# The Effect of Fox News on Health Behavior during COVID-19 

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## Supplementary Materials

## S1. Methods

## Estimating equations

We are interested in the relationship between FNC viewership and individuals' behavioral response to the spread of COVID-19 in U.S. localities. Since viewers select into watching channels and programs that fit their political preferences, a simple correlation of FNC viewership and health behavior will likely produce biased estimates of the effect of FNC programming. To overcome this self-selection, we apply the instrumental variables approach first proposed by Martin and Yurukoglu 2017, exploiting arbitrary variation in channels' position in the system lineup to exogenously shift viewership.

We specify the first-stage equation as:

$$
\begin{equation*}
V_{i}=\alpha+\gamma_{s}+\gamma Z_{i}+\beta \mathbf{X}_{i}+\eta_{i s} \tag{4}
\end{equation*}
$$

where $V_{i}$ is FNC average viewership (ratings) in January-February 2020 and $Z_{i}$, the instrument, is the FNC channel position in the system lineup in locality $i . \mathbf{X}_{i}$ includes covariates that account for pre-determined locality characteristics as well as CNN and MSNBC viewership. $\gamma_{s}$ are state fixed effects, and $\eta_{i}$ is the error term. The second stage of the two-stage least squares (2SLS) regression is given by

$$
\begin{equation*}
Y_{i t}=\alpha+\gamma_{s}+\rho \hat{V}_{i}+\beta \mathbf{X}_{i}+\epsilon_{i t} \tag{5}
\end{equation*}
$$

where $Y_{i t}$ is the outcome measure of interest (e.g., mobility, purchases of protective gear, or COVID19 infections) and $\hat{V}_{i}$ are the fitted values from the first stage. If the channel position $Z_{i}$ is a valid instrument, the 2SLS estimate for $\rho$ captures the local average treatment effect of interest.

All outcomes, as well as the regressor and instrument, are standardized by dividing the original values by the respective standard deviations (S.D.). Thus, coefficients can be interpreted as the predicted change in S.D.'s of the outcome for a one-S.D. increase in the channel position. Regression estimates are weighted by local population and standard errors are clustered by state.

For the analysis of shopping for COVID-19-related products, we have data for a relatively small subset of localities (581 zipcodes), and insufficient power in the first stage to produce 2SLS estimates. We therefore produce reduced form estimates where the outcome is regressed directly on the instrument:

$$
\begin{equation*}
Y_{i t}=\alpha+\gamma_{s}+\delta Z_{i}+\beta \mathbf{X}_{i}+\varepsilon_{i t} \tag{6}
\end{equation*}
$$

For the reduced form estimation, the instrument is adjusted so that the magnitudes are comparable with the 2SLS estimation of the other outcomes.

## Instrument validity

Two key identifying assumptions underlying an IV analysis are relevance and exogeneity. Relevance implies that the channel position should be related to viewership. Figure S. 1 shows the first-stage relationship (Equation 4) and provides evidence that our instrument-the channel's position in the cable system's lineup-is indeed associated with higher FNC viewership.

We obtain a sufficiently strong first-stage F-statistic of 12.48 and a coefficient of -0.103 (SE=0.029). These estimates suggest that a one-standard-deviation increase in FNC position induces a 10 percent decrease in the channel's viewership. Exogeneity implies that the channel position should not be correlated with other factors, besides viewership, that would influence the observed behavioral or health outcomes.

Figure S.1. Instrument Relevance


Notes: Binscatterhist (Pinna 2020) and statistics from first stage (Equation 4) regressing FNC viewership on FNC channel position. $\mathrm{N}=3,033$ counties, 49 states.

A series of empirical checks confirm that the instrument is exogenous. We assess whether our instrument is systematically correlated with a jurisdiction's predetermined characteristics, which could be correlated with COVID-19 responses or outcomes. These estimates are reported in Table S.1. For the main specification, only one out of 9 variables (land area of the county) is significantly correlated with our instrument at a $5 \%$ level; four variables are significant at the $10 \%$ level (above median proportion white, proportion entitled to food stamps, proportion with high school degree and population density). The presence of unbalanced characteristics could be problematic for the causal identification if such characteristics were also systematically correlated with the outcome of study. In our case, this does not seem to be a problem, as our main results are not significantly affected by the inclusion of these unbalanced characteristics as controls. Moreover, we find our results to be robust even when adding these characteristics to the model as polynomials or when interacting them with the main regressor (Figure S.9).

In addition to the first-stage estimation in Figure S.1, we further include in the first-stage specification the day of the week baseline used for the mobility sample. Coefficients and standard errors are virtually identical, with a lowest F-statistic of 9.48 for one day of the week.

## Survey Analysis

The survey data are analyzed using ordinary least squares regression at the individual respondent level. We regress our outcome measures for COVID-19-related behavior, beliefs, and policy preferences on explanatory variables for cable news viewership. Our detailed data allows us to compare the associations of our outcome measures with watching particular networks and particular shows. All analyses include controls for gender, age, education, race, state fixed effects, and where noted

Table S.1. Balance Checks on Channel Position Instrument

| Variable | Coefficient | st. errors |
| :---: | :---: | :---: |
| Panel A. State FE (county level) main sample |  |  |
| Age imbalance | -0.0253 | (0.0271) |
| Food stamps | -0.0780 | (0.0391) |
| College | 0.0592 | (0.0380) |
| Male | 0.0260 | (0.0192) |
| No high school | 0.0306 | (0.0261) |
| Black pop ab. median | 0.0635 | (0.0477) |
| White pop ab. median | -0.0504 | (0.0295) |
| Population density | 0.574 | (0.296) |
| Area | -0.0383 | (0.0155) |
| Panel B. County FE (zipcode level) main sample |  |  |
| Age imbalance | 0.00967 | (0.0152) |
| Food stamps | -0.0131 | (0.0167) |
| College | -0.00246 | (0.0162) |
| Male | -0.00946 | (0.0105) |
| No high school | 0.0193 | (0.0101) |
| Black pop ab. median | 0.00242 | (0.0136) |
| White pop ab. median | 0.00744 | (0.0116) |
| Population density | 0.150 | (0.0909) |
| Area | -0.0141 | (0.00585) |
| Panel C. State FE (zip level) grocery sample |  |  |
| Age imbalance | -0.0151 | (0.00769) |
| Food stamps | 0.0137 | (0.0284) |
| College | -0.0644 | (0.0342) |
| Male | 0.0353 | (0.0127) |
| No high school | -0.0466 | (0.0147) |
| Black pop ab. median | -0.00163 | (0.0158) |
| White pop ab. median | 0.0212 | (0.0372) |
| Population density | 0.0110 | (0.00701) |
| Area | -0.0339 | (0.0191) |

Notes: This table reports a correlation check between our instrument - Fox News Channel position - and local characteristics (see description in Appendix A3). Each row is from a regression similar to the reduced form (Equation 6), with the specified characteristic as the outcome and other controls still on the right-hand side. For consistency with other appendix figures, the instrument is non-inverted. Panel A provides balance checks for the main specification with county-level data, State FE's, and clustering by state. Panel B shows balances at the Zipcode level for the mobility sample, while Panel C does so for the Covid-related purchases sample. Weighting is done by county (panel A) or zipcode population (panels B and C). Political Elections controls and CNN and MSNBC viewership are not available, and so not included, at the Zipcode level. Coefficients are standardized by the standard deviation.
also party identity. Standard errors are clustered by state. See SM Section SI:survey for full details.

## Robustness Checks

We conduct a series of tests to assess the robustness of the results on behavioral responses. First, we re-run all the reduced-form analyses for the mobility outcomes at the zipcode level. This specification allows us to introduce county fixed effects, which control for any time-invariant characteristics at the county level. As seen in Figure S.8, the effects are actually stronger when using this model.

Next, we assess sensitivity to the presence of specific controls. In Figure S.10, we estimate an array of reduced-form regressions, each time excluding one of the socio-demographic controls from the benchmark model. The results remain stable throughout. Focusing on the unbalanced characteristics (see Table S.1), we show that our results are robust to adding polynomials of these variables or interacting them with the main viewership regressor (Figure S.9). The results are not sensitive to excluding the January 2020 baseline control (Figure S.12) and to including further
socio-demographic controls from the ACS Survey (Figure S.16). These socio-demographic variables are also shown not to be correlated with the instrument (Table S.6). Furthermore, we split the sample by the partisan leanings of the county's residents prior to the launch of Fox News (in 1996). SM Figures S.31-S. 32 reveal similar FNC effects for the mobility outcomes in both Democrat-leaning and Republican-leaning counties, while for purchasing behavior the stronger effect appears to be concentrated in Republican-leaning counties (sample size is greatly reduced in these checks). Second, we analyze the impact of Fox News viewership on populations as a function of their schooling level. In SM Figures S.17-S. 18 we show the FNC effects separately for counties with higher and lower levels of schooling. Again, we find comparable effects in both samples. Finally, we split the sample by the share of the population entitled to food stamps, which we use as a proxy for the rate of poverty in the country. As SM Figures S.19-S.20, indicate, the results remain significant and comparable in size across the different samples.

