respectively. Panel B describes results for the main non-pharmaceutical interventions adopted by mayors until July 2020. The first column outcome is the total number of NPIs adopted. The remaining columns are dummies variables indicating whether a specific NPI was adopted. In any case, we are estimating a first-degree polynomial using a uniform kernel. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates controls for mayor's party ideology and mayor's years of schooling. Following Equation 1, all estimates also account for state fixed-effects. Coefficients significantly different from zero at 99% (\*\*), 95% (\*\*) and 90% (\*) confidence level.

		COVID-19 deaths	COVID-19 hospitalizations	SARI deaths	SARI hospitalizations	Number of
		per 100k pop.	per 100k pop.	per 100k pop.	per 100k pop.	NPIs
P	anel A: Above median					
Ι	RD Estimator	-43.94	-94.2421	-34.3556	-105.2422	0.4094
I	Robust p-value	0.003***	0.012**	0.027**	0.047**	0.156
I	Robust conf. int.	[-72.5556, -15.3243]	[-167.321, -21.1632]	[-64.7128, -3.9984]	[-209.0672, -1.4173]	[-0.1567, 0.9755]
(	CCT-Optimal BW	15.4581	14.2121	16.6763	14.2337	18.2582
Ε	Eff. Number Obs.	351	326	370	327	305
$\boldsymbol{P}$	anel B: Below median					
Ι	RD Estimator	-2.5373	-11.3022	-2.9495	-13.2701	0.5405
I	Robust p-value	0.8033	0.671	0.8085	0.7242	0.1016
ωI	Robust conf. int.	[-22.5075, 17.4329]	[-63.4439, 40.8395]	[-26.7999, 20.901]	[-86.9758, 60.4356]	[-0.1066, 1.1877]
ິ(	CCT-Optimal BW	15.2442	13.8614	14.3811	15.4596	11.4536
E	Eff. Number Obs.	421	388	399	427	163

Table A13: Impact of female leadership according to President Bolsonaro support - Robustness using quadratic specification

*Notes:* This table reports our RD estimates of the effect of female mayors on few COVID-19 and SARI related outcomes accordingly to Jair Bolsonaro's support across municipalities in the Brazilian 2018 presidential election's second round. The four first columns show our primary outcomes: the number of hospitalizations and deaths by COVID-19 and SARI per hundred thousand inhabitants in 2020 - note that COVID-19 numbers are a subset of SARI numbers. The last column shows the estimate for the number of adopted non-pharmaceutical interventions in the municipality until July 2020. Panel A shows results for municipalities with Bolsonaro's vote-share above (or equal) to Bolsonaro's median municipal vote share. Panel B shows results for municipalities with Bolsonaro's median municipal vote-share. In both cases, we estimate a second-degree polynomial using a uniform kernel. Optimal bandwidths following Calonico et al. (2014) were chosen to minimize the mean squared error of the local polynomial RD point estimator. Following that same work, we report robust-bias corrected p-values and 95% CIs. All estimates account for state fixed-effects following Equation 1. Coefficients significantly different from zero at 99% (\*\*\*), 95% (\*\*) and 90% (\*) confidence level.

	SARI deaths		SARI hospitalizations	
	per 100k pop		per 100k pop	
	(1)	(2)	(3)	(4)
Female Mayor $\times$ Post Outbreak	-7.096	-9.018	-19.470	-24.444
	[3.038]**	[3.417]***	[9.325]**	[10.737]**
Bandwidth	9.419	15.911	8.566	16.752
Observations	8048	12288	7456	12576
Num. of municipalities	503	768	466	786
R-squared	0.551	0.566	0.657	0.645
Municipality FEs	Yes	Yes	Yes	Yes
State-Year-Quarter FEs	Yes	Yes	Yes	Yes
Year-Quarter FEs $\times$ Polynomial	Yes	Yes	Yes	Yes
Polynomial	Linear	Quadratic	Linear	Quadratic

**Table A14:** Impact of female leadership on COVID-19 deaths and cases: local DID estimates using quarterly data also shows negative effects

Notes: This table displays estimates of the effect of electing a female mayor in the 2016 election across from a local differences in differences (DID) specification using quarterly data. The local DID regression model has the form  $y_{mst} = \beta \cdot FemaleMayor_{ms} \cdot Post_Outbreak_t +$  $f_t(FemaleVoteMargin_{ms}) + \theta_{ms} + \lambda_{st} + \epsilon_{mst}$  where  $\theta_{ms}$  captures municipality fixed-effects and  $\lambda_{st}$ captures state-year-quarter fixed effects. *FemaleMayor*<sub>ms</sub> =  $\mathbb{1}(FemaleVoteMargin_{ms} > 0)$  is an indicator variable equal to one when the municipality m in the state s elected a woman as a mayor in 2016. Post\_Outbreak<sub>t</sub> =  $\mathbb{1}(t > 2020.1)$  is an indicator variable that equals one after the first quarter of 2020, the last quarter after the COVID-19 outbreak. To mirror our baseline RD specification in a dynamic setting, we control for  $f_t(FemaleVoteMargin_{ms}) = f_t(FemaleVoteMargin_{ms})$ .  $\mathbb{1}(FemaleVoteMargin_{ms} > 0) + f_t(FemaleVoteMargin_{ms}) \cdot \mathbb{1}(FemaleVoteMargin_{ms} < 0)$ , a yearquarter specific polynomial in the vote-share of female candidates with parameters that vary flexibly for municipalities that elected a man and a woman as a mayor in 2016. Each local DID specification uses the sample of the RD baseline estimates with the same outcome and RD polynomial that is reported in table 1. We display clustered standard errors at the municipality level between squared brackets. Coefficients significantly different from zero at 99% (\*\*\*), 95% (\*\*), and 90% (\*) confidence levels.