

RISK AND SOCIAL POLICY GROUP

**COVID-19
TECHNICAL REPORT
WAVE TWO**

SEPTEMBER 14, 2020

WWW.RISKANDSOCIALPOLICY.ORG

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PROJECT BACKGROUND

The COVID-19 pandemic has upended life in the United States, infecting over six million and killing over 190,000 people, slowing the economy, and changing patterns of social interaction. Over the course of the last six months, state and local governments have led the fight to combat COVID-19, enacting a range of critical risk reduction policies including state-at-home orders, social distancing protocols, and business closures. In recent weeks, subnational governments have once again found themselves on the front lines of critical policy debates, this time grappling with vexing questions such as whether it is safe to resume in-person schooling, whether mask-wearing mandates are needed to encourage greater compliance with risk reduction recommendations, and how to manage the need for increased testing in many areas of the country. All of this policy activity has occurred against the backdrop of growing social unrest as thousands of Americans have taken to the streets to protest police violence and racial injustice since the killing of George Floyd on May 25th, 2020.

The Risk and Social Policy Working Group was established to study the effect of COVID-19 risk messaging strategies and public policies on individual perceptions and behavior across the various stages of the pandemic. We are scholars from a diverse array of fields, including public policy, communication, public health, psychology, political science, economics, and others. Our work is funded by the National Science Foundation, as well as the Natural Hazards Center, the University of Colorado, Boulder and the University of Colorado, Denver.

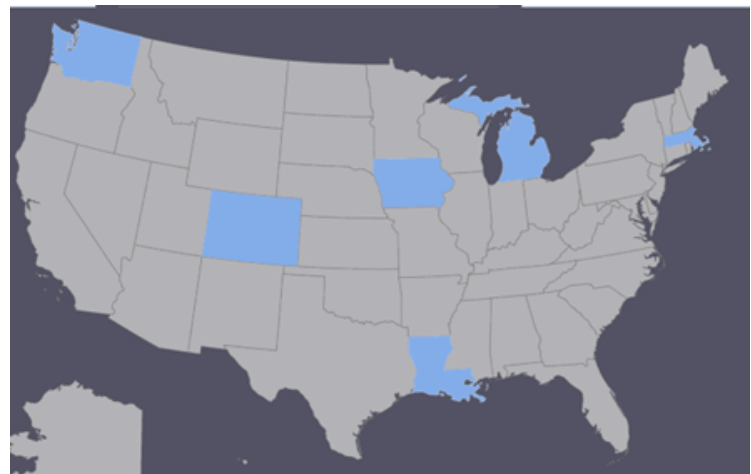


Figure 1. U.S. states surveyed for this research

This technical report summarizes the results of the second wave of a three-wave panel survey distributed to a representative group of individuals residing in Colorado, Iowa, Louisiana, Massachusetts, Michigan, and Washington. These states were selected to capture variation in both the onset of the COVID-19 outbreak, risk reduction policies, and demographic and social factors.

The panel survey is being distributed through Qualtrics to measure respondents' perceptions and behaviors over time. Our analysis of the first wave (May/June) can be found [here](#). The second wave of the survey was conducted between August 6 and August 25, 2020. We asked survey respondents to answer questions about the following topics:

- Physical and mental health, including recent experience with COVID symptoms and concerns.
- Risk perceptions, including level of concern about potentially contracting COVID-19.
- Risk reduction behaviors, such as staying-at-home, physical distancing, and mask wearing.
- Information seeking, including when, where, and how often people look for information relating to the COVID-19 pandemic.
- Perceptions surrounding a COVID-19 vaccine, including concerns about health, safety, and efficacy.
- Attitudes around schools reopening, including whether parents intend to send their kids to school in-person.
- Government performance, including approval of different policymakers, levels of government, and specific policies, in relation to their responses to COVID-19.

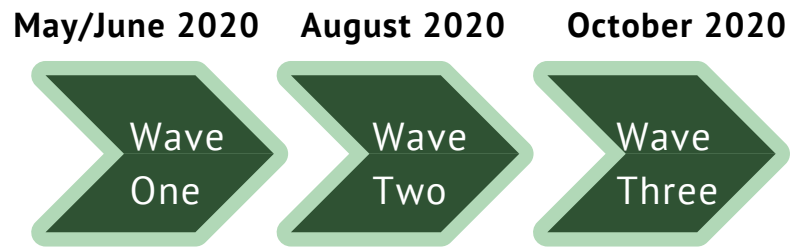


Figure 2. Projected survey waves timeline

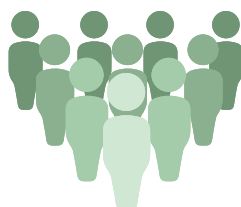
A third wave of the survey will be distributed in October. This technical report summarizes the characteristics of the Wave 2 survey sample, **which includes the individuals who responded to both Waves 1 and 2 of the survey**, followed by key findings about each of the topics listed above from Wave 2. Separate reports are available for each of the individual states included in the survey. Subsequent papers and presentations from the Risk and Social Policy Working Group will provide detailed analyses of key questions that are the focus of our interdisciplinary research team, including racial and class disparities in COVID-19 outcomes, the role of risk communication in shaping risk perceptions and behaviors, the relationship between mental health factors and risk perceptions and behaviors, and variation and diffusion of state-level COVID-19 policies. We encourage interested parties to follow [our website](#) and [social media](#) for updates.

CHARACTERISTICS OF THE SURVEY SAMPLE

In total, our Wave 2 survey sample includes 2,078 individuals across the six states. Sample characteristics are shown in Table 1. Wave 1 sampling quotas were designed to recruit a sample for each state that was roughly representative of the state’s age, race/ethnicity, and income demographics. In total, 3,056 individuals responded in Wave 1, and all of these respondents were invited to take the Wave 2 survey. Attrition in the Wave 2 sample varies somewhat by gender, age, and race, resulting in a higher proportion of females, younger respondents, and white respondents relative to Wave 1 and to census demographics.

# Respondents:	ALL STATES	COLORADO		IOWA		LOUISIANA		MASSACHUSETTS		MICHIGAN		WASHINGTON	
	2,078	335	335	312	312	343	343	339	339	401	401	348	348
		Sample	Census	Sample	Census	Sample	Census	Sample	Census	Sample	Census	Sample	Census
Gender													
Male	35%	35%	49%	35%	50%	33%	49%	39%	49%	36%	49%	34%	50%
Female	64%	64%	51%	65%	50%	67%	51%	60%	51%	63%	51%	65%	50%
Age													
18-34	34%	36%	30%	34%	27%	32%	28%	34%	28%	31%	26%	37%	29%
35-55	43%	41%	35%	42%	32%	46%	34%	44%	33%	44%	33%	41%	34%
55+	23%	23%	35%	24%	41%	22%	38%	22%	39%	25%	41%	22%	37%
Race/Ethnicity													
Non-Hispanic White	72%	69%	68%	86%	85%	60%	58%	74%	71%	79%	75%	68%	69%
Non-Hispanic Black	9%	4%	5%	3%	5%	30%	33%	7%	8%	11%	14%	5%	5%
Hispanic/Latinx	10%	19%	22%	5%	6%	4%	6%	10%	12%	5%	6%	14%	14%
Asian	5%	5%	3%	3%	3%	3%	2%	6%	7%	2%	3%	9%	9%
Other	4%	4%	5%	4%	4%	2%	3%	3%	9%	3%	5%	6%	12%
Income													
<=\$50,000	41%	37%	41%	48%	42%	49%	52%	33%	33%	40%	44%	38%	33%
\$50,001-\$100,000	32%	34%	30%	32%	34%	33%	27%	27%	26%	32%	31%	31%	31%
>\$100,000	28%	29%	29%	20%	25%	18%	21%	40%	41%	28%	25%	31%	36%

Table 1. Wave 2 sample demographics and census demographics of the six states surveyed in the second wave of panel data.