To explore more the mechanism of partisanship, in SM Figure S. 27 (a) and (b), we report the results from our main reduced-form regressions controlling for the square and cubic terms of the Republican vote share in 1996, the share in 2012 and the share in 2016. The estimates are also robust to including interactions of 1996, 2012 and 2016 vote shares with the channel position. (SM Figure S .27 (c) and (d)). As a further check, we obtained data on the strength of partisan identification and self-described political ideology from the Gallup Polling Social Series. We find that Fox channel positioning increases self-identification with the Republican Party and self-described political conservatism (SM Figure S. 28 (a) - (d)). Building further on the controls for Republican vote share, we show robustness to including these Gallup self-ID variables as additional controls in our regressions, including interactions with the channel position (SM Figures S.29-S.30).

Next, we perform a number of placebo tests. First, we run the 2SLS regressions but using the mobility data for 2019 rather than the corresponding period in 2020. Reassuringly, we do not find a statistically significant effect using these earlier mobility data (Figure S.15). Second, we test whether our instrument is correlated with the number of seasonal flu casualties in previous years; it is not (Figure S.26). Third, using data on TV viewership from the American Time Use Survey, we find that the FNC channel position does not have an effect on total TV watched (SM Figure S.33). We also divided the sample for counties above and below the median of TV watching time. For the analysis of these interactive effects, we report in SM Figure ?? a slightly stronger effect for counties with higher TV watching. Forth, using data from the National Association of Counties (NACo) on about 800 counties that reported a state of emergency at some point between February and mid April 2020, we show in SM Figure S. 35 that FNC position is unrelated to whether an emergency had been declared. When limiting the analysis to places that did declare an emergency, we find no empirical relationship between channel position and the number of days between the start of the pandemic and the time a state of emergency had been declared. Furthermore, controlling for the emergency measures in the main analysis does not materially change any of our results (SM Figure S.36). Fifth, we extend our analyses to the two other main cable news channels, CNN and MSNBC. We find no effect of viewership of these channels on any of our outcomes of interest (Figure S. 21 and S.22). We note that the first stage estimation for those channels is also weak.

Finally, we conduct a permutation test. We regress our benchmark specification 49 times, each time dropping the data for one state. The fact that the estimates remain stable (Figure S.11) indicates that the reported effects are not driven by any specific outlier state.

## S2. Variation in Channel Positions and Cable News Coverage on COVID-19

The U.S. cable news market is dominated by three channels: CNN, introduced in 1980, Fox News Channel (FNC) and MSNBC (both introduced in 1996). Each channel provides program schedules and content that are the same nationwide, but their availability has varied across localities. This is due to the geographically fragmented market for cable providers. Most of the time, national media
producers have to reach separate agreements with local cable companies in order to make their channel available to the final users. As these procedures might start and end at different times, the result is that channel accessibility has varied significantly over space and time (DellaVigna and Kaplan 2007).

One consequence of this variation is that the lineup positions assigned to each channel in the cable box were a function of the time in which the channel was added to the local cable system, as new channels were typically positioned sequentially. It was also common for local cable providers to place channels within a similar genre in adjacent or very close positions. Notably, channel positions are generally stable over time to avoid confusing customers searching for the channel. Therefore, the numerical order of the different channels varies across the different cable systems. Martin and Yurukoglu 2017 provide further detail on the process by which channel positions are assigned.

Figure S.2. Divergent Narratives on Fox News Channel: Skeptical COVID-19 Memes


Notes: Each panel presents the smoothed frequencies of each phrase in the leading cable news channels: Fox News (red series) and CNN/MSNBC (blue series). The frequencies pertain to the period between February 1st through April 30th, 2020.

Figure S. 2 was produced using the GDELT Television Comparer API (accessible at https://api. gdeltproject.org/api/v2/summary/summary). The GDELT API is a flexible news search interface, where one can specify specific networks and specific days. It provides statistics on relative frequencies for user-provided search queries. To produce our graphs, we searched the Television News Archive for the stated query, limiting to the stated networks, for the dates Feb 1st through April 30, 2020. We used 10 -lags as a smoothing parameter.

## S3. Further information on data sources

This SM provides additional information about the data for the observational analysis. Summary statistics are reported in Table S.2, together with time-series for the main outcomes, at the end of the section.

## Channel positions

Channel positions for FNC, MSNBC and CNN come from the Nielsen FOCUS database, which reports channel lineups of all U.S. local broadcast systems, with information about the area served by the system at the zipcode level. We use channel positions from 2016, the latest year for which we have access. Similar to Galletta and Ash 2019, we aggregate the data at the county level, by averaging zipcode-level channel positions with weighting by population size. To address the presence of outlier channels, we winsorize the variables at the top and bottom deciles. Throughout the analysis the channel position is inverted (taking the negative of the position), for representation purposes and standardized diving by its standard deviation for easier understanding of the magnitude of the effects.

## Nielsen 2020 ratings

Television viewership by county of FNC, MSNBC and CNN, is provided by Nielsen. The measure is "ratings," which is proportional to the number of minutes that each household tuned in to each specific channel during the months of January and February 2020. We standardize the viewership throughout the paper by its standard deviation for all networks. The ratings of the channels are only available at the County level are therefore not included in the Zipcode level analysis. Some counties in the raw data were split in parts (e.g. North County-A, East County-A), and were aggregated together by simple average.

## Coronavirus cases and deaths

The confirmed COVID-19-related number of cases and number of deaths are based on the COVID-19 Dashboard published by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University as of July 2020. (Dong, Du, and Gardner 2020). CSSE aggregates information from the World Health Organization, the Center for Disease Control, state health departments, and other agencies. Information is reported daily at the county level. When cases and deaths are missing for a county for a given day, they are coded as zero. Deaths and cases per capita are created as deaths and cases divided by population times 1000. The 7 days measures are standardized dividing by standard deviation per day. Cases and deaths are extremely sparse for the dates before the ones reported in the graphs, for representation purposes those estimates are not reported as they would make the graphs unreadable.

## Mobility

Safegraph ${ }^{10}$ provides information about individuals' mobility based on mobile phone device locations. The data is reported at the Census Block Group level (CBG), a small area with between 600 and 1300 people. For each device, the "home" is determined by the modal nighttime location for the device over the reporting period. ${ }^{11}$ In the analysis we include mobility variables standardized by their standard deviation, this is done at the Zipcode level before aggregating at the County level. ${ }^{12}$

We observe three mobility outcomes at the daily level. First, distance from home is the median distance (in meters) traveled from home that day for households in that CBG (excluding any distances of 0 , mean $=9.4 \mathrm{~km}$ and $\mathrm{std}=12 \mathrm{~km}$ ). Second, Time outside home is the median of observed minutes outside of home across the day (whether or not these were contiguous) for each device

[^0]in the sample (mean=127.9 minutes and std=74 minutes). Third, Full-time work is defined as the proportion of devices that spend six hours outside of the home during the period of $8 \mathrm{am}-6 \mathrm{pm}$ in local time. We include in SM the results for part-time workers, defined as the proportion of devices that spend three to six hours outside of the home during work hours, this does not include any device that spent 6 or more hours at a location other than home. And the number of devices at home: defined as the number of devices that didn't leave home during the period, out of the device_count.

For all outcomes other than the proportion of devices, Safegraph reports that first the median or the number of minutes for each device is calculated, then the median across all of the devices", where device_count is the number of devices in the panel for the day whose registered home is in the census_block_group. Home is defined as "the common nighttime location for the device over a 6 week period where nighttime is $6 \mathrm{pm}-7 \mathrm{am}$ ". Census_block_groups with less than 5 devices are not included.

We report two notes by Safegraph concerning some of the metrics involved in the analysis: "To preserve privacy, we apply differential privacy to all of the device count metrics other than the device_count. This may cause the exact sum of devices to not equal device_count, especially for sparsely populated origin_census_block_group. Differential privacy is applied to all of the following columns: completely_home_device_count, part_time_work_behavior_devices, full_time_work_behavior_devices.." and "Why do the counts for

For further information on the mobility data: https://docs.safegraph.com/docs/social-distancing-metrics.

