Coronavirus Disease 2019 (COVID-19)

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Commercial Laboratory Seroprevalence Survey Data

Updated July 21, 2020

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About this survey

CDC is partnering with commercial laboratories to conduct and publish results from a large-scale geographic seroprevalence survey that has tested de-identified clinical blood specimens from Connecticut, Louisiana, Minnesota, Missouri, New York City, Philadelphia, San Francisco, South Florida, Utah and Western Washington State for SARS-CoV-2 antibodies.

The survey includes people who had blood specimens tested for reasons unrelated to COVID-19, such as for a routine or sick visit during which blood was collected and tested by commercial laboratories in participating areas from each of the 10 sites. CDC aims to test about 1,800 samples collected from each of these 10 areas, approximately every 3–4 weeks. The results of these subsequent analyses are available on our interactive website and will be updated as samples continue to be analyzed. Researchers are looking to see what percentage of people tested already have antibodies against SARS-CoV-2, and how that percentage changes over time in each area.

More on the methodology used in this study is available online, Seroprevalence of Antibodies to SARS-CoV-2 in 10 Sites in the United States, March 23-May 12, 2020 ☑ .

Learn about the limitations of this survey and how to interpret these serology results.

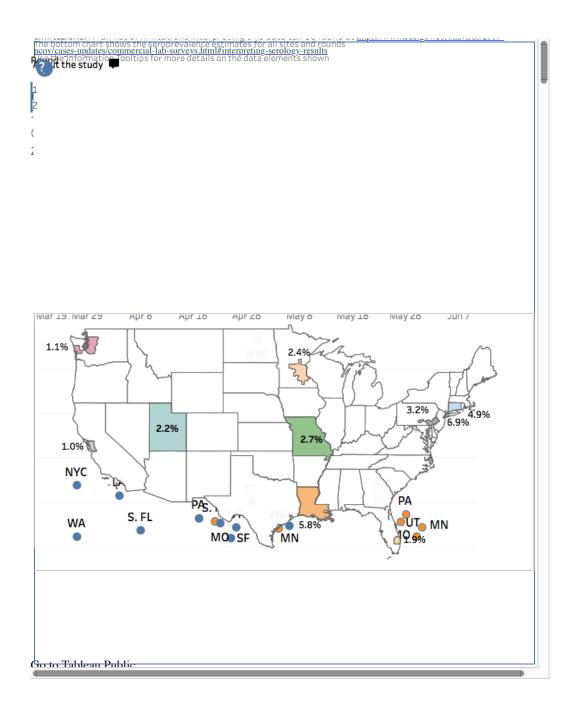
Results from ten sites

CDC has received results from all of Connecticut, Louisiana, Minnesota, Missouri, the New York City metro, Philadelphia, San Francisco Bay area, South Florida, Utah and Western Washington State from blood samples collected by commercial laboratories as part of routine patient care. In addition, CDC has results from 8 of the 10 sites that were collected at a 2nd, later time period, which are included on the interactive website.

As more data become available, tables and data charts will be added to this page to show the early antibody test results for patient specimens tested in these areas.

- This survey will continue to collect additional samples from selected areas over time.
 - Results from a 2nd period of specimen collection ("Round 2") are shown for 8 of 10 sites.
- The survey will expand to include testing of samples from patients in additional geographic areas.
- The interactive dashboard below will be regularly updated as new seroprevalence survey results become available.

The numbers listed below are rounded. The unrounded estimates are available online, Seroprevalence of Antibodies to SARS-CoV-2 in 10 Sites in the United States, March 23-May 12, 2020 \square .



Interactive Dashboard

View our interactive dashboard highlighting detailed data for each of the 10 sites surveyed in this study.

Interpreting serology results from this survey

There are limitations of this survey that should be considered when interpreting the results.

- People who have blood taken for routine screening or sick visits may not represent people from the total population in an area.
- Some results may be false positive results (the test result is positive, but the person does not really have antibodies to SARS-CoV-2), or false negative results (the person has antibodies to SARS-CoV-2, but the test doesn't detect them). False positive results are more likely change the survey results if it is an area where the percentage of individuals previously infected is relatively low; it could make it look like more people are infected in the community than really are. Our analysis adjusted the seroprevalence estimate to account for false positives and false negatives.
- Results from seroprevalence surveys should not be interpreted to mean that people who have tested positive for having SARS-CoV-2 antibodies are immune. We do not know whether having SARS-CoV-2 antibodies provides protection against getting infected again. Other studies are planned to learn more about SARS-COV-2 antibodies, including how long they last, whether or not they provide protection against getting infected again, and if you get infected again, whether or not they can make that illness milder.
- While some seroprevalence surveys can look at risk factors for infection, such as a person's occupation or underlying health conditions, this seroprevalence survey was not designed to be able to provide that information. This survey will help us better understand the percentages of people who were previously infected with SARS-CoV-2 in the areas studied (that is called seroprevalence). CDC also will use this information to estimate the number of people in the areas sampled who have been previously infected with SARS-CoV-2, including those that may not have been reported in official case counts. Some of those people may not have been counted because they had mild illness or no symptoms or had symptoms but did not get medical care or testing.
- Finally, some seroprevalence surveys can show how long antibodies last in people's bodies following infection; this survey was not designed to provide that information.
- It's important to note that these analyses are preliminary results. Smaller changes, including changes at sites where seroprevalence appears to go down, are likely not statistically significant; further analyses are ongoing to determine how to interpret these data.
- Further analysis is being done to evaluate how changes in seroprevalence estimates over time may be affected by specimen collection from somewhat different populations or geographic areas within each site, as well as random variation. It is also possible that antibody levels may decrease over time, and some people who previously had detectable SARS-CoV-2 antibodies may no longer have antibody evidence of past infection.

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Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases