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Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides

73% say they are vaccinated, but at least half express confusion, concern over vaccine information and health impacts

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How we did this

Pew Research Center conducted this study to understand how Americans are continuing to respond to the coronavirus outbreak. For this analysis, we surveyed 10,348 U.S. adults from Aug. 23 to 29, 2021.

Everyone who took part in the survey is a member of the Center's American Trends Panel (ATP), an online survey panel that is recruited through national, random sampling of residential addresses. This way, nearly all U.S. adults have a chance of selection. The survey is weighted to be representative of the U.S. adult population by gender, race, ethnicity, partisan affiliation, education and other categories. Read more about the [ATP's methodology](#).

Here are [the questions used](#) for this report, along with responses, and [its methodology](#).

Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides

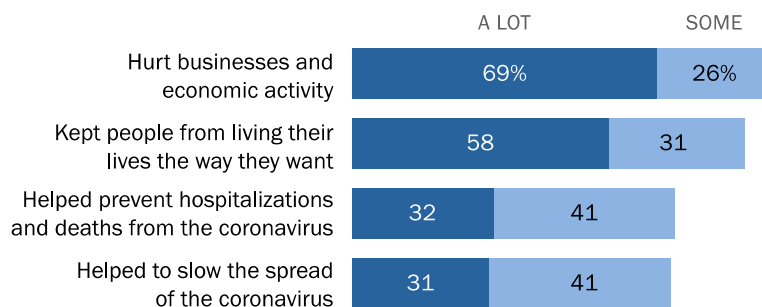
73% say they are vaccinated, but at least half express confusion, concern over vaccine information and health impacts

More than a year and a half into the coronavirus outbreak, large shares of Americans continue to see the coronavirus as a major threat to public health and the U.S. economy. And despite widespread vaccination efforts, 54% of U.S. adults say the worst of the outbreak is still to come.

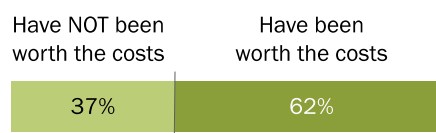
The toll of restrictions on public activities in order to slow the spread of the coronavirus is deeply felt across groups: Overwhelming majorities say restrictions have done a lot or some to hurt businesses and economic activity and keep people from living their lives the way they want. Smaller majorities say these restrictions have helped at least some to prevent hospitalizations and deaths from the coronavirus and to slow the spread of the virus. Still, when asked to issue an overall judgment, Americans on balance view the public health benefits of these restrictions as having been worth the costs (62% to 37%).

Majorities say restrictions on activity have hurt businesses, limited people's lifestyles – but see the public health benefits as having been worth the costs

% of U.S. adults who say restrictions on public activity in the U.S. due to the coronavirus outbreak have ...



*% of U.S. adults who say the **public health benefits** of restrictions on public activity to slow the spread of the coronavirus ...*



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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A new national survey by Pew Research Center, conducted from Aug. 23 to 29 among 10,348 U.S. adults, prior to President Joe Biden's announcement of COVID-19 vaccine mandates for employers, finds that 73% of those ages 18 and older say they've received at least one dose of a

vaccine for COVID-19, with the vast majority of this group saying they have received all the shots they need to be fully vaccinated. About a quarter of adults (26%) say they have not received a vaccine.

Vaccination rates vary significantly across demographic groups, with smaller majorities of younger adults, those with lower family incomes and those living in rural areas saying they've received a COVID-19 vaccine. No more than six-in-ten of those without health insurance and White evangelical Protestants say they've been vaccinated (57% each). Notably, Black adults are now about as likely as White adults to say they've received a vaccine. Earlier in the outbreak, Black adults were less likely than White adults to say they planned to get a COVID-19 vaccine.

Partisan affiliation remains one of the widest differences in vaccination status: 86% of Democrats and independents who lean toward the Democratic Party have received at least one dose of a COVID-19 vaccine, compared with 60% of Republicans and Republican leaners.

Americans express a range of sometimes cross-pressured sentiments toward vaccines. Overall, 73% say the statement “vaccines are the best way to protect Americans from COVID-19” describes their views very or somewhat well; 60% say their views are described at least somewhat well by the statement “people who choose not to get a COVID-19 vaccine are hurting the country.”

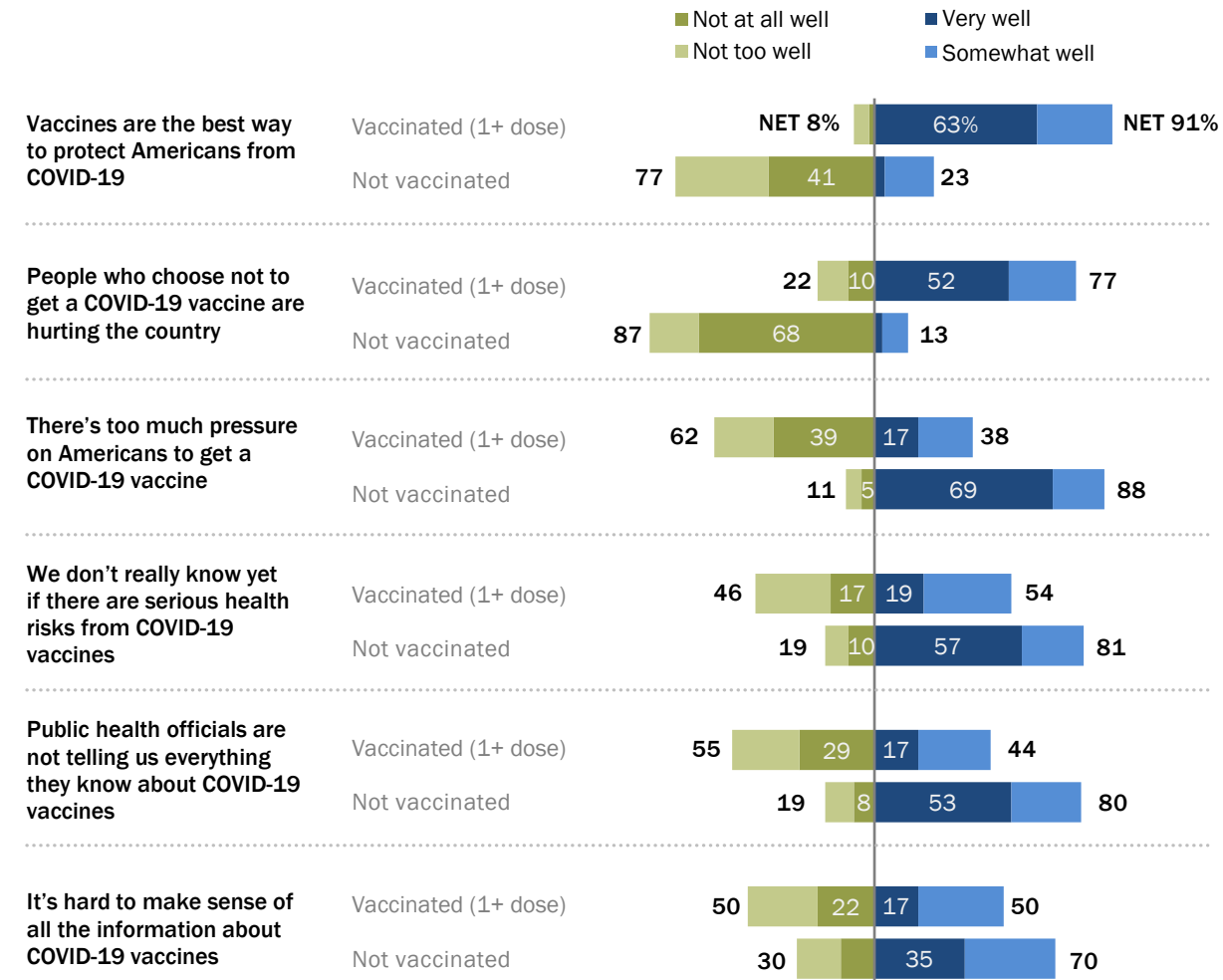
At the same time, 51% of the public says that the phrase “there's too much pressure on Americans to get a COVID-19 vaccine” describes their own views very or somewhat well. And 61% say the same about the statement “we don't really know yet if there are serious health risks from COVID-19 vaccines.”

Vaccinated adults and those who have not received a vaccine differ widely in their views of vaccines – as well as other elements of the broader coronavirus outbreak. For instance, 77% of vaccinated adults say the statement “people who choose not to get a COVID-19 vaccine are hurting the country” describes them at least somewhat well. By contrast, 88% of those who have not received a vaccine say that “there's too much pressure on Americans to get a COVID-19 vaccine” describes their own views very or somewhat well.

However, vaccinated adults are not without anxieties and concerns surrounding vaccines: 54% of this group says the statement “we don't really know yet if there are serious health risks from COVID-19 vaccines” describes them very or somewhat well, and 50% say the same about the statement “it's hard to make sense of all the information about COVID-19 vaccines.”

Views of COVID-19 vaccines align with vaccination status, but half or more of both groups say it is hard to make sense of all the information about vaccines

% of U.S. adults in each group who say each statement describes their own views ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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With the delta variant having changed the trajectory of the outbreak in the United States and around the world, large majorities continue to see a number of steps as necessary to address the coronavirus, including requiring masks for travelers on airplanes and public transportation (80%), restricting international travel (79%) and asking people to avoid gathering in large groups (73%).

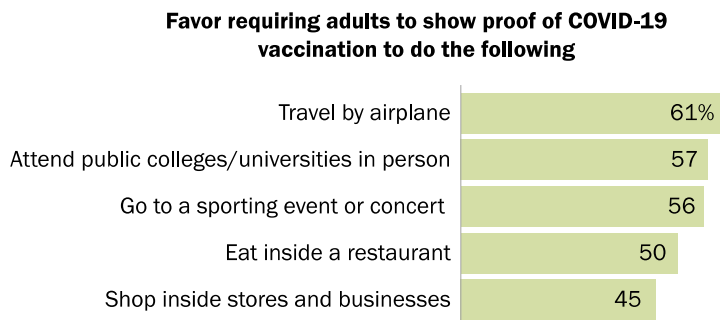
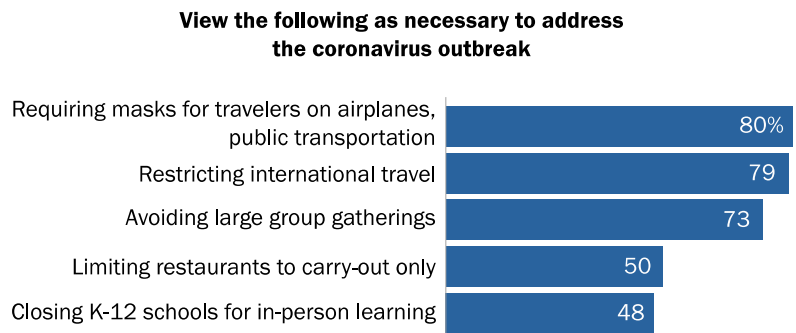
The public is closely divided over limiting restaurants to carry-out and closing K-12 schools for in-person learning: About as many adults say these steps are unnecessary as say they are necessary.

Vaccination requirements for in-person activities have gone into effect in a number of U.S. cities, including New Orleans, New York City and San Francisco. A 61% majority of Americans favor requiring adults to show proof of vaccination before being allowed to travel by airplane. More than half also say proof of vaccination should be required to attend public colleges and universities (57%) and to go to sporting events and concerts (56%).

However, the public is less convinced that vaccine requirements are needed in other settings. Equal shares of Americans favor and oppose requiring proof of vaccination to eat inside of a restaurant (50% vs. 50%), and 54% say they oppose a vaccination requirement to shop inside stores and businesses.

Majority favors vaccination requirements for air travel; fewer back vaccine proof for shopping

% of U.S. adults who ...



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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The intertwined dynamics of partisan affiliation and vaccination status are visible in views of policies to limit the spread of the coronavirus and vaccine requirements. Democrats offer broad support for most measures, while Republicans back select steps – like limiting international travel and requiring masks on public transportation – while opposing others and offering very little support for vaccine mandates. Similarly, vaccinated adults are far more supportive of policy steps aimed at limiting the spread of the coronavirus – and vaccine requirements – than are those who have not received a COVID-19 vaccine.

Changes to public health guidance over course of outbreak: understandable, but also a source of concern for at least half of Americans

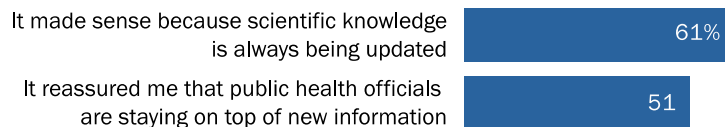
Over the course of the pandemic, public health officials have changed their recommendations about how to slow the spread of the coronavirus in the U.S.

A majority of Americans (61%) say changes to public health recommendations since the start of the outbreak have made sense because scientific knowledge is always being updated. About half (51%) say these changes have reassured them that public health officials are staying on top of new information.

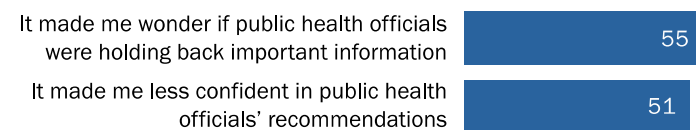
61% say changing COVID-19 recommendations from public health officials made sense, but 51% also say they made them feel less confident in guidance

% of U.S. adults who've had each reaction to changes in public health officials' recommendations on how to slow the spread of the coronavirus

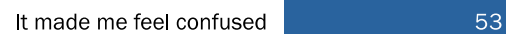
Positive reactions



Negative reactions



Confusion



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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However, changes to public health guidance have also sparked confusion and skepticism among significant shares of the public: 55% say changes made them wonder if public health officials were holding back important information, 53% say it made them feel confused and 51% say it made them less confident in officials' recommendations.

Taken together, 63% of U.S. adults say they've felt at least one of two negative reactions regarding public health officials because of changing guidance: wondering if they were holding back important information or feeling less confident in their recommendations.

Mask wearing – among the most visible examples of shifting public health guidance, as well as a policy flashpoint at the state and local level – has become less frequent since earlier this year. Overall, 53% of U.S. adults say they've been wearing a mask or face covering all or most of the time when in stores and businesses over the last month, down 35 percentage points from 88% who said this in February (when mask requirements around the country were more widespread).

The practice of mask wearing is now far more common among Democrats and those who have been vaccinated against COVID-19. Democrats are now more than twice as likely as Republicans to say they've been wearing a mask in stores and businesses all or most of the time in recent weeks (71% vs. 30%). In February, large shares of both Democrats and Republicans had reported frequent mask wearing (93% and 83%, respectively).

People who have received a COVID-19 vaccine (59%) are more likely than those who have not (37%) to say they've been wearing a mask all or most of the time when inside stores or businesses. Frequent mask wearing is especially high among those who say they are very concerned about getting a serious case of the disease (80%).

Black adults about as likely as White adults to have received a COVID-19 vaccine

Vaccination rates differ across key demographic groups and traits, including age, family income, partisanship, health insurance status, community type and religious affiliation.

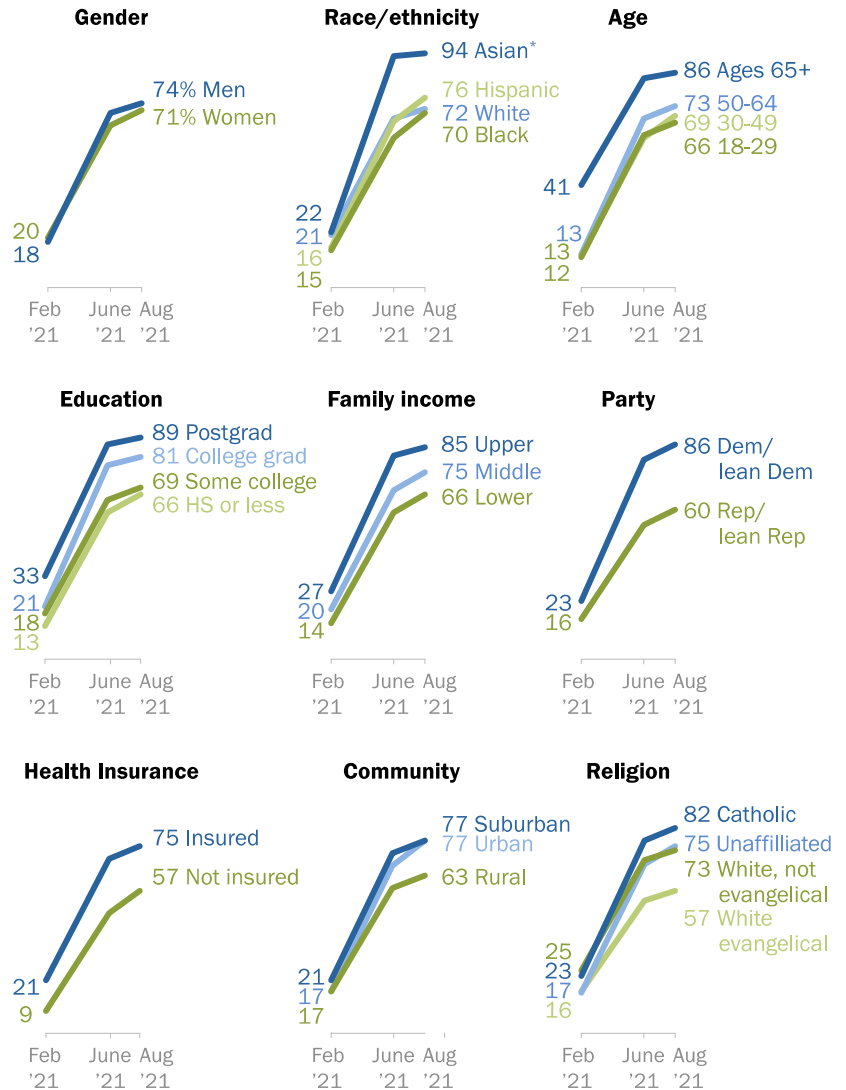
Comparable majorities of Black (70%) and White (72%) adults have received at least one dose of a COVID-19 vaccine. Among Hispanic adults, 76% say they have received a vaccine, as do an overwhelming majority of English-speaking Asian adults (94%).