The baseline for these measures is created by us as follows: for the last 28 days ( 4 weeks, 4 dates per day of the week) of January 2020, we take the average of the four days corresponding to the same day of the week. For example, for Thursday April 30 2020, we calculate the baseline as the average of the last four Thursdays of January 2020.

CBG's are linked to counties already by the census. We link the CBGs to zipcodes using the University of Missouri's Geocorr tool. ${ }^{13}$

## Shopping

Decadata ${ }^{14}$ provides transaction-level data on Covid-19-related purchases. These products are those deemed necessary in preparation of the COVID-19 threat and the possibility of a long stay at home. They include cleaning products, face masks (Chernozhukov, Kasahara, and Schrimpf 2020), hand sanitizer, toilet paper, and face tissues. Transactions come from a set of around 1200 stores for 581 zipcodes in 10 states. Data are aggregated by zipcode, weighting by 2010 US Census population. For these products we create the total expenditure as the quantity purchased times the net price (mean=502\$ meters and std=1184\$). We include as a baseline control the average expenditure for the Zipcode in January 2020. Counties in the sample with missing quantity of purchases on a given date ar put to 0 if the county is in sample. ${ }^{15}$. Data are aggregated by week from Monday to Sunday and then standardized.

## Demographics and Politics

The data on local demographics come from the 2010 U.S. Census. The benchmark specification includes the following set of controls, corresponding to the county or zipcode level depending on the regression: population, population density, land area, working-age share of population aged 20-69 over other ages, proportion eligible for food stamps, proportion with no high school attended,

[^1]proportion who attended college, a dummy for above-median black population share, a dummy for above-median white population share, and proportion male gender. Data on political attitudes includes Republican vote share from the 1996, 2012 and 2016 presidential elections.

## Further Data

Several other data sources are used for the robustness checks. Gallup Polling Social Series: we use information on political party self-identification and ideology for the years 2012-2019. We use television viewership data from the American Time Use Survey for the period 2010-2019, for around 350 counties. We use American Community Survey 2019 data on employment for around 500 counties, accounting for around 3 million observations. Lastly, we leverage Emergency Declarations for the period February - mid April 2020, with around 850 emergency declarations in the period, coming from the National Association of Counties (NACO).

## Survey Data

To tease out different mechanisms of media influence, we fielded an original survey of 1480 U.S. respondents. The national survey was implemented by the survey company Lucid between April 9-14th, 2020. The survey focuses on three dimensions of COVID-19 threat: behavior, beliefs, and policy preferences. First, we asked respondents about the time they last carried out activities and behaviors not complying with social distancing. Second, we measure beliefs related to COVID19. We ask whether respondents believe that a drug such as Hydroxychloroquine is an effective treatment. This was a claim repeatedly promoted by President Trump, as well as Fox News shows, in the early weeks of the pandemic, but opposed to scientific research and CDC recommendations (Meyerowitz et al. 2020; CDC 2020). Third, we ask respondents about their preferred policy response to COVID-19 concerning the trade-off between economic harms and health harms. Respondents place themselves on a 10-point scale about whether the government should focus on the economy or on public health. Beyond these outcome measures, we also asked respondents about which cable news channel and particular shows they watch. In addition, the survey provides a range of socio-demographic variables such as gender, age, education, race, location, as well as political ideology and party identity.

Table S.2. Summary Statistics: Observational Data

| Variable | Mean | Std. Dev. | Min | Max | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| News channels (county level) |  |  |  |  |  |
| Ratings \% Fox News 2020 | 1.656 | 2.345 | 0 | 67.400 | 3,033 |
| Ratings \% MSNBC 2020 | 0.377 | 0.518 | 0 | 11.9 | 3,033 |
| Ratings \% CNN 2020 | 0.538 | 0.835 | 0 | 26.4 | 3,033 |
| Fox News channel position 2016 | 74.303 | 38.389 | 31.43 | 140.109 | 3,033 |
| MSNBC channel position 2016 | 82.922 | 42.89 | 34.946 | 158.798 | 2,996 |
| CNN channel position 2016 | 65.197 | 37.359 | 24.05 | 129.149 | 3,031 |
| News channels (zip code level) |  |  |  |  |  |
| Fox News channel position 2016 | 79.334 | 40.794 | 30 | 147.667 | 27,288 |
| CNN channel position 2016 | 70.017 | 39.915 | 24 | 136 | 27,288 |
| MSNBC channel position 2016 | 90.711 | 52.328 | 34 | 199 | 27,288 |
| News channels (zip code level - grocery) |  |  |  |  |  |
| Fox News channel position 2016 | 87.588 | 33.388 | 30 | 147.667 | 581 |
| CNN channel position 2016 | 78.570 | 33.19 | 24 | 136 | 581 |
| MSNBC channel position 2016 | 98.75 | 44.032 | 34 | 199 | 581 |
| Demographic (county level) |  |  |  |  |  |
| Population | 100,672.477 | 317,893.337 | 80 | 9,818,535 | 3,033 |
| Population density | 188.094 | 920.453 | 0.129 | 33,886.035 | 3,033 |
| Area | 510.295 | 664.63 | 1.553 | 9,309.787 | 3,033 |
| Age imbalance | 1.702 | 0.226 | 1.09 | 4 | 3,033 |
| Food stamps | 0.126 | 0.059 | 0 | 0.431 | 3,033 |
| Median republican 2016 | 0.5 | 0.5 | 0 | 1 | 3,033 |
| Median republican 2012 | 0.5 | 0.5 | 0 | 1 | 3,033 |
| No high school | 0.163 | 0.071 | 0.014 | 0.537 | 3,033 |
| College | 0.192 | 0.085 | 0.054 | 0.706 | 3,033 |
| Black pop ab. median | 0.5 | 0.5 | 0 | 1 | 3,033 |
| White pop ab. median | 0.5 | 0.5 | 0 | 1 | 3,033 |
| Male | 0.499 | 0.021 | 0.438 | 0.719 | 3,033 |
| Demographic (zip code level) |  |  |  |  |  |
| Population | 11,144.397 | 14,390.684 | 4 | 11,3916 | 27,288 |
| Population density | 547.232 | 1,963.413 | 0.011 | 57,231.166 | 27,288 |
| Area | 193.707 | 436.68 | 0.009 | 23,599.013 | 27,288 |
| Age imbalance | 1.841 | 1.085 | 0.021 | 130.5 | 27,288 |
| Food stamps | 0.11 | 0.095 | 0 | 1 | 27,288 |
| No high school | 0.149 | 0.107 | 0 | 1 | 27,288 |
| College | 0.225 | 0.16 | 0 | 1 | 27,288 |
| Black pop ab. median | 0.424 | 0.494 | 0 | 1 | 27,288 |
| White pop ab. median | 0.561 | 0.496 | 0 | 1 | 27,288 |
| Male | 0.499 | 0.034 | 0 | 0.995 | 27,288 |
| Demographic (zip code level - grocery) |  |  |  |  |  |
| Population | 25,924.983 | 13,368.793 | 2,175 | 72,248 | 581 |
| Population density | 691.569 | 838.949 | 8.092 | 4,757.85 | 581 |
| Area | 161.797 | 222.673 | 0.977 | 1,679.866 | 581 |
| Age imbalance | 1.811 | 0.401 | 0.531 | 6.729 | 581 |
| Food stamps | 0.115 | 0.071 | 0.005 | 0.416 | 581 |
| No high school | 0.145 | 0.08 | 0.015 | 0.622 | 581 |
| College | 0.258 | 0.135 | 0.037 | 0.76 | 581 |
| White pop ab. median | 0.251 | 0.434 | 0 | 1 | 581 |
| Black pop ab. median | 0.885 | 0.32 | 0 | 1 | 581 |
| Male | 0.487 | 0.023 | 0.425 | 0.712 | 581 |

Figure S.3. Time-series of mobility outcomes
(a) Distance from home


Notes: One standard deviation starting from the minimum of the variable.

Figure S.4. Time-series of expenditure in Covid-19 related products


Notes: One standard deviation starting from the minimum of the variable.

Figure S.5. Time-series of Covid-19 infections and deaths
(a) Number of cases
(b) Number of cases (7-days difference)

(c) Number of deaths


(d) Number of deaths (7-days difference)


## S4. Additional Material on the Survey

The survey was fielded between April 9th-14th using the online polls marketplace Lucid. Lucid utilizes an array of opt-in panels. Survey takers are compensated in cash, gift cards, or reward points. The large and diverse pool of respondents means that the average respondent takes 2.43 surveys per month (Coppock and McClellan 2019).