PHYSICAL AND MENTAL HEALTH

Figure 3 shows reported mental and physical health changes in the past two months. While the majority of respondents (81%) said that their physical health stayed about the same, it is important to note that 22% said their mental health declined, and 11% said their physical health declined. Fewer people (less than 10%) said their mental or physical health had improved since the start of the pandemic.

In addition, 41% rated their distress as a 6 or higher over the past week on a sliding “distress thermometer,” where 0 = “Things are good”, 10 = “I feel as bad as I have ever felt”. This is about the same proportion as in Wave 1, indicating that mental health does not seem to be improving considerably, even as businesses reopen and stay-at-home orders are lifted.

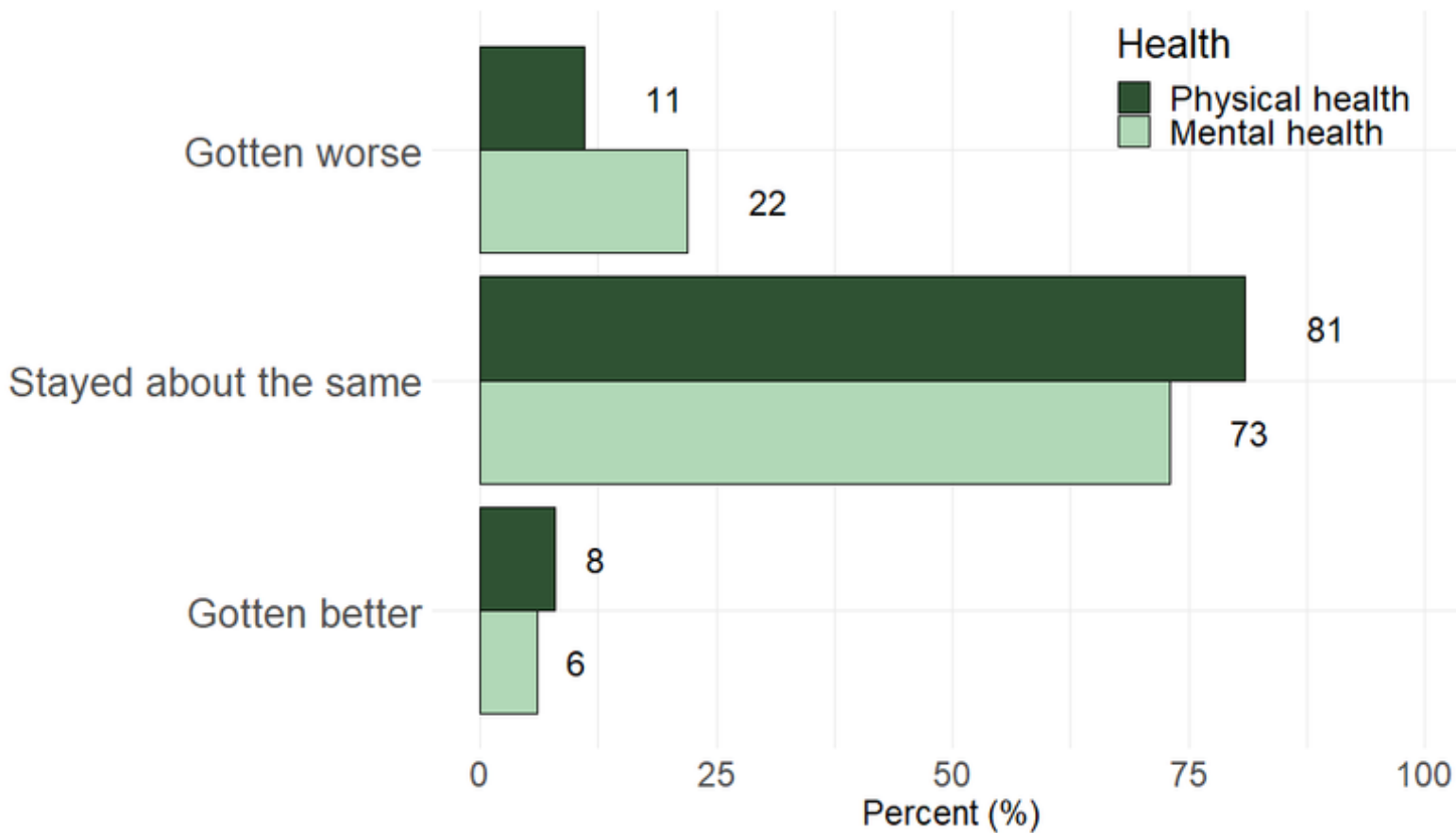


Figure 3. Changes in respondents’ physical and mental health over the last two months.

COVID continues to have an impact on employment and personal finances. About 6% of respondents said they were currently unemployed because of COVID-19, and 37% reported being designated an essential worker. On average, respondents said there was a 16% chance they would run out of money in the next three months due to COVID-19, and roughly a quarter of respondents said they had already run out of money because of COVID. Interestingly, in Wave 1 (May/June), 22% of respondents predicted that there was more than a 50% chance they would run out of money in the next three months. Of these, 64% reported that they had actually run out of money by Wave 2.

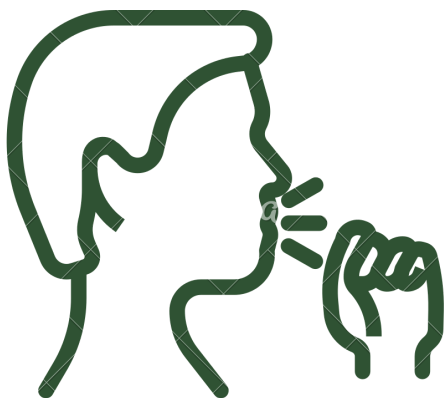
COVID-19 EXPERIENCE & TESTING

About 10% of respondents thought that they personally had contracted COVID-19 when they took this survey. The majority of respondents (62%) personally knew at least one person who had contracted COVID-19, and 18% said they personally knew someone who had died of COVID-19. COVID-19 testing in our sample has increased since Wave 1 of the survey: 19% of respondents stated that they received a test for active COVID-19 infection (up from 3.5% in May/June). Antibody testing is still fairly uncommon, however: only about 3% of respondents reported that they had gotten an antibody test in Wave 2, compared to 2.3% in Wave 1. The majority of respondents (67%) in Wave 2 somewhat or strongly agree that there should be more testing for COVID-19 in the United States, and 63% somewhat or strongly agree that employers should be able to require their employees to get tested. However, only 49% of respondents somewhat or strongly agreed that they trusted the results from COVID-19 tests, and 51% somewhat or strongly agreed that it takes too long to get results from COVID-19 testing. Of the respondents that got the most common type of COVID-19 test, a nasal, throat, or nasopharyngeal swab, 18% said they got test results in less than one day, while 48% said it took 1-3 days, 25% said it took 4-7 days, and 9% reported waiting more than a week for results.

