THE STATE OF THE NATION:
A 50-STATE COVID-19 SURVEY
REPORT #17: COVID-19 TEST RESULT TIMES

USA, October 2020

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A joint project of:
Northeastern University, Harvard University, Rutgers University, and Northwestern University

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This research will also be supported in part by a generous grant from the Knight Foundation.
From July to September, we conducted three waves of a large, 50-state survey, some results of which are presented here. You can find previous reports online at www.covidstates.org.

**Note on methods:**

Over three survey waves, we polled 52,329 individuals across all 50 states plus the District of Columbia. The data was collected in July, August, and September 2020 by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for methodological details on other waves, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. This data collection was part of a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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Or visit us at www.covidstates.org.
COVID-19 test result times have gotten faster, but are still too slow to support broad contact tracing

Key Takeaways:

- Average testing times have fallen since April (from 4.0 days to 2.7 days in September)
- Across all months, Black respondents wait almost an entire day more than white respondents for their test results (4.4 days to 3.5 days, on average)
- In our September and August waves, the average respondent waited 6.2 days between seeking a test and receiving test results
- Only 56% of those who tested positive for COVID-19 report being contacted as part of a contact tracing attempt

Figure 1: Average COVID-19 test result times

How many days did you have to wait to receive the results from your most recent test? [Average wait time in days by month]

<table>
<thead>
<tr>
<th>Month</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>4.4</td>
</tr>
<tr>
<td>April</td>
<td>4.0</td>
</tr>
<tr>
<td>May</td>
<td>3.9</td>
</tr>
<tr>
<td>June</td>
<td>4.0</td>
</tr>
<tr>
<td>July</td>
<td>3.8</td>
</tr>
<tr>
<td>August</td>
<td>3.1</td>
</tr>
<tr>
<td>September</td>
<td>2.7</td>
</tr>
</tbody>
</table>


Source: The COVID-19 Consortium for Understanding the Public’s Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University)

www.covidstates.org

• Created with Datawrapper
Prompt test results constitute the foundation of a successful COVID-19 containment strategy. Result times have shortened since the beginning of the pandemic. For respondents whose last nasal swab COVID-19 test was in April, the average result turnaround time was 4.0 days (with a median of 3 days); in September, the average time was 2.7 days (median of 2 days).\(^1\) Still, test results are too slow in most cases to support a successful strategy of contact tracing.

Of the 52,329 respondents we surveyed in July, August, and September, 12,911 report receiving a COVID-19 test. Of these, we consider only the 8,843 respondents who exclusively received nasal swab tests. We asked respondents in which months they were tested and how long they had to wait to get the results of their most recent test, allowing estimation of the distribution of testing times for different months.\(^2\)

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\(^1\) Some respondents say it took more than two weeks to receive results; when calculating median and average testing times, we code this response as 15 days. Additionally, in our August and September waves, we let respondents specify that test results came on the same day as the test — in this analysis we code “same day results” as one day. For more information, see appendix.

\(^2\) Of those who exclusively received nasal swab tests, 14% were tested in multiple months. For these respondents, we only consider their most recent test.
Average wait times have decreased sharply in both August and September (Figure 1). Increased university testing of students doesn’t explain this trend: the proportion of 18- to-24-year-olds taking tests hasn’t changed (16% in both April and September 2020), and the turnaround times for 18-to-24-year-olds’ test results in September are similar to those of their older counterparts. Despite decreased average wait times, a substantial proportion of Americans still endure long waits. In September, 42% of those tested had to wait at least 3 days before getting their results; the corresponding percentage in April was 56% (Figure 2).

Across the three survey waves, Black and Hispanic Americans report longer delays in test results than their white and Asian American peers (see Figure 3). The average Black respondent waits 4.4 days to receive test results and the average Hispanic respondent waits 4.1 days. White and Asian American respondents respectively wait an average of 3.5 and 3.6 days for their results.

**Figure 3: COVID-19 test times vary across racial groups**

How many days did you have to wait to receive the results from your most recent test? [Average wait time in days]

<table>
<thead>
<tr>
<th>Race/Group</th>
<th>Average Wait Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
<td>3.6</td>
</tr>
<tr>
<td>African American</td>
<td>4.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4.1</td>
</tr>
<tr>
<td>White</td>
<td>3.5</td>
</tr>
</tbody>
</table>


*Source: The COVID-19 Consortium for Understanding the Public’s Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University)*

Contact Tracing

Identifying those who test positive and tracing their previous contacts is an important strategy in containing COVID-19. In our August and September waves, we asked respondents who report a positive test whether they were contacted by someone to identify the individuals who they had been physically near in the previous week. **Only 56% of respondents who received a positive COVID-19 test say that they were contacted for the purpose of contact tracing.** White respondents and Black respondents are roughly equally likely to report contact tracing (61% and 56% respectively).
Of those who were contacted, 37% say they were contacted by their state government, 28% by their local government, 25% by the hospital, and 8% by a non-profit organization. These proportions don’t differ significantly between racial groups: for example, 67% of white respondents and 62% of Black respondents report being contacted by either their state or local government.

Barriers to Testing

Delivering results is just one part of the testing process – many face difficulties accessing tests in the first place. 35% of our respondents in our August and September waves had to wait at least 3 days between the decision to get a test and receiving the test (see Figure 4). The average test-taker in our August and September waves was tested within 2.5 days and waited 3.7 days for the results of the test (across all months), for a total of 6.2 days between deciding on a test and receiving results. The average white respondent waited 5.7 days for their results after seeking a test; the average Asian American, Hispanic, or Black respondent waited 6.1, 6.9, and 7.4 days respectively.

Figure 4: How many days did you have to wait between the time you decided to get a test and the day you were tested?

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3 Percentages do not sum to 100, since respondents may have been contacted by multiple organizations.
A range of logistical and financial barriers prevent some from finding tests. In our September wave, 8% report that they wanted a COVID-19 test but were unable to get one. Of these, 29% report that they were told by medical professionals that they did not need a test. However, 31% did not know how or where to get a test, 29% say the wait times were too long, 23% say the testing site was too far away, and 14% say the test was too expensive.4

Appendix:

In our August and September waves, we let respondents specify that their results came on the same day. Previously, respondents could not specify “same-day” results. Although we treat “same-day” results as “one day” when comparing waves, it’s possible that different response options would affect our findings when we pool the July wave with the August and September waves. Below, we compare average testing times for tests in the same month but from different waves, after combining “same-day” and “one day” responses in the August and September waves. Although wave-to-wave differences exist, there aren’t any clear systematic differences.

| How many days did you wait to receive the results from your most recent test? | Average (standard error) |
|---|---|---|
| | Wave 1 (July 10-26) | Wave 2 (August 7-26) | Wave 3 (Sept. 4-27) |
| March | 5.0 (0.4) | 4.0 (0.3) | 4.7 (0.4) |
| April | 4.2 (0.3) | 3.7 (0.2) | 4.2 (0.3) |
| May | 4.1 (0.2) | 3.9 (0.3) | 4.0 (0.3) |
| June | 4.2 (0.2) | 4.0 (0.2) | 4.2 (0.2) |
| July | 3.9 (0.2) | 4.1 (0.15) | 3.8 (0.1) |
| August | | 3.3 (0.1) | 3.1 (0.1) |
| September | | | 2.7 (0.1) |

4 Percentages sum to over 100, since respondents may give multiple reasons.