

COVID-19 and Mental Health: Evidence from Google Trends in Latin America

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Abstract

In this paper, we examine whether the COVID-19 stay-at-home order affected mental health throughout Latin America. Using Google Trends data and an event-study design, we explore the effect of country-specific stay-at-home orders on mental health searches, including the following words: depression, anxiety, sadness, insomnia, stress, and suicide. Our results show three main patterns. First, searches for insomnia peaked but then declined. Second, searches for stress, anxiety, and sadness increased, but surprisingly, there was no change in depression. Third, searches related to suicide increased then flattened. Combined, our results suggest that mental health worsened following the stay-at-home order. We then consider whether income support legislation prevented any of the adverse mental health outcomes. Our findings indicate that income support lowered searches for insomnia and anxiety, potentially mitigating some of the pandemic's harmful effects.

Keywords: Mental Health; COVID-19; Latin America

JEL: H84, I12, I15, J18.

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1 Introduction

Did the COVID-19 pandemic affect mental health? The clear negative income shock, combined with uncertainty about future employment, may adversely impact stress and mental health (De Castro Ribeiro, 2020). At the same time, other researchers have speculated that the stay-at-home orders will reduce loneliness due to extended time spent with household members. Further, the decline in commuting has been linked to lower stress levels (The Guardian, 2020). Individuals may also experience an altered mental state and increasingly cherish life's preciousness, thereby reducing suicidal thoughts and actions (Reger et al., 2020).

In this paper, we use Google Trends data to examine the effects of the COVID-19 pandemic on mental health in eleven Latin America countries.¹ We use an event-study design to analyze the search frequency of the following terms: depression, anxiety, sadness, insomnia, stress, and suicide. Our results show three main patterns. First, searches for insomnia peaked but then declined. Second, searches for stress, anxiety, and sadness increased, but surprisingly, there was no change in searches for depression. Third, searches related to suicide increased then flattened.

Our results suggest that mental health worsened following the stay-at-home order. COVID-19 had persistent detrimental effects on stress, anxiety, and feelings of sadness. Despite these clear adverse effects, individuals do not appear to be continuously contemplating suicide in the aftermath of COVID-19. While this evidence from Google Trends data is preliminary, it offers policymakers an understanding of the adverse impacts of COVID-19. More traditional means of measuring mental health, including household surveys and administrative data, take time to be assembled and are not immediately available. Our findings allow early mitigating action to be taken, before the full impact of the stressors set in.

To better understand which policy tools can mitigate the mental health conse-

¹We include the following countries: Argentina, Bolivia, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Peru, and Uruguay.

quences, we attempt to tease out which stressors are magnified during the pandemic. We test two potential channels, income support and health risk. First, to examine health risk, we consider whether countries with a higher death rate from COVID-19 experience elevated stress and anxiety levels. Individuals in high death rate countries face a higher health risk for themselves and their loved ones, which may worsen mental health. Splitting the results by the death rate, our findings suggest that individuals in countries with a higher death rate did experience worse mental health outcomes. In these countries, anxiety and stress increased by more, insomnia took longer to decrease, and the small increase in suicides appears to be magnified. These findings suggest that individuals may be experiencing increased stress and anxiety, in part, due to the health risk.

Second, we test whether one particular policy tool – income support policies – can help mitigate the adverse mental health effects of COVID-19. Using the date that each country passed income support legislation, we test whether such policies offered any benefit in terms of mental health. Our results, using the passage date of income support legislation, show that guaranteed income benefits can help prevent the harmful effects of the COVID-19 pandemic on insomnia and anxiety. Despite this advantageous effect, there is no change in searches for depression, suicide, or stress. Still, these findings suggest that targeted public policy can help reduce the negative mental health effects of the COVID-19 pandemic.

The findings from this study make several contributions to the mental health and COVID-19 literature. First, we find distinct results for insomnia and stress. A related study, [Brodeur et al. \(2020\)](#), found no repercussions on sleeplessness and insomnia in the United States. By contrast, we observe an expansion in sleep problems throughout Latin America. We also find an increase in stress-related searches following the pandemic. Currently, there is no conclusive evidence on COVID-19 and stress levels. [Brodeur et al. \(2020\)](#) saw no impact on the United States and a decrease in Western Europe. The difference in findings related to stress and insomnia is potentially attributable to the countries' distinct income support policies. Western European coun-

tries and the United States offered near full income support during the pandemic. The Latin American countries included in our study provided much lower levels of income support (less than 50%). The importance of income maintenance may be a key attribute of the discrepancies between studies.

Second, our conclusions corroborate several related studies (Knipe et al., 2020; Yamamura and Tsutsui, 2020; Brulhart and Lalive, 2020; Armbruster and Klotzbucher, 2020). Spain (Knipe et al., 2020) and Japan (Yamamura and Tsutsui, 2020) experienced a similar increase in anxiety to our findings in Latin America. In the United States, Brodeur et al. (2020), likewise, found a rise in sadness. Finally, results from Germany (Armbruster and Klotzbucher, 2020) and Switzerland (Brulhart and Lalive, 2020) displayed a comparable increase in suicides searches, which then flattened out.

The remainder of this paper is organized as follows. In Section 2 we review the existing literature documenting the relationship between COVID-19 and mental health. Sections 3 and 4 describe the Latin American context, data, and empirical methods. Section 5 presents results, and Section 6 concludes.

2 Related Findings on COVID-19 and Mental Health

Restrictions on mobility from attempted containment of COVID-19 may reduce virus transmission, but could subsequently increase adverse mental health outcomes. Several studies have documented adverse mental health outcomes related to COVID-19 containment strategies. Yamamura and Tsutsui (2020) found evidence that the COVID-19 pandemic increased anxiety in Japan, using internet surveys and a difference-in-difference strategy. Brulhart and Lalive (2020) considered helpline calls in Switzerland and found that suicide calls increased during the initial phase of the lockdown, plateaued, and returned to their 2019 levels (comparing the pandemic period of 2020 and the corresponding period of 2019). Armbruster and Klotzbucher (2020), considered German helplines calls in an event-study design and found that calls related

to suicidal ideation increased after the lockdown, but flattened out in the following weeks.

[Knipe et al. \(2020\)](#) tested Google Trends data for Italy, Spain, USA, UK, and World-wide. Using data from January to March of 2020 and comparing before and after the lockdown, they found that levels of anxiety were stable (except for Spain where an increase is observed after the lockdown), but mixed effects on depression, where the UK and the USA experienced a decline in depression while Italy and Spain were more stable. [Knipe et al. \(2020\)](#) also observed an increase in suicides in the first few weeks following the lockdown announcement. [Brodeur et al. \(2020\)](#) considered Google Trends in Western Europe and the United States from January 1st to April 10th over 2019 and 2020. Results from their event study showed an increase in search terms for sadness, worry, and loneliness in Western European countries and the USA. Despite the rise in sadness, their findings suggest a decline in searches related to sleep problems, stress, and suicide in Western Europe, with no observable impact in the United States.

In sum, this evidence supports the hypothesis that the COVID-19 pandemic may increase overall sadness and loneliness. Depression implications are also mixed, and we expect that COVID-19 will either have no impact or depression will decrease. For sleep and stress, the evidence is similarly not conclusive. Finally, in the short run, we may see an effect on suicides, though we expect this effect will disappear in the weeks after.

3 Data

Google Trends Data

We use Google Trends data to analyze the effects of the COVID-19 on mental health in Latin America. Google Trends provides an index on search terms ranging from 0 to 100. Zero represents near-no searching activity, and 100 represents high search activity. We rely on weekly data starting from 2016 up to June 21, 2020. It gives

us 25 weeks per year. We searched the following terms: 1) "Anxiety", 2) "Depression",² 3) "Insomnia", 4) "Sadness", 5) "Stress", and 6) "Suicide". All these terms were collected in eleven Latin American countries: Argentina, Bolivia, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Peru, and Uruguay.³

Mobility and Stay-at-home Orders

In Latin America, as in the rest of the world, governments have recommended or officially announced stay-at-home orders. In Paraguay, Uruguay, and Peru the government announced a stay-at-home on week 11 (March 9 to March 15). Argentina, Bolivia, Ecuador, Guatemala, and Honduras on week 12 (March 16 to March 22). And, Chile, Colombia, and Mexico on week 13 (March 23 to March 29). Mobility reductions, in practice, may occur before or after the recommendation or the official requirement. Using Mobility Reports for March, we detect when individuals began to stay-at-home as the week where mobility during the week was lower than the Sunday.⁴ We use this measure, as Sundays consistently have the lowest weekly mobility. If individuals are moving less during the week than the previous Sunday, this suggests that there has begun to be a significant decrease in country-specific movement. Using this criterion, Paraguay started a stay-at-home on week 11 and the rest of the countries on week 12.⁵

Income Support

We then test whether the passage of income support had any beneficial effect on mental health after the initial stay-at-home orders. The majority of Latin American countries did pass some level of income support, though the benefits were less gener-

²In order to avoid searches related to the comparison between the actual economic situation and the Great Depression, the search was "Depression - Great".

³We selected these countries following the criteria that they share the same language (Spanish). We exclude Venezuela due to suggestive evidence that some internet services are restricted (Pérez Colomé, 2020).

⁴Data on mobility is available from <https://covid.grandata.com/distancing>

⁵In this paper, we use the mobility data as the reference for the start of the stay-at-home; yet, in the robustness section we use the official days of the quarantine and no changes are observed regarding the main results.

ous than the United States and Europe. We collect data on the date the income support legislation passed from [Hale et al. \(2020\)](#). The income support legislation appeared in mid-March for Peru and Uruguay (March 16th and 18th, respectively). Then at the end of March for Argentina, Bolivia, and Paraguay (March 23rd, 31st, and 31st, respectively). Finally, in April for Ecuador, Chile, Honduras, Colombia, and Guatemala (April 1st, 2nd, 3rd, 7th, 21st). Mexico never passed income support.⁶

Summary Statistics

Table 1 displays the descriptive statistics for searches related to depression, anxiety, sadness, insomnia, stress, and suicide. "Control" refers to the eleven weeks before the lockdown, while "treatment" refers to the fourteen weeks following the lockdown.⁷ In 2020, depression increased by 3.42 across the "treatment" (58.87) and "control" (55.45). Yet, this increase was not statistically significant. For anxiety, the means over "treatment" (78.42) and "control" (62.15) suggests an statistically significant increase by 16.27. There is a statistically significant difference increase on sadness ("treatment" (37.86) and "control" (34.85)). We also observe a statistically significant difference increase for insomnia ("treatment" (59.21) and "control" (44.00)). The difference across anxiety levels, but not depression, is potentially due to fearful anticipation of future harm. Depression may take longer to show an effect after the isolation persists. The increase in insomnia may be due either to increases in sleepless worry or due to change in routine activities that affect individuals' schedules.

