Public Awareness of Long COVID & Motivation to Get Vaccinated

Quantitative Research
Background

Objectives

Assess public awareness and understanding of the long-term effects of COVID-19 and receptivity to potential messages and an outreach strategy encouraging people to get vaccinated to prevent long COVID.

All statistical testing is performed at the 95% confidence interval. The overall margin of error is +/-3% and increases for subgroups.

Note: some numbers do not match the cross tabs due to minor rounding adjustments.

Methodology

We fielded 17 questions in an omnibus survey among a nationally representative sample of 1,973 American adults (18+ years) from May 21, 2021 - June 10, 2021.

Practical difficulties in conducting surveys can introduce error or bias in polls, such as but not limited to question wording, self-reported data and timing of field.
Executive Summary
Nearly 40% of Americans report that they are not vaccinated. Unvaccinated Americans tend to:
• be ages 18-29
• be female
• have a household income under $50K
• have an education less than college
• be Republican or Independent
• live in the Midwest or South and/or a rural community
• be African American

More than 30% of Americans are unaware of long COVID, including 39% of the vaccine hesitant group. Among those who are aware, 39% are not concerned about it. After reading a description of the condition, 39% of all Americans remain unconcerned.

Half of vaccine-hesitant Americans believe the message that “Getting the COVID-19 vaccine is the best way to prevent COVID-19 and its potential long-term complications”. The other half who do not believe this message primarily indicate that there is still too much unknown about the vaccine.

Video testimonials from people suffering from long COVID significantly raise concern and prompt greater willingness to consider vaccination. 64% of Americans become more concerned and 39% of those unvaccinated, including 31% who are vaccine hesitant, are motivated to consider getting the vaccine. The testimonials are most effective among 18- to 29-year-olds, Hispanics and urbanites.
Detailed Findings
Vaccination Status and Long COVID Awareness
Nearly 40% of Americans report that they are not vaccinated.

**Vaccination Status**

- **38%** Have not gotten the vaccine
- **62%** Vaccinated (net)

**Those who are UNVACCINATED tend to...**

<table>
<thead>
<tr>
<th>Category</th>
<th>18-29 yrs. old</th>
<th>30-49 yrs. old</th>
<th>50-64 yrs. old</th>
<th>65+ yrs. old</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>be YOUNGER</strong></td>
<td>49%</td>
<td>44%</td>
<td>37%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>be FEMALE</strong></td>
<td>43% Female</td>
<td>32% Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>live in a RURAL community</strong></td>
<td>53% Rural</td>
<td>34% Suburban</td>
<td>34% Urban</td>
<td></td>
</tr>
<tr>
<td><strong>have a household income UNDER $50K</strong></td>
<td>49% Under $50K</td>
<td>26% $50K or More</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>have an education LESS THAN COLLEGE</strong></td>
<td>54% No College</td>
<td>31% College or More</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>be REPUBLICAN or INDEPENDENT</strong></td>
<td>45% Independent</td>
<td>41% Republican</td>
<td>26% Democrat</td>
<td></td>
</tr>
<tr>
<td><strong>be AFRICAN AMERICAN</strong></td>
<td>45% African American</td>
<td>39% Hispanic</td>
<td>37% Caucasian</td>
<td></td>
</tr>
</tbody>
</table>
Among those who are currently unvaccinated, 84% are vaccine hesitant, including 41% who state they definitely will not get the vaccine.

**Vaccination Intention**

Of those not vaccinated

- 16% Get the vaccine as soon as I can
- 84% Vaccine hesitant (net)
- 41% Definitely will not get the vaccine
- 20% Wait until it has been available for a while to see how it is working for other people
- 11% Only get the vaccine if I am required to do so for work, school or other activities
- 12% Don’t know

**Those who state they definitely will not get the vaccine tend to...**

- be **REPUBLICANS** or **INDEPENDENTS**: 55% Republican, 43% Independent, 25% Democrat
- live in **RURAL** communities: 54% Rural, 37% Suburban, 32% Urban
- live in the **MIDWEST** or **SOUTH**: 46% Midwest, 43% South, 35% West, 34% Northeast

Q2. Regarding the COVID-19 vaccine, what do you plan to do? Base: Not vaccinated N=732
More than 30% of Americans are unaware of long COVID. 61% of those aware are concerned about long COVID.

