Coronavirus Disease 2019 (COVID–19)

Commercial Laboratory Seroprevalence Survey Data

Updated June 26, 2020   Print Page
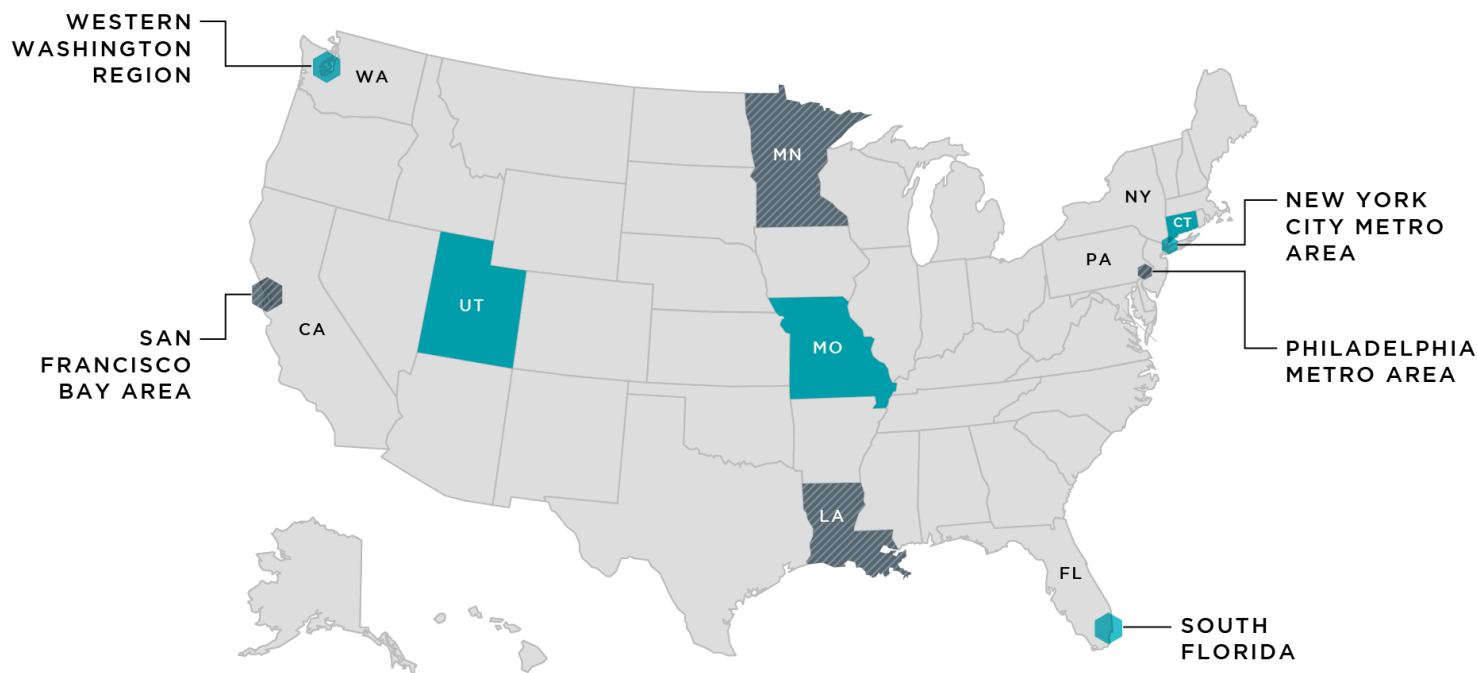
About this survey

CDC is partnering with commercial laboratories to conduct a large-scale geographic seroprevalence survey that has tested de-identified clinical blood specimens from Connecticut, South Florida, the New York City metro area, Missouri, Utah and Western Washington State for SARS-CoV-2 antibodies. CDC, in partnership with state and local health departments, plans to publish results from the expanded seroprevalence survey in an additional four states including California, Louisiana, Minnesota, and Pennsylvania.