When analyzing stress, there is a statistically significant difference across "treatment" (64.10) and "control" (37.29) in 2020. We also observe an increase for "treatment" (30.23) and "control" (2.38) in 2019. Yet, the increase observed in 2020 (26.81) is bigger than the increase in 2019 (5.85). Finally, in the case of suicide, there is no a statistically significant difference between "treatment" (20.79) and "control" (21.78) for 2020.

⁶Chile passed two rounds of income support, the first round was less generous and passed in early April. A second round of more generous support on June 16th. We focus on the first round dates.

⁷Most of the countries observed a reduction on mobility on week twelve. The only exception is Paraguay which observed a decrease in mobility on week eleven.

4 Empirical Strategy

To estimate the effect of the COVID-19 lockdown on mental health, we use a weekly event-study specification. Formally, this specification appears as:

$$Y_{cty} = \sum_{t=-11}^{11} \beta_t Covid_{cty} + a_c + \gamma_t + \nu_y + e_{cty}$$

where Y_{cty} is the outcome of interest for country c in week t and year y . $Covid_{cty}$ is a dummy variable that takes the value of one after the beginning of the stay-at-home order. We exclude the week before the reduced movement begins, which is the baseline period. a_c are country-fixed effects which control for time-invariant differences across countries; γ_t are weekly fixed-effects and controls for potential seasonal trends; and ν_y are year fixed effects and controls for secular trends. To correct for autocorrelation of the outcome—measured across weeks within countries—we apply clustered standard errors at the country level. The coefficients of interest are the β_t .

5 Results

5.1 Event-Study Results

Figure I and Table A.1 show the results for the event-study specification across the six outcomes of interest. The first and second graphs of Figure I show the findings over depression and anxiety (Columns 1 and 2 in Table A.1). The results show no impact on depression after the lockdown; however, anxiety shows a sharp increase. This result confirms results from Spain (Knipe et al., 2020) and Japan (Yamamura and Tsutsui, 2020), where anxiety intensified following the COVID-19 stay-at-home order. A null effect of the COVID-19 lockdown on depression might be driven by the fact that very few people in certain countries in Latin America consider depression a serious health problem. For instance, in Mexico, the percentage of depressed adults without a medical diagnosis is over 75% (Belló, 2005).

The third graph of Figure I displays the effect of the COVID-19 lockdown on sadness (Column 3 in Table A.1). We observe an increase in searches related to sadness, but the results are only statistically significant for weeks one and six. Our findings corroborate findings from the United States and Western Europe using Google Trends (Brodeur et al., 2020). The fourth graph of Figure I displays the effect of the COVID-19 lockdown on insomnia (Column 4 in Table A.1). The results show that searches related to insomnia increased after the lockdown, but then flatten out in the weeks after.

The fifth graph of Figure I displays the effect of the COVID-19 lockdown on suicides (Column 5 in Table A.1). In the weeks leading up to the stay-at-home order, the plotted points hover around zero, except for the first week. This result is similar to the evidence from Germany (Armbruster and Klotzbucher, 2020) and Switzerland (Brulhart and Lalive, 2020). These studies found an increase in suicides after the lockdown, with the effect flattening out in the following weeks.

The six graph of Figure I displays the effect of the COVID-19 lockdown on stress (Column 6 in Table A.1). The results show an increase in searches related to stress, with the majority of the plotted points showing a statistically significant after the lockdown. This result contrasts with evidence from the USA (Brodeur et al., 2020), where there is no impact on stress using Google Trends. One possible explanation for this difference is that Brodeur et al. (2020) analyzes the short term (3 weeks), and our analysis includes 11 weeks. In particular, we do not find the first and the third week statistically significant at the five percent level, which is consistent with the results of Brodeur et al. (2020). Another explanation is the difference between the two contexts. Europe and the United States offered income support while some Latin American countries did not. Uncertainty over income has the potential to increase stress levels, which may be unique to Latin America.

5.2 Income Support Legislation

To test whether income support helps to moderate the adverse mental health effects of COVID-19, we include a second set of event-study findings using the week that Latin American countries passed income support legislation. These results are shown in Figure II. The plotted points suggest that while there is no effect across levels of depression or suicide, the passage of income support legislation does appear to lower insomnia and anxiety searches. These findings suggest that income support has some beneficial mental health effects once the legislation goes into effect. Individuals may be sleeping better and have lower levels of anxiety after receiving some income guarantee. Unfortunately, the income benefits in Latin America are much lower than in Europe and the United States, where more than 50% of the individual's income is guaranteed. By contrast, in Latin America, all but two countries offered less than 50% of income support, and Mexico made provided no such support (Hale et al., 2020).

Figure II also shows that sadness may continue to increase following the passage of income support. This finding suggests that income benefits cannot prevent all negative mental health consequences of the pandemic. Individuals may suffer mental health consequences that cannot be fully remediated by national policies.

5.3 Heterogeneous Effects

We also test whether the perceived health risk of COVID-19 affects the findings. In our sample, the death rate ranged from 1.8 per million inhabitants in Paraguay to 238.4 in Peru until June 21 (Roser and Ortiz-Ospina, 2020).⁸ Table 2 Panel A splits the primary estimation sample into countries with a death rate of higher and lower than 100 per million. Panel A shows the larger death rate countries, and Panel B shows countries with a death rate of lower than 100 per million. For anxiety, the results show

⁸The death rates per million in the rest of the counties are as follows: Ecuador (237.9), Chile (224.6), Mexico (161.1), Bolivia (63.3), Colombia (41.7), Honduras (36.1), Guatemala (28.6), Argentina (21.9), Uruguay (7.2), and Paraguay (1.8).

a magnified effect in countries that suffered a higher death rate. Insomnia peaks and then a decline regardless of the number of deaths, however, insomnia took longer to decrease in countries with higher death rates from COVID-19. For suicide, the increase observed during the first week occurs entirely in countries with a death rate equal to or greater than 100 per million. Finally, in the case of stress, the effects are magnified for countries with a higher death rate. In sum, these results suggest that the number of deaths for COVID-19 can worsen the mental health of the individuals.

5.4 Robustness Checks

To test the robustness of our findings, we use several alternative specifications. First, we use a wild-cluster bootstrap procedure. Second, we exclude one country at a time from the analysis. Third, we use population weights. Fourth, we also include country-specific time trends. Fifth, we use the official dates of the quarantine. Sixth, we implement a placebo test. Finally, we compare administrative data to the Google trends findings. All tests verify the conclusions from the main specification.

Our first robustness implements wild cluster standard errors. [Cameron et al. \(2008\)](#) suggests that standard errors are downward-biased with a low number of clusters (five to 30). Given that we have 11 clusters at the country level, we conduct a wild cluster bootstrap procedure, as described in [Cameron et al. \(2008\)](#). Table [A.2](#) reproduces the results of Table [A.1](#) using a wild cluster bootstrap procedure to calculate standard errors. Under this method, Table [A.2](#) shows that all coefficients remain statistically significant.

Our second robustness check excludes one county at a time from the analysis. We find evidence that the COVID-19 lockdown impacted anxiety, insomnia, sadness, suicides, and stress. However, the results may be a consequence of an outlier or a country-level policy change. Excluding one country at a time checks whether these alternatives are plausible. We reproduce the event-study, excluding one country at a time, in Tables [A.3](#) and [A.4](#). Throughout Table [A.3](#) and [A.4](#), the coefficients remain

statistically significant.⁹

Then, we add weights for the country’s population size and country-specific linear time trends. Figure A.1 and Figure A.2 show these robustness checks. The plotted points appear similar to each other as well as to the main results in Figure I. Adjusting the main specification by adding weights and linear time trends has little impact on the interpretation of the findings.

We also conducted a robustness check using the stay-at-home order’s official announcement date instead of the observed reduction in mobility. The results are presented in Figure A.3, and they are similar to our primary findings. Figure A.4 presents results using a placebo test. In particular, it assumes that the stay-at-home ordered occurred in 2019. As expected, most of the coefficients remained statistically insignificant after the placebo test.

As a final check, we compare results from Google Trends with administrative data. One potential concern of the Google Trends data is that the searches maybe are not associated with the individuals’ real decisions. We do not have administrative data from Latin America. But, we have administrative data for helpline services in Mexico City. In particular, this data contains information for calls related to depression and anxiety. Thus, we compare the helpline services’ administrative data and Google Trends in Mexico City. The results are presented in Figure A.5. We observe a similar pattern in the administrative data and the Google Trends.

6 Conclusion

This paper analyzes the effects of COVID-19 lockdown on depression, anxiety, sadness, insomnia, stress, and suicide using Google trends across Latin America. Our findings indicate that Google searches for insomnia sharply increased and then declined to baseline. We also observe an increase in searches related to sadness, stress,

⁹We do not present the results regarding sadness (we can provide these results on request), but the effects remain statistically significant.

and anxiety, but no change in searches related to depression. Suicide-related searches increase directly after the stay-at-home order but then return to baseline in subsequent weeks.

We conclude by testing which stressors are magnified during the pandemic. We test two potential channels, income support and health risk. First, considering the health risk, in higher death rate countries, the negative mental health consequences appear to be magnified. Anxiety and stress increased by more, insomnia took longer to decrease, and the small increase in suicides only appears in the high death rate countries. These findings suggest that individuals may be experiencing increased stress and anxiety, in part, due to the health risk. Then, we consider whether economic insecurity is causing individuals to experience poor mental health. We test whether income support legislation can reduce negative mental health consequences. Following the passage of each country's income support, our results suggest that searches declined for anxiety and insomnia. Together, the combined results suggest that policymakers can impact the pandemic's negative mental health effects with additional economic support and targeting the spread of the virus.

Given the impossibility of conducting face-to-face surveys during the pandemic, our results using Google Trends can help distinguish the actual mental health effects of COVID-19. While the results show no discernible increase in searches related to suicide, we see adverse effects on stress and anxiety. Our findings diverge from related work in the United States and Europe ([Brodeur et al., 2020](#)), suggesting that the Latin American context is unique. The lack of comparable income support, in particular, may be contributing to the high-stress impacts of the pandemic throughout Latin America. Policymakers may be able to target such adverse effects through more comparable income support policies to the United States and Europe. Without such support, increasing stress can impact real health and economic outcomes, such as birth weight ([Camacho, 2008](#)) and food choices ([Oliver and Wardle, 1999](#)). Therefore, policymakers must monitor and target the evolution of adverse mental health outcomes to minimize the subsequent consequences on health and behavior.

References

- ARMBRUSTER, S. AND V. KLOTZBUCHER (2020): "Lost in Lockdown? Covid-19, Social Distancing, and Mental Health in Germany," *CEPR*, 117–153.
- BELLÓ, M., P.-R. E. M.-M. M. E. . L. R. (2005): "Prevalencia y diagnóstico de depresión en población adulta en México," *Salud pública de México*, 47(1), S4–S11.
- BRODEUR, A., A. CLARK, S. FLECHE, AND N. POWDTHAVEE (2020): "COVID-19, Lockdowns and Well-Being: Evidence from Google Trends," *IZA Discussion Paper* 13204.
- BRULHART, M. AND R. LALIVE (2020): "Daily suffering: Helpline calls during the Covid-19 crisis," *CEPR*, 143–158.
- CAMACHO, A. (2008): "Stress and Birth Weight: Evidence from Terrorist Attacks," *American Economic Review*, 98, 511–15.
- CAMERON, A. C., J. B. GELBACH, AND D. L. MILLER (2008): "Bootstrap-Based Improvements for Inference with Clustered Errors," *The Review of Economics and Statistics*, 90, 414–427.
- DE CASTRO RIBEIRO, E. M. (2020): "COVID-19: Pandemics, recessions, and suicide – lessons from the past and points to the future," *CEPR*, 45–79.
- HALE, T., S. WEBSTER, A. PETHERICK, T. PHILLIPS, AND B. KIRA (2020): "Oxford COVID-19 Government Response Tracker [Internet]. Coronavirus Government Response Tracker. 2020," .
- KNIPE, D., H. EVANS, A. MARCHANT, D. GUNNELL, AND A. JOHN (2020): "Mapping population mental health concerns related to COVID-19 and the consequences of physical distancing: a Google trends analysis," *Wellcome Open Research*, 5.
- OLIVER, G. AND J. WARDLE (1999): "Perceived Effects of Stress on Food Choice," *Physiology & Behavior*, 66, 511 – 515.
- PÉREZ COLOMÉ, J. (2020): "Los Bloqueos Selectivos de Redes en Venezuela," *El País*, <https://elpais.com/tecnologia/2020-03-10/los-bloqueos-selectivos-de-redes-en-venezuela-reflotan-los-medios-prohibidos-y-el-porno.html>.
- REGER, M. A., I. H. STANLEY, AND T. E. JOINER (2020): "Suicide Mortality and Coronavirus Disease 2019—A Perfect Storm?" *JAMA Psychiatry*.
- ROSER, M. AND E. ORTIZ-OSPINA (2020): "How experts use data to identify emerging COVID-19 success stories," .
- THE GUARDIAN, G. (2020): "Japan suicides decline as Covid-19 lockdown causes shift in stress factors." *The Guardian*, <https://www.theguardian.com/world/2020/may/14/japan-suicides-fall-sharply-as-covid-19-lockdown-causes-shift-in-stress-factors>.
- YAMAMURA, E. AND Y. TSUTSUI (2020): "Impact of the State of Emergency Declaration for COVID-19 on Preventive Behaviors and Mental Conditions in Japan: Difference in Difference Analysis using Panel Data," *CEPR*, 303–324.

7 Figures and Tables

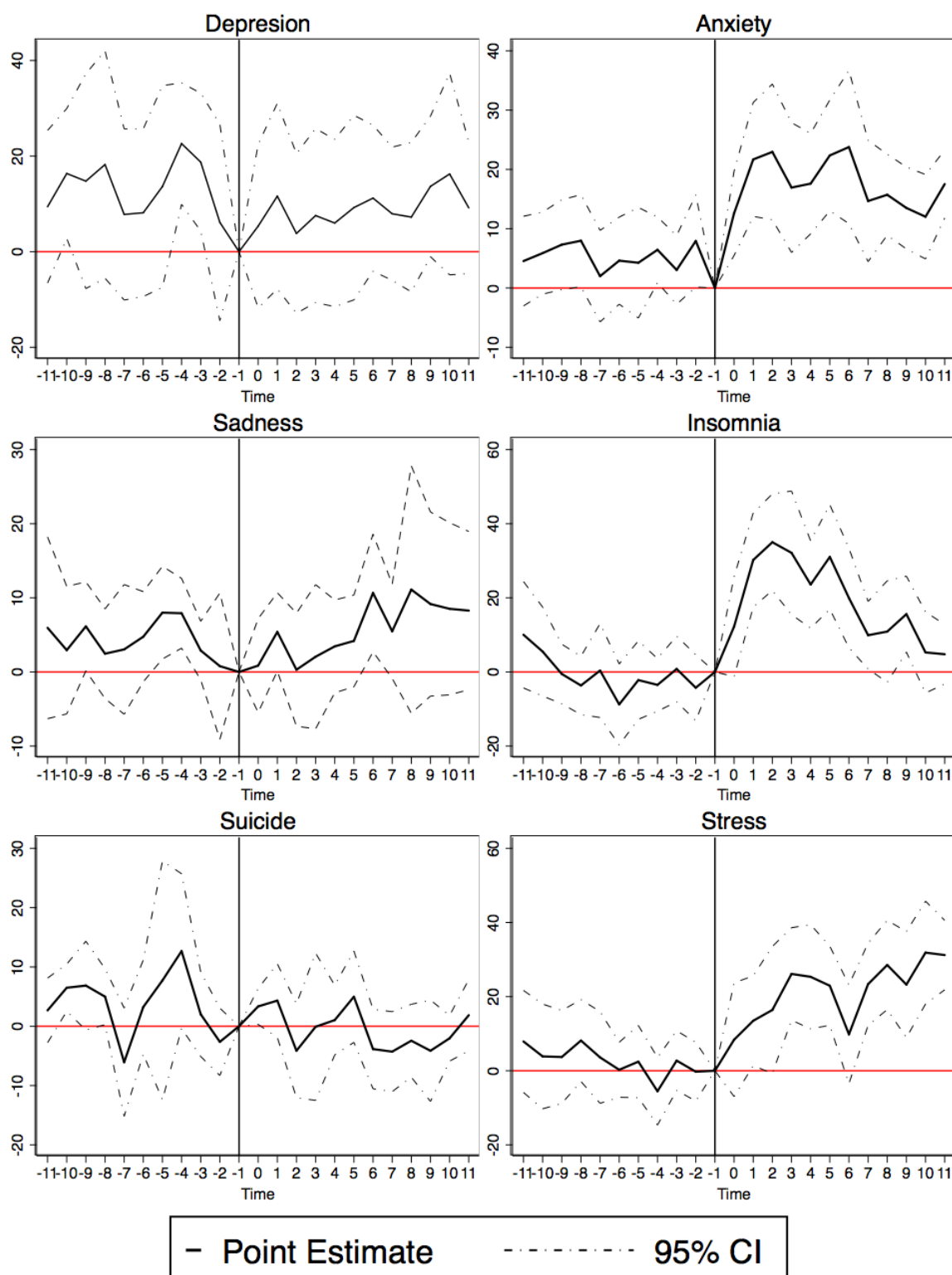
Table 1: Descriptive Statistics

	2016–2019			2020		
	Treat- ment	Cont- rol	Diff- erence	Treat- ment	Cont- rol	Diff- erence
Depression	37.04	30.62	6.42***	58.87	55.45	3.42
Anxiety	41.33	37.94	3.39***	78.42	62.15	16.27***
Sadness	46.74	46.08	0.66	37.86	34.85	3.01*
Insomnia	33.66	36.50	-2.84**	59.21	44.00	15.21***
Stress	30.23	24.38	5.85***	64.10	37.29	26.81***
Suicide	25.82	23.20	2.62***	20.79	21.78	-0.99
Observations	616	484	1100	154	121	275

SOURCE: Google Trends.

NOTES: Each column shows average values for the 11 countries in our sample. "Treatment" refers to the 14 weeks after the week when social distance began, and "Control" to the 11 weeks before the social distance began. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

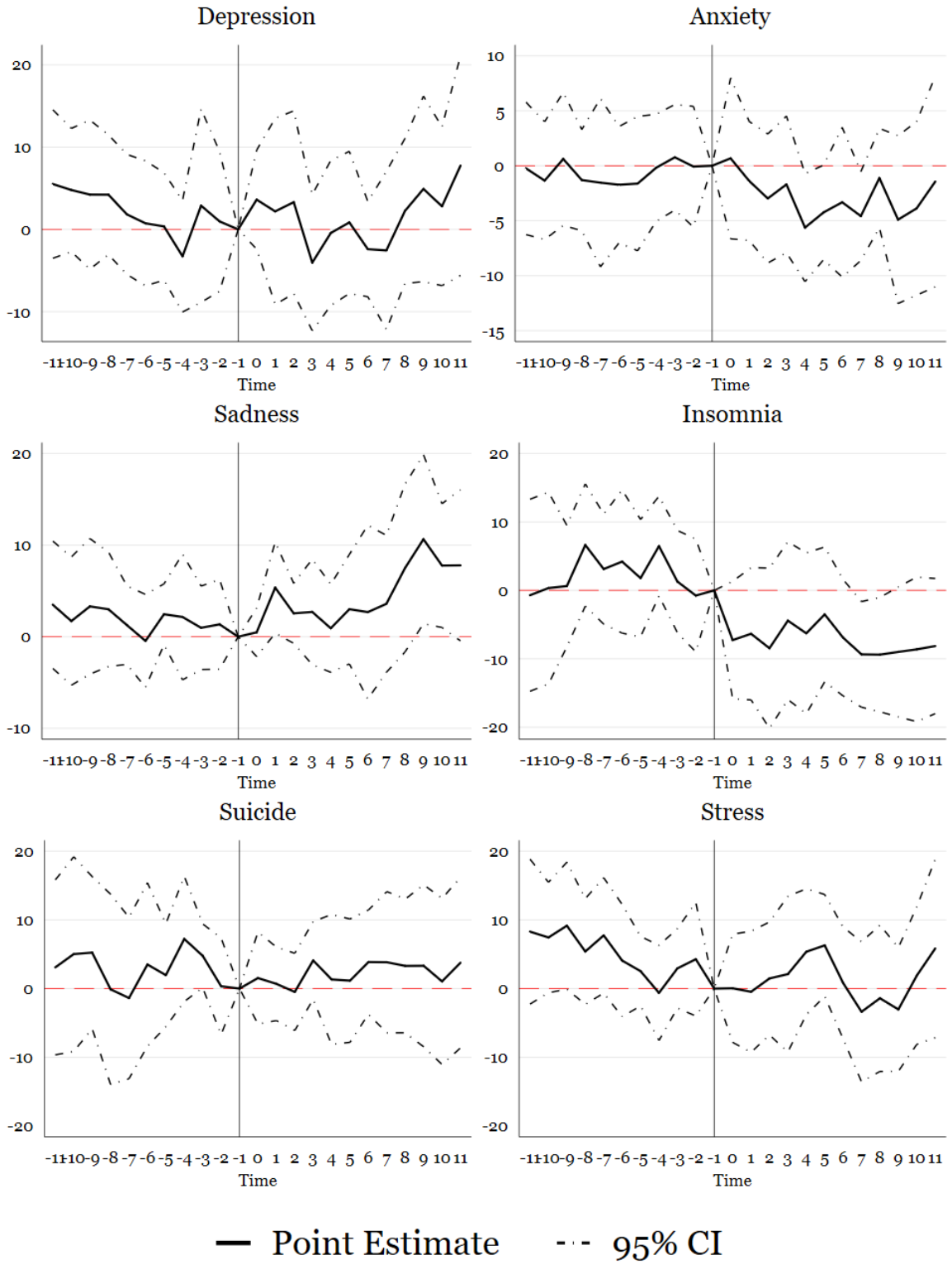
Figure I: Event Study: Main Findings



SOURCE: Google Trends.

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level.

Figure II: Event Study: Income Support



SOURCE: Google Trends. [Hale et al. \(2020\)](#).

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level.

Table 2: Heterogeneous Effects: Deaths per million

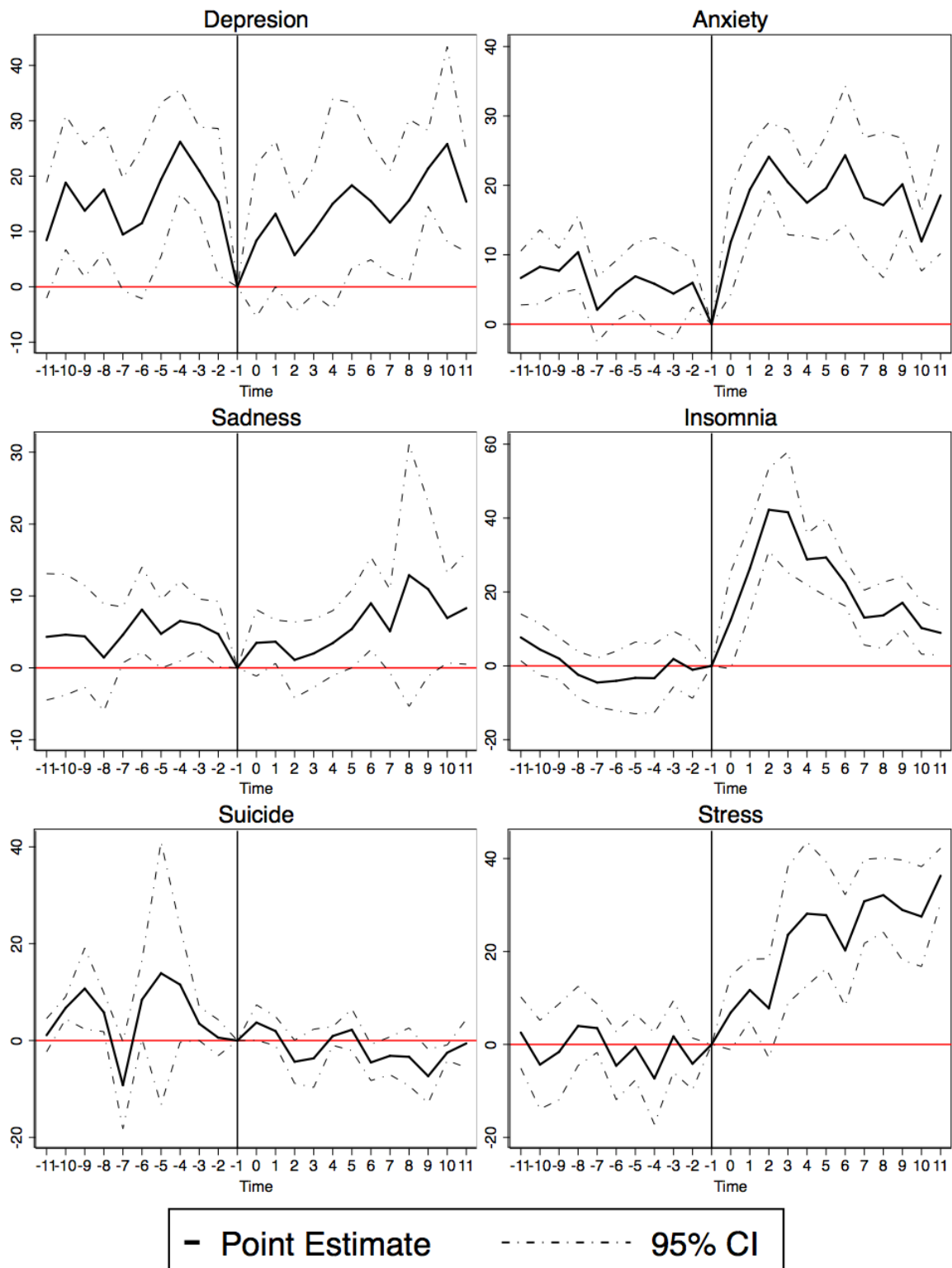
	<i>Depression</i> (1)	<i>Anxiety</i> (2)	<i>Sadness</i> (3)	<i>Insomnia</i> (4)	<i>Suicide</i> (5)	<i>Stress</i> (6)
<i>100 deaths per million or more</i>						
Week 0	2.437 (9.662)	19.063** (5.658)	4.375* (1.607)	28.312* (10.152)	7.250** (1.395)	18.750 (10.356)
Week 1	3.000 (11.916)	26.688** (8.103)	4.063* (1.677)	27.250* (9.983)	2.688 (2.133)	22.313 (10.021)
Week 2	-7.063 (8.911)	31.313** (6.108)	5.375 (4.095)	42.812** (7.452)	-3.687* (1.442)	17.750 (12.035)
Week 3	-0.750 (7.288)	30.688** (7.065)	5.438 (3.198)	40.625** (9.192)	-9.750* (3.392)	33.563 (14.346)
Week 4	-4.438 (13.103)	20.313** (5.072)	4.500* (1.910)	29.500* (10.482)	-0.812 (0.832)	34.813** (6.799)
Week 5	7.312 (11.396)	26.938** (7.394)	3.313 (3.633)	34.312* (11.243)	-2.000 (2.257)	22.250* (7.777)
Week 6	-0.625 (9.012)	35.000** (9.410)	9.813* (3.247)	21.750*** (1.508)	-4.187 (1.920)	20.688 (13.541)
Week 7	-1.625 (9.423)	22.375*** (1.214)	6.750 (3.821)	6.437 (6.899)	-5.687 (3.302)	29.500* (11.140)
Week 8	7.625 (13.406)	19.125*** (2.770)	25.188 (19.212)	12.500 (12.605)	-8.000 (3.656)	40.563** (8.502)
Week 9	16.750 (8.204)	23.813*** (2.052)	17.313 (13.399)	26.062** (5.899)	-12.625* (4.741)	31.563** (8.025)
Week 10	17.187 (12.684)	12.875** (2.650)	13.750 (6.123)	11.937 (9.033)	-4.000* (1.515)	35.625*** (4.014)
Week 11	2.250 (11.743)	18.104** (3.734)	18.042 (9.573)	12.000 (8.697)	-4.625 (5.082)	40.271** (7.473)
<i>Less than 100 deaths per million</i>						
Week 0	7.200 (11.417)	9.119** (3.417)	-0.867 (4.003)	3.488 (6.039)	1.542 (1.746)	3.838 (9.046)
Week 1	15.656 (12.027)	18.770** (5.194)	6.037 (3.771)	31.482*** (7.201)	5.315 (4.446)	8.854 (6.794)
Week 2	10.439 (10.656)	18.076** (7.047)	-2.098 (4.669)	31.288*** (8.233)	-3.608 (5.928)	16.089 (11.007)
Week 3	11.970 (11.984)	9.340* (4.585)	-0.009 (6.513)	27.390** (10.734)	4.954 (7.713)	22.216*** (4.990)
Week 4	11.770 (10.037)	15.862** (5.442)	2.885 (4.349)	20.123** (6.718)	2.374 (4.415)	20.538* (8.803)
Week 5	10.134 (12.662)	19.694** (5.331)	5.104 (3.922)	29.458** (8.653)	9.193 (4.800)	23.899** (6.696)
Week 6	17.606 (9.143)	17.514** (6.880)	11.298* (5.497)	19.342 (10.099)	-3.159 (5.034)	4.918 (6.251)
Week 7	13.269 (8.271)	10.293 (6.767)	4.328 (4.065)	11.640* (5.633)	-3.359 (4.646)	20.243** (5.493)
Week 8	6.783 (9.067)	13.811** (4.550)	3.342 (4.214)	10.260 (7.844)	0.893 (3.469)	22.657** (6.377)
Week 9	12.117 (9.887)	7.630** (2.634)	4.794 (5.290)	9.768 (5.406)	0.664 (4.901)	19.182* (9.209)
Week 10	15.175 (14.114)	11.354* (4.937)	5.604 (7.415)	1.766 (5.967)	-0.370 (2.907)	29.451** (9.324)
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes

SOURCE: Google Trends.