We used quota sampling to ensure that the distributions of demographic characteristics (age, gender, ethnicity, race, education, income, and ZIP code) in our sample match the U.S. population margins, as measured by the census. Previous work has shown that the Lucid samples come closer than the MTurk platform to the demographic, political, and psychological characteristics of nationally representative samples (Coppock and McClellan 2019). The final sample included 1480 respondents. Descriptive statistics are reported in Table S.3.

The survey was approved by the University of Tel Aviv Institutional Review Board.Informed consent was obtained from each participant at the beginning of the survey.

## Question Wording

To assess the impact of FNC viewership on social-distancing behavior, respondents were asked: "Please indicate the last time you did any of the following activities:", followed by a matrix of the three behavioral outcomes:

- Eaten in a restaurant
- Visited a close friend at their home
- Spent time in the same room with more than five people

The response options were: (1) This week; (2) A week ago; (3) Two weeks ago; (4) Three weeks ago or more. The behavioral measure we use is computed as the mean response to the three items, providing an indication of the mean timing by respondents of taking steps toward social distancing.

Second, to gauge beliefs about the threat of the virus, and specifically the argument that COVID-19 can be effectively dealt with by existing treatments such as the anti-malarial drug Hy droxychloroquine, we asked respondents: " Which of the following statements best describes the availability of a vaccine or an effective treatment for the coronavirus?". Response options were:

- A vaccine is already available
- vaccine is not available but will be in less than a year
- A vaccine will be available in a year or more
- It is not possible to create a vaccine for the coronavirus
- There is no vaccine available but there are effective treatments (e.g., the drug Hydroxychloroquine).
We code a binary outcome Hydroxychloroquine as 1 if respondents chose the final option as the answer, consistent with the position advanced by leading programs on Fox News Channel. Overall, 27.1\% of respondents selected this option.

Finally, we code respondents' views pertaining to the policy debate on whether to sustain the lock-down measures given their impact of slowing economic activity. The question preamble read as follows: "People have different views on how the coronavirus outbreak should be managed. Some believe that the focus should be on avoiding economic depression and therefore that steps to contain the epidemic should be limited, even at the cost of more people who contract the virus. Others believe that minimizing the number of people who contract the virus should be the focus, even if that means taking expansive measures that bring about a severe economic decline. Where do you stand on this question?"

The respondents were then instructed as follows: "Please place yourself on the scale below.

- The right-hand side means the government should focus solely on minimizing the pandemic's harmful impact on the economy.
- The left-hand side means the government should focus on minimizing the pandemic's harmful impact on public health."
For ease of interpretation, we collapse the ratings to three levels: respondents placed priority on minimizing the negative impact on the economy, on public health, or assigned an equal priority.

In the top panel of Figure 2 the dependent variable is the average timing of the last instance the respondent carried out these three actions: participated in a gathering with more than five people; visited the house of a friend; dined in a restaurant. This is also the outcome measure in all four panels of Figure 3. The panels differ in the sample we analyze: Panel (a) includes the full sample; Panel (b) includes only self-identified Republicans; Panel (c) includes Republicans who watch Fox at least two times a week; Panel (d) includes Republicans who are also self-identified conservatives. All estimates are obtained from regressions that control for gender, age, education, race, and state fixed effects. Standard errors are clustered by state.

Table S.3. Summary Statistics: Survey Data

| Variable | Mean | Std. Dev. | Min | Max | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Televisions |  |  |  |  |  |
| Fox News | 0.564 | 0.496 | 0 | 1 | 1481 |
| CNN | 0.542 | 0.498 | 0 | 1 | 1481 |
| MSNBC | 0.452 | 0.498 | 0 | 1 | 1481 |
| Hannity | 0.259 | 0.438 | 0 | 1 | 1481 |
| Fox \& Friends | 0.344 | 0.475 | 0 | 1 | 1481 |
| Tucker Carson Tonight | 0.255 | 0.436 | 0 | 1 | 1481 |
| Attitudes \& Beliefs |  |  |  |  |  |
| Changing Behavior | 3.529 | 0.700 | 1 | 4 | 1481 |
| Hydroxcloroquine effective | 0.271 | 0.445 | 0 | 1 | 1481 |
| Health-economic trade-off | 0.334 | 0.472 | 0 | 1 | 1481 |
| Individual Characteristics |  |  |  |  |  |
| Age | 3.406 | 1.57 | 1 | 6 | 1481 |
| Income | 4.455 | 2.336 | 1 | 9 | 1480 |
| Female | 0.523 | 0.5 | 0 | 1 | 1481 |
| Education | 3.331 | 1.532 | 1 | 6 | 1481 |
| White | 0.614 | 0.487 | 0 | 1 | 1481 |
| Hispanic | 0.175 | 0.38 | 0 | 1 | 1481 |
| Black | 0.134 | 0.34 | 0 | 1 | 1481 |
| Asian | 0.062 | 0.241 | 0 | 1 | 1481 |
| Other | 0.016 | 0.124 | 0 | 1 | 1481 |
| Republican | 0.328 | 0.47 | 0 | 1 | 1480 |
| Independent | 0.281 | 0.45 | 0 | 1 | 1480 |
| Democrat | 0.391 | 0.488 | 0 | 1 | 1480 |

Table S.4. Cable News effect on attitudes and beliefs - Survey Estimates

| News Channel | Coefficient <br> (1) | st. errors <br> (2) | Coefficient <br> (3) | st. errors <br> (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Changing Behavior |  |  |  |
|  | Full Sample |  | Leans Republican |  |
| Fox News | -0.121 | (0.040) | -0.0858 | (0.0472) |
| CNN | 0.009 | (0.041) | -0.00789 | (0.0418) |
| MSNBC | -0.055 | (0.051) | -0.0635 | (0.0507) |
|  | Hydroxcloroquine effective |  |  |  |
|  | Full Sample |  | Leans Republican |  |
| Fox News | 0.124 | (0.030) | 0.0833 | (0.0284) |
| CNN | -0.019 | (0.030) | 0.001 | (0.0304) |
| MSNBC | -0.089 | (0.030) | -0.0790 | (0.0300) |
|  | Health-economic trade-off |  |  |  |
|  | Full Sample |  | Leans Republican |  |
| Fox News | 0.220 | (0.025) | 0.187 | (0.0261) |
| CNN | -0.089 | (0.033) | -0.0687 | (0.0321) |
| MSNBC | -0.037 | (0.037) | 0.0468 | (0.0336) |

Table S.5. Fox News shows effect on attitudes and beliefs - Survey Estimates

| News Channel | Coefficient <br> (1) | st. errors <br> (2) | Coefficient <br> (3) | st. errors <br> (4) | Coefficient <br> (5) | st. errors <br> (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Full Sample |  |  |  |  |  |
|  | Changing Behavior |  | Hydroxcloroquine effective |  | Health-economic trade-off |  |
| Hannity | -0.338 | (0.0929) | 0.0851 | (0.0367) | 0.0819 | (0.042) |
| Fox \& Friends | -0.00729 | (0.0418) | 0.0799 | (0.0279) | -0.0082 | (0.0317) |
| Tucker Carson Tonight | -0.000937 | (0.0769) | 0.137 | (0.0524) | 0.0913 | (0.044) |
|  |  |  | Rep | ans only |  |  |
|  | Changing Behavior |  | Hydroxcloroquine effective |  | Health-economic trade-off |  |
| Hannity | -0.376 | (0.142) | 0.103 | (0.0987) | 0.0749 | (0.0632) |
| Fox \& Friends | 0.00312 | (0.0727) | 0.0481 | (0.0433) | -0.0141 | (0.0542) |
| Tucker Carson Tonight | 0.245 | (0.136) | 0.0654 | (0.0892) | 0.0881 | (0.0824) |
|  | Republicans who are Fox News viewers |  |  |  |  |  |
|  | Changing Behavior |  | Hydroxcloroquine effective |  | Health-economic trade-off |  |
| Hannity | -0.394 | (0.184) | 0.0917 | (0.0965) | 0.0173 | (0.0789) |
| Fox \& Friends | -0.000 | (0.0888) | 0.0374 | (0.0677) | 0.0295 | (0.0559) |
| Tucker Carson Tonight | 0.264 | (0.162) | 0.0701 | (0.0904) | 0.0974 | (0.0937) |
|  | Republicans who are Conservatives |  |  |  |  |  |
|  | Changing Behavior |  | Hydroxcloroquine effective |  | Health-economic trade-off |  |
| Hannity | -0.297 | (0.163) | 0.128 | (0.113) | 0.0567 | (0.0877) |
| Fox \& Friends | -0.109 | (0.0905) | 0.0151 | (0.0679) | -0.0161 | (0.0707) |
| Tucker Carson Tonight | 0.298 | (0.176) | 0.0756 | (0.102) | 0.0758 | (0.1) |

[^2]
## S5. Additional Behavioral-Response Results

This section reports the additional results for behavioral response outcomes. In the main text, we interpreted the coefficients as follows. We took the average coefficients for March 15th through March 31st. We then rescaled the average coefficient based on the mean and standard deviation of the outcome and of FNC ratings to produce interpretable quantities.