RISK PERCEPTIONS

A robust understanding of public perceptions of COVID-19 risk is essential for constructing more effective risk messaging and risk reduction policies. When asked about their likelihood of contracting COVID-19 in the next three months, on average, respondents indicated there was a 30% chance they would contract the virus.

Interestingly, respondents said if they did contract COVID-19, there was a 36% chance they would become seriously ill and a 23% chance they would die. This reflects an over-estimation of COVID-19 risks, as the actual chances of contraction, falling ill, and death are currently much lower across states. While calculating an individual's risk is difficult, as a reference point it is helpful to note that about 2% of the US population has officially been diagnosed with COVID-19 to date (6 million cases), and about 0.06% of the US population has died from COVID-19 (180,000 people) since the start of the pandemic. Respondents' perceived likelihood of getting COVID-19, getting seriously ill from COVID-19 and dying from COVID-19 increased slightly (by 1-3 percentage points) from May to August.



30% chance of getting COVID-19



36% chance of getting seriously ill



23% chance of death

RISK REDUCTION BEHAVIORS

In addition to asking about risk perceptions, we asked respondents several questions about their behaviors related to COVID-19, including the extent to which respondents 1) stayed at home or left home for a variety of reasons; 2) kept physical distance from others when they did leave home; and 3) wore masks or face coverings in public. Questions that ask respondents to recall recent behaviors (e.g., over the past month to three months) captured information during the period when most states in our sample (and across the U.S.) were easing stay-at-home orders and reopening businesses.



Stay-at-Home Orders and Reasons for Leaving Home

By August of 2020, many U.S. states had begun to ease stay-at-home orders or recommendations, and our Wave 2 results suggest that people are engaging in more activity outside the home. Our survey assessed “stay-at-home” behavior by asking respondents to report how often they left home to conduct various activities in the month prior to the survey. The most common reason people reported leaving home weekly or more frequently was to shop at a store (about 58% of respondents), followed closely by exercising outdoors (47% did so on at least a weekly basis). About 4% of respondents reported working outside the home multiple times a week or every day, while 89% said they had never left home for work in the past month. About 54% of respondents reported leaving home for an in-person medical appointment at least once in the past month. In that time frame, respondents also reported leaving home to visit a gym or exercise facility (37%), attend a religious service (11%), visit a hair salon or similar (67%), or dine out indoors (51%) or outdoors (53%).

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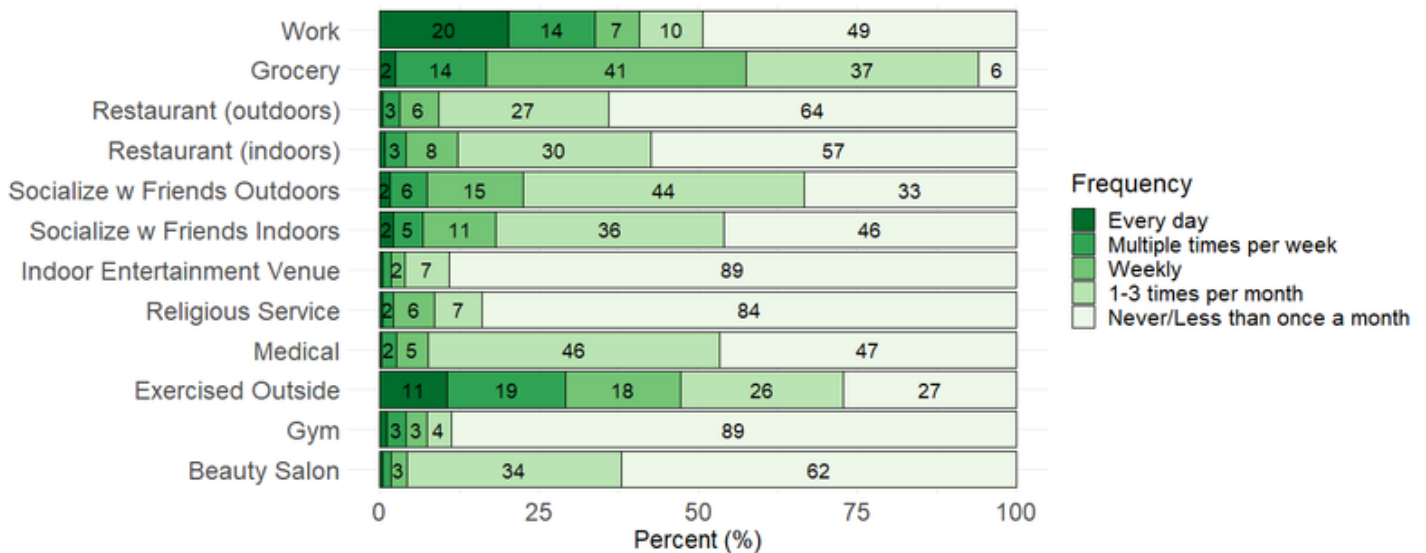


Figure 4. Responses to the question “In the past month, about how often did you do each of the following activities?”

We also asked respondents about their travel behavior. About 90% of respondents said they had not traveled by plane at all in the past two months, while 8% had flown fewer than 5 times and 2% said they had flown 5 or more times. About 90% of respondents said they had never taken public transit during this period, while just over 4% reported doing so more than five times.

Next we asked respondents about their participation in two different types of protests that occurred over the previous two months. Starting in mid-April, people in multiple states began protesting stay-at-home orders and other COVID-related restrictions. After George Floyd was killed by police on May 25, protests against police violence and for the Black Lives Matter movement emerged around the country. We asked respondents about their participation in and support of both of these protest movements. About 2% of respondents reported participating in protests against stay-at-home orders or other COVID-19 restrictions in person, with 5% participating through other not in-person methods (e.g., online, putting up signs). 26% of all respondents supported these protests. Meanwhile, 5% of respondents reported participating in in-person protests against police violence and/or in support of the Black Lives Matter movement, with another 17% participating through other not in-person methods. 42% of all respondents indicated they supported or strongly supported these protests.

Keeping Distance From Others

Officials continue to recommend that individuals keep distance from people outside their household to reduce COVID-19 transmission, a practice referred to as social distancing or physical distancing. To assess distancing behaviors, we asked respondents to report how often they kept distance from other people outside their household in the week prior to the survey. About 36% of respondents said they always practiced this behavior, another 34% said they did so often, and 3% reported that they never left home or encountered anyone else. Common reasons for why respondents did not always keep distance from other people included the fact that one or both people were wearing masks (38%), they had difficulty keeping distance in stores or public buildings (31%), they experienced an inability to keep distance at work (28%), and other people approached the respondent (26%).

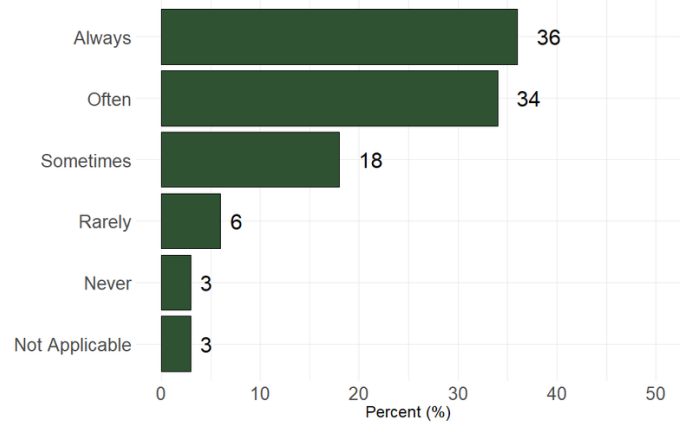


Figure 5. Responses to the question, “In the past week, did you keep a distance from people outside your household?”