NOTES: Each column shows average values for the 11 countries in our sample. "Treatment" refers to the 14 weeks after the week when social distance began, and "Control" to the 11 weeks before the social distance began. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

A Appendix

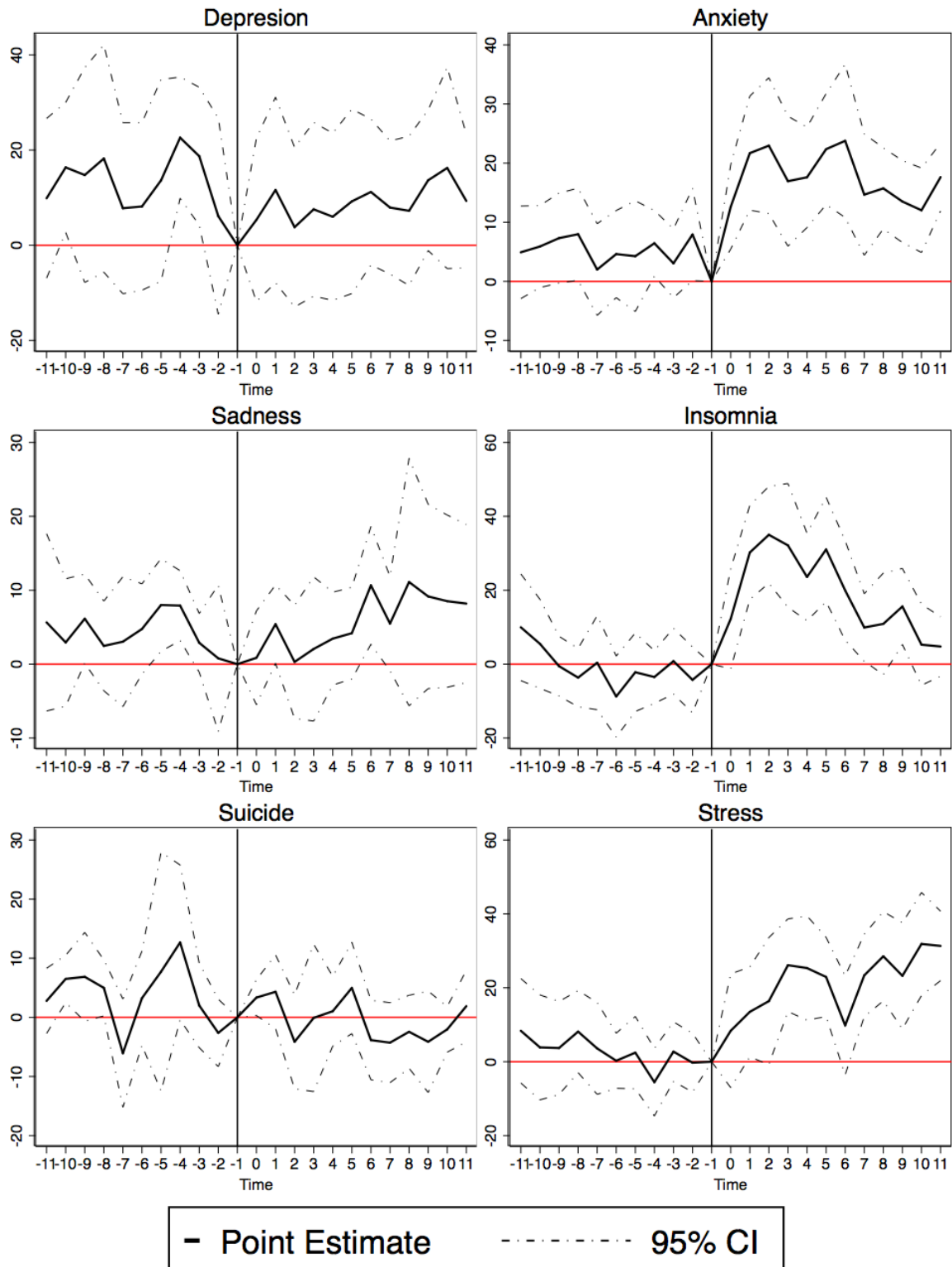
Figure A.1: Robustness (3): Main Findings Using Population Weights



SOURCE: Google Trends.

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level.

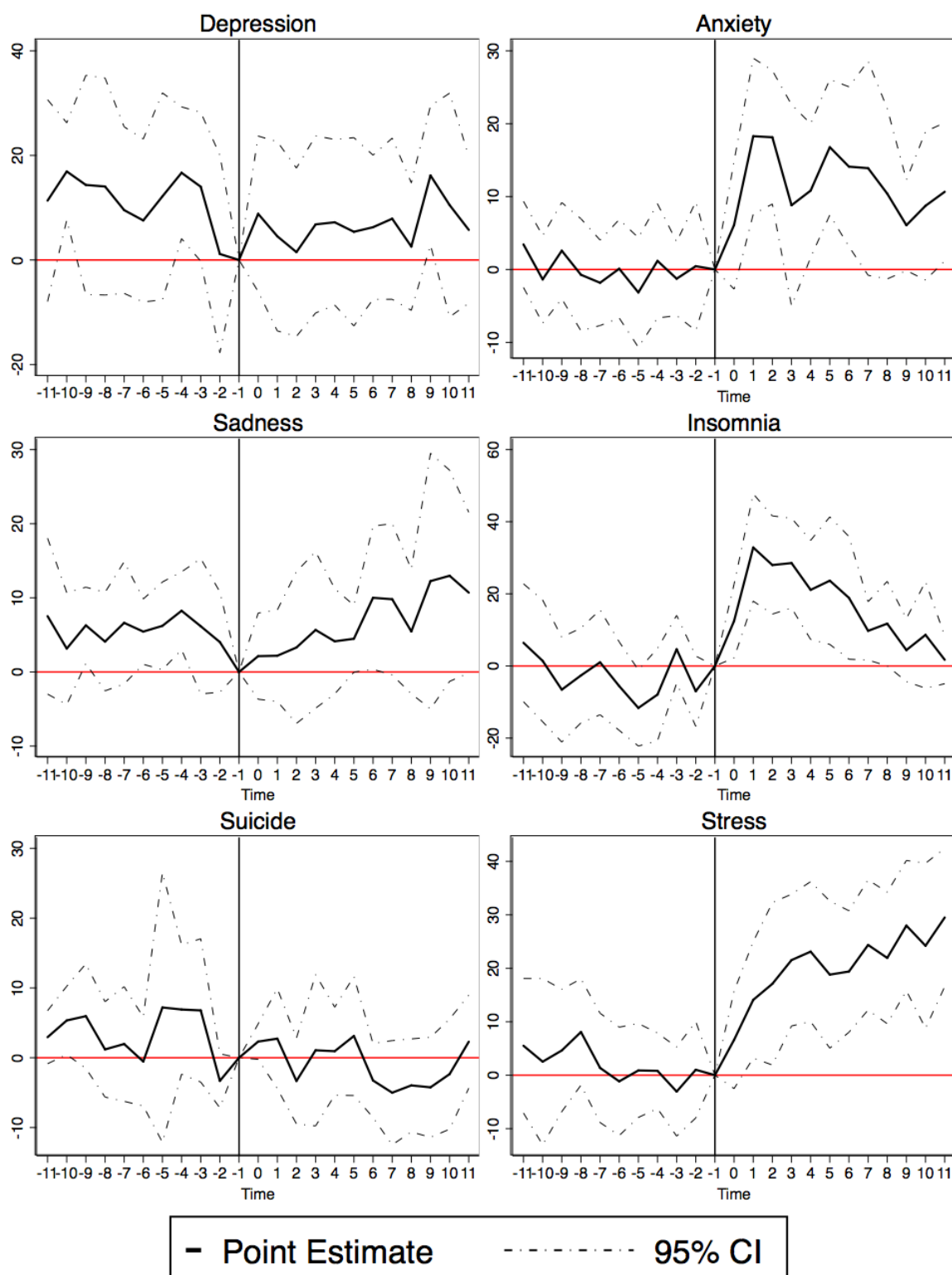
Figure A.2: Robustness (4): Main Findings Using Country-Specific Time Trend



SOURCE: Google Trends.

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level.

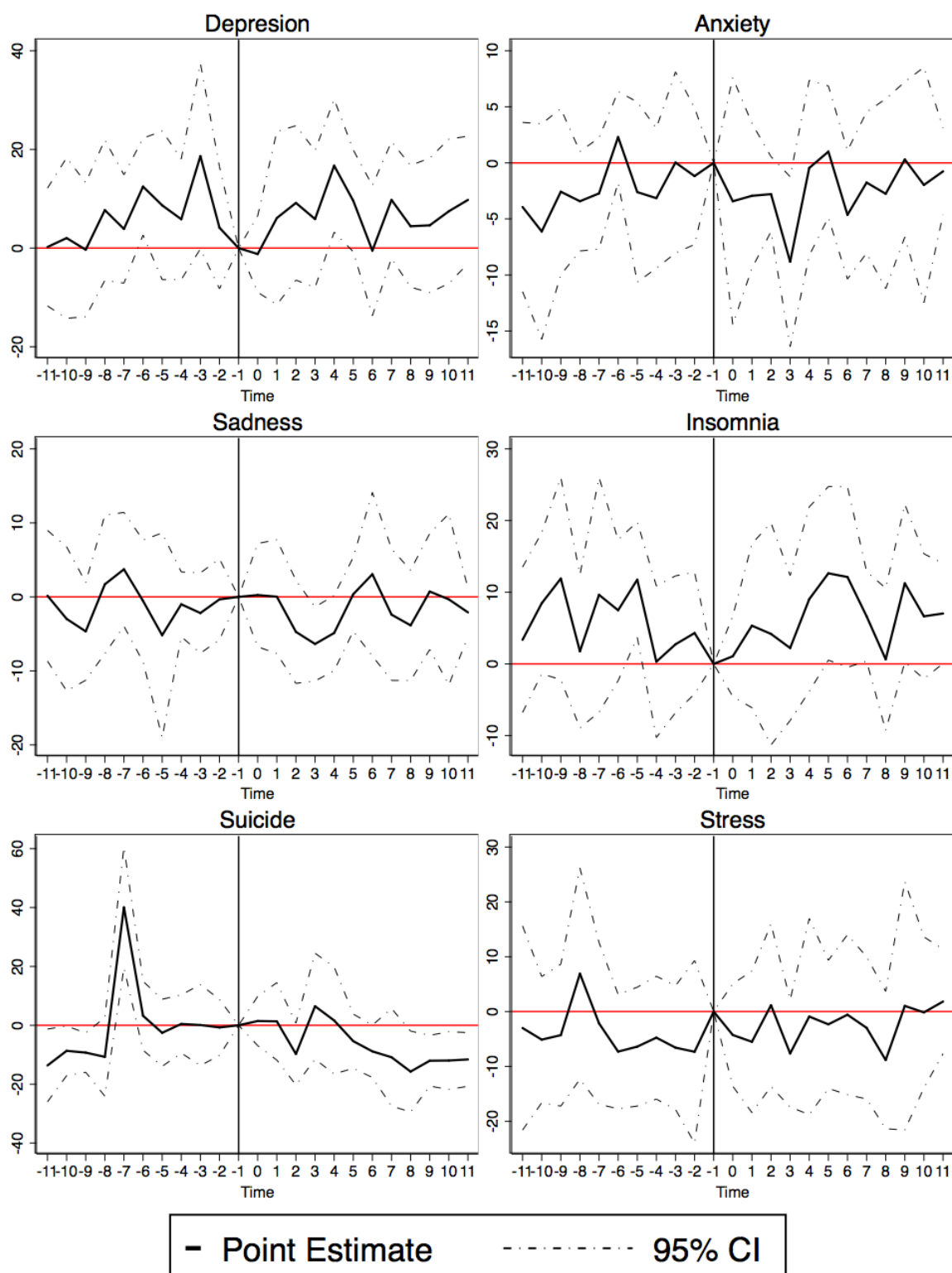
Figure A.3: Robustness (5): Main Findings Using the Official Days of the Quarantine



SOURCE: Google Trends.