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. 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 Six Sites in the United States, March 23-May 3, 2020 🅿 ☑ .

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

Commercial Laboratory Seroprevalence Survey Site Locations as of June 25, 2020

WESTERN WASHINGTON REGION

WA

MN

NY

CT — NEW YORK CITY METRO AREA

PA

PHILADELPHIA METRO AREA

SAN FRANCISCO BAY AREA

CA

UT

MO

LA

FL

SOUTH FLORIDA

LEGEND

- **Specimens collected from patients state-wide**
- **Specimens collected from patients in focused geographic regions**
- **Future specimens collected from patients state-wide**
- **Future specimens collected from patients in focused geographic regions**

Results from first six sites

CDC has received results from the Western Washington State region; the New York City metro region; south Florida; and all of Connecticut, Missouri, and Utah from blood samples collected by commercial laboratories as part of routine patient care.

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.
- The survey will expand to include testing of samples from patients in additional geographic areas.
- The table below will be regularly updated as new seroprevalence survey results become available.

Western Washington State

1.13%	Mar 23 -Apr 1, 2020
Seroprevalence estimate	**When samples were collected**

4,300

Cases Reported in that catchment area by April 1, 2020

48,300

Estimated Cases based on Seroprevalence and catchment area population

11x higher ⊕

Difference between reported cases counts and estimated case count based on survey

Geographic location from which most specimens were collected and from which population-based estimates were calculated: King, Snohomish, Pierce, Kitsap and Grays Harbor Counties

Number of samples collected: 3,265

New York City Metro Region

6.93%	Mar 23 -Apr 1, 2020
Seroprevalence estimate	**When samples were collected**

53,800

Cases Reported in that catchment area by April 1, 2020

641,800

Estimated Cases based on Seroprevalence and catchment area population

12x higher ⊕

Difference between reported cases counts and estimated case count based on survey

Geographic location from which most specimens were collected and from which population-based estimates were calculated: Manhattan, Bronx, Queens, Kings, and Nassau Counties

Number of samples collected: 2,482

South Florida

1.85%	Apr 6 -Apr 10, 2020
Seroprevalence estimate	**When samples were collected**

10,500	117,400	11x higher ⊕
Cases Reported in that catchment area by April 10, 2020	Estimated Cases based on Seroprevalence and catchment area population	Difference between reported cases counts and estimated case count based on survey

Geographic locations where samples were collected from which population-based estimates were calculated: Miami-Dade, Broward, Palm Beach, Martin

Number of samples collected: 1,742

Missouri

2.65%	Apr 20 -Apr 26, 2020
Seroprevalence estimate	**When samples were collected**

6,800	161,900	24x higher ⊕
Cases Reported by April 26, 2020	Estimated Cases based on Seroprevalence	Difference between reported cases counts and estimated case count based on survey

Geographic locations where samples were collected: State-wide

Number of samples collected: 1,882

Utah

2.18%	Apr 20 -May 3, 2020
Seroprevalence estimate	**When samples were collected**

4,500	47,400	11x higher ⊕
Cases Reported by May 3, 2020	Estimated Cases based on Seroprevalence	Difference between reported cases counts and estimated case count based on survey

Geographic locations where samples were collected: State-wide (*only includes Adults 19 years of age and older*)

 Number of samples collected: 1,132

Connecticut

4.94%	Apr 26 -May 3, 2020
Seroprevalence estimate	**When samples were collected**

| 29,300	176,700	6x higher ⊕
Cases Reported by May 3, 2020	Estimated Cases based on Seroprevalence	Difference between reported cases counts and estimated case count based on survey

Geographic locations where samples were collected: State-wide

 Number of samples collected: 1,431

Percentage of Population Positive for SARS-CoV-2 Antibodies in Samples from Areas in 6 States