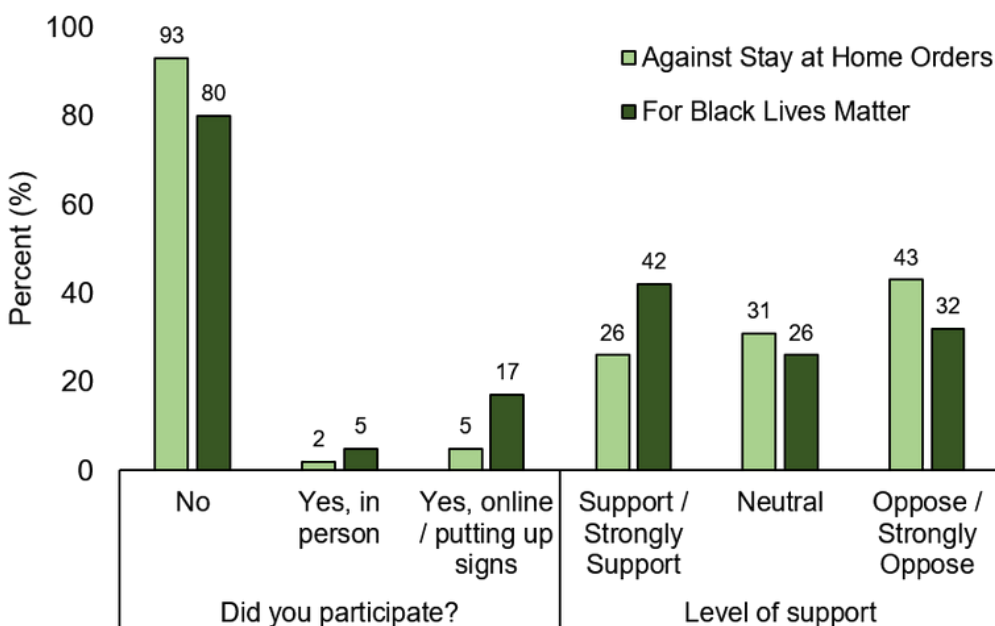


Figure 6. Participation in and support of protests a) against stay at home orders and COVID restrictions, and b) against police violence and in support of Black Lives Matter

Wearing Masks or Face Coverings

Public officials and private businesses have mandates and recommendations in place for people to wear cloth face coverings in public. Almost all respondents (98%) reported owning some type of face covering. About 81% of respondents owned a cloth mask or face covering, while 43% had paper surgical masks, and 18% reported having an N95 surgical mask or similar.

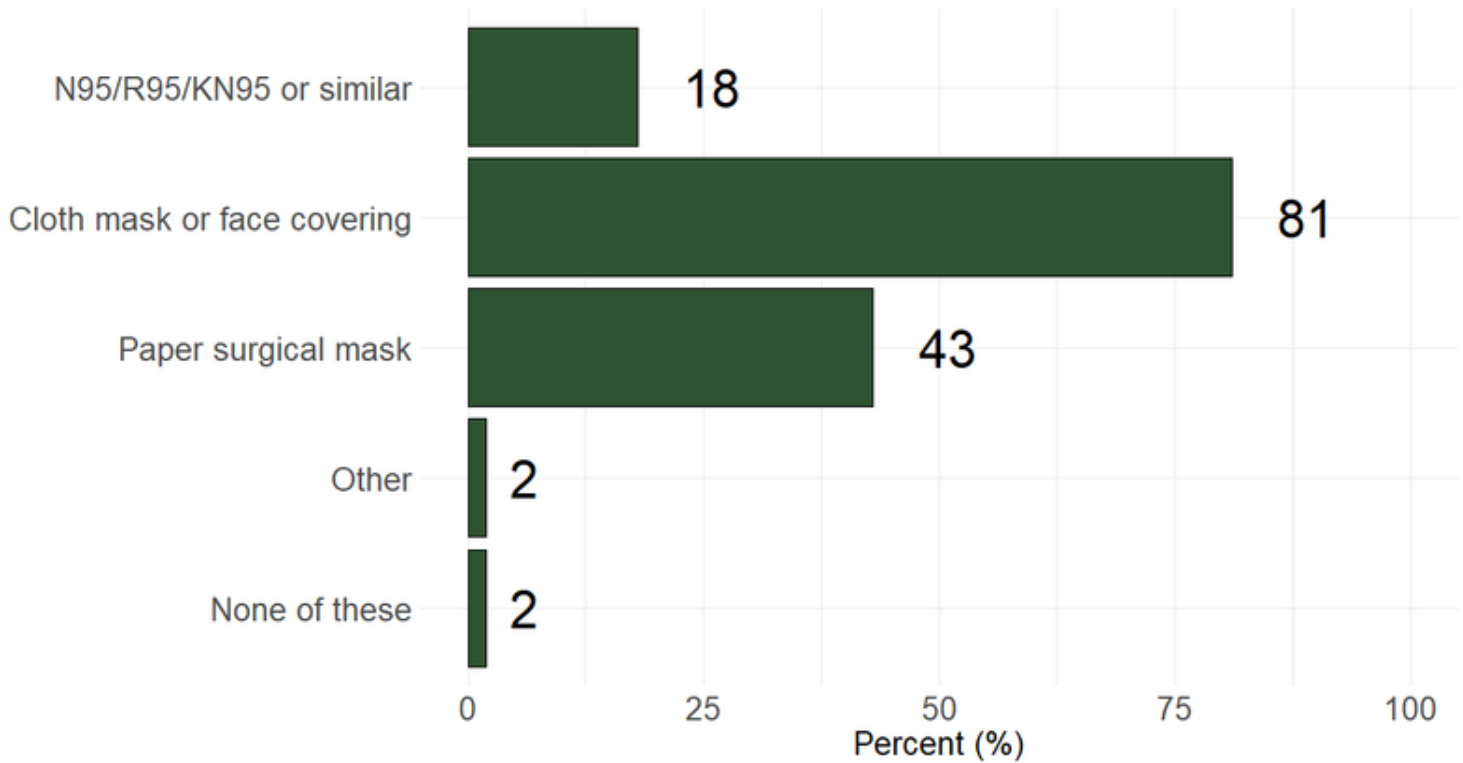


Figure 7. Responses to the question “Do you have a paper or cloth mask or face covering that you could wear to avoid getting or spreading COVID-19?”

Additionally, we asked respondents how frequently they had worn a face covering in the week prior to the survey while participating in different activities. In Wave 2, respondents reported high rates of mask wearing while in indoor public spaces like stores or workplaces (n=1984): 79% of respondents said they always wore a face covering, while 15% reported wearing a face covering “sometimes,” and 6% said they never wore a face covering or that they never went to indoor public places.

Among respondents who reported spending any time in crowded outdoor spaces (n=1356), 43% said they had always worn a face covering, while 31% said they never wore a face covering in these circumstances. Finally, for respondents who spent any time outdoors but not in a crowd (e.g., exercising) in the past week (n=1899), 27% said they always wore a face covering, while 49% said they never did during this activity. The most common barriers to wearing a face covering cited by respondents were related to difficulty breathing (12%), high outdoor temperatures (10%), and difficulty wearing a mask while exercising (10%).

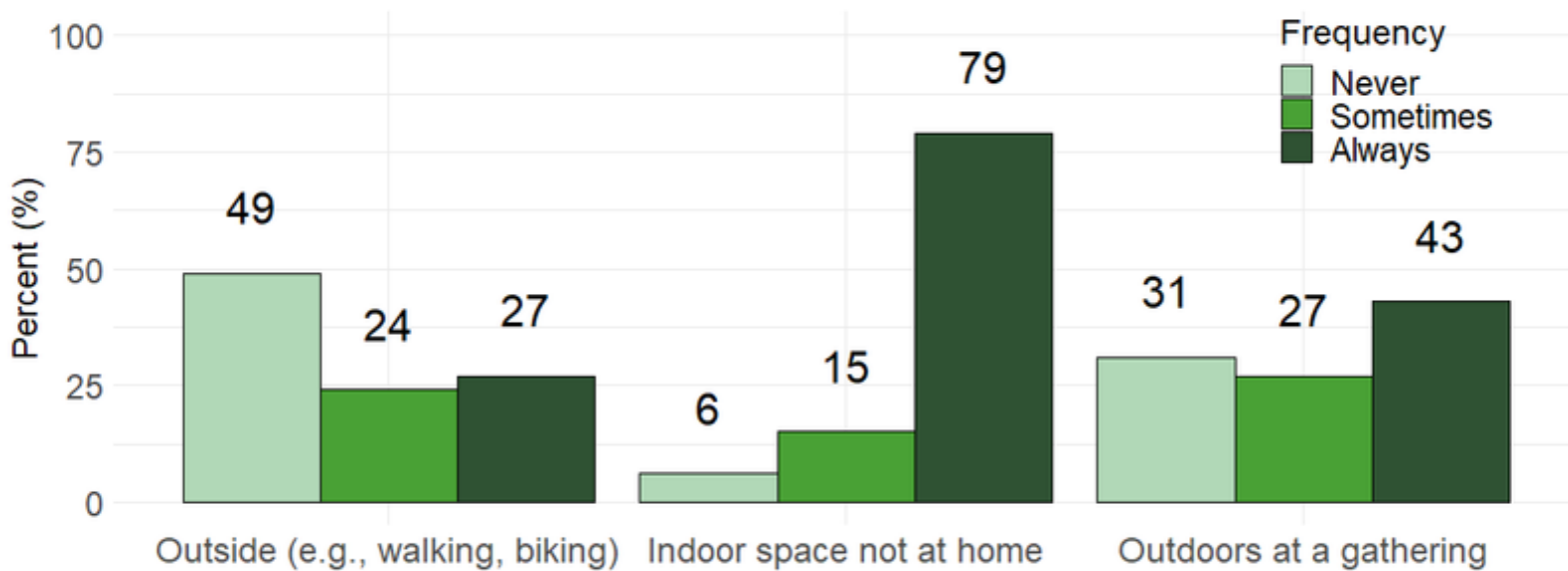


Figure 8. Responses to the question “In the past week, how often did you wear a face covering in each of the following situations?” Percentages were calculated using only respondents who participated in these activities.



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Rates of reported mask wearing also varied across the six states included in our sample. In Massachusetts and Colorado, 83% of respondents said they always wore a mask in indoor public spaces, compared to 80% in Washington, 76% in Michigan, 69% in Louisiana, and 61% in Iowa. Mask wearing has increased in all states compared to Wave 1 of the survey in May, and most respondents (72%) think it is somewhat or very likely they will still be wearing masks 3 months from now.

We also examined how mask wearing varied with respondent characteristics. Controlling for other demographics, we did not see gender differences in mask wearing in Wave 1, but in Wave 2 males were less likely to report wearing masks than females. There were some racial differences in Wave 1 (higher rates of mask wearing among Black and Asian respondents compared to white), but these differences are not significant in Wave 2. Respondents over 55 years old reported higher rates of mask wearing compared to respondents under 34. Mask wearing rates also increased with increasing education levels. Finally, compared to respondents who identified as politically moderate, liberals were more likely to wear masks, while conservatives were less likely to do so.

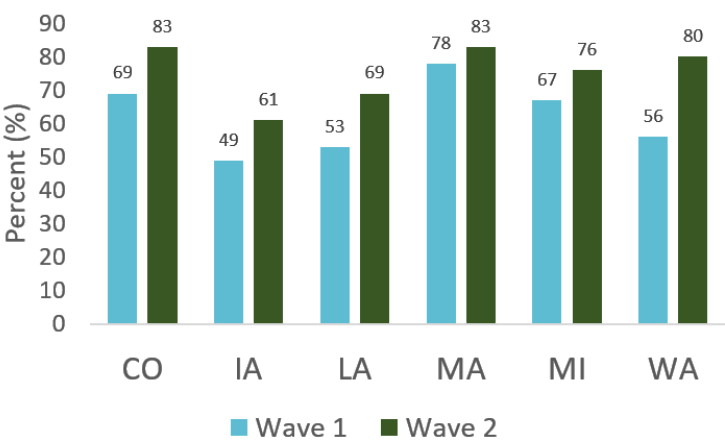


Figure 9. Percent of panel respondents reporting always wearing a mask in indoor public spaces by state in Waves 1 and 2.

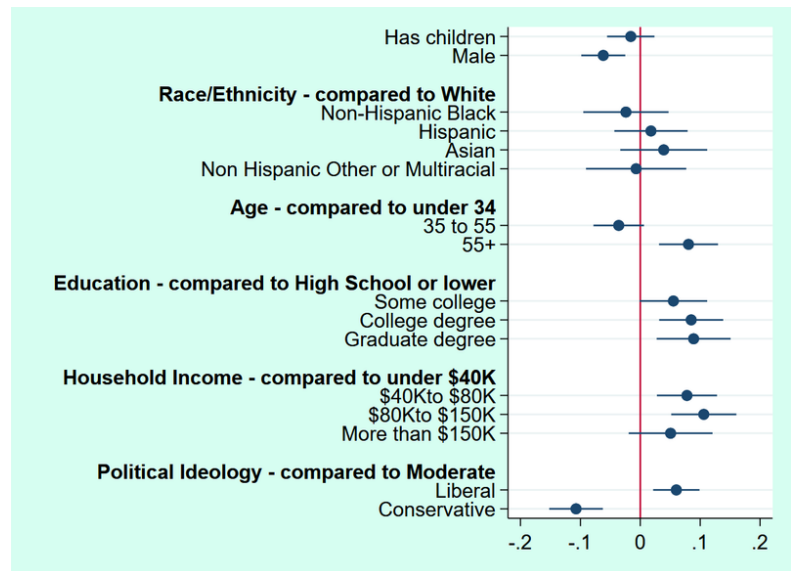


Figure 10. Relationship between likelihood of always wearing a mask in indoor public spaces and respondent characteristics (multivariate regression coefficients for binary outcome variable). Red line represents comparison group (e.g., respondents without children, females, White respondents).