### Long COVID Awareness

- **Aware of long COVID**: 69%
- **Know a lot about it**: 12%
- **Know a moderate amount about it**: 31%
- **Have heard of it, but don’t know much about it**: 29%
- **Haven’t heard of it**: 28%

Americans who are vaccine hesitant (39%) are more likely to be unaware of long COVID (vs. 27% of those who are not hesitant).

Vaccinated Americans (73%) are more aware of long COVID vs. those who are not vaccinated (63%).

Democrats (76%) and Independents (70%) are more aware of long COVID than Republicans (63%).

### Long COVID Concern (Unaided)

Of those aware of long COVID

- **BOTTOM 2 BOX**
  - Not at all...: 13%
  - Not too...: 26%
  - Somewhat...: 36%
  - Very...: 25%

- **TOP 2 BOX**
  - 39%

### Bottom 2 Box Concern

- **51%** Republicans
- **46%** Independents
- **30%** Democrats
- **48%** Rural
- **43%** Suburban
- **26%** Urban
- **47%** Vaccine Hesitant
- **36%** Vaccinated/Intended

Q3. Many people who have had COVID-19 are suffering from persistent health problems. They are often referred to as "COVID long haulers" and have a condition called COVID-19 syndrome or "long COVID." How familiar are you with long COVID?

Q4. Based on what you know, how concerned are you, personally, about long COVID?

Base: Aware of long COVID N=1,973
When aided with a definition, levels of concern remain steady; and a third of unvaccinated Americans are more likely to consider vaccination.

### Long COVID Concern (Aided)

<table>
<thead>
<tr>
<th>Concern Level</th>
<th>TOP 2 BOX</th>
<th>BOTTOM 2 BOX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all concerned</td>
<td>39%</td>
<td>17%</td>
</tr>
<tr>
<td>Not too concerned</td>
<td>33%</td>
<td>22%</td>
</tr>
<tr>
<td>Somewhat concerned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very concerned</td>
<td>28%</td>
<td></td>
</tr>
</tbody>
</table>

### Impact of long COVID definition on likelihood to consider vaccine

Of those not vaccinated

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Less Likely</th>
<th>Neutral</th>
<th>More Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>7% Somewhat A lot</td>
<td>45%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>16% A lot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No more or less likely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12% A lot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20% Somewhat</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After reading the long COVID definition, of those who are unvaccinated:

- **Democrats** (46%) are more likely to consider getting vaccinated (vs. 19% of Republicans and 30% of Independents)
- **Hispanics** (42%) are more likely to consider getting a vaccine (vs. 34% of African Americans and 29% of Caucasians)
- **Urban residents** (41%) are more likely to consider vaccination than suburban (30%) and rural residents (27%)
Among those who are unvaccinated and unconcerned about long COVID, roughly a quarter indicate that there is too much still unknown about long COVID or that they don’t think they will get COVID at all.

Q7. Which, if any, of the following reasons best describe why you are not concerned about long COVID? [Single select] Base: Unvaccinated and not too/not at all concerned about long COVID N=160; only fielded from June 8-10, 2021.

- 25% Don’t think I will get COVID-19 at all
- 28% There is too much that is still unknown about long COVID
- 17% Don’t think I will get long COVID
- 15% I’ve had COVID-19
- 8% The symptoms of long COVID are not concerning
- 5% Other
- 5% Other
Shortness of breath, chest pain and brain fog are the most concerning potential consequences of long COVID.

Q8. Of all the potential consequences of getting long COVID, which THREE are of greatest concern to you? *Multiple Select* Base: Very/somewhat concerned about long COVID N=1,186

<table>
<thead>
<tr>
<th>Top 3 Long COVID Symptoms of Greatest Concern</th>
<th>Other Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shortness of breath</strong></td>
<td>Gastrointestinal problems</td>
</tr>
<tr>
<td>39%</td>
<td>24%</td>
</tr>
<tr>
<td>41%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Chest pain</strong></td>
<td>Feelings of depression or anxiety</td>
</tr>
<tr>
<td>33%</td>
<td>24%</td>
</tr>
<tr>
<td>37%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>“Brain fog”/ difficulty concentrating</strong></td>
<td>Loss of taste</td>
</tr>
<tr>
<td>32%</td>
<td>18%</td>
</tr>
<tr>
<td>32%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Q8. Of all the potential consequences of getting long COVID, which THREE are of greatest concern to you? *Multiple Select* Base: Very/somewhat concerned about long COVID N=1,186