At earlier stages of the outbreak, Black adults had expressed significantly lower levels of intent to get a COVID-19 vaccine than White adults.

The vaccination rate among White evangelical Protestants continues to lag behind those of other major religious groups: 57% of White evangelicals say they have received at least one dose of a COVID-19 vaccine, compared with 73% of White Protestants who are not evangelicals, 75% of religiously unaffiliated adults and 82% of Catholics. For more details on

White evangelical Protestants, those with no health insurance among least likely to say they have received a COVID-19 vaccine

% of U.S. adults who say they have received at least one dose of a vaccine to prevent COVID-19



*Asian adults were interviewed in English only.
 Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2020 earnings. White evangelicals and White, not evangelicals are Protestant.
 Source: Survey conducted Aug. 23-29, 2021.
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vaccination status by religion, [see the Appendix](#).

Older adults remain more likely than younger adults to have received at least one dose of a COVID-19 vaccine. Age differences in vaccination status are much more pronounced among Republicans and Republican leaners than among Democrats and Democratic leaners. [See the Appendix for more details](#).

These are among the principal findings from Pew Research Center's survey of 10,348 U.S. adults conducted from Aug. 23 to 29, 2021, on the coronavirus outbreak and Americans' views of a COVID-19 vaccine. The survey also finds:

39% say most businesses in the U.S. should require employees to get a COVID-19 vaccine. Another 35% say businesses should encourage employees to get a vaccine, but not require it. A quarter of the public says most businesses should neither require nor encourage employees to get a COVID-19 vaccine. The survey was fielded before President Joe Biden's announcement that employers with more than 100 workers will be required to have their workers vaccinated or tested weekly for the coronavirus.

72% say they personally know someone who has been hospitalized or died from COVID-19. As has been the case throughout the outbreak, larger shares of Black (82%) and Hispanic (78%) adults than White (70%) and English-speaking Asian adults (64%) say they personally know someone who has been hospitalized or died as a result of the coronavirus.

A relatively small share of Americans (26%) are aware that few adults in developing countries have access to COVID-19 vaccines. A majority (76%) places importance on the U.S. providing large numbers of COVID-19 vaccines to developing countries, though just 26% call this a *top priority* for the U.S.

Biden's job ratings for handling the outbreak have declined. Larger shares now say Joe Biden is doing an only fair or poor job (52%) responding to the coronavirus outbreak than say he is doing an excellent or good job (47%). In February, 54% said he was doing an excellent or good job. By contrast, Americans continue to give very high marks to hospitals and medical centers in their area: 85% say they are doing an excellent or good job responding to the coronavirus outbreak.

Republicans grow more skeptical of scientists' judgment. Nearly seven-in-ten Republicans (68%) say scientists' judgments are just as likely to be biased as other people's, up from 55% who said this in January 2019. By contrast, a growing share of Democrats take the

opposite view and say scientists make judgments solely on the facts (73% of Democrats say this today, up from 62% in 2019).

Large partisan gap persists in whether COVID-19 poses serious public health threat

A majority of Americans (61%) continue to say the coronavirus outbreak poses a major threat to the health of the U.S. population as a whole. Another 33% say the virus is a minor threat, while just 6% say it is not a threat.

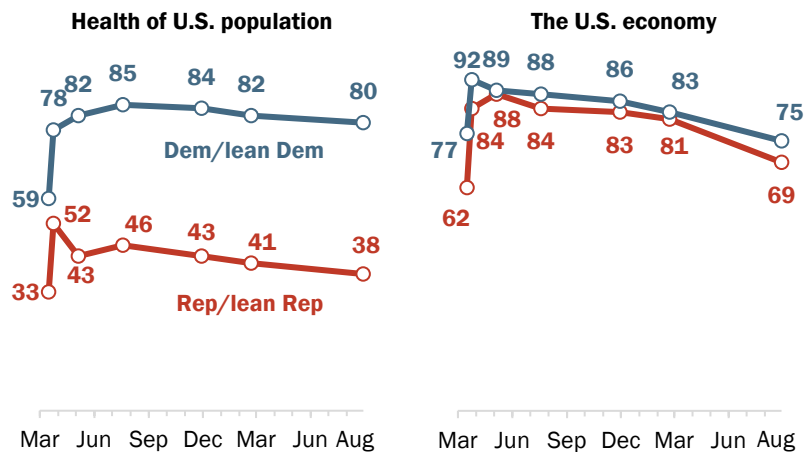
The share that views the coronavirus as a major threat to public health has largely held steady since late March of 2020, following the declaration of a national public health emergency in the U.S. The current share that views the coronavirus as a major threat to public health is about the same as it was in February 2021 (63%), when the country was coming out of [a peak of cases](#) and COVID-19-related deaths, and before widespread rollout of the vaccine.

A larger majority of U.S. adults (72%) say the coronavirus outbreak is a major threat to the U.S. economy. This is down slightly from February of this year, when 81% saw the outbreak as a major threat to the economy.

Large partisan divides persist in views of the public health threat posed by COVID-19. Eight-in-ten Democrats and independents who lean toward the Democratic Party say the outbreak is a major threat to the health of the U.S. population, while just 38% of Republicans and Republican leaners say the same. The partisan gap on this question is as wide as it has been at any point during the pandemic.

Partisans agree that COVID-19 poses major threat to economy, but remain divided on public health threat

% of U.S. adults who say the coronavirus outbreak is a **major threat** to ...



Note: Respondents who gave other responses or did not give an answer are not shown.
 Source: Survey conducted Aug. 23-29, 2021.
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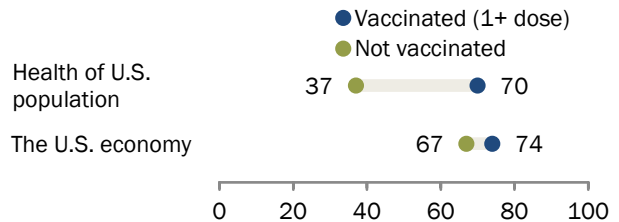
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By contrast, majorities of both Democrats (75%) and Republicans (69%) see the COVID-19 outbreak as a major threat to the country's economy. While economic concerns remain high, the shares of both parties who see the virus as a serious concern for the economy have moved lower since February, when 83% of Democrats and 81% of Republicans said it was a major threat.

Vaccination status is closely tied to perceptions of the public health threat posed by the coronavirus outbreak: 70% of vaccinated adults view it as a major threat to the health of the U.S. population, compared with just 37% of adults who have not received a vaccine. There is shared concern over the impact on the economy, however: Majorities of both vaccinated (74%) and unvaccinated (67%) adults say the coronavirus poses a major threat to the U.S. economy.

Majority of vaccinated adults view the coronavirus outbreak as a major public health threat

% of U.S. adults who say the coronavirus outbreak is a major threat to ...



Note: Respondents who gave other responses or did not give an answer are not shown.

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Hospitals, medical centers continue to receive positive ratings for their outbreak response; Biden’s ratings decline

The public continues to rate the job their local hospitals have done responding to the coronavirus very positively; these ratings have been consistently high since the early days of the pandemic. Ratings for President Joe Biden’s handling of the outbreak have declined since February and now tilt more negative than positive.

Assessments of other groups, including public health officials and state and local elected officials, are steady since February, but remain lower than they were in the early stages of the outbreak.

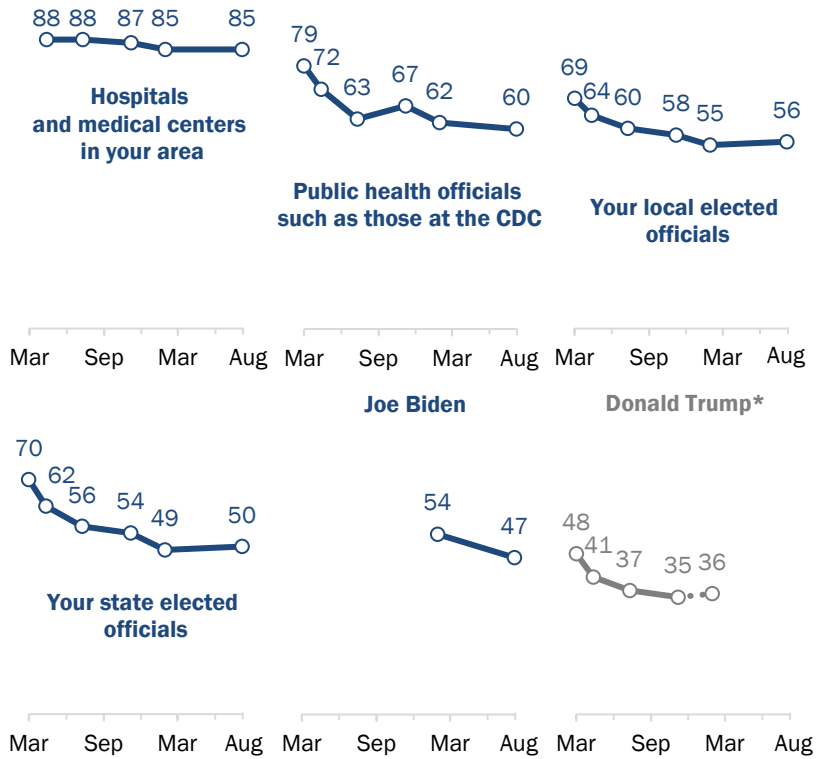
Overall, 47% say Biden is doing an excellent or good job responding to the coronavirus outbreak, while slightly more (52%) say he is doing an only fair or poor job. Ratings for Biden have declined since February, shortly after he took office, when 54% said he was doing an excellent or good job.

A large majority of Americans (85%) say their hospitals and medical centers are doing an excellent or good job responding to the coronavirus outbreak, identical to the share who said this in February 2021.

Six-in-ten say public health officials, such as those at the Centers for Disease Control and Prevention (CDC), are doing an excellent or good job in their coronavirus response. This

Ratings of local hospitals’ response to coronavirus outbreak remain very positive

% of U.S. adults who say ___ is doing an **excellent/good job** responding to the coronavirus outbreak



*In February 2021, respondents were asked to rate the job Donald Trump did responding to the outbreak during his time in office; surveys prior to February 2021 measured ratings of his performance at that time.
 Note: Respondents who gave other responses or did not give an answer are not shown.
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rating is lower than it was during the early months of the outbreak, but about the same as it was in February of this year (62%).

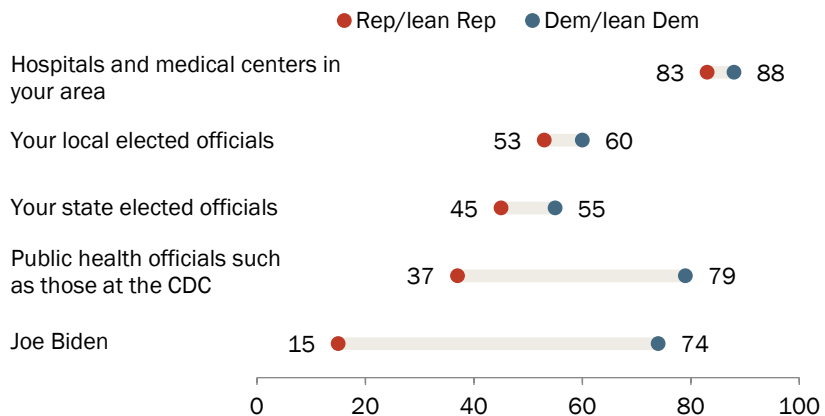
A majority of Americans (56%) also say that their local elected officials are doing an excellent or good job responding to the outbreak. A slightly smaller share (50%) rate their state elected officials' responses as excellent or good. As with ratings of public health officials, assessments of local and state elected officials are lower than they were early in the outbreak, but are about the same as they were when the questions were last asked six months ago.

Republicans and Democrats share positive assessments of the COVID-19 response from their local hospitals and medical centers but differ widely on the job public health officials and Biden are doing.

Large majorities of Republicans (83%) and Democrats (88%) say hospitals and medical centers in their area are doing an excellent or good job responding to the coronavirus outbreak.

Republicans and Democrats far apart in ratings of Biden, health officials on coronavirus response

% of U.S. adults who say ____ is doing an **excellent/good job** responding to the coronavirus outbreak



Note: Respondents who gave other responses or did not give an answer are not shown.

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By contrast, a much larger share of Democrats (79%) than Republicans (37%) give positive ratings to the job public health officials, such as those at the CDC, have done responding to the outbreak. Ratings of public health officials among Republicans are down 7 percentage points since February; as a result, the partisan gap in assessments of public health officials has grown even wider (from 35 points to 42 points in the current survey).

Partisan divides are even larger for ratings of Biden. About three-quarters of Democrats (74%) say he is doing an excellent or good job responding to the coronavirus pandemic, compared with just 15% of Republicans – a 59-point gap. Ratings of Biden are down among both parties since February, when 84% of Democrats and 20% of Republicans rated his performance highly.

The size of the partisan gap in ratings of Biden is similar to differences seen in ratings of former President Donald Trump at the end of his administration. [In February](#), 71% of Republicans said he did an excellent or good job responding to the pandemic during his time in office, compared with just 7% of Democrats.

There are modest differences between Republicans and Democrats in assessments of how their local and state elected officials are handling the outbreak. Democrats are somewhat more likely than Republicans to rate the job being done by local officials (60% vs. 53%) and state elected officials (55% vs. 45%) as excellent or good.

54% of Americans say worst still to come from coronavirus outbreak

Thinking about the problems the country is facing from the outbreak, a narrow majority (54%) says they think the worst is still to come, while 45% say the worst is behind us.

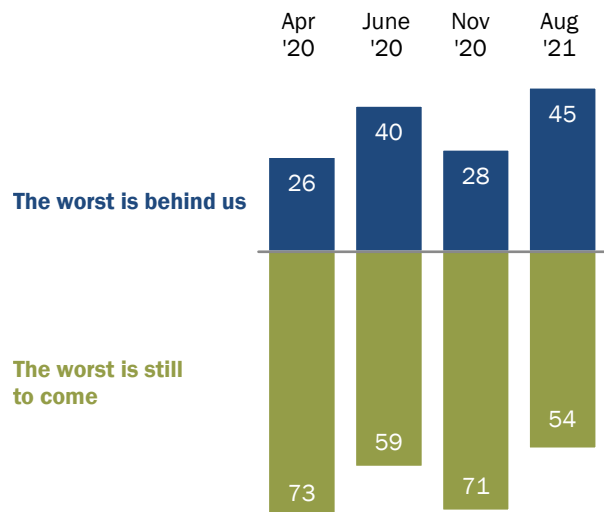
Views are more positive than they were in November 2020 – before COVID-19 vaccines were approved for use in the U.S. – when just 28% of Americans thought the worst was behind us and 71% said the worst was still yet to come.

Republicans and Republican leaners are slightly more optimistic about the state of the outbreak than Democrats and Democratic leaners: 53% of Republicans say the worst is behind us, while 59% of Democrats take the opposing view and think the worst is still to come.

Adults who have received at least one dose of a coronavirus vaccine and those who have not view the state of the coronavirus outbreak in similar terms: 53% of vaccinated and 56% of unvaccinated adults say the worst of the problems from the outbreak are still to come.

Narrow majority in U.S. says worst of pandemic is still to come

% of U.S. adults who say, in thinking about the problems the country is facing from the coronavirus outbreak ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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The toll of restrictions on public activity are widely felt, but majority in U.S. sees public health benefits as worth the cost

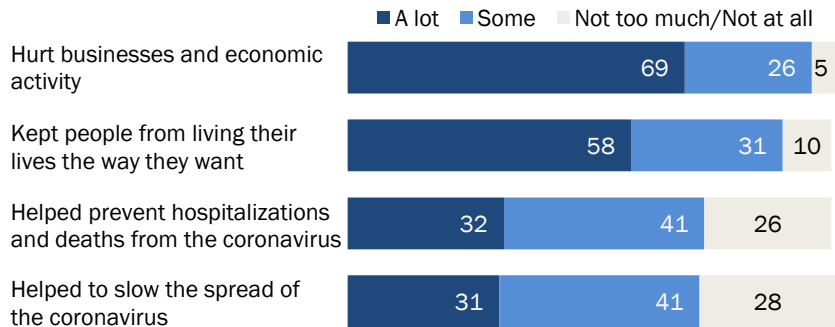
Nearly all adults in the U.S. say that coronavirus-related restrictions on public activity have hurt businesses and economic activity either a lot (69%) or some (26%); just 5% say these restrictions have hurt businesses not too much or not at all.

Large shares also say restrictions on public activity have kept people from living their lives the way they want either a lot (58%) or some (31%).

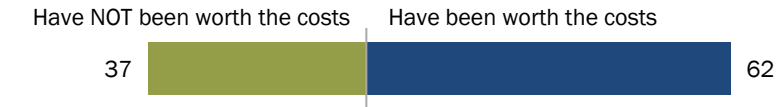
Americans are less convinced of how much the restrictions have helped to prevent hospitalizations and deaths from the coronavirus and helped to slow its spread. Majorities say the restrictions have helped at least some in each regard, but only about three-in-ten say they have done a lot to help prevent hospitalizations and deaths from COVID-19 (32%) or slow the spread of the coronavirus (31%).

Majority of Americans say pandemic restrictions have hurt economy, but think they've been worth the costs

% of U.S. adults who say restrictions on public activity in the U.S. due to the coronavirus outbreak have ...



% of U.S. adults who say public health benefits of restrictions on public activity to slow the spread of the coronavirus ...



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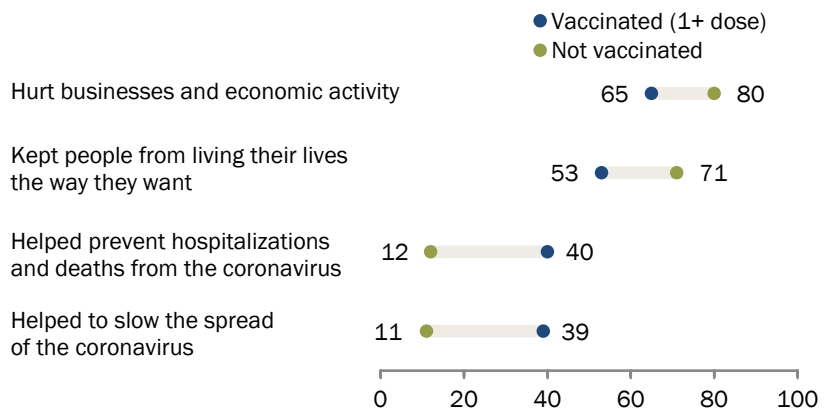
Nonetheless, when asked to assess the overall impact of the restrictions on public activity, a majority of Americans (62%) say the public health benefits have been worth the costs; significantly fewer (37%) say they have not been worth the costs.