INFORMATION SEEKING

In addition to measuring risk perceptions and behaviors, we measured how respondents obtain information about COVID-19. We asked people how closely they are following news and information about COVID-19. Overall, attention to COVID-19 news decreased from Wave 1 to Wave 2. 32% of respondents said they followed COVID-19 news very closely in May/June, compared to 25% in August.

Among traditional media, television continued to be the most widely used source, with 34% indicating that they seek information about COVID-19 from television every day, while 46% indicated that they obtain information from television a few days a week.

Newspapers and radio news were less common sources of information. Over half of all respondents indicated they never obtain information from radio (53%) or newspapers (52%).

In the realm of social media, Facebook was the most widely used platform for gathering information on COVID-19. More than half of all respondents indicated that they obtain information about COVID-19 from Facebook at least a few

days a week (20% of respondents obtain information from Facebook everyday). Conversely, 71% respondents indicated that they never obtain information from Twitter. 38% of respondents indicated that they obtain information from other social media platforms (e.g., Instagram, TikTok) a few days a week or daily.



Podcasts are not a particularly common source of COVID-19 information, as 80% of respondents indicated that they never obtain information from this source. Finally, government and academic websites, as well as media aggregation tools (e.g., Reddit and Google News), represent important sources of online information. Respondents indicated they frequently seek information from government or academic websites either every day (14%) or a few days a week (54%). About 55% of respondents indicated they obtain information from media aggregation tools like Google News a few days a week or daily.

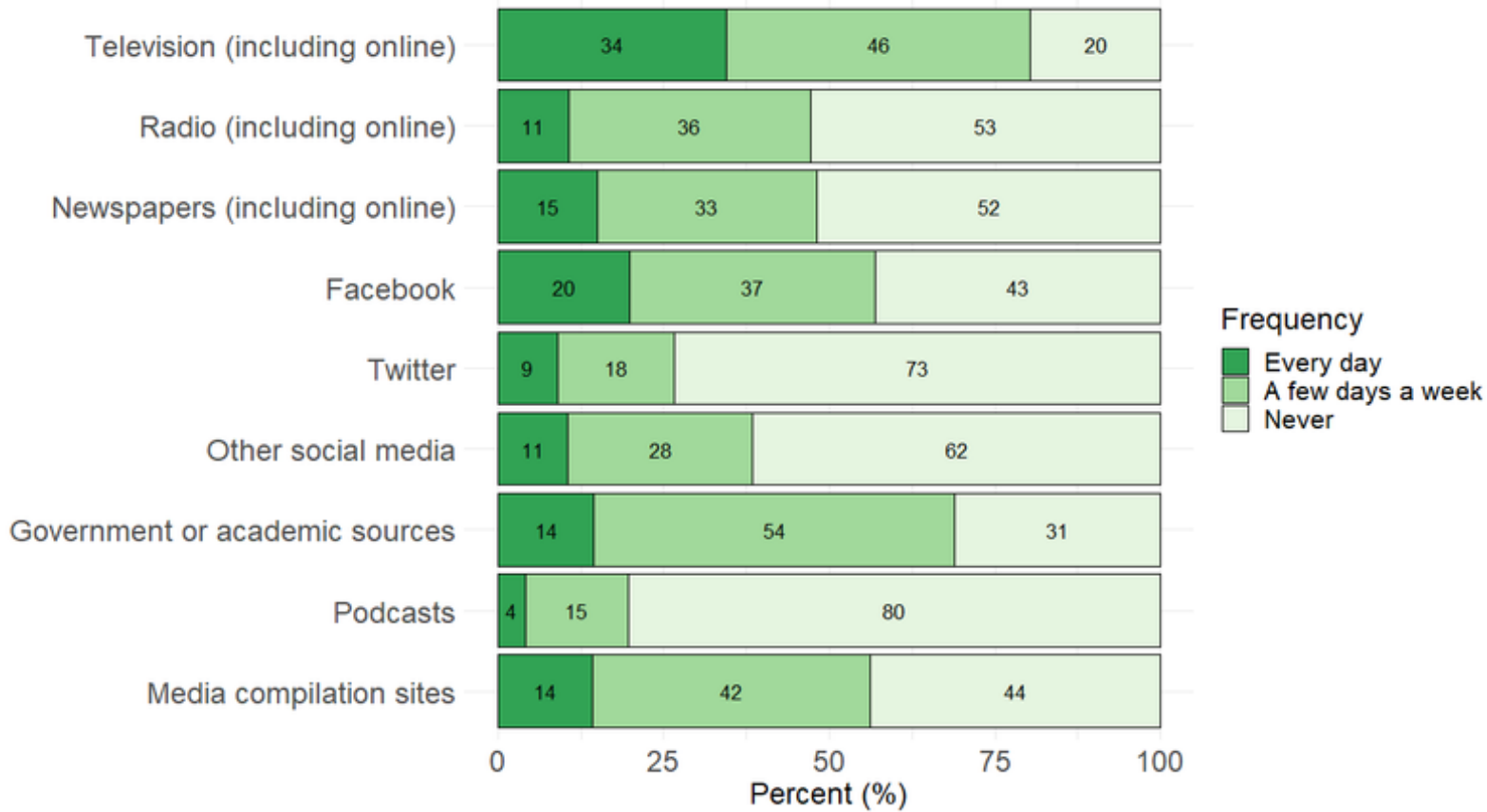
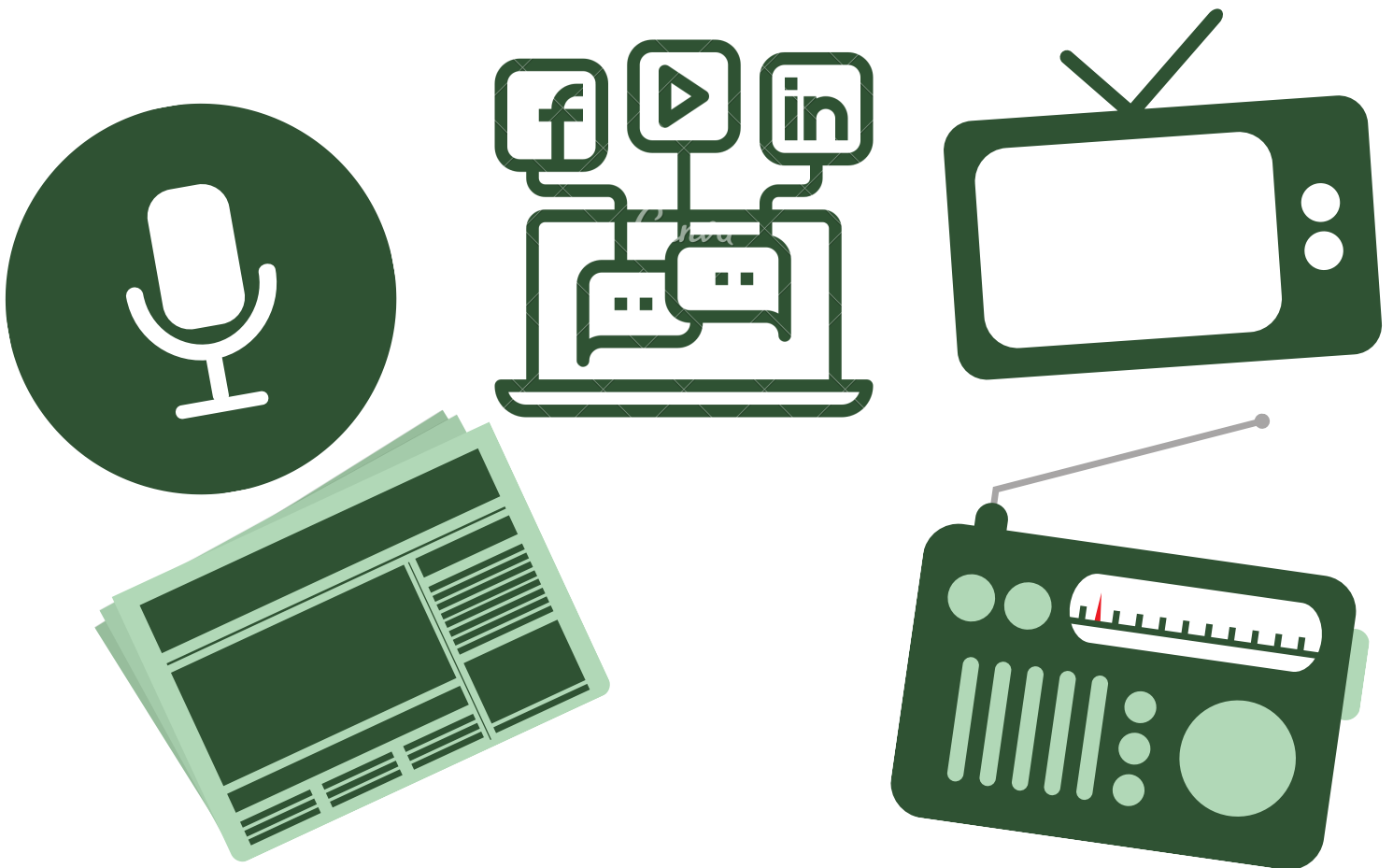