<table>
<thead>
<tr>
<th>Other Concerns</th>
<th>Total</th>
<th>Vaccine Hesitant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrointestinal problems</td>
<td>24%</td>
<td>29%</td>
</tr>
<tr>
<td>Feelings of depression or anxiety</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Loss of taste</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>Symptoms that get worse after physical exertion</td>
<td>17%</td>
<td>18%</td>
</tr>
<tr>
<td>Muscle pain</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Trouble sleeping</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Dizziness</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Joint pain</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Loss of smell</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Impotence</td>
<td>6%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Public Awareness of Long COVID & Motivation to Get Vaccinated
Message Evaluation
More than half of those who are vaccine hesitant find this message believable. Disbelief primarily is due to perceived lack of knowledge about the vaccine, as well as distrust that the vaccine is safe or effective.

Getting the COVID-19 vaccine is the best way to prevent COVID-19 and its potential long-term complications.

Q9. How believable is this message? N=1,973; Q10. Which, if any, of the following reasons best describe why the above message is not believable? Base: Answering "best way message" is not too/not at all believable N=211; only fielded June 8-10, 2021.

Republican (30%) and Independents (26%) are more likely than Democrats (11%) to find this message not believable.

<table>
<thead>
<tr>
<th>Reasons Not Believable</th>
<th>Message Believability</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is too much that is still unknown about the COVID-19 vaccine</td>
<td>Very/Somewhat Believable (net) 25%</td>
</tr>
<tr>
<td>Do not trust the COVID-19 vaccine is safe</td>
<td>Very/Somewhat Believable (net) 21%</td>
</tr>
<tr>
<td>Do not trust the COVID-19 vaccine is effective</td>
<td>Very/Somewhat Believable (net) 20%</td>
</tr>
<tr>
<td>There is too much that is still unknown about long COVID</td>
<td>Very/Somewhat Believable (net) 16%</td>
</tr>
<tr>
<td>Think the COVID-19 vaccine has risks that are worse than getting COVID-19, so it is not a solution</td>
<td>Very/Somewhat Believable (net) 14%</td>
</tr>
<tr>
<td>Other</td>
<td>Very/Somewhat Believable (net) 4%</td>
</tr>
</tbody>
</table>

Total Vaccine Hesitant

Vaccine Hesitant

Vaccine Hesitant
30% of unvaccinated Americans are more likely to consider vaccination based on this message.

Getting the COVID-19 vaccine is the best way to prevent COVID-19 and its potential long-term complications.

Q11. Select an answer that best fills in the blank for the statement below. The above message makes me ____ to consider getting the COVID-19 vaccination. Base: Not vaccinated N=732

Message Motivation
Of those who are not vaccinated

- **LESS LIKELY**
  - 7% Somewhat
  - 16% A lot

- **NEUTRAL**
  - No more or less likely

- **MORE LIKELY**
  - 11% A lot
  - 19% Somewhat

- **MORE LIKELY**
  - 21% of vaccine hesitant Americans are more likely to consider getting the vaccine after reading this message.

- **MORE LIKELY**
  - 46% of Democrats are more likely to be motivated by this message than Republicans (20%) and Independents (27%)

- **MORE LIKELY**
  - Urban (39%) and suburban (29%) residents are more motivated by this message than those in rural areas (21%)
This message makes 55% of Americans more concerned about long COVID and motivates 35% of those unvaccinated to consider getting the vaccine.

In a large study of people with lasting symptoms of COVID-19, more than half had symptoms six months after being diagnosed. And nearly half of those with at least six months of symptoms had not been able to return to pre-COVID levels of work due to their symptoms.

**Message Impact on Long COVID Concern**

- **More concerned (NET)**: 55%
- **No more or less concerned**: 32%
- **Less concerned (NET)**: 13%

**Message Motivation**

*Of those who are not vaccinated*

- **MORE LIKELY**
  - 35% of urbanites (vs. 28% of rural and 35% suburban residents)
  - 28% of vaccine hesitant Americans
  - 31% of Republicans (vs. 14% of Democrats and 16% of Independents)

- **LESS LIKELY**
  - 12% A lot
  - 7% Somewhat
  - 20% Neutral
  - 13% A lot

Q12. Select an answer that best fills in the blank for the statement below. The above message makes me ______ about long COVID. N=1,973

Q13. Select an answer that best fills in the blank for the statement below. The above message makes me ______ to consider getting the COVID-19 vaccination. Base: Not vaccinated N=732
After reading this message, more than half of Americans show greater concern about long COVID. A third of those unvaccinated are motivated to consider vaccination.