Vaccinated adults (those who have received at least one dose of a coronavirus vaccine) are less likely than those who have not received a vaccine to say restrictions on public activity have done a lot to hurt businesses and keep people from living their lives, and they are more likely to say restrictions have done a lot to help prevent serious illnesses and slow the virus’s spread. For example, 40% of vaccinated adults say restrictions have helped a lot to prevent hospitalizations and deaths from the virus, compared with just 12% of unvaccinated adults who say the same.

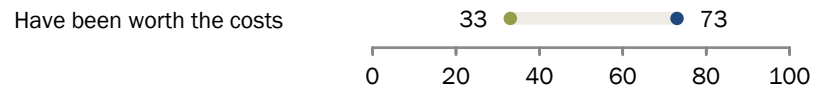
These two groups arrive at differing conclusions about the overall impact of the restrictions: 73% of vaccinated adults say the public health benefits of the restrictions have been worth the costs, while 33% of those not vaccinated say this. A majority of those not vaccinated (65%) say the health benefits of the restrictions have *not* been worth the costs.

Small shares of those who are not vaccinated think activity restrictions have helped a lot to prevent illness, slow spread of the coronavirus

% of U.S. adults who say restrictions on public activity in the U.S. due to the coronavirus outbreak have ___ a lot



% of U.S. adults who say public health benefits of restrictions on public activity to slow the spread of the coronavirus ...

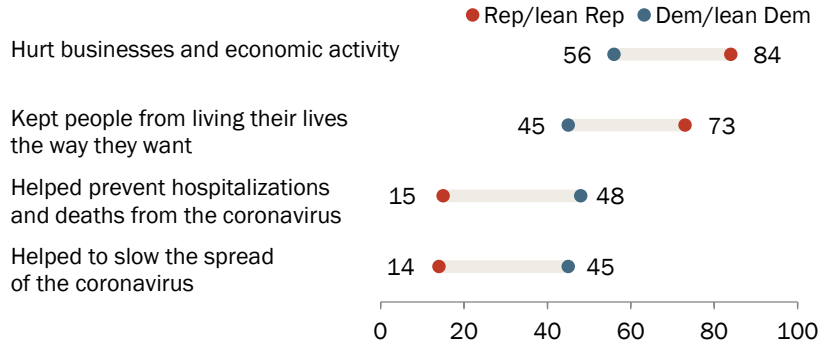


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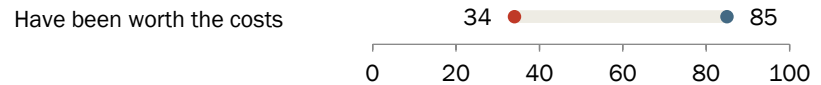
There are also wide differences in views of the public health restrictions by partisanship, with Republicans being more likely than Democrats to say the restrictions have had negative impacts, and less likely to say they have helped a lot to prevent severe illnesses and slow the spread of the coronavirus.

Democrats more likely than Republicans to say public health benefits of restrictions on activity have been worth the costs

% of U.S. adults who say restrictions on public activity in the U.S. due to the coronavirus outbreak have ___ a lot



% of U.S. adults who say public health benefits of restrictions on public activity to slow the spread of the coronavirus ...



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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Majorities in U.S. back proof of vaccination for air travel, college students

As several cities and businesses around the country have begun requiring customers to show proof of COVID-19 vaccination to do things like eat at restaurants or attend concerts, Americans offer mixed views of these requirements, with opinion ranging from majority support to opposition, depending on the setting.

About six-in-ten Americans (61%) say they favor requiring adults in the U.S. to show proof of COVID-19 vaccination before being allowed to travel by airplane, while 38% would oppose such a requirement. While some U.S. airlines have required their employees to get vaccinated, they have so far stopped short of requiring proof of vaccination from travelers – although some destinations, such as Hawaii, require visitors to either show proof of vaccination or a negative coronavirus test result, or else quarantine for 10 days after arrival.

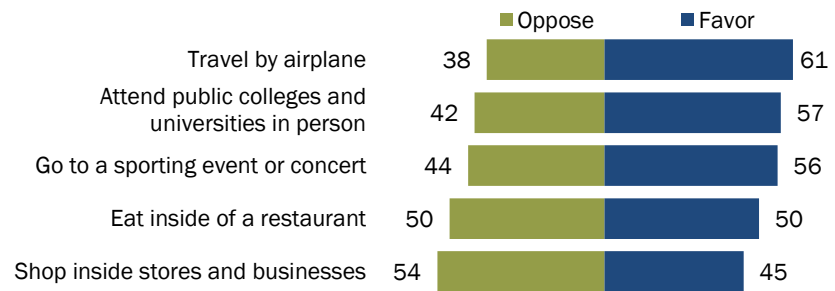
As the school year begins around the country, just under six-in-ten Americans (57%) say they favor requiring proof of COVID-19 vaccination for students to attend public colleges and universities in person. More than 800 U.S. colleges are requiring vaccinations for students and staff to be on campus, and more are strongly encouraging vaccination.

A narrow majority of adults (56%) also support requiring proof of COVID-19 vaccination in order to attend sporting events or concerts.

The public is evenly split over whether they would support or oppose being made to show proof of vaccination to eat inside of a restaurant. Some cities, such as New York, have required restaurants and bars to ask for proof of vaccination in response to rising infections and hospitalizations.

Majority in U.S. support requiring proof of vaccination for air travel, oppose requiring it to shop in stores

% of U.S. adults who say they ___ requiring adults in the U.S. to show proof of COVID-19 vaccination to do each of the following



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

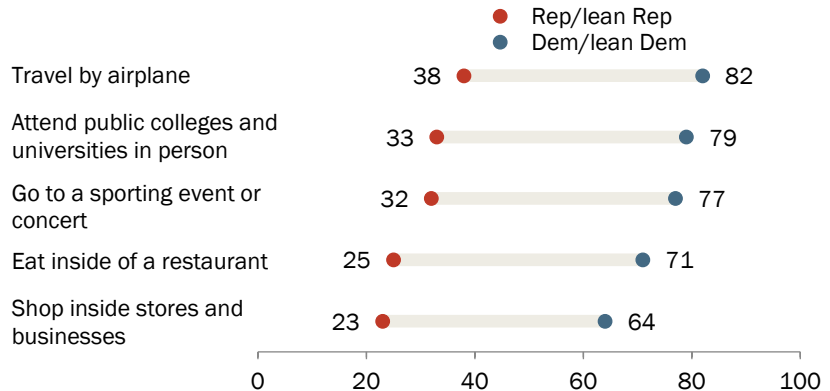
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On balance, the public leans against requiring proof of vaccination to shop inside stores and businesses: 54% say they are opposed to this, while 45% support such a requirement.

Partisanship, as well as vaccination status, plays a large role in views about requiring coronavirus vaccines. Majorities of Democrats favor requiring adults to show proof of vaccination before doing all five of the activities included in the survey; by contrast, majorities of Republicans oppose each of these measures.

Few Republicans favor showing proof of COVID-19 vaccination for shopping or dining indoors

*% of U.S. adults who say they **favor** requiring adults in the U.S. to show proof of COVID-19 vaccination to do each of the following*



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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For example, 77% of Democrats and independents who lean toward the Democratic Party favor requiring those going to a sporting event or concert to show proof of vaccination, while 68% of Republicans and Republican leaners oppose requiring spectators to prove they've received a coronavirus vaccine.

Not surprisingly, adults who have not received a vaccine overwhelmingly oppose requiring proof of vaccination in these settings; roughly eight-in-ten or more oppose each of the five activities requiring proof of vaccination. Among those who have received at least one dose of a vaccine, majorities support requiring proof of vaccination, though the level of support varies from 56% for shopping inside stores and businesses to 77% for travel by airplane.

Differences in views by vaccination status exist within partisan groups. Among Republicans and Republican leaners, 55% of vaccinated Republicans favor requiring proof of vaccination for air travel, compared with 12% of unvaccinated Republicans. Just under half of vaccinated Republicans back proof of vaccination for attending events and public colleges and universities (compared with only about 10% of unvaccinated Republicans). However, when it comes to requirements to eat inside restaurants or shop, majorities of Republicans, regardless of

vaccination status, oppose having to provide proof of vaccination. (60% of Republicans and Republican leaners are vaccinated; 38% are not.)

Among Democrats and Democratic leaners, differences are even wider, with majorities of vaccinated Democrats in favor of requiring proof of vaccination in all five settings and majorities of unvaccinated Democrats opposed to all five requirements. However, those who have not received a vaccine represent a small share of all Democrats (14%), compared with 38% among Republicans.

Requiring masks on transit, restricting international travel, avoiding large gatherings widely seen as necessary steps to address coronavirus

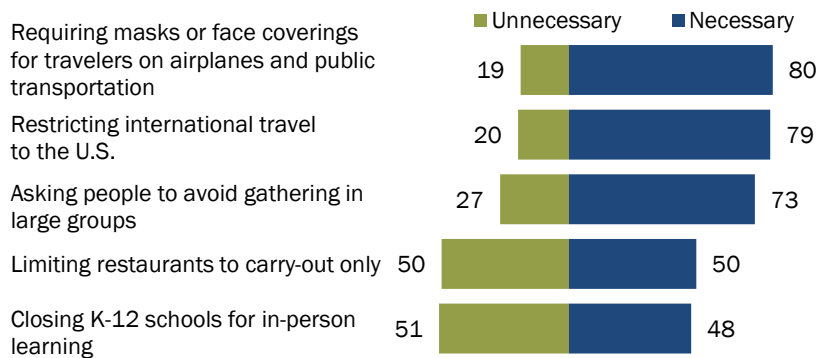
When asked about policies in place in some areas of the country to address the coronavirus outbreak, 80% of Americans say they think it is necessary to require masks for people traveling on airplanes or public transportation. A similar majority (79%) says it is necessary to restrict international travel to the U.S.

About three-quarters of U.S. adults (73%) also think asking people to avoid gathering in large groups is a necessary step to deal with the outbreak.

The public is closely divided on the necessity of two other policies: limiting restaurants to carry-out only (50% necessary, 50% unnecessary) and closing K-12 schools for in-person learning (48% necessary, 51% unnecessary). In-person learning has recently restarted at most schools around the country – although some schools have had to temporarily [revert to remote instruction](#) due to coronavirus outbreaks among students or staff.

Most in U.S. back mask rules on public transit, international travel restrictions to address COVID-19

% of U.S. adults who say each of these policies to address the coronavirus outbreak is ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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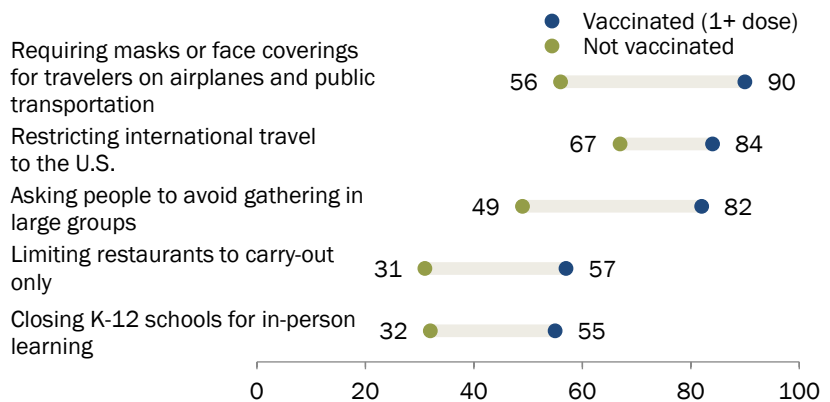
The shares of Americans that support each of these measures have stayed relatively stable since the questions were last asked in [February 2021](#).

Vaccinated adults (including those who have received one of two vaccine doses) are more likely to see each of these five policies as necessary to address the outbreak than adults who have not received a vaccine.

For instance, 82% of vaccinated Americans think it is necessary to ask people to avoid gathering in large groups. About half of unvaccinated adults (49%) say this policy is necessary, while 51% say it is unnecessary.

Majorities of vaccinated adults see a range of policies to address coronavirus outbreak as necessary

*% of U.S. adults who say each of these policies to address the coronavirus outbreak is **necessary***



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

“Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides”

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There also are wide differences in views of policies aimed at addressing the coronavirus outbreak by partisanship, with Democrats expressing significantly more support for each policy than Republicans.

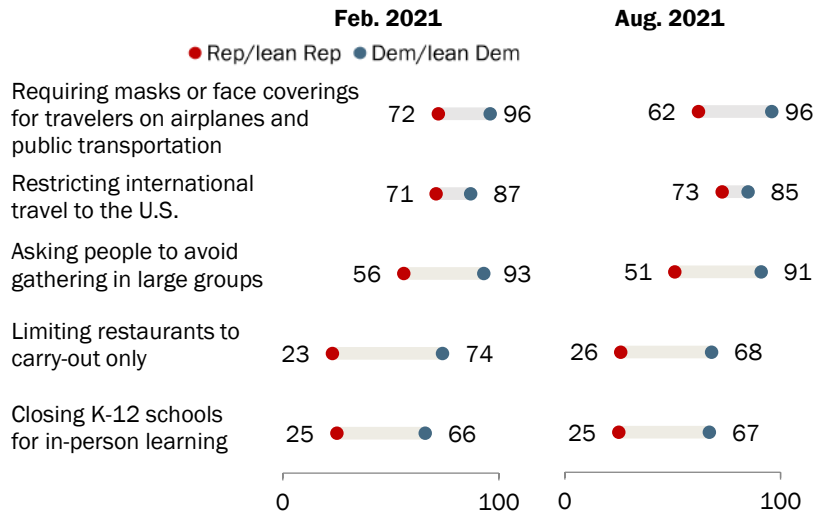
However, the magnitude of the partisan gap varies by policy.

For instance, majorities of Democrats (85%) and Republicans (73%) say it's necessary to restrict international travel to the U.S. in order to address the coronavirus outbreak (a 12-point partisan gap).

By contrast, Democrats are far more likely than Republicans to say it is necessary to limit restaurants to carry-out only (68% vs 26%) and to close K-12 schools for in-person learning (67% vs. 25%).

Republicans less likely than Democrats to view policies in place to address coronavirus as necessary

% of U.S. adults who say each of these policies to address the coronavirus outbreak is *necessary*



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

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Decline in share of U.S. adults who report frequent mask wearing

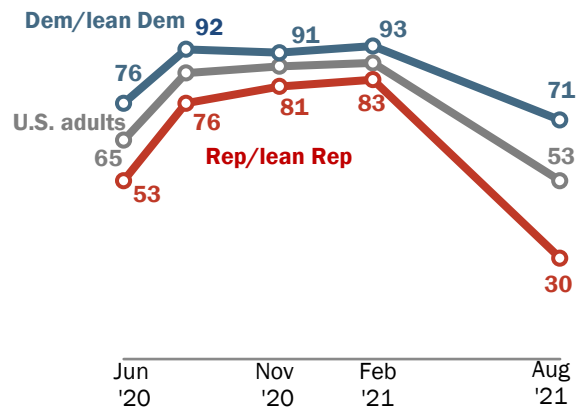
Public health guidance on mask wearing has changed over the course of the outbreak, and policies requiring masks – or preventing mask requirements – have varied widely at the state and local level.

In the current survey, 53% of adults say that in the past month they have worn a mask or face covering all or most of the time when in stores and businesses; 21% say they have worn one some of the time and 25% say they've worn a mask in these public places hardly ever or never.

The share of U.S. adults who say they've been wearing a mask all or most of the time is down 35 points since February, when mask mandates were more widely in place around the country than they are today. The decline in frequent mask wearing has been much greater among Republicans (down 53 points) than among Democrats (down 22 points). In February, there was a modest partisan divide on this question as large majorities of both Republicans (83%) and Democrats (93%) said they had been wearing a mask all or most of the time in public. Today, the partisan gap has grown dramatically to 41 points as Democrats are now far more likely than Republicans to report wearing a mask all or most of the time when in stores and businesses (71% vs. 30%).

Sharp decline in frequent mask wearing among Republicans since February

% of U.S. adults who say they have worn a mask or face covering all or most of the time in stores and businesses over the past month



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

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Vaccinated adults are significantly more likely than those who have not received a COVID-19 vaccine to report frequently wearing a mask in public places.

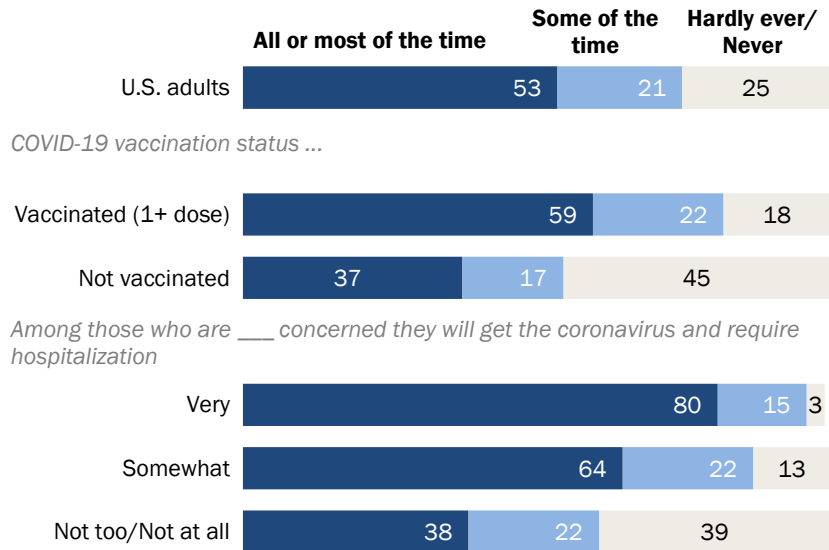
About six-in-ten (59%) of those who have received at least one dose of a vaccine say they have been wearing a mask all or most of the time in stores and businesses over the last month. A much smaller share (37%) of those who have not received a COVID-19 vaccine report this level of mask wearing; 45% of this group say they have been wearing a mask in stores and businesses hardly ever or never in the last month.