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level.

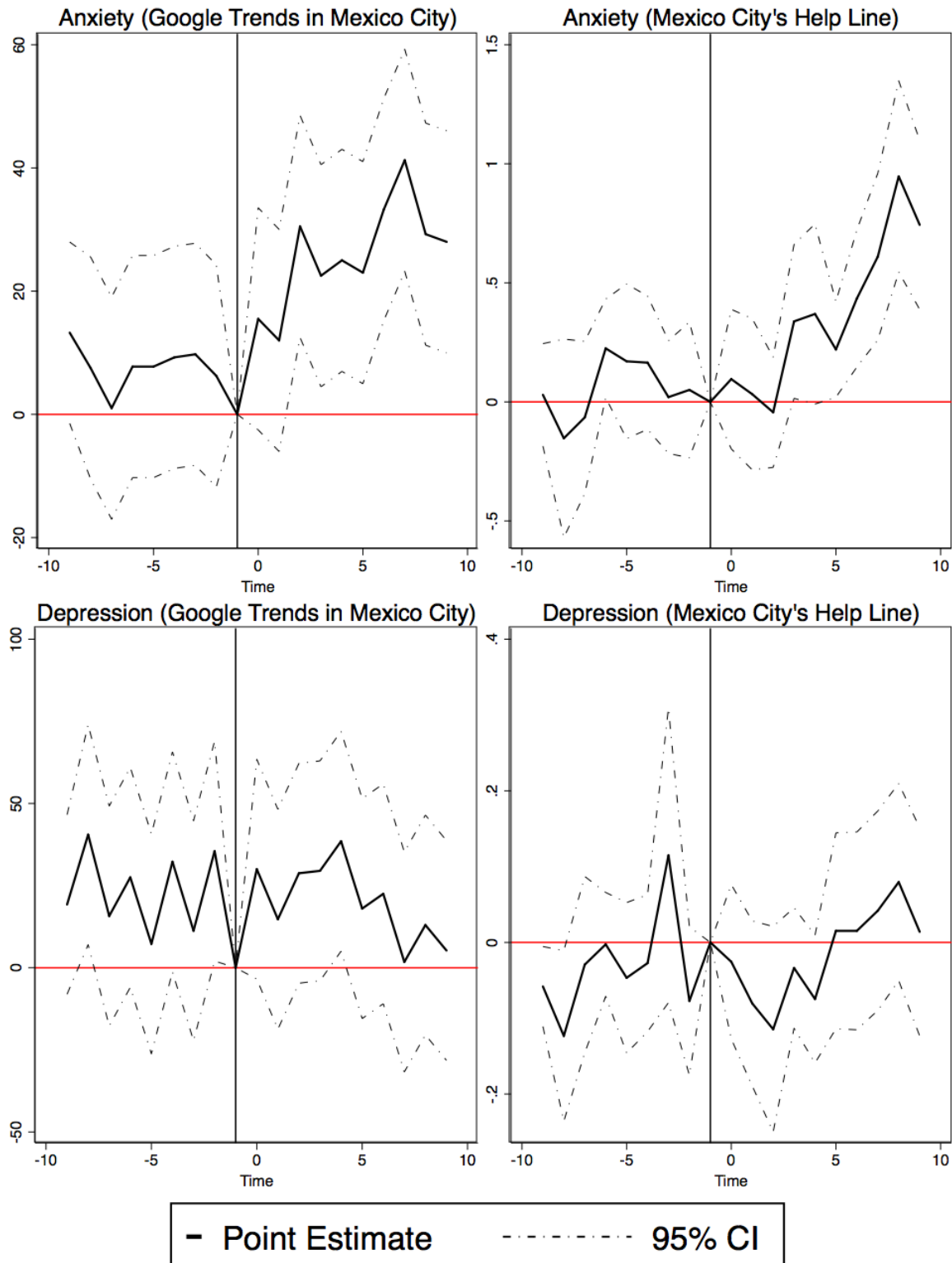
Figure A.4: Robustness (6): Main Findings Using a Placebo Test



SOURCE: Google Trends.

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level.

Figure A.5: Robustness (7): Google Trends vs Administrative Data



SOURCE: Google Trends and Mexico City's Help Line.

NOTES: Plotted coefficients are event-study dummy variables, β_t . Each plotted point represents the number of weeks before and after the lockdown, excluding the period just before adoption. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. Robust standard errors are clustered at the country level.

Table A.1: Event Study: Mental Health

	<i>Depression</i> (1)	<i>Anxiety</i> (2)	<i>Sadness</i> (3)	<i>Insomnia</i> (4)	<i>Suicide</i> (5)	<i>Stress</i> (6)
Week -11	9.406 (7.164)	4.543 (3.392)	5.953 (5.502)	10.031 (6.442)	2.676 (2.445)	7.896 (6.176)
Week -10	16.359** (6.095)	5.884* (3.107)	2.940 (3.858)	5.500 (5.388)	6.497*** (1.785)	3.857 (6.341)
Week -9	14.756 (10.086)	7.308* (3.399)	6.148** (2.695)	-0.546 (3.607)	6.855* (3.360)	3.702 (5.630)
Week -8	18.230 (10.678)	7.976** (3.482)	2.461 (2.713)	-3.659 (3.531)	4.988** (2.120)	8.145 (4.960)
Week -7	7.792 (8.034)	1.998 (3.466)	3.039 (3.927)	0.381 (5.687)	-6.063 (4.098)	3.589 (5.553)
Week -6	8.152 (7.871)	4.616 (3.295)	4.756 (2.730)	-8.765 (4.901)	3.243 (3.560)	0.257 (3.334)
Week -5	13.641 (9.469)	4.259 (4.183)	8.003** (2.805)	-2.195 (4.750)	7.726 (9.041)	2.451 (4.371)
Week -4	22.609*** (5.703)	6.442** (2.486)	7.916*** (2.113)	-3.485 (3.187)	12.671* (5.857)	-5.544 (4.086)
Week -3	18.735** (6.469)	3.043 (2.598)	2.886 (1.777)	0.805 (3.980)	2.013 (3.194)	2.728 (3.603)
Week -2	6.122 (9.219)	7.923** (3.486)	0.781 (4.427)	-4.261 (3.994)	-2.633 (2.549)	-0.265 (3.559)
Week 0	5.344 (7.670)	12.595*** (3.190)	0.857 (2.839)	12.225* (6.044)	3.340** (1.358)	8.363 (6.879)
Week 1	11.627 (8.715)	21.685*** (4.312)	5.405** (2.369)	30.212*** (5.697)	4.321 (2.786)	13.481** (5.442)
Week 2	3.808 (7.494)	22.948*** (5.137)	0.302 (3.424)	35.004*** (5.848)	-4.138 (3.553)	16.399* (7.687)
Week 3	7.558 (8.165)	16.935*** (4.912)	2.054 (4.364)	32.137*** (7.487)	-0.089 (5.570)	26.114*** (5.604)
Week 4	5.994 (7.851)	17.599*** (3.798)	3.449 (2.807)	23.588*** (5.290)	1.035 (2.636)	25.338*** (6.306)
Week 5	9.225 (8.665)	22.358*** (4.199)	4.188 (2.775)	31.041*** (6.321)	4.980 (3.457)	22.932*** (4.784)
Week 6	11.210 (6.855)	23.766*** (5.792)	10.655** (3.560)	19.952*** (6.025)	-3.845 (3.005)	9.821 (5.990)
Week 7	7.932 (6.255)	14.666*** (4.586)	5.485* (2.853)	9.910** (4.088)	-4.282 (3.029)	23.360*** (4.978)
Week 8	7.239 (7.013)	15.727*** (3.068)	11.109 (7.486)	10.898 (6.149)	-2.443 (2.758)	28.524*** (5.405)
Week 9	13.661* (6.602)	13.497*** (3.098)	9.161 (5.574)	15.599*** (4.597)	-4.135 (3.835)	23.240*** (6.422)
Week 10	16.249 (9.461)	12.022*** (3.193)	8.520 (5.213)	5.256 (4.907)	-2.029 (1.727)	31.862*** (6.229)
Week 11	9.177 (6.184)	17.525*** (2.571)	8.278 (4.788)	4.784 (3.596)	1.859 (2.692)	31.201*** (4.208)
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1375	1375	1375	1375	1375	1375
R ²	0.49	0.82	0.69	0.60	0.42	0.50

SOURCE: Google Trends.