Older age is a risk factor for severe COVID-19, but most people who develop long COVID are younger, between the ages of 20-50. The risk of developing long COVID does not appear to be linked to the severity of the initial COVID-19 illness. People with mild COVID-19, even without initial symptoms, can develop lasting symptoms.

**Message Impact on Long COVID Concern**

- More concerned (NET): 51%
- No more or less concerned: 35%
- Less concerned (NET): 14%

**Message Motivation**

Of those who are not vaccinated

- More likely: 34% (MORE LIKELY)
  - 14% A lot
  - 20% Somewhat
- Neutral: 47% (NEUTRAL)
  - No more or less likely
- Less likely: 19% (LESS LIKELY)
  - 6% Somewhat
  - 13% A lot

Q14. Select an answer that best fills in the blank for the statement below. The above message makes me ____ about long COVID. N=1,973

Q15. Select an answer that best fills in the blank for the statement below. The above message makes me ____ to consider getting the COVID-19 vaccination. Base: Not vaccinated N=732
The personal stories shown in the video boost concern for 64% of Americans and 39% of those unvaccinated are more likely to consider getting the vaccine.

**Video Impact on Long COVID Concern**

- More concerned (NET): 64%
- No more or less concerned: 28%
- Less concerned (NET): 8%

**Message Motivation**

Of those who are not vaccinated

- LESS LIKELY: 19%
  - 6% Somewhat
  - 13% A lot
- NEUTRAL: 42%
  - No more or less likely
- MORE LIKELY: 39%
  - 16% A lot
  - 23% Somewhat

- 31% of vaccine hesitant Americans
- 45% of 18- to 29-year-olds (vs. 28% of those 65+)
- 49% of Hispanics (vs. 35% of Caucasians and 43% of African Americans)
- 50% of urban residents (vs. 33% of rural and 36% of suburban residents)

Q16. Select an answer that best fills in the blank for the statement below. The stories in the video make me ___ about long COVID. N=1,973

Q17. Select an answer that best fills in the blank for the statement below. The stories in the video make me ___ to consider getting the COVID-19 vaccination. Base: Not vaccinated N=732
Demographics
### Respondent Profile

#### Gender
- Female: 51%
- Male: 49%

#### Age
- 18 to 34: 32%
- 35 to 54: 40%
- 55 or older: 28%

#### Whether Of Hispanic Origin Or Descent
- Hispanic: 15%
- Not Hispanic: 84%

#### Ethnic Background
- Caucasian: 72%
- African-American: 15%
- Asian/Pacific Islander: 5%
- Native American: 2%
- Mixed ethnic background: 1%
- Other: 1%
- Refused: 4%

#### Marital Status
- Married: 43%
- Not Married (net): 57%
- Single, never married: 32%
- Divorced: 9%
- Living with someone: 9%
- Separated: 2%
- Widowed: 4%
- Refused: 1%

#### Household Size
- 1: 20%
- 2: 32%
- 3: 21%
- 4: 17%
- 5: 7%
- 6 or more: 3%

#### Presence of Children in Household
- Children present (net): 35%
  - Under 2 years old: 5%
  - 2 to 5 years old: 10%
  - 6 to 9 years old: 11%
  - 10 to 11 years old: 8%
  - 12 to 14 years old: 10%
  - 15 to 17 years old: 5%
  - No children present: 65%

#### Whether the Parent of Children in Household
- Parent: 31%
- Not a parent: 69%

#### Census Region
- South: 34%
- Midwest: 23%
- West: 22%
- Northeast: 19%

#### Type of Community
- Urban: 31%
- Suburban: 48%
- Rural: 21%

#### Education
- No College: 30%
- College (net): 70%
  - Completed 2-year college: 9%
  - Completed 4-year college: 23%
  - Some post-graduate: 3%
  - Post-graduate degree: 15%

#### Employment Status
- Employed (net): 54%
  - Work full-time: 43%
  - Work part-time: 11%
  - Not employed: 45%
  - Refused: 1%

#### Household Income
- Less than $50,000: 47%
- $50,000 or more: 49%
- Refused: 4%
  - Mean: $66K

#### Political Affiliation
- Democrat: 41%
- Independent: 22%
- Republican: 26%
- Other political party: 2%
  - Not registered to vote: 8%

#### Home Ownership
- Own: 55%
- Rent: 38%
- Other: 7%