Figure 11. Responses to the question “How often do you get information about COVID-19 from the following sources?”



COVID-19 VACCINE PERCEPTIONS

To gauge respondents’ perceptions of a potential COVID-19 vaccine, we asked if they intend to get the vaccine should it become available. In Wave 2, 46% said yes, while 20% said no, and 34% were not sure. This represents an increase in vaccine hesitancy from Wave 1 of the survey in May/June, when 54% indicated that they would get the vaccine. Among those reporting they would not get a COVID-19 vaccine (N=412), key reasons included concerns about vaccine safety (66%), vaccine effectiveness (28%), and high potential cost (10%). Despite this change, when asked an open-ended question about what it would take for respondents to be comfortable doing their favorite thing currently limited by COVID-19, 31% of respondents specifically mentioned a vaccine, which was up from 25% in Wave 1.

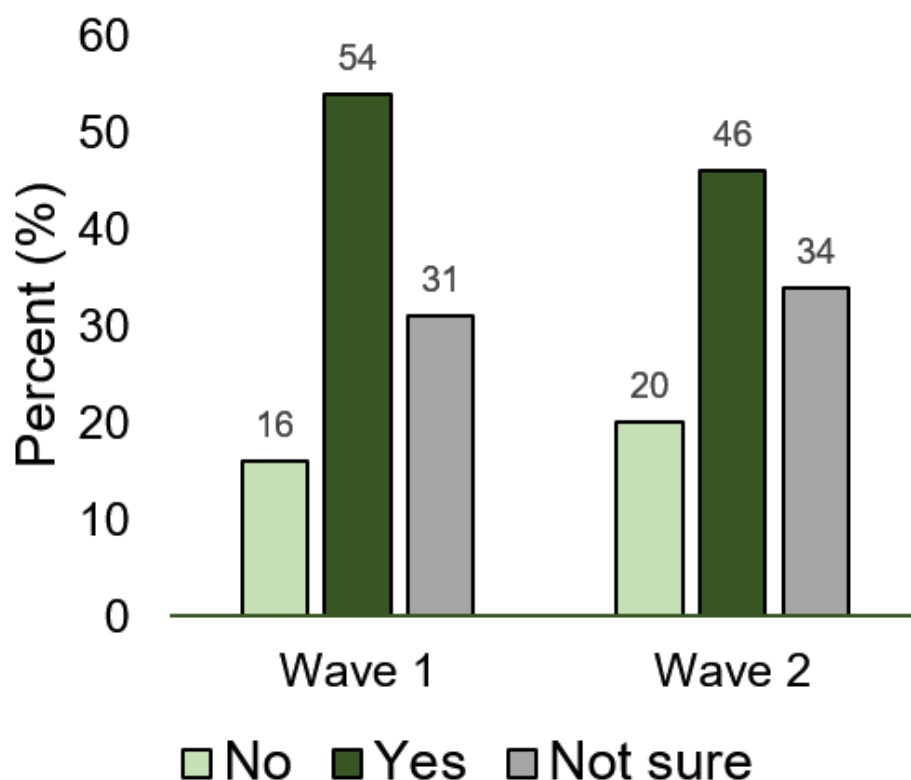


Figure 12. Responses to the question “Once there is a vaccine available for COVID-19, will you get the vaccine?” in Waves 1 and 2.

SCHOOLS REOPENING

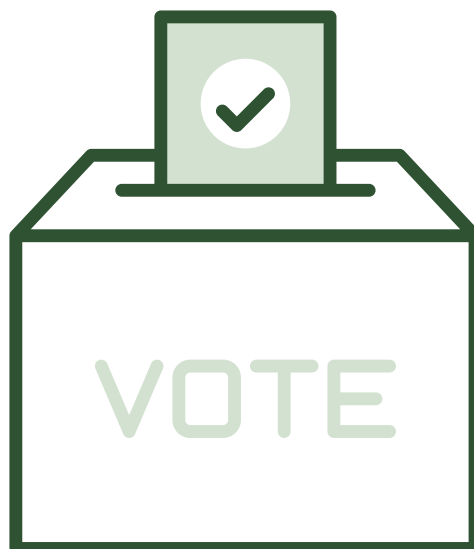
Our Wave 2 survey was conducted as schools were debating and deciding on reopening plans. We assessed respondents' opinions about sending their students back to school in the fall and the different options educators are deciding between, such as fully in-person, some type of hybrid, or remote/online only. 14% of respondents thought that schools should reopen full time in-person for all students, 29% thought schools should reopen with a hybrid model, 46% thought schools should be remote only, and 12% were unsure. 44% of respondents' households included children under 18 (n=910). Of these, about 43% said they were extremely or somewhat unlikely to send their children to school or daycare in the fall if these facilities were open, while about 39% said they were somewhat or extremely likely to do so. This is a shift from responses from parents in Wave 1, when 30% indicated they would be extremely or somewhat unlikely to send their children to school or daycare, and 50% were somewhat or extremely likely. For parents, the most important factors affecting decisions about sending children back to school were concerns about health risks, mental and social/emotional development, and academic growth.



GOVERNMENT PERFORMANCE

Governments at all levels (local, state, and national) play a role in managing the COVID-19 pandemic. Although restrictions have eased somewhat since Wave 1 of the survey, all of the states included in our survey continue to impose restrictions on individuals and businesses related to COVID-19. We asked respondents to assess the relative stringency of these rules by asking them whether they thought existing COVID-19 policies in their state should be more strict, less strict, or remain about the same. 40% of respondents indicated that the policy in their state should remain about the same, while nearly 44% felt the policy should be more strict, and only 16% felt restrictions were too strict in their state. For comparison, in Wave 1 when more restrictions were in place, 21% of respondents thought policies should be less strict while 31% thought they should be more strict. This may suggest some discomfort among respondents with easing of restrictions.

We also asked respondents to assess the performance of different government officials and institutions. No single individual or institution continues to attract more criticism from respondents than President Donald Trump. The majority of respondents either disapproved (13%) or strongly disapproved (43%) of President Trump's handling of the pandemic. Disapproval of President Trump has increased since Wave 1: in May/June, 14% disapproved and 38% strongly disapproved of his performance.



Conversely, most respondents (53%) continue to approve or strongly approve of the performance of Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Disease (NIAID) and one of the most visible federal officials during the pandemic response. Scientists also continue to receive overwhelmingly high approval ratings from respondents, nearly 65% of whom either approved or strongly approved of their performance. Support for local governments and, especially, local school districts has decreased since May/June. Roughly 48% either approved or strongly approved of local governments in Wave 2, down from 54% in Wave 1, and approval/strong approval of local school districts dropped from 63% in Wave 1 to 35% in Wave 2. As noted earlier, this survey was conducted as schools were in the midst of complicated and contentious re-opening decisions, and results indicate that many are dissatisfied with decisions being made in this context.

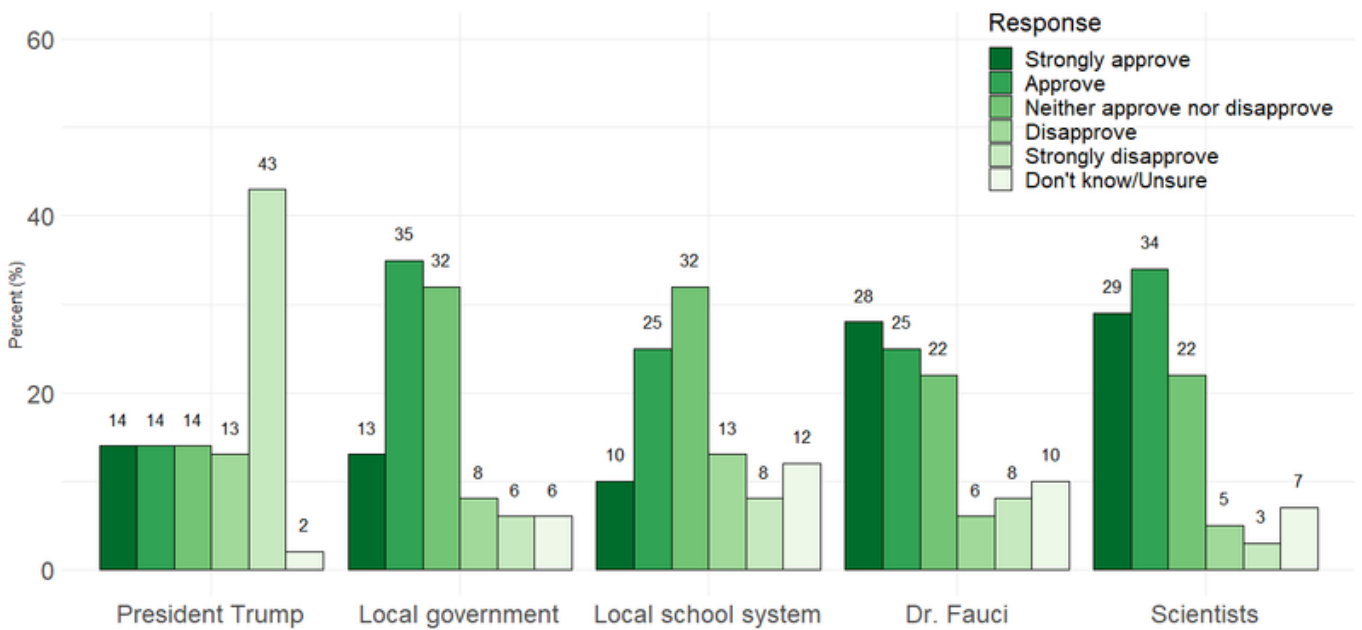
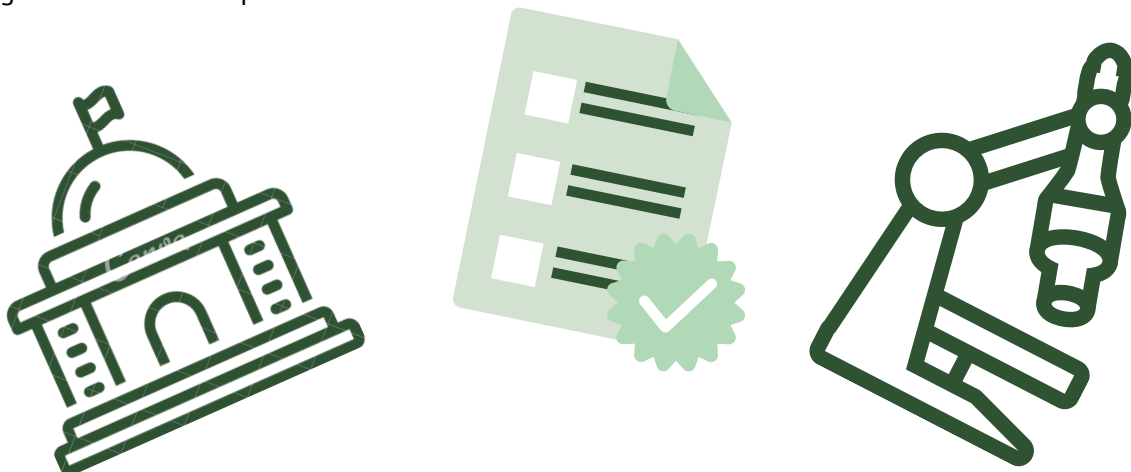


Figure 13. Responses to the question “Do you approve or disapprove of the job each of the following has done in handling the COVID-19 response?”



CONCLUSION

As the COVID-19 pandemic has entered its sixth month in the US, our survey results show that people are adapting to a “new normal” in some ways, while continuing to feel the effects of this crisis. Mask wearing is now widespread, though rates still vary considerably across states. Social distancing has decreased and people are staying home less, but a minority of respondents have gone back to work outside the home, and travel by plane is still rare. Respondents continue to perceive a high risk of getting COVID-19, and of dying from it if they get it, and a large number of respondents report that the pandemic has already caused significant financial hardship. As restrictions have eased, respondents’ support for stricter policies has increased. One highly contentious area of policy involves school re-openings, and support for a return to full in-person schooling this fall is low. Continuing to understand how individuals perceive the risks associated with COVID-19, as well as how they respond through their behaviors, will be critical for creating effective risk communication strategies and risk reduction policies as the pandemic persists.

The next wave of this survey will be conducted in October to observe trends over time, especially as COVID-19-related policies and viral spread change across states. This wave will capture effects associated with the anticipated increase in COVID-19 cases after schools resume and during the onset of the influenza season. It will also measure the extent to which individual risk perceptions change in the weeks leading up to the November election. An additional technical report will be released following the Wave 3 survey.

Please [visit our website](#) to see related reports for information specific to each of the six states. Future reports will assess these and other trends over time.

COVID-19 TECHNICAL REPORT WAVE TWO

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