There is a strong link between personal concern about getting a serious case of the coronavirus and mask wearing. Eight-in-ten of those who are very concerned about getting the coronavirus and requiring hospitalization say they've been wearing a mask all or most of the time in stores and businesses. The share who report frequent mask wearing falls to 64% among those who are somewhat concerned about getting a serious case of the coronavirus and to 38% among those who are not too or not at all about getting the coronavirus and requiring hospitalization.

Mask-wearing habits also differ significantly by the type of community where people live. Nearly seven-in-ten adults who live in urban areas (68%) say they've been wearing a mask all or most of the time in stores and businesses, compared with 51% of those in suburban areas and 42% of those in rural areas.

Vaccinated adults report wearing a mask more often than those who have not received a COVID-19 vaccine

% of U.S. adults who say they have worn a mask or face covering ___ in stores and businesses over the past month



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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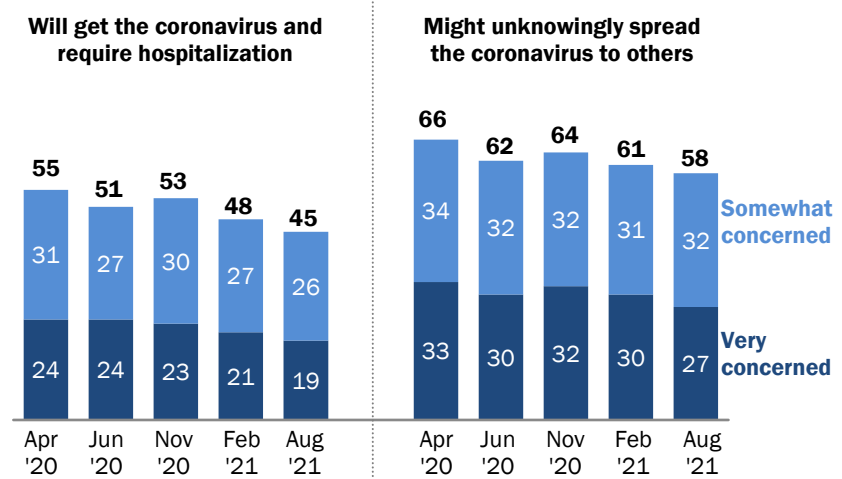
58% of Americans express concern about unknowingly spreading the coronavirus

A majority of Americans say they are either very (27%) or somewhat (32%) concerned that they might spread the coronavirus to other people without knowing that they have it. A smaller share (45%) say they are very (19%) or somewhat (26%) concerned that they will get the coronavirus and require hospitalization.

Concern over getting and unknowingly spreading the coronavirus has gradually edged lower since the start of the pandemic. In April 2020, 66% of U.S. adults were at least somewhat concerned about unknowingly spreading the coronavirus (including 33% who were very concerned); at that time, 55% were at least somewhat concerned about getting a serious case themselves (24% very concerned).

Majority of Americans remain concerned about unknowingly spreading the coronavirus to others

% of U.S. adults who say they are *very/somewhat* concerned that they ...



Note: Respondents who gave other responses or did not give an answer are not shown.
 Source: Survey conducted Aug. 23-29, 2021.
 "Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

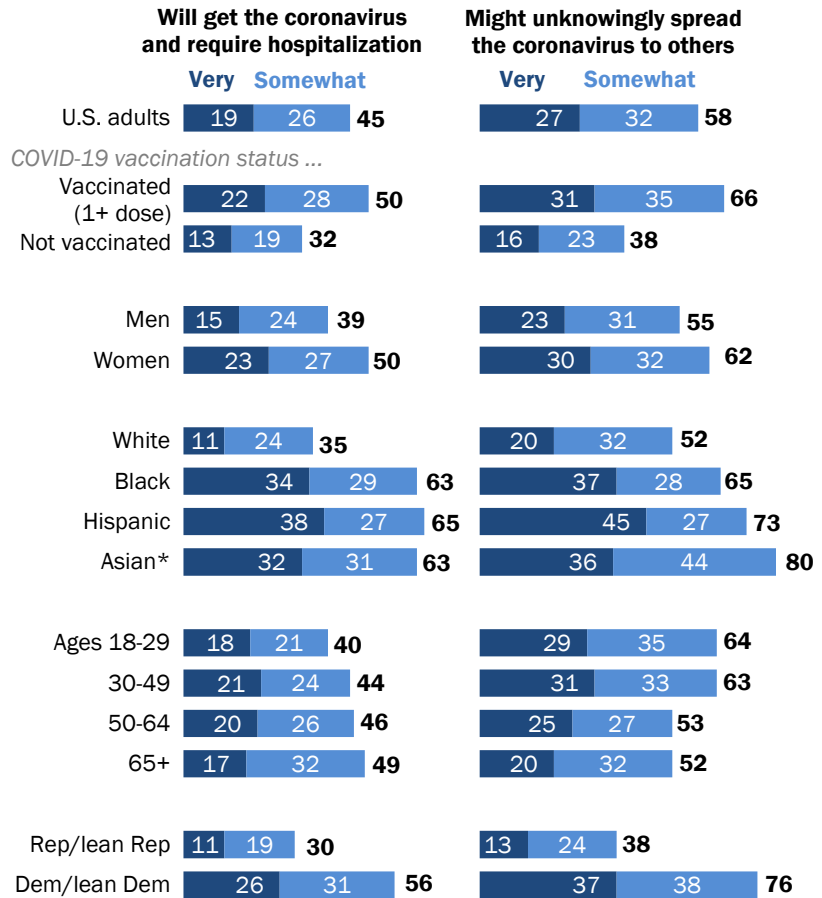
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There are wide differences in levels of concern over getting and spreading the coronavirus by vaccination status as well as by other characteristics such as party affiliation and race and ethnicity.

About two-thirds of vaccinated adults are very (31%) or somewhat (35%) concerned about unknowingly spreading COVID-19 to others. Half are at least somewhat concerned about getting a serious case themselves. By contrast, among those who have not received a vaccine, fewer than half express concern about unknowingly spreading the coronavirus (38%) or getting a serious case themselves (32%), including relatively small shares who say they are very concerned about this (16% and 13%, respectively)

Vaccinated adults more concerned about spreading coronavirus than those who have not been vaccinated

% of U.S. adults who say they are ___ concerned that they ...



*Asian adults were interviewed in English only.

Note: Respondents who did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race.

Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

Democrats and Democratic-leaning independents are far more likely than Republicans and Republican leaners to say they are very or somewhat concerned about spreading the coronavirus to other people without knowing they have it (76% vs. 38%) and to say they are concerned about getting a serious case of the coronavirus themselves (56% vs. 30%).

White adults are much less likely than Black, Hispanic and English-speaking Asian adults to express concern over spreading the coronavirus or getting the coronavirus and requiring hospitalization. Eight-in-ten English-speaking Asian adults, 73% of Hispanic adults and 65% of Black adults say they are very or somewhat concerned about unknowingly spreading the coronavirus to others, compared with 52% of White adults.

Among White adults, Democrats are far more likely than Republicans to express concern about getting or spreading COVID-19. For instance, nearly three-quarters of White Democrats (74%) say they are very or somewhat concerned about unknowingly spreading the coronavirus, compared with 35% of White Republicans. (Overall, larger shares of White adults than Black, Hispanic and English-speaking Asian adults identify with or lean toward the Republican Party.)

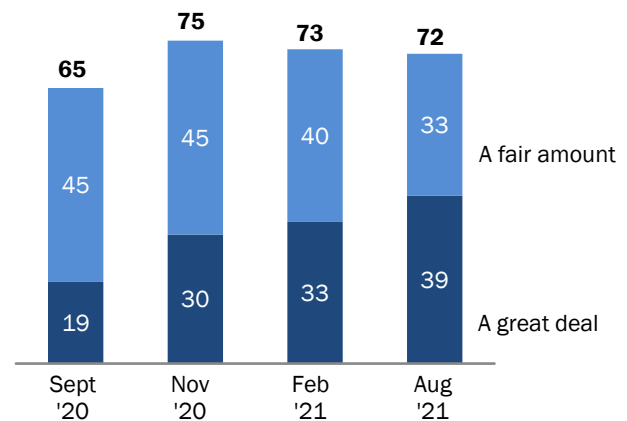
About seven-in-ten Americans have at least a fair amount of confidence in COVID-19 vaccine research and development process

Strong confidence in the vaccine research and development process has risen steadily over the past year. The share saying they have a *great deal* of confidence that the research and development process has produced safe and effective COVID-19 vaccines has increased 20 percentage points (to 39%) over the past year and is up 6 points since February.

A majority of Americans (72%) continue to say they have at least a fair amount of confidence that the research and development process has produced safe and effective COVID-19 vaccines.

Strong confidence in vaccine research and development process increases

% of U.S. adults who say they have ___ confidence in the research & development process for COVID-19 vaccines



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

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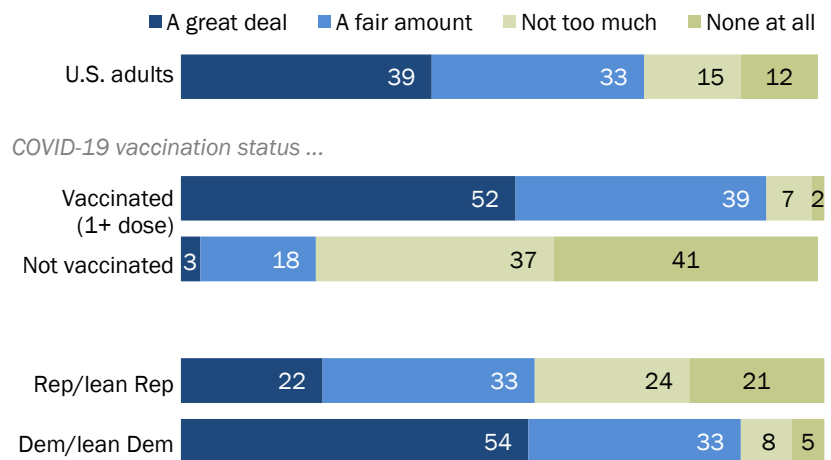
As with earlier Center surveys, levels of confidence in the COVID-19 vaccine research and development process are strongly tied to vaccination status. Nearly all of those who have received at least one dose of a COVID-19 vaccine (91%) say they have at least a fair amount of confidence in the vaccine R&D process, including 52% who say they have a great deal of confidence.

By contrast, only 21% of those who are not vaccinated say they have at least a fair amount of confidence in the vaccine R&D process (including just 3% who have a *great deal* of confidence).

A larger majority of Democrats than Republicans say they have at least a fair amount of confidence in the vaccine research and development process (86% vs. 55%). Among Democrats, 54% express a *great deal* of confidence (just 22% of Republicans say the same).

Vaccinated adults highly confident in COVID-19 vaccine R&D process

% of U.S. adults who say they have ___ confidence in the research & development process for COVID-19 vaccines



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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Americans who are vaccinated and not vaccinated see COVID-19 vaccines in starkly different lights

The development of COVID-19 vaccines and their uptake among the U.S. public are the center of the public health strategy to combat the coronavirus outbreak.

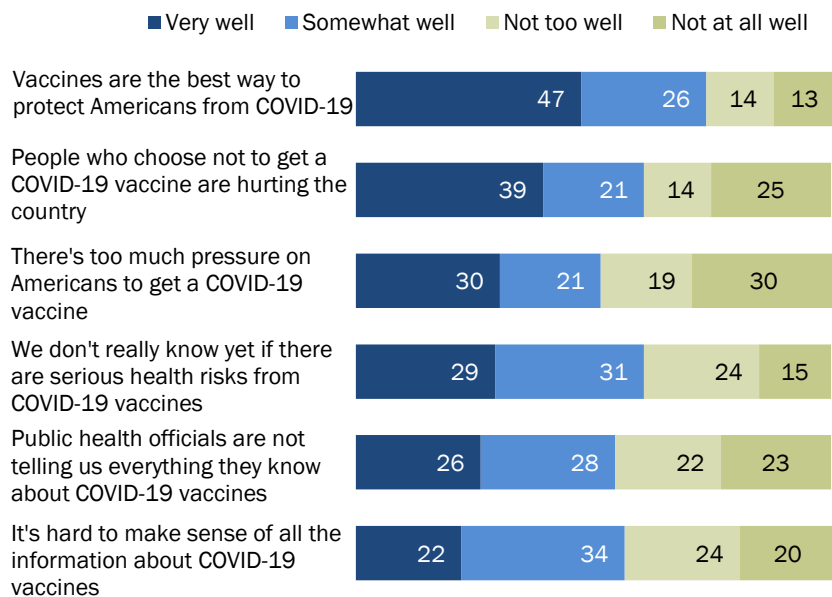
When asked how well various statements about coronavirus vaccines describe them, the public expresses a mix of positive and negative sentiments. Overall, 73% of adults say that the statement “vaccines are the best way to protect Americans from COVID-19” describes their own views very or somewhat well; 27% say it describes their views not too or not at all well. A majority (60%) also say the statement “people who choose not to get a COVID-19 vaccine are hurting the country” describes their views at least somewhat well.

At the same time, sizable shares of the public express concerns regarding COVID-19 vaccines. About six-in-ten (61%) say the statement “we don’t really know yet if there are serious health risks from COVID-19 vaccines” describes their views very or somewhat well.

When it comes to information about vaccines, 54% align with the statement “public health officials are not telling us everything they know about COVID-19 vaccines,” and 55% say that “it’s hard to make sense of all the information about COVID-19 vaccines” describes their views well.

Positive sentiment toward vaccines – as well as some concerns – resonate with majorities of U.S. adults

% of U.S. adults who say the following statements describe them ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

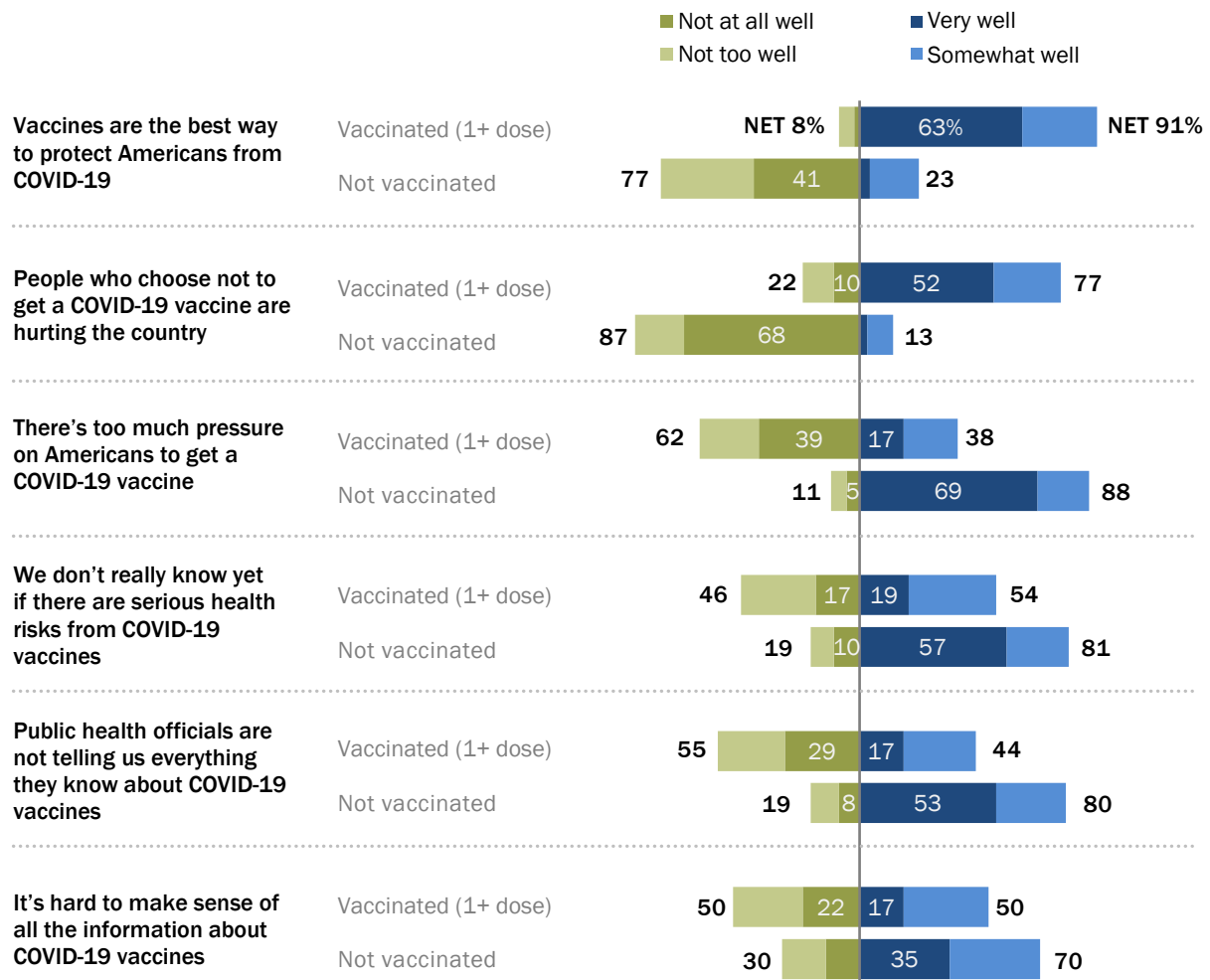
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The public is about evenly split over the statement “there is too much pressure on Americans to get a COVID-19 vaccine”: 51% say this describes their views very or somewhat well, while 48% say it describes how they feel not too or not at all well.

91% of vaccinated adults see COVID-19 vaccines as the best way to protect Americans from COVID-19; those not vaccinated cite a range of concerns

% of U.S. adults who say the following statements describe them ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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Vaccinated adults are much more likely than those who are not vaccinated to say the sentiment that vaccines are the best way to protect Americans from COVID-19 describes them at least

somewhat well (91% vs. 23%). There is a similarly large gap when it comes to expressing alignment with that view that people who choose not to get vaccinated are hurting the country (77% vs. 13%).