For the corona-related purchases estimates, we use the two weeks from March 16th-29th. Because the estimates are from the reduced form, we produce interpretable coefficients by assuming the same first stage effect as with the other mobility measures. The coefficient is at the zip code level, so we divided by the number of stores per zip code (2.06) to get a store-level estimate.

Figure S.6. Effect on Mobility Outcomes: OLS
(a) Distance from home - FXNC

(b) Time outside home - FXNC


Notes: Ordinary least Squares (OLS) regression results for the effect of FNC on mobility outcomes (Equation 5), analogous to 2SLS results in Figure 1.

Figure S.7. Effect on Mobility Outcomes: Reduced Form


Notes: Reduced Form (RF) regression results (Equation 6) for the effect of FNC on mobility outcomes, analogous to 2SLS results in Figure 1.

Figure S.8. Effect on Mobility Outcomes: Reduced Form, Zipcode level with County FE
(a) Distance from home


Notes: Reduced Form (RF) regression results (Equation 6) for the effect of FNC on mobility outcomes, zipcode-level (rather than county-level) specification. The important difference is the inclusion of County fixed effects, rather than state fixed effects. County-level covariates are dropped (Republican vote share, ratings controls for CNN and MSNBC). Standard errors still clustered by state.

Figure S.9. Effect on Mobility Outcomes: Robustness to Polynomials and Interactions of unbalanced covariates


Notes: Reduced Form (RF) regression results (Equation 6) for the effect of FNC on mobility outcomes - Panel (a) \& (b) and purchases - Panel (c).
Panels (a)-(b) show 10 sets of regressions on our two main mobility outcomes. The specification includes our standard set of controls for the County level (socio-demographic and CNN and MSNBC viewership), weighted observations, with State FE's and State clustered standard errors and January day-of-the-week baseline controls. The specifications further include, for one of the five controls significant at the $10 \%$ in the instrument check at the County and Zipcode level on the main sample, either an interaction with the instrument or a polynomial regression: Population density, Area, Food stamps, White pop ab. median (county level sample) and No high school, Area (zipcode level sample). Of these controls only area is significant at the $5 \%$. The interaction regressions and the polynomial regressions for all the problematic controls are overlapped by outcome. Results appear robust.
Panel (c) shows 4 sets of regressions on the purchases outcome. The specification uses the purchases restricted sample of zipcodes, with weighted observations, State FE's and State clustered standard errors. The specifications further include, for one of the four controls significant at the $10 \%$ in the instrument check further includes for one of the problematic controls of the instrument check a polynomial regression: Area, Age imbalance, No high school, Male. The polynomial regressions for all the problematic controls are overlapped. Results are robust to the polynomials even without the inclusion of the baseline measure.

Figure S.10. Effect on Mobility (Distance from home), Robustness to dropping individual controls


Notes: We run here our main specification Reduced Form regressions at the county level, dropping every time one of the census controls: population density, land area of the county, age imbalance in the population, percentage of people having access to food stamps, above median republican share of the county in 2012 US Elections above median, above median republican share of the county in 2016 US Elections above median, percentage of population with no high school education, percentage of population with college education, above median percentage of white people, above median percentage of black people, percentage of males. We plot therefore 11 different sets of regressions. Confidence intervals are at the $95 \%$. The set of regressions lower in the graph are the ones when dropping population density, a key control in the analysis. The 2SLS regressions are also robust to the robustness check.

Figure S.11. Effect on Mobility (Distance from home), Robustness to dropping individual states


Notes: We run here our main specification Reduced Form regressions at the county level, dropping one of the 49 states at the time. We plot therefore 49 different sets of regressions. Confidence intervals are at the $95 \%$. The 2SLS regressions are also robust to the robustness check, however, the first stage regressions lose significance with the reduced sample size.

Figure S.12. Effect on Mobility, Robustness to dropping January baseline
(a) Distance from home

(b) Time outside home


Notes: 2SLS regression results for our main FNC specification for mobility outcomes in Figure 1, not controlling for the January day-of-the-week baseline. Results are robust to the omission of the baseline.

Figure S.13. Effect on Additional Mobility Outcomes
(a) Part time workers

(b) Full time workers

(c) Home devices count


Notes: We include here two further outcomes for mobility, the number of devices of part time workers (defined as devices being outside home during day for 3 to 6 hours) and the number of devices completely at home. The specification follows the main mobility regressions with weighted observations, State FE's and State clustered standard errors, census controls, political elections controls and CNN and MSNBC ratings, and including the January day-of-the-week baseline. We find a significant effect on part-time workers but not on the number of devices at home.

Figure S.14. Effect on Purchases, Limited to Protective Products


Notes: This figure shows the total expenditure in a subset of products: cleaning products, facial masks and hand sanitiser. The specification uses the restricted sample of zipcodes used in the purchases analysis, weighted observations, State FE's and State clustered standard errors.

Figure S.15. Placebo Test: Effect on 2019 Mobility (2SLS)
(a) Distance from home

(b) Time outside home


Notes: We run here our main specification 2SLS regressions at the county level as in Figure 1 but on the 2019 mobility data, without January day-of-the-week baseline. Confidence intervals are at the 95\%.

Figure S.16. Robustness to ACS controls (RF)
(a) Distance from home

(b) Time outside home


Notes: Our main specification results are robust to the inclusion of employment controls from the American Community Survey, including the proportion of people employed in the transportation sector, medical sector, agricultural-farming sector, manual and industrial sector, and retail.

Table S.6. Placebo check: American Community Service Employment (RF)

|  | Medical | Retail | Agriculture-Farming | Manual-Industrial | Transports |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coef | .0004 | .001 | -.001 | -.001 | -.0007 |
| (s.e.) | $(.0005)$ | $(.0008)$ | $(.001)$ | $(.001)$ | $(.0005)$ |

Notes: We run here our main specification reduced form regressions at the county level, looking at the correlation between our instrument and an extended set of employment controls. All coefficients are not significant. Standard errors clustered by state. *p < 0.05 and **p $<0.01$.

Figure S.17. Mobility - Robustness to Splitting Sample by Education Level (RF)


Figure S.18. Purchases - Robustness to Splitting Sample by Education Level (RF)
(a) Groceries - Above median population with no high school

(b) Groceries - Below median population with no high school


Notes: Reduced Form (RF) regression results for the purchases outcomes, splitting the sample by counties with percentage of people with no high school education above or below median.

Figure S.19. Mobility - Robustness to Splitting Sample by Rights to Food Stamps (RF)
(a) Distance from home - Above median population entitled (b) Distance from home - Below median population entitled to food stamps to food stamps


(c) Time outside home - Above median population entitled to(d) Time outside home - Below median population entitled to food stamps
food stamps



Notes: Reduced Form (RF) regression results for the mobility outcomes, splitting the sample by counties with percentage of people with no high school education above or below median.

Figure S.20. Purchases - Robustness to Splitting Sample by by Rights to Food Stamps (RF)
(a) Groceries - Above median population entitled to food stamps

(b) Groceries - Below median population entitled to food stamps


Notes: Reduced Form (RF) regression results for the purchases outcomes, splitting the sample by counties with percentage of people with no high school education above or below median.

Figure S.21. Effect on Mobility of CNN/MSNBC (OLS)
(a) Distance from home - MSNBC

(c) Distance from home - CNN

(b) Time outside home - MSNBC

(d) Time outside home - CNN


Notes: The OLS specification for CNN and MSNBC follows the same specification as the main Fox News Channel specification for the mobility sample: weighted observations, with State FE's and State clustered standard errors and January day-of-the-week baseline controls. The viewership controls included in the specification are those of the other two main networks: FXNC and CNN for MSNBC and FXNC and MSNBC for CNN..

Figure S.22. Effect on Mobility of CNN/MSNBC (2SLS)
(a) Distance from home - MSNBC
(b) Time outside home - MSNBC

(c) Distance from home - CNN


(d) Time outside home - CNN


Notes: The 2SLS specification for CNN and MSNBC follows the same specification as the main Fox News Channel specification for the mobility sample: weighted observations, with State FE's and State clustered standard errors and January day-of-theweek baseline controls. The viewership controls included in the specification are those of the other two main networks: FXNC and CNN for MSNBC and FXNC and MSNBC for CNN..