NOTES: Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level. Significance levels:

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A.2: Robustness (1): Bootstrap Standard Errors

	<i>Depression</i> (1)	<i>Anxiety</i> (2)	<i>Sadness</i> (3)	<i>Insomnia</i> (4)	<i>Suicide</i> (5)	<i>Stress</i> (6)
Week -11	9.406 [-5.482, 25.47]	4.543 [-2.46, 12.14]	5.953 [-5.783, 18.65]	10.031 [-2.974, 26.05]	2.676 [-2.674, 8.023]	7.896 [-5.362, 21.68]
Week -10	16.359** [4.236, 29.19]	5.884* [-.5465, 12.49]	2.940 [-6.002, 10.36]	5.500 [-6.284, 18.72]	6.497*** [2.534, 10.69]	3.857 [-10.28, 17.47]
Week -9	14.756 [-6.512, 38.68]	7.308* [.2877, 14.99]	6.148* [-.7018, 11.77]	-0.546 [-8.376, 8.106]	6.855* [.7002, 15.03]	3.702 [-9.36, 15.98]
Week -8	18.230 [-3.669, 42.13]	7.976** [.454, 16.21]	2.461 [-4.006, 7.959]	-3.659 [-11.15, 3.504]	4.988** [.0338, 9.643]	8.145 [-2.385, 18.58]
Week -7	7.792 [-10.32, 24.35]	1.998 [-5.799, 9.923]	3.039 [-6.223, 10.63]	0.381 [-12.24, 12.52]	-6.063 [-15.58, 2.6]	3.589 [-9.412, 15.23]
Week -6	8.152 [-9.583, 24.14]	4.616 [-2.94, 11.88]	4.756 [-.9882, 10.72]	-8.765* [-18.9, 1.463]	3.243 [-5.024, 11.18]	0.257 [-6.444, 7.813]
Week -5	13.641 [-8.444, 33.53]	4.259 [-5.002, 13.18]	8.003** [1.471, 14.06]	-2.195 [-13.12, 8.175]	7.726 [-6.697, 27.46]	2.451 [-6.734, 12.49]
Week -4	22.609*** [9.064, 34.72]	6.442** [1.032, 12.39]	7.916*** [3.042, 12.35]	-3.485 [-10.32, 4.001]	12.671** [.9454, 27.09]	-5.544 [-15.82, 3.013]
Week -3	18.735** [4.228, 32.82]	3.043 [-3.7, 8.91]	2.886 [-1.081, 6.71]	0.805 [-7.802, 8.937]	2.013 [-4.269, 9.135]	2.728 [-4.727, 10.47]
Week -2	6.122 [-15.93, 26.39]	7.923** [.02829, 15.4]	0.781 [-9.685, 9.331]	-4.261 [-13.86, 3.466]	-2.633 [-8, 2.942]	-0.265 [-7.355, 7.948]
Week 0	5.344 [-12.66, 22.52]	12.595*** [5.552, 19.86]	0.857 [-4.984, 7.204]	12.225* [-.1218, 25.66]	3.340** [.487, 6.413]	8.363 [-5.351, 23.9]
Week 1	11.627 [-8.287, 30.79]	21.685*** [12.06, 31.33]	5.405** [.4245, 10.27]	30.212*** [17.99, 43.24]	4.321 [-1.067, 10.36]	13.481** [2.031, 24.6]
Week 2	3.808 [-12.02, 20.26]	22.948*** [11.1, 32.9]	0.302 [-7.022, 8.293]	35.004*** [22.46, 47.94]	-4.138 [-12.38, 3.157]	16.399* [-.7882, 35.64]
Week 3	7.558 [-10.54, 24.5]	16.935*** [6.994, 28.18]	2.054 [-7.687, 11.39]	32.137*** [15.9, 48.57]	-0.089 [-10.49, 12.45]	26.114*** [14.43, 38.38]
Week 4	5.994 [-12.67, 24.46]	17.599*** [9.19, 26.43]	3.449 [-3.005, 9.379]	23.588*** [11.92, 34.9]	1.035 [-3.945, 6.743]	25.338*** [12.15, 38.85]
Week 5	9.225 [-9.567, 27.23]	22.358*** [13.31, 31.44]	4.188 [-1.701, 10.59]	31.041*** [16.77, 44.57]	4.980 [-2.426, 12.08]	22.932*** [12.88, 33.42]
Week 6	11.210 [-4.68, 27.36]	23.766*** [10.88, 36.31]	10.655** [2.863, 16.97]	19.952*** [7.192, 33.46]	-3.845 [-10.22, 2.556]	9.821 [-3.231, 22.26]
Week 7	7.932 [-5.415, 21.31]	14.666** [3.721, 24.31]	5.485* [-.896, 11.5]	9.910** [.9481, 19.77]	-4.282 [-11.32, 2.107]	23.360*** [13.17, 34.47]
Week 8	7.239 [-9.085, 22.51]	15.727*** [8.903, 22.18]	11.109* [-.7686, 26.74]	10.898 [-2.18, 24.99]	-2.443 [-8.97, 3.568]	28.524*** [16.98, 40.54]
Week 9	13.661* [-1.257, 27.53]	13.497*** [6.649, 19.83]	9.161 [-2.49, 21.73]	15.599*** [4.909, 25.65]	-4.135 [-12.87, 4.021]	23.240*** [9.588, 37.69]
Week 10	16.249 [-3.328, 38.31]	12.022*** [5.321, 18.75]	8.520 [-3.615, 19.59]	5.256 [-5.801, 16.06]	-2.029 [-5.662, 1.44]	31.862*** [19.29, 45.67]
Week 11	9.177 [-4.94, 22.38]	17.525*** [11.92, 23.22]	8.278 [-2.229, 18.93]	4.784 [-2.064, 12.82]	1.859 [-4.455, 7.326]	31.201*** [22.2, 40.91]
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1375	1375	1375	1375	1375	1375
R ²	0.49	0.82	0.69	0.60	0.42	0.50

SOURCE: Google Trends.

NOTES: Baseline fixed effects are included at the country, week, and year. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A.3: Robustness (2): Sensitivity Analysis Excluding a Country

	Anxiety										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Week 0	11.770*** (3.337)	14.273*** (3.001)	11.308*** (3.205)	12.895*** (3.459)	10.997*** (3.003)	12.107*** (3.513)	13.279*** (3.539)	13.277*** (3.465)	13.825*** (3.434)	12.322*** (3.456)	12.466*** (3.516)
Week 1	21.753*** (4.755)	24.110*** (3.989)	20.442*** (4.534)	22.311*** (4.699)	19.416*** (4.010)	19.834*** (4.265)	20.938*** (4.677)	22.291*** (4.727)	22.750*** (4.814)	22.560*** (4.661)	22.119*** (4.705)
Week 2	23.403*** (5.669)	21.048*** (5.260)	21.480*** (5.439)	22.417*** (5.655)	20.847*** (5.172)	23.471*** (5.656)	24.044*** (5.553)	23.010*** (5.686)	22.525*** (5.707)	23.064*** (5.688)	26.892*** (3.525)
Week 3	17.945*** (5.317)	16.430** (5.420)	15.567** (5.228)	16.835** (5.430)	13.769*** (4.053)	16.459** (5.443)	19.323*** (4.769)	16.131** (5.347)	19.175*** (4.898)	16.911** (5.401)	17.775*** (5.299)
Week 4	16.811*** (4.076)	16.344*** (3.958)	16.799*** (4.099)	17.590*** (4.150)	16.271*** (3.916)	18.910*** (3.902)	19.621*** (3.630)	17.731*** (4.218)	18.950*** (4.078)	18.410*** (4.092)	16.135*** (3.822)
Week 5	22.064*** (4.641)	21.865*** (4.589)	21.131*** (4.430)	24.010*** (4.235)	20.554*** (4.191)	24.883*** (3.568)	22.939*** (4.598)	22.362*** (4.604)	20.925*** (4.614)	23.528*** (4.420)	21.662*** (4.620)
Week 6	24.262*** (6.402)	25.493*** (6.040)	23.114*** (6.359)	24.956*** (6.253)	23.572*** (6.381)	23.929*** (6.399)	25.534*** (5.999)	23.818*** (6.368)	20.550*** (5.622)	20.153*** (4.997)	25.873*** (5.866)
Week 7	14.541** (5.105)	15.783*** (4.837)	13.887** (4.985)	15.580** (4.985)	14.004** (5.038)	16.319*** (4.662)	13.174** (4.777)	13.508** (4.867)	12.625** (4.598)	14.199** (5.078)	17.607*** (3.874)
Week 8	15.765*** (3.395)	16.615*** (3.196)	15.430*** (3.391)	17.313*** (2.850)	15.571*** (3.400)	16.395*** (3.262)	15.311*** (3.264)	14.644*** (3.136)	13.500*** (2.467)	15.913*** (3.374)	16.361*** (3.360)
Week 9	12.995*** (3.354)	14.644*** (3.215)	12.097*** (3.027)	13.164*** (3.351)	12.833*** (3.344)	14.447*** (3.258)	14.238*** (3.365)	12.144*** (3.079)	14.700*** (3.284)	12.807*** (3.314)	14.528*** (3.160)
Week 10	12.425*** (3.556)	11.723*** (3.480)	11.445*** (3.464)	12.862*** (3.417)	12.669*** (3.474)	12.212*** (3.503)	10.628*** (3.103)	11.677*** (3.465)	10.325*** (2.961)	11.861*** (3.553)	14.196*** (2.570)
Week 11	17.499*** (2.839)	16.122*** (2.367)	17.142*** (2.813)	18.858*** (2.411)	18.350*** (2.686)	18.225*** (2.757)	16.582*** (2.638)	16.714*** (2.693)	18.083*** (2.781)	17.708*** (2.833)	17.494*** (2.841)
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
R ²	0.79	0.82	0.81	0.81	0.81	0.83	0.83	0.81	0.84	0.80	0.84