However, even among those who are vaccinated, some concerns about COVID-19 vaccines resonate: 54% of vaccinated adults say the statement “we don’t really know yet if there are serious health risks from COVID-19 vaccines” describes their views very or somewhat well. Taken together, 70% of vaccinated adults express alignment with at least one of four sentiments of confusion or concern about COVID-19 vaccines.

Those who have not received a COVID-19 vaccine are less likely to express cross-cutting attitudes about vaccines. Fewer than 25% say they are described at least somewhat well by the statements that vaccines are the best way to protect Americans from COVID-19 and that people who choose not to get a COVID-19 vaccine are hurting the country.

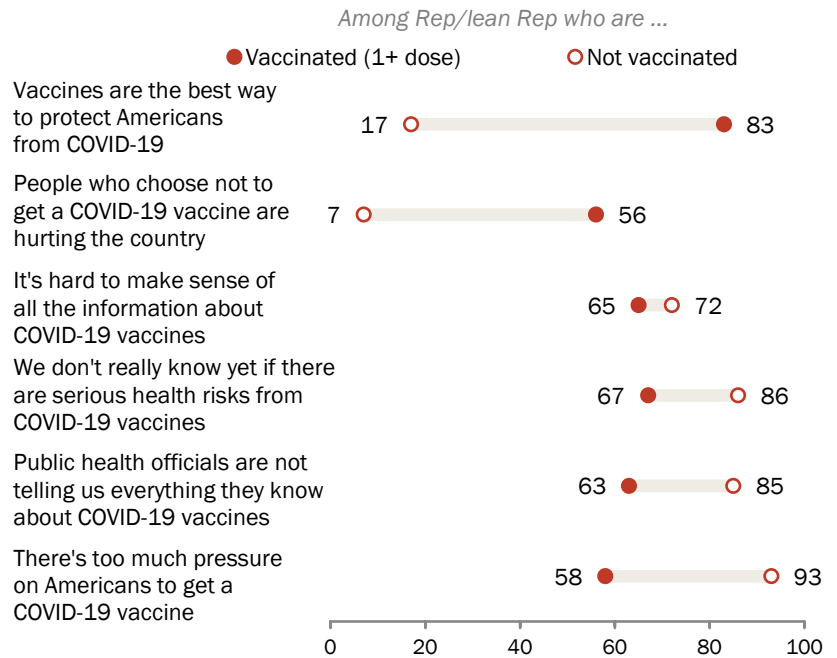
Vaccination status also matters *within partisan coalitions* when assessing views toward vaccines. Among Republicans who have received a vaccine, 83% say the statement “vaccines are the best way to protect Americans from COVID-19” describes their views very or somewhat well, and 56% say this about the statement “people who choose not to get a COVID-19 vaccine are hurting the country.” Republicans who have not received a vaccine express very low levels of alignment with these two statements. (Six-in-ten Republicans and Republican leaners have received at least one dose of a vaccine, while 38% have not.)

More than half of Republicans, regardless of vaccination status, say each of the four statements of confusion or concern regarding vaccines describes their views well, though larger majorities of unvaccinated than vaccinated Republicans express alignment with these statements.

There also are differences in these views by vaccination status among Democrats, with vaccinated Democrats more likely than unvaccinated Democrats to say they’re described well by positive sentiments toward vaccines; the opposite pattern is seen for sentiments expressing confusion or concern. However, unvaccinated adults make up a relatively small share of all Democrats and Democratic leaners: Just 14% of Democrats say they have not received at least one dose of a COVID-19 vaccine.

Republicans’ views on COVID-19 vaccines differ by vaccination status

% of Republicans and Republican leaners who say the following describe them very or somewhat well



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey conducted Aug. 23-29, 2021.

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Fewer than half think businesses should require vaccines for employees, but a majority think they should at least encourage it

Asked to think about workplaces and COVID-19 vaccines, 39% of the public says most businesses should require their employees to get a vaccine, while another 35% say businesses should encourage employees to get a COVID-19 vaccine, but not require it. A quarter of the public says employers should neither require nor encourage employees to get vaccinated.

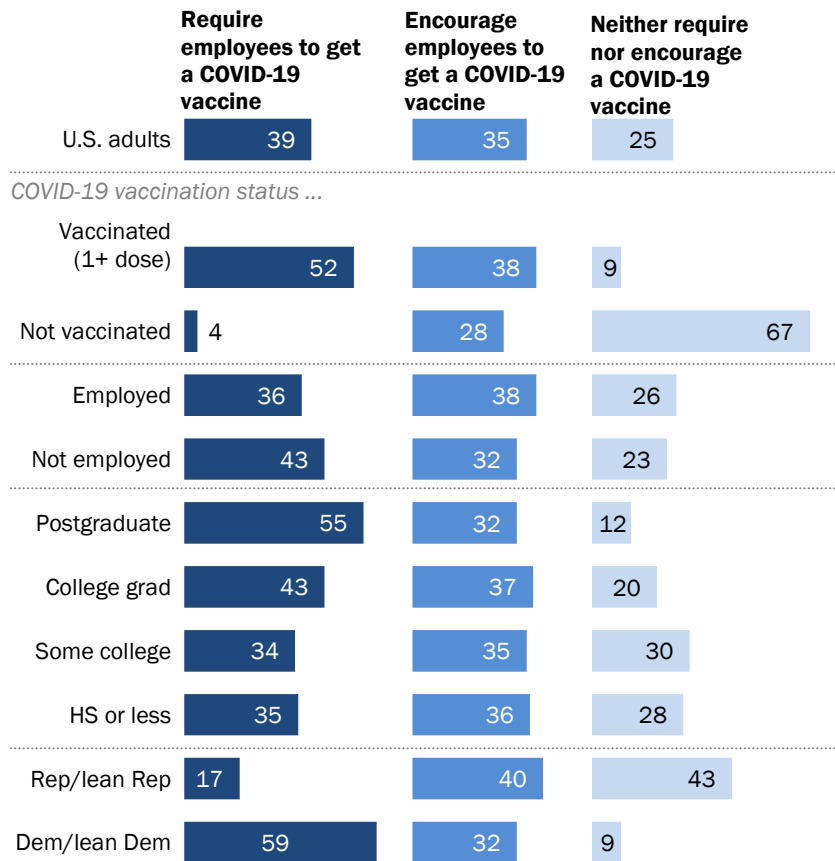
Views on this question differ only modestly by employment status. And among adults under 50, the same share of those employed and not employed say most businesses should require workers to get a vaccine (34%).

A majority of Democrats (59%) say most businesses should require employees to get a COVID-19 vaccine, compared with 17% of Republicans.

Those with higher levels of education are more likely to favor a vaccination requirement. Adults with a postgraduate education are 20 points more likely than those with high school or less education to support requirements (55% vs. 35%).

About four-in-ten Americans say businesses should require employees to get a COVID-19 vaccine

% of U.S. adults who say most businesses in the U.S. should ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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Most vaccinated adults are open to getting a COVID-19 booster shot

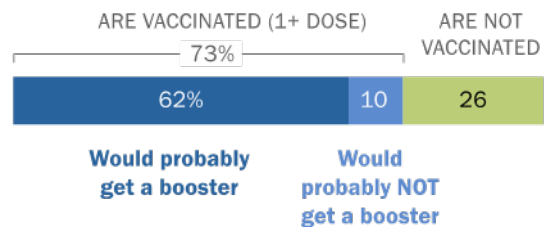
The share of the adult public that says they've received at least one dose of a vaccine for COVID-19 rose dramatically between February and June of this year (from 19% to 67%), as vaccines became more widely available. Since June, the share of adults who say they've received at least one dose of a COVID-19 vaccine has increased 6 points to 73%.

In recent weeks the Food and Drug Administration has approved booster shots – an additional dose of a COVID-19 vaccine – for people with weakened immune systems, and the FDA and CDC continue to evaluate the potential need for booster shots among the general public.

Adults who have already received at least one dose of a COVID-19 vaccine express broad openness to receiving a booster shot. A large majority of vaccinated adults (62% of the total public) say they would probably get a vaccine booster, if public health officials recommend an additional dose. A far smaller share of vaccinated adults (10% of the total public) say they would probably not get a vaccine booster.

Majority of vaccinated adults say they would get a COVID-19 booster shot, if recommended

% of U.S. adults who have received a COVID-19 vaccine and say they would ___ a booster shot, if recommended by public health officials



Note: Respondents who did not give an answer are not shown.
Source: Survey conducted Aug. 23-29, 2021.
"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

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Divides over vaccines play out among family and friends

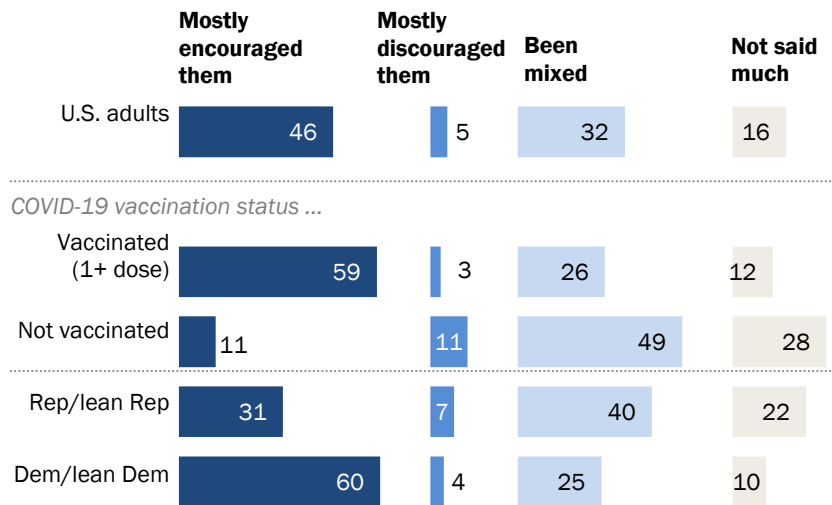
Adults who have received a COVID-19 vaccine and those who have not report distinctly different input from their friends and family when it comes to the vaccination decision.

A majority of vaccinated adults (59%) say their close friends and family have mostly encouraged them to get a coronavirus vaccine. Just 3% of vaccinated adults say their close friends and family have mostly discouraged them from doing this; 26% say the input has been mixed and 12% say they haven't heard much from friends and family about vaccines.

By contrast, among those who have not received a COVID-19 vaccine, just 11% say their close friends and family have mostly encouraged them to get a coronavirus vaccine; another 11% say they have been mostly discouraged by friends and family from getting a vaccine. Among those who have not been vaccinated, about half (49%) describe the input from their close friends and family as mixed, with some encouraging them to get a vaccine and some discouraging them from doing so; 28% say their close friends and family haven't said much about vaccines.

Input on vaccine from friends and family differs greatly by vaccination status and partisanship

% of U.S. adults who say that when it comes to getting a COVID-19 vaccine, their close friends and family have ...



Note: Respondents who did not give an answer are not shown.
 Source: Survey conducted Aug. 23-29, 2021.
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There are also wide differences on this question by partisanship. Six-in-ten Democrats and Democratic leaners say their close friends and family have mostly encouraged them to get a vaccine, while 25% say they've received mixed input and just 4% say they've mostly been discouraged from getting a vaccine.

Republicans and Republican leaners are much less likely than Democrats and Democratic leaners to say their close friends and family have mostly encouraged them to get a coronavirus vaccine

(31% vs. 60%). Among Republicans, 40% say the input they received from close friends and family has been mixed, while 22% say their friends and family haven't said much. Relatively few (7%) say they've mostly been discouraged from getting a vaccine.

Americans hold mixed reactions to changing public health guidance during the coronavirus outbreak

Over the course of the outbreak, public health guidance on how to deal with the coronavirus has changed, including information on core concepts such as how the coronavirus spreads and how effective masks are at limiting the spread of the virus.

Americans express a mix of both positive and negative reactions when asked how this changing guidance has made them feel.

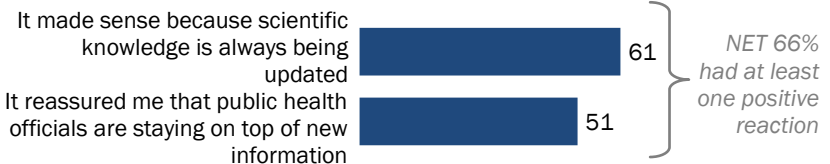
A majority (61%) says changes to public health recommendations since the start of the outbreak made sense because scientific knowledge is always being updated. About half (51%) say the changing guidance reassured them that public health officials are staying on top of new information.

At the same time, the public also expresses negative reactions: 55% say the changing guidance made them wonder if public health officials were holding back important information, and 51% say these changes made them feel less confident in public health officials' recommendations. Taken together, 63% of U.S. adults express at least one of two negative reactions to changing public health guidance.

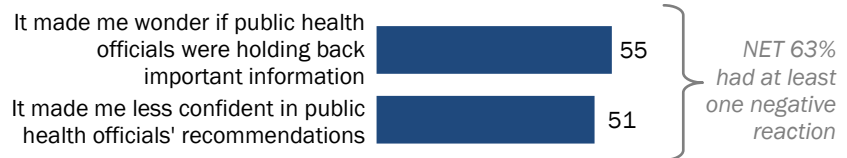
Majority of Americans say shifting public health recommendations on the coronavirus made sense, but 63% also say they've had a negative reaction

% of U.S. adults who say they had the following reactions to public health officials changing their recommendations about how to slow the spread of the coronavirus in the U.S. since the start of the outbreak

POSITIVE REACTIONS



NEGATIVE REACTIONS



CONFUSION



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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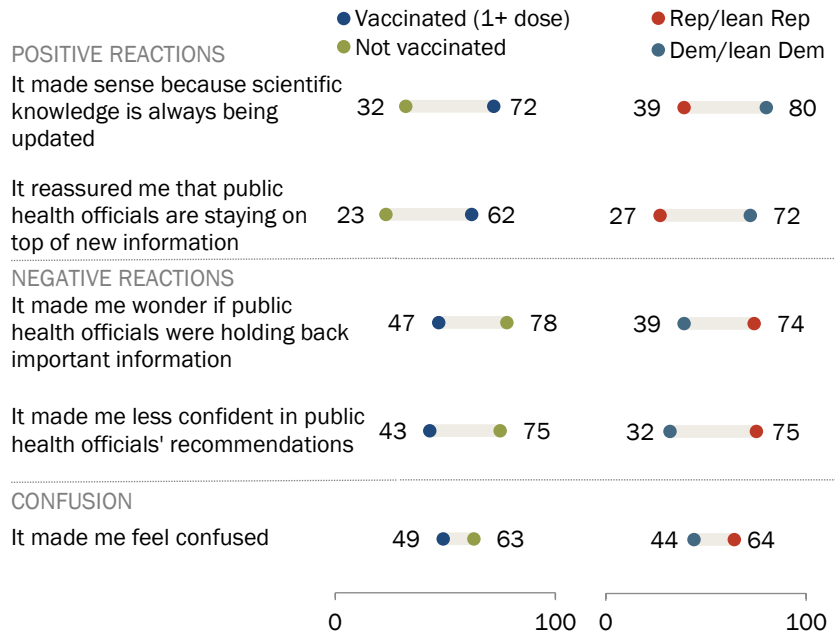
Confusion was also a reaction experienced by just over half of adults: 53% say changing recommendations over the course of the outbreak made them feel confused.

There are wide differences in reactions to changing guidance from public health officials by vaccination status and partisan affiliation.

U.S. adults who have not been vaccinated against COVID-19 are far more likely to express negative reactions to changes in guidance from public health officials than vaccinated adults. Large majorities of those who are not vaccinated say changing recommendations made them wonder if public health officials were holding back important information (78%) and say it made them feel less confident in public health officials' recommendations (75%). Fewer than half of vaccinated adults express either of these two sentiments (47% and 43%, respectively).

Large shares of those who are not vaccinated express negative reactions to changing public health guidance

% of U.S. adults who say they had the following reactions to public health officials changing their recommendations about how to slow the spread of the coronavirus in the U.S. since the start of the outbreak



Note: Respondents who gave other responses or did not give an answer are not shown.
 Source: Survey conducted Aug. 23-29, 2021.
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Those who have been vaccinated are far more likely than those who have not to say changes to recommendations made sense because scientific knowledge is always being updated (72% vs. 32%).

There are comparably large differences by partisan affiliation in reactions to changes in public health recommendations, with Democrats more likely to express positive feelings and Republicans more likely to express negative reactions. For instance, Democrats are 41 points more likely than Republicans to say changes in recommendations made sense because scientific knowledge is

always being updated (80% vs. 39%). When it comes to negative reactions, Republicans are 35 points more likely than Democrats to say that changing guidance made them wonder if public health officials were holding back important information (74% vs. 39%). But Democrats do not express exclusively positive responses to shifts in public health recommendations: 47% say they've experienced at least one of the two negative reactions to changing guidance, and 44% say they've felt confused.

Higher educational attainment is also connected with more positive reactions to changing health guidance. For example, about three-quarters of Americans with a postgraduate degree (76%) say changing guidance made sense because scientific understanding is always being updated. This compares with 66% of college graduates, 59% of those with some college experience and 54% of those with a high school diploma or less education. Educational differences occur on this question among both Republicans and Democrats.

Those with lower levels of education are especially likely to express negative reactions to changing guidance: For instance, 60% of those with a high school diploma or less and 58% of those with some college say changing recommendations about how to slow the spread of the coronavirus made them wonder if health officials were holding back important information; this view is less widely held among college graduates (50%) and postgraduates (41%).