Table S.7. 2SLS Estimates - Distance from home

| Date | Coefficient | st. errors | Date | Coefficient | st. errors | Date | Coefficient | st. errors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01-Feb-20 | -0.0947 | (0.0621) | 02-Mar-20 | 0.0865 | (0.147) | 01-Apr-20 | 0.459 | (0.192) |
| 02-Feb-20 | -0.0454 | (0.0576) | 03-Mar-20 | 0.109 | (0.117) | 02-Apr-20 | 0.430 | (0.188) |
| 03-Feb-20 | -0.0524 | (0.0965) | 04-Mar-20 | 0.177 | (0.143) | 03-Apr-20 | 0.549 | (0.216) |
| 04-Feb-20 | -0.0375 | (0.0701) | 05-Mar-20 | 0.162 | (0.151) | 04-Apr-20 | 0.526 | (0.250) |
| 05-Feb-20 | -0.119 | (0.0788) | 06-Mar-20 | 0.194 | (0.137) | 05-Apr-20 | 0.428 | (0.194) |
| 06-Feb-20 | -0.0642 | (0.0733) | 07-Mar-20 | 0.378 | (0.171) | 06-Apr-20 | 0.557 | (0.256) |
| 07-Feb-20 | 0.0399 | (0.0751) | 08-Mar-20 | 0.400 | (0.175) | 07-Apr-20 | 0.577 | (0.236) |
| 08-Feb-20 | 0.0252 | (0.0732) | 09-Mar-20 | 0.336 | (0.158) | 08-Apr-20 | 0.599 | (0.258) |
| 09-Feb-20 | -0.0424 | (0.0882) | 10-Mar-20 | 0.342 | (0.159) | 09-Apr-20 | 0.687 | (0.260) |
| 10-Feb-20 | -0.0402 | (0.0639) | 11-Mar-20 | 0.387 | (0.160) | 10-Apr-20 | 0.688 | (0.268) |
| 11-Feb-20 | -0.0279 | (0.0841) | 12-Mar-20 | 0.415 | (0.174) | 11-Apr-20 | 0.622 | (0.275) |
| 12-Feb-20 | -0.0207 | (0.0772) | 13-Mar-20 | 0.348 | (0.155) | 12-Apr-20 | 0.767 | (0.338) |
| 13-Feb-20 | 0.0171 | (0.0757) | 14-Mar-20 | 0.595 | (0.243) | 13-Apr-20 | 0.767 | (0.340) |
| 14-Feb-20 | -0.0149 | (0.0887) | 15-Mar-20 | 0.613 | (0.273) | 14-Apr-20 | 0.672 | (0.305) |
| 15-Feb-20 | 0.0398 | (0.104) | 16-Mar-20 | 0.537 | (0.242) | 15-Apr-20 | 0.745 | (0.332) |
| 16-Feb-20 | 0.00540 | (0.122) | 17-Mar-20 | 0.472 | (0.215) | 16-Apr-20 | 0.708 | (0.317) |
| 17-Feb-20 | 0.00964 | (0.107) | 18-Mar-20 | 0.550 | (0.250) | 17-Apr-20 | 0.722 | (0.309) |
| 18-Feb-20 | -0.0390 | (0.103) | 19-Mar-20 | 0.551 | (0.250) | 18-Apr-20 | 0.830 | (0.397) |
| 19-Feb-20 | 0.00141 | (0.0877) | 20-Mar-20 | 0.663 | (0.278) | 19-Apr-20 | 0.669 | (0.313) |
| 20-Feb-20 | -0.0614 | (0.0803) | 21-Mar-20 | 0.708 | (0.321) | 20-Apr-20 | 0.766 | (0.365) |
| 21-Feb-20 | -0.00526 | (0.0751) | 22-Mar-20 | 0.675 | (0.282) | 21-Apr-20 | 0.658 | (0.297) |
| 22-Feb-20 | 0.0687 | (0.118) | 23-Mar-20 | 0.597 | (0.255) | 22-Apr-20 | 0.629 | (0.290) |
| 23-Feb-20 | 0.0422 | (0.0805) | 24-Mar-20 | 0.618 | (0.269) | 23-Apr-20 | 0.683 | (0.314) |
| 24-Feb-20 | 0.0718 | (0.108) | 25-Mar-20 | 0.601 | (0.254) | 24-Apr-20 | 0.716 | (0.337) |
| 25-Feb-20 | 0.0461 | (0.0973) | 26-Mar-20 | 0.690 | (0.328) | 25-Apr-20 | 0.727 | (0.307) |
| 26-Feb-20 | 0.0149 | (0.0713) | 27-Mar-20 | 0.752 | (0.316) | 26-Apr-20 | 0.882 | (0.417) |
| 27-Feb-20 | -0.0302 | (0.0978) | 28-Mar-20 | 0.801 | (0.344) | 27-Apr-20 | 0.802 | (0.369) |
| 28-Feb-20 | -0.0572 | (0.0666) | 29-Mar-20 | 0.768 | (0.317) | 28-Apr-20 | 0.788 | (0.348) |
| 29-Feb-20 | 0.0225 | (0.0760) | 30-Mar-20 | 0.742 | (0.319) | 29-Apr-20 | 0.835 | (0.377) |
| 01-Mar-20 | 0.0344 | (0.107) | 31-Mar-20 | 0.688 | (0.299) | 30-Apr-20 | 0.774 | (0.356) |

Notes: Standard errors clustered by state.

Table S.8. 2SLS Estimates - Time outside home

| Date | Coefficient | st. errors | Date | Coefficient | st. errors | Date | Coefficient | st. errors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01-Feb-20 | -0.208 | (0.101) | 02-Mar-20 | -0.232 | (0.183) | 01-Apr-20 | 1.023 | (0.342) |
| 02-Feb-20 | -0.0985 | (0.105) | 03-Mar-20 | -0.0805 | (0.114) | 02-Apr-20 | 1.101 | (0.362) |
| 03-Feb-20 | -0.379 | (0.156) | 04-Mar-20 | 0.0248 | (0.142) | 03-Apr-20 | 1.021 | (0.348) |
| 04-Feb-20 | -0.250 | (0.119) | 05-Mar-20 | -0.194 | (0.141) | 04-Apr-20 | 0.799 | (0.305) |
| 05-Feb-20 | 0.0466 | (0.196) | 06-Mar-20 | -0.0729 | (0.180) | 05-Apr-20 | 0.633 | (0.239) |
| 06-Feb-20 | -0.218 | (0.380) | 07-Mar-20 | 0.351 | (0.206) | 06-Apr-20 | 1.073 | (0.353) |
| 07-Feb-20 | -0.526 | (0.248) | 08-Mar-20 | 0.294 | (0.182) | 07-Apr-20 | 1.099 | (0.361) |
| 08-Feb-20 | -0.0731 | (0.160) | 09-Mar-20 | 0.329 | (0.233) | 08-Apr-20 | 1.099 | (0.363) |
| 09-Feb-20 | -0.0228 | (0.0773) | 10-Mar-20 | 0.490 | (0.246) | 09-Apr-20 | 1.160 | (0.386) |
| 10-Feb-20 | -0.503 | (0.184) | 11-Mar-20 | 0.615 | (0.292) | 10-Apr-20 | 1.116 | (0.383) |
| 11-Feb-20 | -0.241 | (0.184) | 12-Mar-20 | 0.497 | (0.252) | 11-Apr-20 | 0.979 | (0.363) |
| 12-Feb-20 | -0.309 | (0.172) | 13-Mar-20 | 0.814 | (0.332) | 12-Apr-20 | 0.787 | (0.294) |
| 13-Feb-20 | -0.0591 | (0.270) | 14-Mar-20 | 0.986 | (0.387) | 13-Apr-20 | 1.168 | (0.392) |
| 14-Feb-20 | -0.228 | (0.197) | 15-Mar-20 | 0.995 | (0.378) | 14-Apr-20 | 1.359 | (0.452) |
| 15-Feb-20 | 0.0176 | (0.118) | 16-Mar-20 | 1.383 | (0.488) | 15-Apr-20 | 1.329 | (0.455) |
| 16-Feb-20 | -0.0619 | (0.0994) | 17-Mar-20 | 1.953 | (0.637) | 16-Apr-20 | 1.345 | (0.445) |
| 17-Feb-20 | 0.250 | (0.234) | 18-Mar-20 | 1.941 | (0.639) | 17-Apr-20 | 1.403 | (0.459) |
| 18-Feb-20 | -0.0438 | (0.251) | 19-Mar-20 | 1.756 | (0.564) | 18-Apr-20 | 0.877 | (0.349) |
| 19-Feb-20 | -0.0629 | (0.174) | 20-Mar-20 | 1.136 | (0.406) | 19-Apr-20 | 0.619 | (0.268) |
| 20-Feb-20 | -0.163 | (0.214) | 21-Mar-20 | 0.733 | (0.266) | 20-Apr-20 | 1.193 | (0.396) |
| 21-Feb-20 | -0.184 | (0.240) | 22-Mar-20 | 0.747 | (0.274) | 21-Apr-20 | 1.291 | (0.431) |
| 22-Feb-20 | -0.157 | (0.126) | 23-Mar-20 | 1.564 | (0.518) | 22-Apr-20 | 1.320 | (0.438) |
| 23-Feb-20 | -0.0599 | (0.0918) | 24-Mar-20 | 1.713 | (0.567) | 23-Apr-20 | 1.326 | (0.441) |
| 24-Feb-20 | -0.315 | (0.227) | 25-Mar-20 | 1.726 | (0.590) | 24-Apr-20 | 1.319 | (0.438) |
| 25-Feb-20 | 0.157 | (0.156) | 26-Mar-20 | 1.845 | (0.602) | 25-Apr-20 | 0.995 | (0.365) |
| 26-Feb-20 | -0.00813 | (0.222) | 27-Mar-20 | 1.803 | (0.592) | 26-Apr-20 | 0.697 | (0.285) |
| 27-Feb-20 | -0.0865 | (0.286) | 28-Mar-20 | 1.253 | (0.435) | 27-Apr-20 | 1.321 | (0.438) |
| 28-Feb-20 | -0.349 | (0.220) | 29-Mar-20 | 1.046 | (0.390) | 28-Apr-20 | 1.332 | (0.437) |
| 29-Feb-20 | -0.0825 | (0.133) | 30-Mar-20 | 1.620 | (0.533) | 29-Apr-20 | 1.397 | (0.465) |
| 01-Mar-20 | -0.0336 | (0.0846) | 31-Mar-20 | 1.676 | (0.553) | 30-Apr-20 | 1.306 | (0.462) |

Notes: Standard errors clustered by state.

Table S.9. Reduced Form Estimates - Covid-Related Purchases

| Date | Coefficient | st. errors |
| :--- | :---: | :---: |
| 27-Jan/2-Feb-20 | -0.00802 | $(0.0123)$ |
| 3/9-Feb-20 | -0.0156 | $(0.0197)$ |
| 10/16-Feb-20 | 0.00154 | $(0.00768)$ |
| 17/23-Feb-20 | -0.00420 | $(0.0101)$ |
| 24-Feb/1-Mar-20 | -0.00509 | $(0.0126)$ |
| 2/8-Mar-20 | 0.0257 | $(0.0187)$ |
| 9/14-Mar-20 | -0.0402 | $(0.0222)$ |
| 15/21-Mar-20 | -0.104 | $(0.0223)$ |
| 22/28-Mar-20 | -0.184 | $(0.0399)$ |
| 29-Mar/5-Apr-20 | -0.0388 | $(0.0244)$ |
| 6/12-Apr-20 | -0.0836 | $(0.0331)$ |
| 13/19-Apr-20 | -0.0857 | $(0.0332)$ |
| 20/26-Apr-20 | -0.0457 | $(0.0189)$ |
| 27-Apr/3-May-20 | -0.0904 | $(0.0345)$ |

Notes: Standard errors clustered by state.

## S6. Health Results

This section reports results on the public-health outcomes. We note that the pandemic situation is still evolving. It could be that media messaging will influence behaviors and health in subsequent stages. Both the imposition and the disengagement of lockdowns has been politicized, with divisive messaging on both sides. We will continue to monitor these subsequent events and potential impacts.

Figure S.23. Fox News Effect on COVID-19 Infections and Deaths
(a) Number of COVID-19 Infections (7-day difference)


Notes: Each panel in this figure shows a series of coefficient plots and $95 \%$ confidence intervals for daily 2SLS regressions of the effect of Fox News Channel standardized viewership on new cases and deaths in the previous seven days.

Figure S.24. Fox News Effect on COVID-19 Outcomes
(a)

Number of cases (per capita)

(b)

Number of deaths (per capita)


Notes: Each panel in this figure shows a series of coefficient plots and $95 \%$ confidence intervals for daily regressions of the effect of Fox News Channel viewership on cases and deaths per capita measures. Specification is the same is in the main COVID-19 regressions, with weighted observations, State FE's and State clustered standard errors, census controls, political elections controls and CNN and MSNBC ratings. The per capita measure is defined as cumulative cases/deaths over population times 1000 . Some extremely sparse cases and deaths are reported in February and generate very noisy estimates, making the graph unreadable, we exclude those therefore for presentation purposes.

Figure S.25. Effect on Health Outcomes, including June 2020 Data


Notes: Each panel in this figure shows a series of coefficient plots and 95\% confidence intervals for daily regressions of the effect of Fox News Channel viewership on a different outcome. The dependent variables are cases and deaths, we have two measures: a 7-days and the cumulative per capita measure. Specification is the same is in the main COVID-19 regressions in Figure 1. We include further data for June 2020.

Figure S.26. Health Outcome Placebo Test: Effect on Seasonal Flu


Notes: We look here at seasonal flu deaths from 2007 to 2018 pooled by three years. Specification is the same as the main regressions for COVID-19 but without baseline, with weighted observations, State FE's and State clustered standard errors, census controls, political elections controls and CNN and MSNBC ratings.

Table S.10. 2SLS Estimates - Number of cases (7-days difference)

| Date | Coefficient | st. errors | Date | Coefficient | st. errors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 29-Feb-20 | -4.758 | (2.668) | 31-Mar-20 | 2.346 | (3.154) |
| 01-Mar-20 | -4.306 | (2.441) | 01-Apr-20 | 2.068 | (3.098) |
| 02-Mar-20 | -3.388 | (2.348) | 02-Apr-20 | 1.531 | (3.049) |
| 03-Mar-20 | -3.038 | (2.258) | 03-Apr-20 | 1.561 | (2.995) |
| 04-Mar-20 | -1.848 | (1.676) | 04-Apr-20 | 1.176 | (2.901) |
| 05-Mar-20 | -2.794 | (2.183) | 05-Apr-20 | 1.276 | (2.974) |
| 06-Mar-20 | -2.806 | (1.774) | 06-Apr-20 | 1.167 | (2.957) |
| 07-Mar-20 | -2.557 | (1.926) | 07-Apr-20 | 1.047 | (2.903) |
| 08-Mar-20 | -2.114 | (1.947) | 08-Apr-20 | 1.173 | (2.996) |
| 09-Mar-20 | -0.842 | (1.430) | 09-Apr-20 | 1.433 | (3.079) |
| 10-Mar-20 | -1.032 | (1.393) | 10-Apr-20 | 1.341 | (3.091) |
| 11-Mar-20 | -0.338 | (0.733) | 11-Apr-20 | 1.526 | (3.033) |
| 12-Mar-20 | -0.397 | (0.834) | 12-Apr-20 | 1.352 | (2.914) |
| 13-Mar-20 | -0.535 | (0.988) | 13-Apr-20 | 1.460 | (2.859) |
| 14-Mar-20 | -0.563 | (1.035) | 14-Apr-20 | 1.446 | (2.836) |
| 15-Mar-20 | -0.710 | (0.965) | 15-Apr-20 | 1.471 | (2.803) |
| 16-Mar-20 | -0.895 | (1.251) | 16-Apr-20 | 1.542 | (2.768) |
| 17-Mar-20 | -0.695 | (1.611) | 17-Apr-20 | 1.350 | (2.513) |
| 18-Mar-20 | 0.386 | (2.260) | 18-Apr-20 | 1.318 | (2.394) |
| 19-Mar-20 | 1.820 | (2.745) | 19-Apr-20 | 0.881 | (1.982) |
| 20-Mar-20 | 2.057 | (2.934) | 20-Apr-20 | 0.745 | (1.683) |
| 21-Mar-20 | 2.022 | (3.037) | 21-Apr-20 | 0.713 | (1.573) |
| 22-Mar-20 | 2.387 | (3.187) | 22-Apr-20 | 0.495 | (1.270) |
| 23-Mar-20 | 2.571 | (3.309) | 23-Apr-20 | 0.299 | (0.961) |
| 24-Mar-20 | 2.665 | (3.376) | 24-Apr-20 | 0.340 | (0.902) |
| 25-Mar-20 | 2.671 | (3.368) | 25-Apr-20 | 0.331 | (0.918) |
| 26-Mar-20 | 2.643 | (3.338) | 26-Apr-20 | 0.449 | (0.927) |
| 27-Mar-20 | 2.547 | (3.296) | 27-Apr-20 | 0.479 | (0.914) |
| 28-Mar-20 | 2.610 | (3.324) | 28-Apr-20 | 0.298 | (0.854) |
| 29-Mar-20 | 2.607 | (3.347) | 29-Apr-20 | 0.402 | (0.904) |
| 30-Mar-20 | 2.421 | (3.342) | 30-Apr-20 | 0.540 | (1.065) |

Notes: Standard errors clustered by state.

Table S.11. 2SLS Estimates - Number of deaths (7-days difference)

| Date | Coefficient | st. errors | Date | Coefficient | st. errors |
| :--- | :---: | :---: | :--- | :---: | :---: |
| 29-Feb-20 | -1.084 | $(1.636)$ | 31-Mar-20 | 2.552 | $(2.561)$ |
| 01-Mar-20 | -1.084 | $(1.636)$ | 01-Apr-20 | 2.632 | $(2.575)$ |
| 02-Mar-20 | -1.943 | $(2.320)$ | 02-Apr-20 | 2.750 | $(2.680)$ |
| 03-Mar-20 | -1.843 | $(2.240)$ | 03-Apr-20 | 2.722 | $(2.731)$ |
| 04-Mar-20 | -1.319 | $(1.782)$ | 04-Apr-20 | 2.701 | $(2.803)$ |
| 05-Mar-20 | -1.317 | $(1.790)$ | 05-Apr-20 | 2.752 | $(2.851)$ |
| 06-Mar-20 | -1.307 | $(1.795)$ | 06-Apr-20 | 2.906 | $(2.946)$ |
| 07-Mar-20 | -1.295 | $(1.793)$ | 07-Apr-20 | 2.821 | $(2.841)$ |
| 08-Mar-20 | -1.863 | $(1.721)$ | 08-Apr-20 | 2.825 | $(2.907)$ |
| 09-Mar-20 | -0.869 | $(0.860)$ | 09-Apr-20 | 2.632 | $(2.906)$ |
| 10-Mar-20 | -1.332 | $(0.850)$ | 10-Apr-20 | 2.724 | $(2.920)$ |
| 11-Mar-20 | -1.120 | $(0.695)$ | 11-Apr-20 | 2.727 | $(2.925)$ |
| 12-Mar-20 | -1.893 | $(1.247)$ | 12-Apr-20 | 2.740 | $(2.961)$ |
| 13-Mar-20 | -2.790 | $(1.836)$ | 13-Apr-20 | 2.704 | $(2.959)$ |
| 14-Mar-20 | -2.070 | $(1.510)$ | 14-Apr-20 | 2.675 | $(3.021)$ |
| 15-Mar-20 | -1.795 | $(1.618)$ | 15-Apr-20 | 2.496 | $(2.911)$ |
| 16-Mar-20 | -0.816 | $(1.082)$ | 16-Apr-20 | 2.190 | $(2.789)$ |
| 17-Mar-20 | -0.404 | $(1.234)$ | 17-Apr-20 | 1.929 | $(2.545)$ |
| 18-Mar-20 | -0.185 | $(1.651)$ | 18-Apr-20 | 2.090 | $(2.385)$ |
| 19-Mar-20 | -0.0450 | $(0.881)$ | 19-Apr-20 | 1.931 | $(2.174)$ |
| 20-Mar-20 | 0.474 | $(1.137)$ | 20-Apr-20 | 1.893 | $(2.135)$ |
| 21-Mar-20 | 0.766 | $(1.407)$ | 21-Apr-20 | 1.980 | $(2.088)$ |
| 22-Mar-20 | 0.244 | $(0.499)$ | 22-Apr-20 | 1.824 | $(1.945)$ |
| 23-Mar-20 | 1.246 | $(1.936)$ | 23-Apr-20 | 2.029 | $(1.839)$ |
| 24-Mar-20 | 0.824 | $(1.363)$ | 24-Apr-20 | 1.853 | $(1.894)$ |
| 25-Mar-20 | 0.942 | $(1.574)$ | 25-Apr-20 | 1.886 | $(2.113)$ |
| 26-Mar-20 | 1.531 | $(1.946)$ | 26-Apr-20 | 1.740 | $(2.111)$ |
| 27-Mar-20 | 1.808 | $(2.143)$ | 27-Apr-20 | 1.592 | $(1.827)$ |
| 28-Mar-20 | 1.906 | $(2.192)$ | 28-Apr-20 | 1.061 | $(1.678)$ |
| 29-Mar-20 | 1.909 | $(1.977)$ | 29-Apr-20 | 0.833 | $(1.744)$ |
| 30-Mar-20 | 2.326 | $(2.391)$ | 30-Apr-20 | 0.497 | $(1.611)$ |
|  |  |  |  |  |  |

Notes: Standard errors clustered by state.

## S7. Checks on Partisanship

Figure S.27. Robustness to Polynomials and Interactions of Republican Elections Share (RF)
(a) Distance from home - Additional controls

(c) Distance from home - Interactions

(b) Time outside home - Additional controls

(d) Time outside home - Interactions


Notes: We run here our main specification Reduced Form regressions at the county level, including Republican share for 1996, 2012 and 2016 US elections. The election shares are included as squared and cubic terms for each year or interacting each year with the instrument channel position. Confidence intervals are at the $95 \%$.

Figure S.28. Effect of Fox News on Political Ideology and Party (RF)
(a) Conservative 2012-2019

(c) Conservative 2016-2019

(b) Republican 2012-2019

(d) Republican 2016-2019


Notes: Reduced Form (RF) regression results on Survey measures from the Gallup Polling Social Series.

Figure S.29. Robustness to Political Ideology and Party Controls (RF)


Notes: Reduced Form (RF) regression results controlling for partisanship survey measures (reported Conservative and reported Republican) pooled 2012-2019 or 2016-2019.

Figure S.30. Robustness to Survey Ideology and Party Interactions (RF)


Figure S.31. Mobility - Robustness to Splitting Sample in 1996 Counties' Partisanship (RF)


Figure S.32. Purchases - Robustness to Splitting Sample in 1996 Counties' Partisanship (RF)
(a) Groceries-Democratic Leaning

(b) Groceries - Republican Leaning


Notes: Reduced Form (RF) regression results splitting the sample according to 1996 elections results.

## S8. Checks on TV-Viewership

Figure S.33. Effect on TV-viewership from ATUS data (RF)
(a) 2010-2019 Viewership

(b) 2015-2019 Viewership


Notes: Reduced Form (RF) regression results on the effect of Fox News on minutes of television watched.

Figure S.34. Robustness to splitting sample in below-above median TV-viewership (RF)
(a) Distance from home - viewership below median

(c) Distance from home - viewership above median

(b) Time outside home - viewership below median

(d) Time outside home - viewership above median


Notes: Reduced Form (RF) regression results adding interactions of the channel position instrument with partisanship survey measures (reported Conservative and reported Republican) pooled 2012-2020 or 2016-2020.

## S9. Checks on Emergency Measures

Figure S.35. Effect of Fox news on Emergency Declarations (RF)
(a) Emergency Declared

(b) Number of days before emergency declaration


Notes: Reduced Form (RF) regression results on two outcomes describing emergency measures for around 800 counties that declared emergency between February and April, from the National Association of Counties (NACo). There's no significant effect..

Figure S.36. Robustness to emergency measures controls (RF)
(a) Distance from home - had emergency declaration

(c) Distance from home - time for emergency declaration

(b) Time outside home - had emergency declaration

(d) Time outside home - time for emergency declaration


Notes: Reduced Form (RF) regression results on our main mobility measures, controlling for whether the county had an emergency declaration, or alternatively the number of days to declare the emergency.

S10. Lee et al. 2020 robustness check

Figure S.37. Mobility(2SLS) - Adjusted confidence intervals
(a) Distance from home

(b) Time outside home


Notes: Lee et al. 2020 adjustment of confidence intervals.


[^0]:    10. Our data on level of mobility is obtained from SafeGraph, a data company that aggregates anonymized location data from numerous applications. Data at https://docs.safegraph.com/docs/social-distancing-metrics
    11. To enhance privacy, SafeGraph excludes census block group information if fewer than five devices visited an establishment in a month from a given census block.
    12. In the regressions mobility sample at the zipcode level we include 27288 zipcodes and 3033 counties at the county level.
[^1]:    13. http://mcdc.missouri.edu/applications/geocorr2018.html
    14. http://decadata.io/\#data
    15. We define a county as in sample if data for any product are available for at least two days.
[^2]:    Notes: Standard errors clustered by state.