	Insomnia										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Week 0	10.844 (6.538)	12.530* (6.689)	8.967 (5.566)	12.493* (6.670)	10.791 (6.497)	15.806** (5.296)	12.927* (6.705)	13.130* (6.631)	13.475* (6.658)	9.829 (6.082)	13.798* (6.398)
Week 1	29.483*** (6.185)	30.650*** (6.258)	28.273*** (5.959)	29.550*** (6.238)	29.571*** (6.080)	30.266*** (6.503)	30.249*** (6.082)	31.552*** (6.041)	26.450*** (5.080)	32.418*** (5.811)	33.465*** (5.041)
Week 2	35.517*** (6.449)	38.690*** (4.967)	35.318*** (6.440)	31.915*** (5.422)	32.542*** (5.807)	34.625*** (6.427)	34.289*** (6.457)	33.936*** (6.360)	36.050*** (6.578)	35.480*** (6.418)	36.876*** (6.088)
Week 3	33.816*** (8.025)	34.857*** (7.660)	31.531*** (8.226)	31.241*** (8.229)	33.538*** (8.111)	31.603*** (8.314)	28.941*** (7.435)	29.788*** (7.840)	30.800*** (8.400)	30.357*** (8.059)	37.066*** (6.092)
Week 4	22.452*** (5.698)	24.703*** (5.693)	20.495*** (4.778)	22.349*** (5.692)	24.360*** (5.725)	25.654*** (5.420)	23.536*** (5.815)	22.855*** (5.788)	22.300*** (5.758)	24.241*** (5.830)	26.482*** (4.883)
Week 5	32.694*** (6.732)	32.020*** (6.891)	30.824*** (6.994)	31.300*** (7.046)	28.226*** (6.288)	33.593*** (6.439)	27.940*** (5.948)	30.543*** (6.975)	28.400*** (6.266)	33.414*** (6.512)	32.411*** (6.800)
Week 6	18.165** (6.340)	21.121** (6.515)	19.804** (6.675)	20.104** (6.694)	19.536** (6.709)	22.184*** (6.247)	16.760** (5.517)	19.639** (6.677)	17.925** (6.058)	20.328** (6.742)	23.779*** (5.135)
Week 7	9.602* (4.541)	7.721* (3.755)	9.338* (4.452)	10.056* (4.496)	11.500** (4.203)	8.349* (4.042)	9.438* (4.501)	9.009* (4.389)	11.625** (4.344)	11.061** (4.325)	11.495** (4.086)
Week 8	10.644 (6.775)	12.597* (6.516)	7.904 (5.933)	11.359 (6.794)	13.040* (6.343)	10.637 (6.799)	7.700 (5.742)	9.966 (6.721)	9.750 (6.757)	12.187 (6.675)	13.933** (5.884)
Week 9	16.147** (5.086)	17.816*** (4.463)	13.662** (4.567)	15.931** (5.066)	13.734** (4.633)	16.620*** (4.854)	16.298** (5.111)	14.815** (5.046)	17.125*** (4.897)	16.086** (5.017)	13.371** (4.396)
Week 10	4.335 (5.365)	6.988 (5.121)	2.327 (4.314)	5.420 (5.415)	5.966 (5.395)	4.988 (5.374)	3.330 (5.075)	4.275 (5.324)	6.750 (5.107)	5.955 (5.334)	7.495 (4.806)
Week 11	4.592 (3.991)	5.662 (3.861)	1.987 (2.345)	4.758 (3.955)	5.609 (3.875)	4.010 (3.808)	5.468 (3.966)	3.914 (3.840)	5.692 (4.111)	4.936 (3.922)	6.009 (3.701)
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
R ²	0.54	0.55	0.59	0.59	0.60	0.63	0.62	0.59	0.63	0.60	0.63

SOURCE: Google Trends.

NOTES: Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A.4: Robustness (2): Sensitivity Analysis Excluding a Country

	Stress										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Week 0	9.612 (7.410)	8.183 (7.523)	8.851 (7.536)	9.217 (7.482)	4.982 (6.475)	7.339 (7.459)	13.146** (5.524)	8.527 (7.527)	9.275 (8.441)	7.653 (7.476)	5.262 (6.672)
Week 1	13.776** (5.992)	11.062* (5.320)	13.209* (6.005)	13.978** (5.969)	10.084* (4.697)	15.479** (5.559)	14.583** (5.898)	13.955** (5.977)	12.550* (6.167)	13.360* (5.999)	16.137** (5.187)
Week 2	17.141* (8.317)	15.788* (8.541)	16.652* (8.377)	17.901* (8.289)	13.318 (7.990)	16.178* (8.412)	19.258** (7.350)	18.204* (8.243)	10.150 (6.029)	17.114* (8.335)	18.196* (8.095)
Week 3	26.892*** (6.135)	28.622*** (5.492)	27.509*** (5.971)	26.226*** (6.190)	24.637*** (5.989)	24.842*** (6.009)	26.755*** (6.131)	27.449*** (5.997)	25.125*** (6.349)	22.068*** (4.200)	27.024*** (6.078)
Week 4	26.649*** (6.826)	25.767*** (6.928)	26.007*** (6.937)	26.405*** (6.931)	24.974*** (6.875)	28.445*** (6.037)	25.059*** (6.964)	23.692*** (6.723)	27.425*** (6.847)	23.208*** (6.502)	21.203*** (5.122)
Week 5	23.400*** (5.254)	23.098*** (5.319)	24.288*** (5.040)	22.047*** (5.191)	24.308*** (5.107)	24.425*** (5.006)	25.011*** (4.684)	21.378*** (4.998)	21.775*** (5.342)	22.309*** (5.258)	19.911*** (3.971)
Week 6	9.404 (6.571)	12.463* (5.859)	12.478* (5.864)	8.600 (6.445)	7.038 (5.866)	9.445 (6.564)	11.689* (6.222)	7.783 (6.184)	9.025 (7.098)	8.303 (6.381)	11.637* (6.257)
Week 7	21.831*** (5.215)	23.738*** (5.447)	25.042*** (5.167)	23.042*** (5.500)	20.518*** (4.440)	23.834*** (5.478)	22.915*** (5.496)	21.921*** (5.244)	24.000*** (5.683)	23.697*** (5.481)	26.424*** (4.294)
Week 8	29.769*** (5.788)	26.365*** (5.450)	29.277*** (5.876)	28.016*** (5.937)	25.713*** (4.988)	28.669*** (5.976)	31.611*** (4.904)	27.792*** (5.917)	29.600*** (6.196)	27.014*** (5.682)	29.913*** (5.767)
Week 9	24.351*** (6.957)	19.203*** (5.409)	24.275*** (6.975)	22.300** (6.992)	21.176** (6.689)	24.744*** (6.866)	26.357*** (6.139)	21.998** (6.931)	23.300** (7.617)	22.538** (7.026)	25.496*** (6.593)
Week 10	35.097*** (5.719)	32.627*** (6.937)	31.044*** (6.715)	32.372*** (6.774)	32.179*** (6.903)	33.032*** (6.782)	31.317*** (6.493)	32.017*** (6.806)	26.500*** (4.083)	30.573*** (6.706)	33.183*** (6.732)
Week 11	29.718*** (4.296)	32.119*** (4.522)	32.111*** (4.504)	31.126*** (4.622)	29.410*** (4.117)	31.709*** (4.606)	30.923*** (4.667)	30.847*** (4.590)	32.000*** (4.982)	29.436*** (4.150)	33.869*** (3.578)
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
R ²	0.48	0.52	0.48	0.47	0.49	0.52	0.54	0.47	0.51	0.47	0.54

	Suicide										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Week 0	2.980* (1.441)	3.991** (1.292)	2.942* (1.454)	4.067*** (1.237)	2.705* (1.311)	3.742** (1.410)	3.325* (1.487)	3.122* (1.465)	3.200* (1.689)	3.252* (1.494)	3.446** (1.494)
Week 1	4.444 (3.032)	3.850 (3.092)	4.025 (3.134)	4.773 (3.075)	4.472 (3.096)	4.189 (3.025)	4.119 (2.998)	4.719 (2.969)	2.150 (1.960)	4.750 (3.062)	5.980** (2.465)
Week 2	-4.412 (3.947)	-4.124 (3.941)	-4.278 (3.943)	-4.514 (3.922)	-4.177 (3.955)	-2.895 (3.593)	-6.239* (3.079)	-3.652 (3.924)	-5.125 (3.924)	-4.223 (3.954)	-1.777 (2.828)
Week 3	-0.085 (6.154)	1.194 (5.883)	0.237 (6.223)	-0.192 (6.130)	1.046 (5.882)	-1.571 (6.046)	0.030 (5.963)	0.596 (6.094)	-5.075 (3.140)	1.385 (5.755)	1.233 (6.137)
Week 4	0.984 (2.941)	2.279 (2.547)	1.334 (2.965)	1.033 (2.928)	1.274 (2.903)	0.551 (2.803)	0.873 (2.853)	0.923 (2.871)	-1.050 (1.486)	1.502 (3.011)	1.760 (2.936)
Week 5	5.393 (3.780)	4.368 (3.820)	5.321 (3.873)	5.181 (3.801)	6.184 (3.594)	3.019 (3.188)	4.184 (3.635)	5.430 (3.760)	3.400 (3.426)	5.887 (3.694)	6.471* (3.421)
Week 6	-3.804 (3.296)	-3.601 (3.308)	-4.055 (3.338)	-4.295 (3.320)	-3.357 (3.302)	-2.093 (2.499)	-4.554 (3.038)	-3.352 (3.332)	-6.075** (2.396)	-4.024 (3.084)	-3.050 (3.195)
Week 7	-5.018 (3.310)	-2.689 (2.765)	-4.363 (3.408)	-4.758 (3.308)	-3.240 (3.121)	-2.948 (2.927)	-5.027 (3.248)	-4.399 (3.324)	-5.825* (2.960)	-4.498 (3.347)	-4.198 (3.438)
Week 8	-3.549 (2.802)	-1.338 (2.784)	-0.992 (2.524)	-2.776 (3.017)	-2.277 (3.060)	-1.990 (2.932)	-3.717 (2.668)	-1.933 (3.001)	-3.600 (2.889)	-2.261 (3.073)	-2.530 (3.039)
Week 9	-4.064 (4.241)	-2.522 (3.830)	-3.679 (4.340)	-4.622 (4.228)	-3.586 (4.157)	-3.832 (4.258)	-5.379 (3.886)	-3.676 (4.218)	-5.850 (3.913)	-2.228 (3.542)	-6.044 (3.718)
Week 10	-2.037 (1.882)	-0.981 (1.552)	-1.928 (1.986)	-2.316 (1.856)	-1.455 (1.773)	-2.000 (1.870)	-2.347 (1.798)	-1.962 (1.915)	-3.125** (1.358)	-1.709 (2.030)	-2.431 (1.906)
Week 11	1.626 (2.980)	2.342 (2.930)	1.535 (2.995)	1.850 (2.982)	3.724 (2.094)	0.825 (2.732)	0.717 (2.643)	2.484 (2.890)	0.983 (2.803)	2.358 (2.939)	1.986 (2.996)
Baseline FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
R ²	0.44	0.44	0.43	0.39	0.44	0.43	0.46	0.40	0.44	0.37	0.42

SOURCE: Google Trends.

NOTES: Baseline fixed effects are included at the country, week, and year. Robust standard errors are clustered at the country level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$