However, there is little difference across levels of education in having felt confused by changing guidance from public health officials, with between 49% and 55% of all groups expressing this view. [See the Appendix for details.](#)

Majority of Americans know someone who has been hospitalized or died from COVID-19

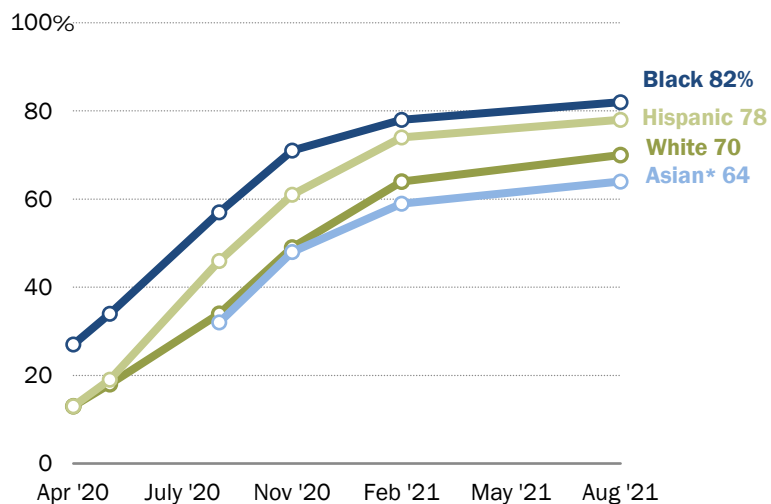
More than 600,000 Americans have died as a result of COVID-19, and millions have been hospitalized from the disease. In the current survey, 72% of U.S. adults say they personally know someone who has been hospitalized or died as a result of having COVID-19.

As has been the case throughout the outbreak, Black (82%) and Hispanic (78%) adults are especially likely to say they know someone who has been hospitalized or died as a result of the coronavirus. Majorities of White (70%) and English-speaking Asian adults (64%) also say they know someone who has been hospitalized or died.

Across other major demographic groups, there are modest or no differences in the shares who say they know someone who has been hospitalized or died as a result of COVID-19. Democrats and Republicans are about equally likely to say this (74% and 71%, respectively); there is a modest difference in this experience between adults who have received a COVID-19 vaccine and those who have not (74% vs. 68%).

82% of Black adults say they know someone who has been hospitalized or died from COVID-19

% of U.S. adults who say they personally know someone who has been hospitalized or died as a result of having COVID-19



*Asian adults were interviewed in English only.

Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race.

Source: Survey conducted Aug. 23-29, 2021.

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A year and a half into the coronavirus outbreak in the U.S., three-in-ten U.S. adults say they have tested positive for COVID-19 or been “pretty sure” they had it.

There are differences by age, race and ethnicity, income and partisan affiliation when it comes to having had COVID-19. Younger Americans are more likely than their older counterparts to say they have had the coronavirus. Those ages 18 to 29 are about twice as likely as those 65 and older to report they tested positive or were “pretty sure” they had COVID-19 (36% vs. 17%).

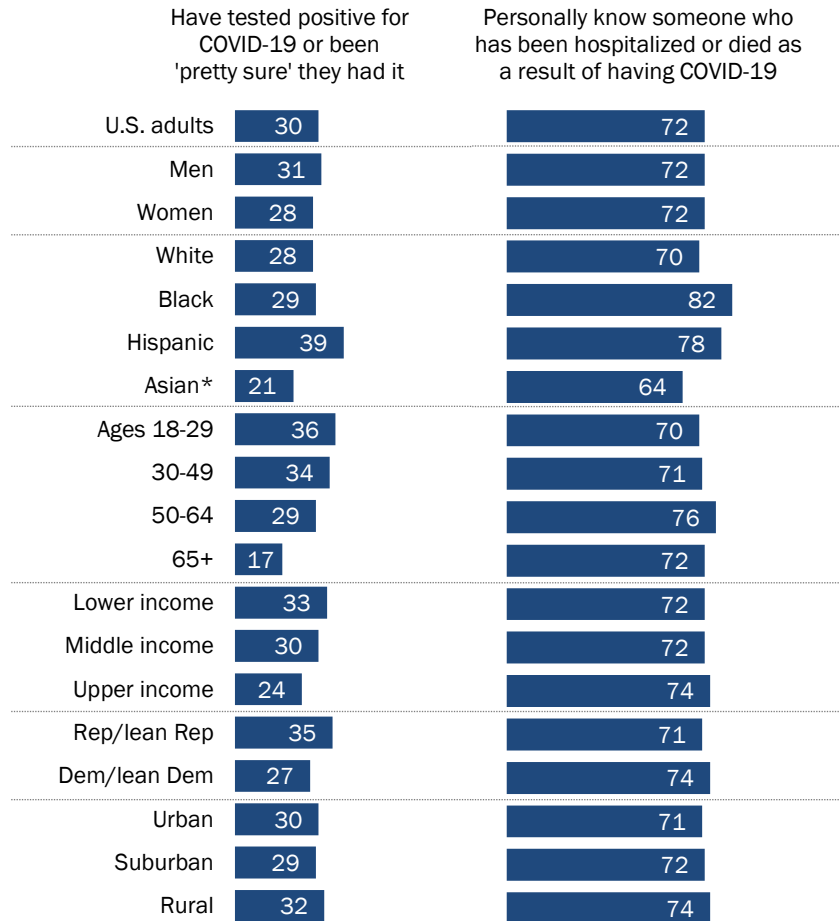
Hispanic adults (39%) are more likely than Black (29%), White (28%) or Asian (21%) adults to say they have had COVID-19.

One-third of adults with lower incomes say they have tested positive for COVID-19 or been pretty sure they had it, compared with 24% of upper-income adults.

Republicans are modestly more likely than Democrats to say they have had COVID-19 (35% vs 27%).

72% of U.S. adults say they know someone who has been hospitalized or died as a result of COVID-19

% of U.S. adults who say they ...



*Asian adults were interviewed in English only.

Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2020 earnings.

Source: Survey conducted Aug. 23-29, 2021.

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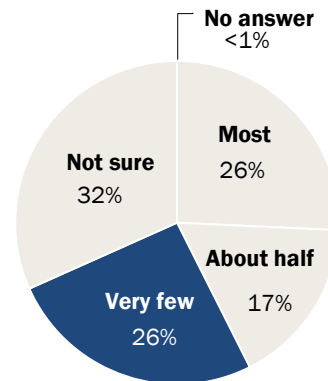
Few Americans know access to vaccines is limited in developing countries

Many developing countries continue to have [a low supply](#) of COVID-19 vaccines, with small shares of their populations currently vaccinated. In African countries, for instance, it is estimated that just [about 3%](#) of the adult population has received a COVID-19 vaccination.

Asked about the status of COVID-19 vaccines in developing countries, about a quarter of Americans (26%) correctly say that very few adults in developing countries can currently get a vaccine, if they want one. Roughly four-in-ten Americans (42%) say that about half or most adults in developing countries have access to COVID-19 vaccines, while 32% say they aren't sure.

26% of Americans aware 'very few' adults in developing countries have access to COVID-19 vaccines

% of U.S. adults who say that ___ adults in developing countries can get a COVID-19 vaccine if they want one



Source: Survey conducted Aug. 23-29, 2021.

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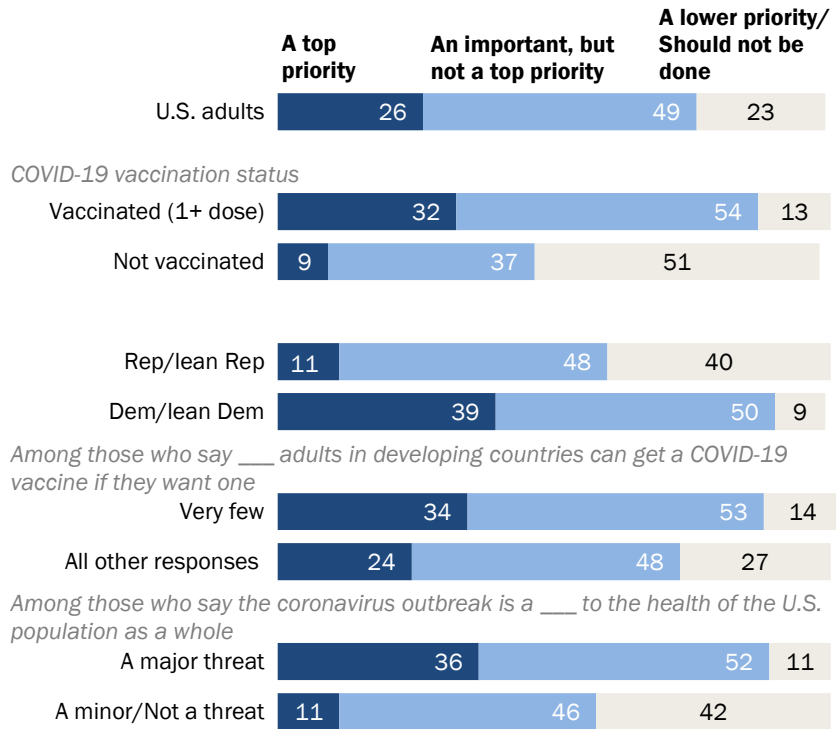
When asked about the U.S. role in the global distribution of vaccines, about three-quarters of Americans (76%) say providing COVID-19 vaccines to developing countries should be at least an important priority, though only 26% of U.S. adults say it's a "top" priority. About a quarter (23%) say this should be a lower priority or should not be done at all.

Those who are vaccinated are more likely to favor providing large numbers of vaccines to developing countries, a pattern that holds among both Republicans and Democrats. Overall, Democrats place a higher priority on providing vaccines to developing countries than Republicans.

Americans who are aware that most people in developing countries do not have access to COVID-19 vaccines, and those who see COVID-19 as a major threat to public health in the U.S., are relatively more likely to prioritize providing COVID-19 vaccines to developing countries.

26% of Americans say providing COVID-19 vaccines to developing countries should be a top priority

% of U.S. adults who say it should be ___ for the U.S. to provide large numbers of COVID-19 vaccines to developing countries



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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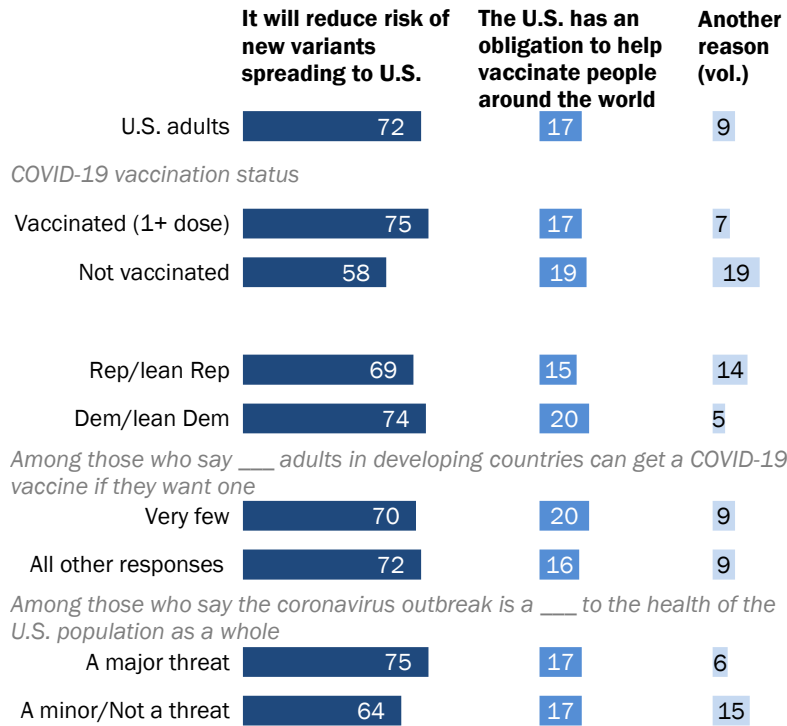
Infectious disease researchers have argued that countries with low vaccination rates are more likely to develop new coronavirus variants. Reducing the risk of new coronavirus variants spreading to the country is seen as the main reason why the U.S. should provide vaccines to developing countries (among those who give this at least some level of priority).

Among the 90% of adults who say providing vaccines to developing countries is a top, important or lower priority, 72% say the main reason to do this is to reduce the risk of new variants spreading to the U.S. About two-in-ten (17%) say the main reason to do this is because the U.S. has an obligation to help people around the world get vaccinated.

About one-in-ten (9%) volunteer another rationale for why the U.S. should provide vaccines to developing countries. Common volunteered responses include that both reducing the risk of variants and a U.S. obligation to help are equally important reasons, that providing vaccines is the humanitarian choice, and that the U.S. should provide vaccines due to the country's excess supply.

Among those who say U.S. should provide COVID-19 vaccines to developing countries, most say this should be done to limit variant spread in U.S.

Among U.S. adults who say providing COVID-19 vaccines to developing countries is at least a lower priority, % who say the main reason the U.S. should do this is ...



Note: Based on those who said it should be either a top priority, an important but not a top priority, or a lower priority for the U.S. to provide COVID-19 vaccines to developing countries. Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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Republicans grow more skeptical that scientists base judgments solely on the facts

Americans are closely divided over whether scientists’ judgments are based solely on the facts or are just as likely to be biased as other people’s. In the current survey, 54% say scientists’ judgments are based solely on the facts, compared with 45% who think scientists’ judgments are just as likely to be biased as those of other people. These overall views are about the same as they were in 2019, the last time this question was asked.

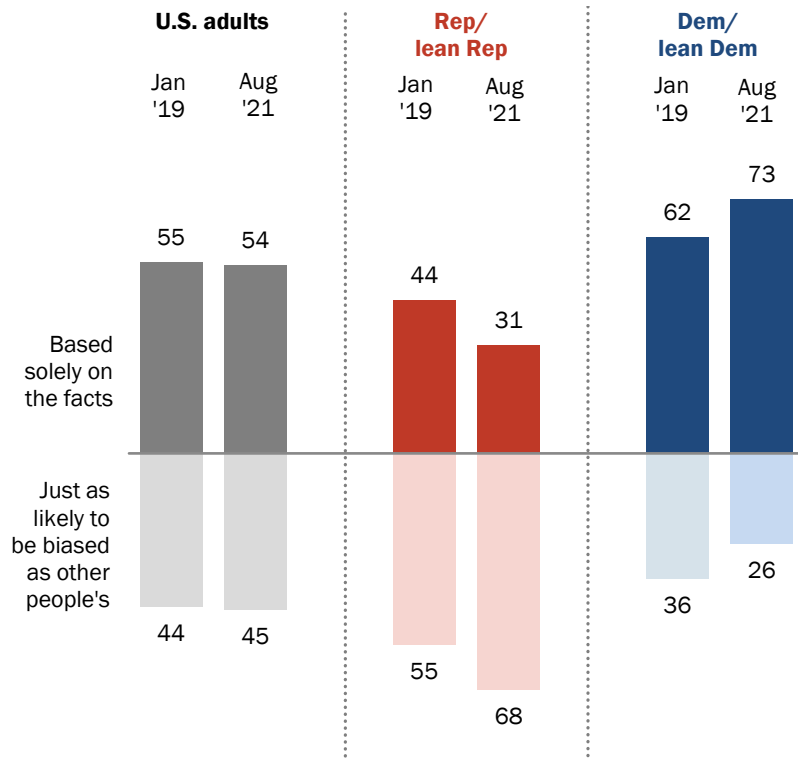
However, Democrats have become more likely – and Republicans less likely – to say scientists’ judgments are based solely on the facts over the past two years. About three-in-ten Republicans and Republican leaners (31%) now say scientists’ judgments are based solely on the facts, down 13 percentage points since 2019. About seven-in-ten (68%) Republicans think scientists’ judgments are just as likely to be biased as those of other people.

Among Democrats and Democratic leaners, 73% say scientists’ judgments are based solely on the facts, up 11 points since 2019. The partisan gap in the share saying scientists’ judgments are based solely on the facts is now 42 points, much larger than the 18-point gap seen in 2019.

Recent Center surveys have also found growing political divides in [confidence in scientists](#) and views of [the effect of science on society](#).

Democrats and Republicans move further apart in views on scientists’ ability to be unbiased

% of U.S. adults who say scientists’ judgments are ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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About seven-in-ten Americans see the scientific method as an iterative process

The survey also looked at Americans' understanding of the scientific process. About seven-in-ten U.S. adults (71%) say the scientific method is an iterative process, with findings that are meant to be continually tested and updated, while 9% say the scientific method produces unchanging core principles and truths; 20% say they aren't sure.

The share of Americans who see the scientific method as iterative is up slightly from November 2020 when 66% said this.

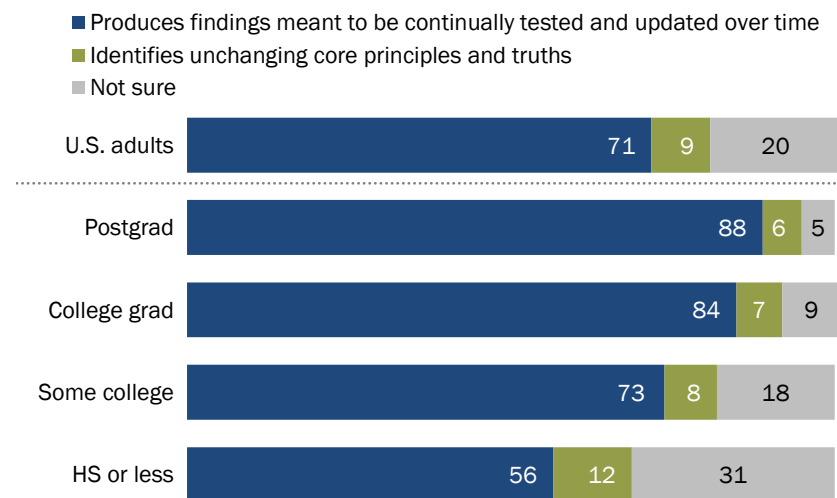
Americans with higher levels of education are more likely to say the scientific method produces findings meant to be continually tested and updated. About nine-in-ten (88%) of those with a postgraduate degree say this, compared with just 56% of those with a high school diploma or less. There are large educational differences on this question among both Democrats and Republicans.

CORRECTION (Sept. 15, 2021): A previous version of the chart "White evangelical Protestants, those with no health insurance among least

likely to say they have received a COVID-19 vaccine" and a sentence in the report's text misstated the share of White non-evangelical Protestants who have received at least one dose of a vaccine to prevent COVID-19. It should be 73% and has been updated to reflect that.

Most Americans describe the scientific method as an iterative process

% of U.S. adults who say the scientific method ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Aug. 23-29, 2021.

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pewresearch.org/science.