MARCH 23 - MAY 3, 2020
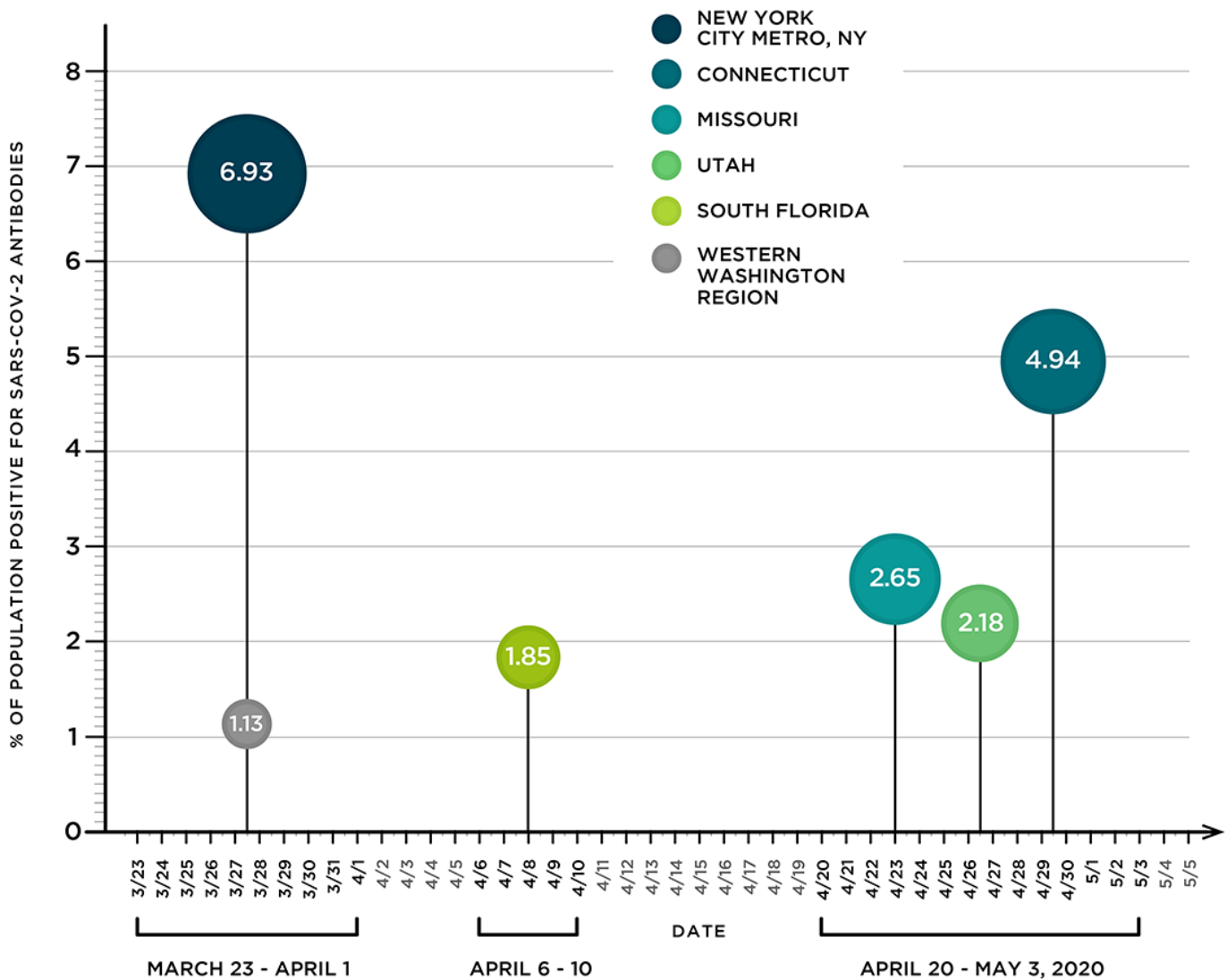
Interpreting serology results from this survey

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 and 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.