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Methodology

The American Trends Panel survey methodology

Overview

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from the panel wave conducted from Aug. 23 to Aug. 29, 2021. A total of 10,348 panelists responded out of 11,178 who were sampled, for a response rate of 93%. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 4%. The break-off rate among panelists who logged on to the survey and completed at least one item is less than 1%. The margin of sampling error for the full sample of 10,348 respondents is plus or minus 1.6 percentage points.

Panel recruitment

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of whom 9,942 (50%) agreed to participate.

In August 2018, the ATP switched from telephone to

American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	1,691
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	988
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	500
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	4,684
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,752
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	2,067
May 29 to July 7, 2021	ABS	1,085	947	947
	Total	39,296	27,199	12,629

Note: Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel. The 2021 recruitment survey was ongoing at the time W94 was conducted. The counts reflect completed recruitment interviews up through July 7, 2021.

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address-based recruitment. Invitations were sent to a stratified, random sample of households selected from the U.S. Postal Service’s Delivery Sequence File. Sampled households receive mailings asking a randomly selected adult to complete a survey online. A question at the end of the survey asks if the respondent is willing to join the ATP. Starting in 2020 another stage was added to the recruitment. Households that do not respond to the online survey are sent a paper version of the questionnaire, \$5 and a postage-paid return envelope. A subset of the adults returning the paper version of the survey are invited to join the ATP. This subset of adults receive a follow-up mailing with a \$10 pre-incentive and invitation to join the ATP.

Across the four address-based recruitments, a total of 19,578 adults were invited to join the ATP, of whom 17,257 agreed to join the panel and completed an initial profile survey. In each household, the adult with the next birthday was asked to go online to complete a survey, at the end of which they were invited to join the panel. Of the 27,199 individuals who have ever joined the ATP, 12,629 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The U.S. Postal Service’s Delivery Sequence File has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.¹ The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

Sample design

The overall target population for this survey was non-institutionalized persons ages 18 and older, living in the U.S., including Alaska and Hawaii. Panelists who had not yet completed the annual profile survey were ineligible.

Questionnaire development and testing

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Pew Research Center researchers. The Ipsos project management team also populated test data that was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

¹ AAPOR Task Force on Address-based Sampling. 2016. “[AAPOR Report: Address-based Sampling.](#)”

Incentives

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from \$5 to \$20 depending on whether the respondent belongs to a part of the population that is harder or easier to reach. Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

Data collection protocol

The data collection field period for this survey was Aug. 23 to Aug. 29, 2021. Postcard notifications were mailed to all ATP panelists with a known residential address on Aug. 23, 2021.

Invitations were sent out in two separate launches: Soft Launch and Full Launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on Aug. 23, 2021. The ATP panelists chosen for the initial soft launch were known responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking panelists were included in the full launch and were sent an invitation later that same day on Aug. 23, 2021.

All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists that consented to SMS messages received an SMS invitation and up to two SMS reminders.

Invitation and reminder dates

	Soft Launch	Full Launch
Initial invitation	Aug. 23, 2021	Aug. 23, 2021
First reminder	Aug. 26, 2021	Aug. 26, 2021
Final reminder	Aug. 28, 2021	Aug. 28, 2021

Data quality checks

To ensure high-quality data, the Center's researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of leaving questions blank, as well as always selecting the first or last answer presented. As a result of this checking, two ATP respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The ATP data was weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. First, each panelist begins with a base weight that reflects their probability of selection for their initial recruitment survey. Among respondents to this survey, the base weights for panelists recruited in different years were scaled to be proportionate to the effective sample size for all respondents in their cohort. These base weights were then calibrated to align with the population benchmarks

identified in the accompanying table and trimmed at the 1st and 99th percentiles to reduce the loss in precision stemming from variance in the weights. Sampling errors and test of statistical significance take into account the effect of weighting.

The population benchmarks used for weighting come from surveys conducted prior to the coronavirus outbreak that began in February 2020. However, the weighting variables for panelists recruited in 2021 were measured at the time they were recruited to the panel. Likewise, the profile variables for existing panelists were updated from panel surveys conducted in July or August 2021.

This does not pose a problem for most of the variables used in the weighting, which are quite stable at both the population and individual levels. However, volunteerism and party identification in particular may have changed over the intervening period in ways that made their 2021 measurements incompatible with the available (pre-pandemic) benchmarks. To address this,

Weighting dimensions

Variable	Benchmark source
Age x Gender	2019 American Community Survey (ACS)
Education x Gender	
Education x Age	
Race/Ethnicity x Education	
Born inside vs. outside the U.S. among Hispanics and Asian Americans	
Years lived in the U.S.	
Census region x Metro/Non-metro	2020 CPS March Supplement
Volunteerism	2019 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation	2020 National Public Opinion Reference Survey (NPORS)
Frequency of internet use	
Religious affiliation	

Note: Estimates from the ACS are based on non-institutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population.

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volunteerism and party identification are weighted using the profile variables that were measured in 2020. For all other weighting dimensions, the more recent panelist measurements from 2021 are used.

For panelists recruited in 2021, plausible values were imputed using the 2020 volunteerism and party values from existing panelists with similar characteristics. This ensures that any patterns of change that were observed in the existing panelists were also reflected in the new recruits when the weighting was performed.

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey.

Sample sizes and sampling errors for other subgroups are available upon request. In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

Margins of error

	Unweighted sample size	Margin of error in percentage points
U.S. adults	10,348	+/- 1.6
Men	4,613	+/- 2.5
Women	5,648	+/- 2.1
White	7,219	+/- 1.8
Black	818	+/- 5.1
Hispanic	1,468	+/- 4.9
Asian*	361	+/- 8.1
Ages 18-29	919	+/- 4.9
30-49	3,315	+/- 2.7
50-64	3,008	+/- 2.8
65+	3,073	+/-2.7
Postgraduate	2,399	+/- 2.7
College grad	2,868	+/- 2.6
Some college	3,284	+/- 2.7
HS or less	1,767	+/- 3.3
Rep/lean Rep	4,910	+/- 2.3
Dem/lean Dem	5,180	+/- 2.2
Upper income	2,511	+/- 2.9
Middle income	5,078	+/- 2.2
Lower income	2,225	+/- 3.3
Vaccinated (1+ dose)	8,199	+/- 1.8
Not vaccinated	2,005	+/- 3.5

*Asian adults were interviewed in English only.

Note: The margins of error are reported at the 95% level of confidence and are calculated by taking into account the average design effect for each subgroup. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Aug. 23-29, 2021.

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Dispositions and response rates

Final dispositions	AAPOR code	Total
Completed interview	1.1	10,348
Logged onto survey; broke-off	2.12	94
Logged onto survey; did not complete any items	2.1121	58
Never logged on (implicit refusal)	2.11	675
Survey completed after close of the field period	2.27	1
Completed interview but was removed for data quality		2
Screened out		0
Total panelists in the survey		11,178
Completed interviews	I	10,348
Partial interviews	P	0
Refusals	R	829
Non-contact	NC	1
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		11,178
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		93%

Cumulative response rate	Total
Weighted response rate to recruitment surveys	12%
% of recruitment survey respondents who agreed to join the panel, among those invited	69%
% of those agreeing to join who were active panelists at start of Wave 94	46%
Response rate to Wave 94 survey	93%
Cumulative response rate	4%

Adjusting income and defining income tiers

Family income data reported in this study is adjusted for household size and cost-of-living differences by geography using a similar methodology to Pew Research Center's previous work on [the American middle class](#). The income tiers used in this analysis are also created following methodology previously used in the Center's work on the middle class.

Prior to these adjustments, American Trends Panel members were assigned to the midpoint of the income range they selected during the survey to provide an exact income figure for adjustment.

The metropolitan area cost-of-living adjustment is based on price indexes published by the U.S. Bureau of Economic Analysis. These indexes, known as [Regional Price Parities](#) (RPP), compare the prices of goods and services across 384 metropolitan statistical areas as well as non-metro areas with the national average prices for the same goods and services. The most recent available data is from 2019.

The national estimates presented in the analysis encompass the U.S. adult population. Those who fall outside of the 378 metropolitan statistical areas found in Wave 94 of the ATP are assigned the RPP for their state's non-metropolitan area.

Family incomes are then adjusted for the number of people in a household using the methodology from Pew Research Center's previous work on [the American middle class](#). That is done because a four-person household with an income of say, \$50,000, faces a tighter budget constraint than a two-person household with the same income.

"Middle-income" adults are in families with annual incomes that are two-thirds to double the median family income in this ATP sample after incomes have been adjusted for household size and the local cost of living. The median family income for this sample is roughly \$63,200 for an average family of three. Using this median income, the middle-income range is about \$42,100 to \$126,400 annually for a three-person family. Lower-income families have incomes less than roughly \$42,100 and upper-income families have incomes greater than roughly \$126,400 (all figures expressed in 2020 dollars).

Based on these adjustments, 32% of respondents are lower income, 46% are middle income and 16% fall into the upper-income tier. An additional 5% either didn't offer a response to the income question or the household size question.

Two examples of how a given area's cost-of-living adjustment was calculated are as follows: Beckley, West Virginia is a relatively inexpensive area, with a price level that is 22.2% less than the national average. The San Francisco-Oakland-Berkeley metropolitan area in California is one of

the most expensive areas, with a price level that is 34.5% higher than the national average. Income in the sample is adjusted to make up for this difference. As a result, a family with an income of \$38,900 in the Beckley area is equivalent to a family with an income of \$67,250 in San Francisco.

A note about the Asian sample

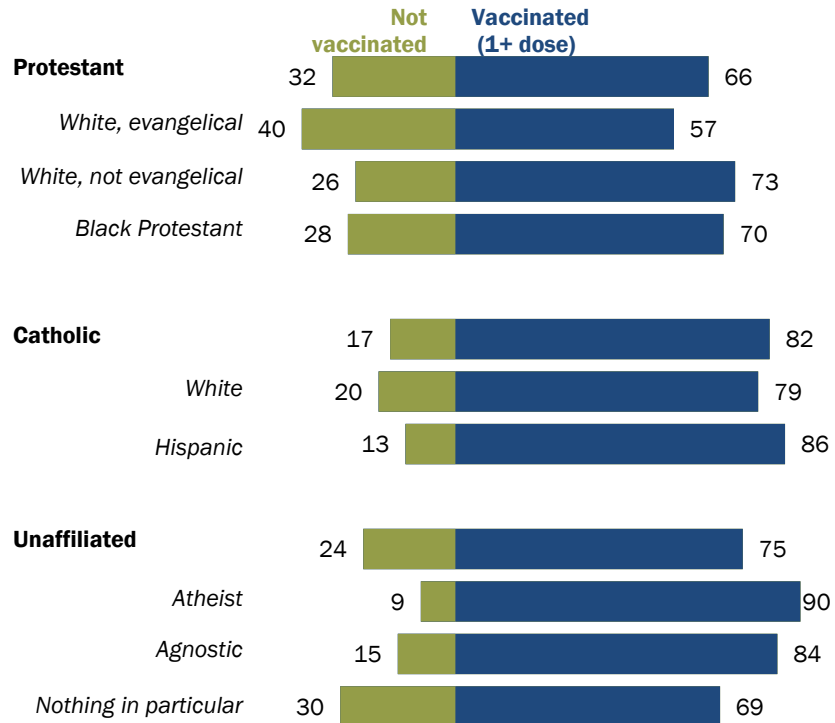
This survey includes a total sample size of 361 Asian Americans. The sample includes English-speaking Asian Americans only and, therefore, may not be representative of the overall Asian American population. Despite this limitation, it is important to report the views of Asian Americans on the topics in this study. As always, Asian Americans' responses are incorporated into the general population figures throughout this report. Because of the relatively small sample size and a reduction in precision due to weighting, we are not able to analyze Asian American respondents by demographic categories, such as gender, age or education. For more, see "[Polling methods are changing, but reporting the views of Asian Americans remains a challenge.](#)"

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Appendix: Detailed charts and tables

White evangelical Protestants less likely to have been vaccinated for COVID-19 than other religious groups

% of U.S. adults who say they are ...



Note: Respondents who did not give an answer are not shown.

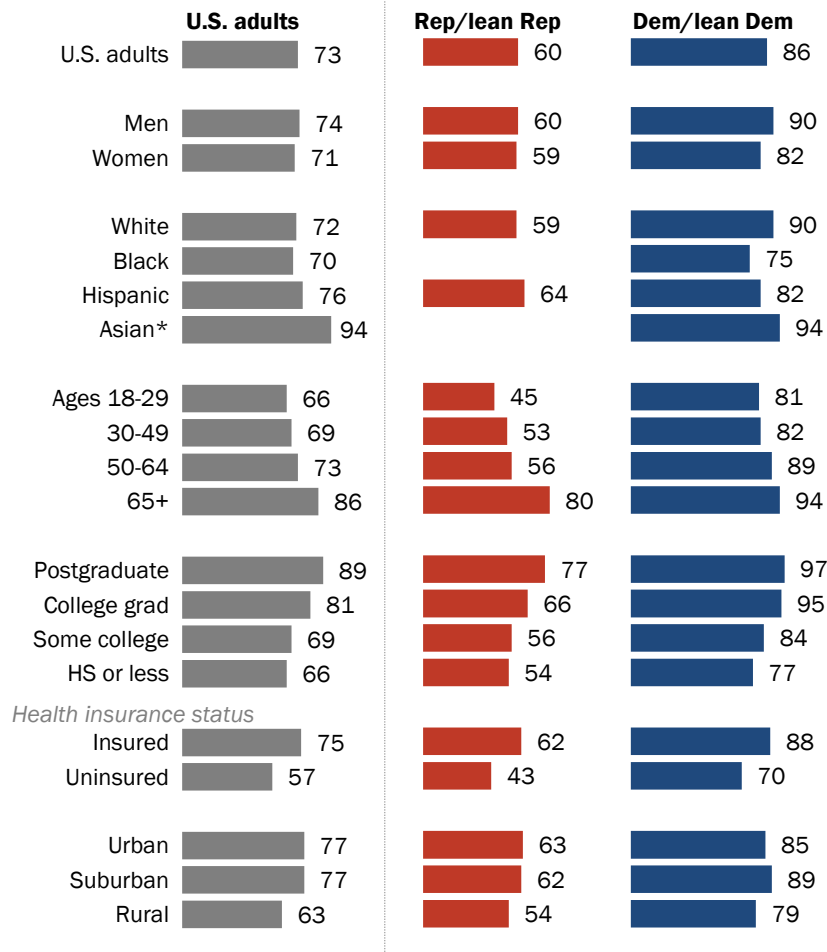
Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

PEW RESEARCH CENTER

Demographics of COVID-19 vaccination status within the Republican and Democratic Party

% of U.S. adults who say they have received at least one dose of a vaccine to prevent COVID-19



*Asian adults were interviewed in English only.

Note: Respondents who gave other responses or did not give an answer are not shown.

White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race.

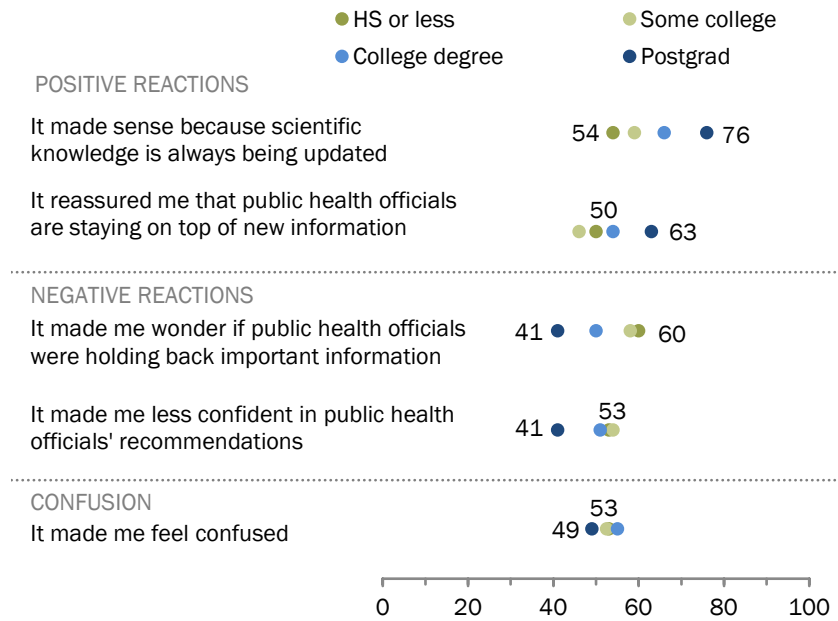
Source: Survey conducted Aug. 23-29, 2021.

"Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

PEW RESEARCH CENTER

Higher levels of education tied to more positive views of changing guidance during coronavirus outbreak

% of U.S. adults who say they had the following reactions to public health officials changing their recommendations about how to slow the spread of the coronavirus in the U.S. since the start of the outbreak



Note: Respondents who gave other responses or did not give an answer are not shown.
 Source: Survey conducted Aug. 23-29, 2021.
 "Majority in U.S. Says Public Health Benefits of COVID-19 Restrictions Worth the Costs, Even as Large Shares Also See Downsides"

PEW RESEARCH CENTER

2021 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 94 August 2021
SCIENCE TOPLINE
August 23-29, 2021
TOTAL N=10,348

ASK ALL:

COVIDEGFP How would you rate the job each of the following is doing responding to the coronavirus outbreak? **[RANDOMIZE]**

	<u>Excellent</u>	<u>Good</u>	<u>Only fair</u>	<u>Poor</u>	<u>No answer</u>
a. Joe Biden					
Aug 23-29, 2021	14	33	23	29	1
Feb 16-21, 2021	22	32	20	24	1
b. Your state elected officials					
Aug 23-29, 2021	11	39	29	20	1
Feb 16-21, 2021	11	39	31	19	1
Nov 18-29, 2020	15	38	27	19	1
July 27-Aug 2, 2020	16	39	26	18	<1
Apr 29-May 5, 2020	21	41	25	13	<1
Mar 19-24, 2020	21	49	22	8	1
c. Your local elected officials					
Aug 23-29, 2021	10	46	30	13	1
Feb 16-21, 2021	10	44	31	13	1
Nov 18-29, 2020	14	44	28	14	1
July 27-Aug 2, 2020	13	47	27	12	1
Apr 29-May 5, 2020	17	47	27	9	1
Mar 19-24, 2020	17	52	22	7	1
d. Public health officials such as those at the CDC (Centers for Disease Control and Prevention)					
Aug 23-29, 2021	17	43	24	16	1
Feb 16-21, 2021	16	46	25	12	<1
Nov 18-29, 2020	22	45	24	9	<1
July 27-Aug 2, 2020	16	47	25	11	<1
Apr 29-May 5, 2020	24	48	21	7	1
Mar 19-24, 2020	30	49	17	4	<1
NO ITEMS E-F					
g. Hospitals and medical centers in your area					
Aug 23-29, 2021	39	46	11	3	1
Feb 16-21, 2021	36	49	11	3	1
Nov 18-29, 2020	45	42	9	3	<1
July 27-Aug 2, 2020	43	45	9	3	1
Apr 29-May 5, 2020	47	42	8	3	1

ASK ALL:COVIDTHREAT How much of a threat, if any, is the coronavirus outbreak for... **[RANDOMIZE]**

	A major <u>threat</u>	A minor <u>threat</u>	Not a <u>threat</u>	<u>No answer</u>
a. The health of the U.S. population as a whole				
Aug 23-29, 2021	61	33	6	<1
Feb 16-21, 2021	63	31	5	<1
Nov 18-29, 2020	65	29	5	<1
Jul 13-19, 2020	67	28	5	<1
Apr 29-May 5, 2020	64	31	4	<1
Mar 19-24, 2020	66	31	2	<1
Mar 10-16, 2020	47	45	8	<1
b. Your personal health				
Aug 23-29, 2021	31	50	19	<1
Feb 16-21, 2021	31	52	17	<1
Nov 18-29, 2020	39	46	14	<1
Jul 13-19, 2020	40	46	13	<1
Apr 29-May 5, 2020	38	47	14	<1
Mar 19-24, 2020	36	52	11	<1
Mar 10-16, 2020	27	51	22	<1
c. The U.S. economy				
Aug 23-29, 2021	72	24	3	1
Feb 16-21, 2021	81	16	3	<1
Nov 18-29, 2020	84	13	3	<1
Jul 13-19, 2020	86	12	2	<1
Apr 29-May 5, 2020	88	10	2	<1
Mar 19-24, 2020	88	10	1	<1
Mar 10-16, 2020	70	25	4	1
d. Your personal financial situation				
Aug 23-29, 2021	29	46	25	<1
Feb 16-21, 2021	30	46	24	<1
Nov 18-29, 2020	38	42	20	<1
Jul 13-19, 2020	38	43	19	<1
Apr 29-May 5, 2020	41	42	17	<1
Mar 19-24, 2020	49	40	11	<1
Mar 10-16, 2020	34	43	23	<1

ASK ALL:COVID_FUT Thinking about the problems the country is facing from the coronavirus outbreak, do you think...? **[RANDOMIZE]**

	The worst is <u>behind us</u>	The worst is still <u>to come</u>	<u>No answer</u>
Aug 23-29, 2021	45	54	1
Nov 18-29, 2020	28	71	1
June 16-22, 2020	40	59	1
Apr 7-12, 2020	26	73	1

ASK ALL:

RSTIMP

Thinking about the period of time since February 2020 and restrictions on public activity in the U.S. due to the coronavirus outbreak...

How much, if at all, do you think restrictions on public activity have... **[RANDOMIZE ITEMS]**

	<u>A lot</u>	<u>Some</u>	<u>Not too much</u>	<u>Not at all</u>	<u>No answer</u>
a. Helped to slow the spread of the coronavirus Aug 23-29, 2021	31	41	20	8	<1
b. Hurt businesses and economic activity Aug 23-29, 2021	69	26	4	1	<1
c. Kept people from living their lives the way they want Aug 23-29, 2021	58	31	8	2	<1
d. Helped prevent hospitalizations and deaths from the coronavirus Aug 23-29, 2021	32	41	19	7	<1

ASK ALL:

RSTWRTH

Which better describes how you feel about restrictions on public activity to slow the spread of the coronavirus in the U.S.? **[RANDOMIZE RESPONSE OPTIONS]**Aug 23-29
2021

62	The public health benefits of the restrictions have been worth the costs
37	The public health benefits of the restrictions have NOT been worth the costs
1	No answer

ASK FORM 1 ONLY:

VAXPASS As part of efforts to slow the spread of the coronavirus, would you favor or oppose requiring adults in the U.S. to show proof of COVID-19 vaccination before being allowed to do each of the following? **[RANDOMIZE ITEMS] [N=5,160]**

	<u>Favor</u>	<u>Oppose</u>	<u>No answer</u>
a. Travel by airplane			
Aug 23-29, 2021	61	38	<1
b. Go to a sporting event or concert			
Aug 23-29, 2021	56	44	<1
c. Attend public colleges and universities in person			
Aug 23-29, 2021	57	42	<1
d. Eat inside of a restaurant			
Aug 23-29, 2021	50	50	<1
e. Shop inside stores and businesses			
Aug 23-29, 2021	45	54	1

ASK FORM 2 ONLY:

COVID_RESTRICTION Thinking about policies in place in some areas to address the coronavirus outbreak, in general do you think each of the following is necessary or unnecessary? **[RANDOMIZE ITEMS] [N=5,188]**

	<u>Necessary</u>	<u>Unnecessary</u>	<u>No answer</u>
a. Restricting international travel to the U.S.			
Aug 23-29, 2021	79	20	1
Feb 16-21, 2021	79	20	1

NO ITEM B

c. Asking people to avoid gathering in large groups			
Aug 23-29, 2021	73	27	<1
Feb 16-21, 2021	76	24	<1

NO ITEM D

e. Closing K-12 schools for in-person learning			
Aug 23-29, 2021	48	51	1
Feb 16-21, 2021	47	52	1
f. Limiting restaurants to carry-out only			
Aug 23-29, 2021	50	50	1
Feb 16-21, 2021	50	50	1

**COVID_RESTRICTION
CONTINUED...**

NO ITEM G

	<u>Necessary</u>	<u>Unnecessary</u>	<u>No answer</u>
h. Requiring masks or face coverings for travelers on airplanes and public transportation			
Aug 23-29, 2021	80	19	<1
Feb 16-21, 2021	85	15	<1

TREND FOR COMPARISON

COVID_RESTRICTION Thinking about some steps that have been announced in some areas to address the coronavirus outbreak, in general do you think each of the following have been necessary or unnecessary? **[RANDOMIZE ITEMS]**

	<u>Necessary</u>	<u>Unnecessary</u>	<u>No answer</u>
a. <i>Restricting international travel to the U.S.</i>			
Mar 19-24, 2020	95	5	<1
c. <i>Asking people to avoid gathering in groups of more than ten</i>			
Mar 19-24, 2020	87	12	<1
e. <i>Closing K-12 schools</i>			
Mar 19-24, 2020	90	10	<1
f. <i>Limiting restaurants to carry-out only</i>			
Mar 19-24, 2020	85	14	<1

ASK ALL:

COVID_INFECT How concerned, if at all, are you that... **[RANDOMIZE ITEMS]**

	<u>Very concerned</u>	<u>Somewhat concerned</u>	<u>Not too concerned</u>	<u>Not at all concerned</u>	<u>No answer</u>
a. You might spread the coronavirus to other people without knowing that you have it					
Aug 23-29, 2021	27	32	26	15	<1
Feb 16-21, 2021	30	31	25	14	<1
Nov 18-29, 2020	32	32	23	13	<1
June 16-22, 2020	30	32	23	14	<1
Apr 7-12, 2020	33	34	22	11	1
b. You will get the coronavirus and require hospitalization					
Aug 23-29, 2021	19	26	36	19	<1
Feb 16-21, 2021	21	27	31	20	<1
Nov 18-29, 2020	23	30	30	17	<1
June 16-22, 2020	24	27	32	17	<1
Apr 7-12, 2020	24	31	32	13	<1

ASK ALL:

CVDREC

As you may know, public health officials have changed their recommendations about how to slow the spread of the coronavirus in the U.S. since the start of the outbreak.

Have you had any of the following reactions to these changes? **[RANDOMIZE ITEMS]**

	Yes, I have had this <u>reaction</u>	No, I have not had this reaction	<u>No answer</u>
a. It made sense because scientific knowledge is always being updated Aug 23-29, 2021	61	38	1
b. It made me feel confused Aug 23-29, 2021	53	46	1
c. It made me wonder if public health officials were holding back important information Aug 23-29, 2021	55	44	1
d. It made me less confident in public health officials' recommendations Aug 23-29, 2021	51	48	1
e. It reassured me that public health officials are staying on top of new information Aug 23-29, 2021	51	48	1

ASK ALL:

COVIDMASK1

In the past month, how often, if ever, have you worn a mask or face covering when in stores or other businesses?

	All or most of <u>the time</u>	Some of <u>the time</u>	Hardly <u>ever</u>	<u>Never</u>	Have not gone to these types of <u>places</u>	<u>No answer</u>
Aug 23-29, 2021	53	21	14	11	1	<1
Feb 16-21, 2021	88	6	3	1	2	<1
Nov 18-29, 2020	87	7	4	2	1	<1
Aug 3-16, 2020	85	9	3	1	1	<1
June 4-10, 2020	65	15	9	7	4	<1

ASK ALL:

COVID_VAXDMOD Have you received a vaccine to prevent COVID-19?

	NET Have received at least one dose of a <u>vaccine</u>	Yes, have had all the shots needed to be fully <u>vaccinated</u>	Yes, have had one shot but still need <u>one more</u>	No, have not received a <u>vaccine</u>	<u>No answer</u>
Aug 23-29, 2021	73	69	4	26	1
Jun 14-27, 2021	67	63	4	31	2
Feb 16-21, 2021	19	--	--	80	<1

ASK IF HAVE NOT RECEIVED VACCINE OR NO ANSWER [N=2,149]:COVID_SCI6E Thinking about vaccines to prevent COVID-19, do you think you will...²**BASED ON TOTAL:**

	NET Have received at least one dose of a <u>vaccine</u>	No, have not received a <u>vaccine</u>	Definitely get a <u>vaccine</u>	Probably get a <u>vaccine</u>	Probably NOT get a <u>vaccine</u>	Definitely NOT get a <u>vaccine</u>	<u>No answer</u>
Aug 23-29, 2021	73	26	1	5	8	12	1
Jun 14-27, 2021	67	31	--	--	--	--	--
Feb 16-21, 2021	19	80	32	17	15	15	1
Nov 18-29, 2020	--	--	29	31	21	18	1
Sept 8-13, 2020	--	--	21	30	25	24	<1
Apr 29-May 5, 2020	--	--	42	30	16	11	1

ASK IF HAVE RECEIVED AT LEAST ONE DOSE OF VACCINE (COVID_VAXDMOD=1,2)[N=8,199]:

VAXBOOST If public health officials recommend an additional dose of a COVID-19 vaccine (sometimes called a booster shot), would you...

BASED ON ALL ASKED [N=8,199]:

Aug 23-29 <u>2021</u>	
84	Probably get a vaccine booster
14	Probably NOT get a vaccine booster
1	No answer

² Prior to the Feb 16-21, 2021 survey, the question wording was, "If a vaccine to prevent COVID-19 were available today, would you..."

ASK ALL:

VACCNFDT How much confidence, if any, do you have that the research and development process has produced COVID-19 vaccines in the U.S. that are safe and effective?³

	<u>A great deal of confidence</u>	<u>A fair amount of confidence</u>	<u>Not too much confidence</u>	<u>No confidence at all</u>	<u>No answer</u>
Aug 23-29, 2021	39	33	15	12	<1
Feb 16-21, 2021	33	40	19	8	<1
Nov 18-29, 2020	30	45	17	8	<1
Sept 8-13, 2020	19	45	25	10	<1

ASK ALL:

CVDVIEWS How well does each of the following statements describe your views about COVID-19 vaccines? **[RANDOMIZE ORDER OF SCREEN 1 AND SCREEN 2; RANDOMIZE ITEMS ON EACH SCREEN]**

	<u>Very well</u>	<u>Somewhat well</u>	<u>Not too well</u>	<u>Not at all well</u>	<u>No answer</u>
a. Vaccines are the best way to protect Americans from COVID-19 Aug 23-29, 2021	47	26	14	13	1
b. It's hard to make sense of all the information about COVID-19 vaccines Aug 23-29, 2021	22	34	24	20	1
c. We don't really know yet if there are serious health risks from COVID-19 vaccines Aug 23-29, 2021	29	31	24	15	1
d. People who choose not to get a COVID-19 vaccine are hurting the country Aug 23-29, 2021	39	21	14	25	<1
e. There's too much pressure on Americans to get a COVID-19 vaccine Aug 23-29, 2021	30	21	19	30	<1
f. Public health officials are not telling us everything they know about COVID-19 vaccines Aug 23-29, 2021	26	28	22	23	1

³ Prior to the Feb 16-21, 2021 survey, the question wording was, "How much confidence, if any, do you have that the research and development process will produce a vaccine for COVID-19 in the U.S. that is safe and effective?"

ASK ALL:

VAX_SOCIAL Would you say that your close friends and family have... **[RANDOMIZE RESPONSE OPTIONS 1 & 2, WITH 3 & 4 ALWAYS LAST]**

Aug 23-29

2021

46	Mostly encouraged you to get a coronavirus vaccine
5	Mostly discouraged you from getting a coronavirus vaccine
32	Been mixed, with some who encouraged you and some who discouraged you from getting a coronavirus vaccine
16	Not said much about coronavirus vaccines
<1	No answer

ASK ALL:

JOBVAX Do you think most businesses in the U.S. should...

Aug 23-29

2021

39	Require employees to get a COVID-19 vaccine
35	Encourage employees to get a COVID-19 vaccine, but not require it
25	Neither require nor encourage employees to get a COVID-19 vaccine
1	No answer

ASK ALL:

GLBVAX1 As far as you know, which of the following best describes the current situation for adults living in developing countries around the world?

If they want a COVID-19 vaccine...

Aug 23-29

2021

26	Most adults in developing countries can get a COVID-19 vaccine
17	About half of adults in developing countries can get a COVID-19 vaccine
26	Very few adults in developing countries can get a COVID-19 vaccine
32	Not sure
<1	No answer

ASK ALL:

GLBVAX2 How much of a priority should it be for the U.S. to provide large numbers of COVID-19 vaccines to developing countries around the world?

Aug 23-29

2021

26	A top priority
49	An important, but not a top priority
14	A lower priority
9	Should not be done
1	No answer

ASK IF AT LEAST A LOWER PRIORITY (GLBVAX2=1,2,3) [N=9,438]:

GLBVAX3 Which of these is the MAIN REASON you think the U.S. should provide large numbers of COVID-19 vaccines to developing countries around the world? **[RANDOMIZE RESPONSE OPTIONS 1 & 2, WITH OPTION 3 ALWAYS LAST]**

BASED ON ALL ASKED [N=9,438]:

Aug 23-29

2021

72	It will reduce the risk of new coronavirus variants spreading to the U.S.
	The U.S. has an obligation to help people around the world get vaccinated
17	
9	Another reason, specify: _____
2	No answer

ASK ALL:

SCM3 Which of these statements comes closer to your own view, even if neither is exactly right? **[RANDOMIZE]**

Aug 23-29

2021

54	Scientists make judgments based solely on the facts
45	Scientists' judgments are just as likely to be biased as other people's
2	No answer

Jan 7-21

2019

55
44
1

ASK ALL:

KNOW14 Based on what you have heard or read, which of the following statements best describes the scientific method? **[RANDOMIZE OPTIONS 1-2]**

	The scientific method produces findings meant to be continually tested and updated over <u>time</u>	NET Incorrect/Not sure/No <u>answer</u>	The scientific method identifies unchanging core principles and truths	<u>Not sure</u>	<u>No answer</u>
Aug 23-29, 2021	71	29	9	20	1
Nov 18-29, 2020	66	34	10	23	1
Jan 7-21, 2019	67	33	15	17	1

ASK IF DID NOT RESPOND YES IN W83 OR W79 OR W72 OR W67 OR W65 (XKNOWPAT=1):

COVID_KNOWPATIENTb Do you personally know someone who has been hospitalized or died as a result of having COVID-19?

BASED ON TOTAL:

	<u>Yes</u>	<u>No</u>	<u>No answer</u>
Aug 23-29, 2021	72	28	<1
Feb 16-21, 2021	67	33	<1
Nov 18-29, 2020	54	46	<1
Aug 3-16, 2020	39	61	<1
Apr 29-May 5, 2020	20	80	<1
Apr 7-12, 2020	15	85	<1

ASK ALL:

COVID_SELF Since February 2020, have you done or experienced the following?^{4 5}

	<u>Yes, I have</u>	<u>No, I have not</u>	<u>No answer</u>
NO ITEM A			
b. Been pretty sure you have had COVID-19 even though you have not been officially diagnosed			
Aug 23-29, 2021	24	75	1
Feb 16-21, 2021	21	79	1
Aug 3-16, 2020	13	87	<1
Apr 29-May 5, 2020	14	85	1
c. Tested positive for having COVID-19			
Aug 23-29, 2021	13	86	1
Feb 16-21, 2021	9	91	1
Aug 3-16, 2020	2	97	<1

NO ITEMS D-E

⁴ In the April 29-May 5, 2020 survey, the question wording was, "Thinking about the past few months, since FEBRUARY 2020, have you done or experienced the following?"

⁵ For surveys from February 2021 and earlier, question also asked if respondents had tested positive for COVID-19 antibodies.

COVID_SELF COMBO TABLE⁶**BASED ON TOTAL:**

	NET At least "pretty sure" (Been pretty sure you have had COVID-19 even though you have not been officially diagnosed OR Tested positive for <u>having COVID-19</u>)	Tested positive for <u>having COVID-19</u>	Been pretty sure you have had COVID-19 even though you have not been officially diagnosed (and did NOT test <u>positive</u>)	No or No answer to all COVID_SELF
Aug 23-29, 2021	30	13	24	70
Feb 16-21, 2021	25	11	14	75
Aug 3-16, 2020	14	3	11	86

⁶ For surveys from February 2021 and earlier, the figures for "NET At least 'pretty sure'" and "Tested positive" included respondents who said they tested positive for COVID-19 antibodies.