

### Summary of Dashboard:

Texas Coronavirus Antibody REsponse Surveillance (CARES) is a state-wide survey that seeks to understand the human antibody response to COVID-19 infection by collecting data on participant characteristics and the *seroprevalence* of SARS-CoV-2 antibodies in this population.

- “Sero-“ refers to the blood serum, where antibodies are found, and “-prevalence” is the proportion of individuals in a population who are positive for a measure of interest.
- Seroprevalence is the percentage of participating individuals who test positive for SARS-CoV-2 antibodies over the length of the survey period.
- All Texans 5-80 years of age are encouraged to participate, regardless of vaccination status.
- Participants complete an informed consent form and survey before receiving the first of three blood draws spaced three months apart to determine antibody status.
- The data presented on the dashboard are updated weekly.

Texas CARES is not just *about* the Texas population – it’s also *for* the Texas population.

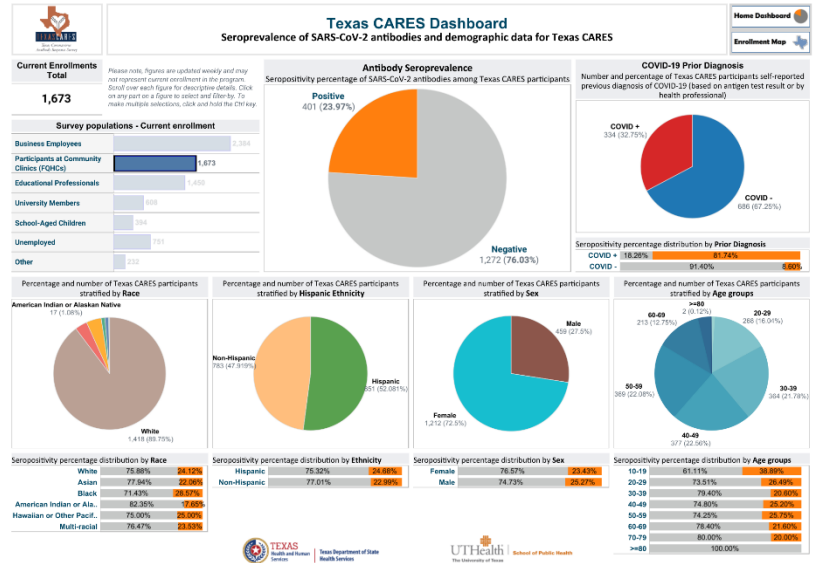
We are sharing Texas CARES information with the public, so that anybody – from public health officials to schoolchildren – can learn more about this project and the antibody response to COVID-19 across Texas!

## How to Use:

This is an [interactive dashboard](#).

What that means is that you can select the data to view in multiple ways.

- When you click on a topic, the dashboard will automatically exclude all other data except for the topic you selected.
- Pressing that topic again will unselect this information.
- Another option is to hover your mouse over the topic of interest.
- The option will pop-up to “Keep Only” or “Exclude” this information, select your choice.
- There is also the option to highlight information in multiple sections at once.



## Interested in Antibody Seropositive Patients at Community Health Centers (FQHC's)

If you would like to look exclusively at Antibody Seropositive Patients at Community Health Centers (FQHC's), starting from the home dashboard you would select the “Positive” group under the Antibody Seroprevalence section to highlight only these participants, and then select “Patients at Community Health Centers (FQHC's)” under the Current Enrollment section. FQHCs are facilities that receive federal funding to provide medical care to underserved populations, including those who qualify for Medicare and Medicaid.

The dashboard should now only display the data for Antibody Seropositive Patients at Community Clinics.

## Exploring Multiple Topics

You can also highlight multiple topics in a single section by pressing the “Ctrl” key on your computer while simultaneously selecting those variables you want to view.

If you would like to view the data of all participants in age groups 60-69 and 70-79, hold down the “Ctrl” key while selecting these two groups in the Age section.

To clear all of the filters you have applied, press the “Home Dashboard” option in the top right corner of the page, or refresh the page.

## About this Dashboard

This dashboard presents the descriptive data on the volunteer participants in the Texas CARES survey. While the visual depictions of the data may suggest certain trends or differences, it is important to not interpret or make assumptions about the data in the absence of proper analysis for statistical significance reporting. In other words, we can't confidently say *why* the data presents as it does without conducting the necessary statistical tests and considering who participated in the survey.

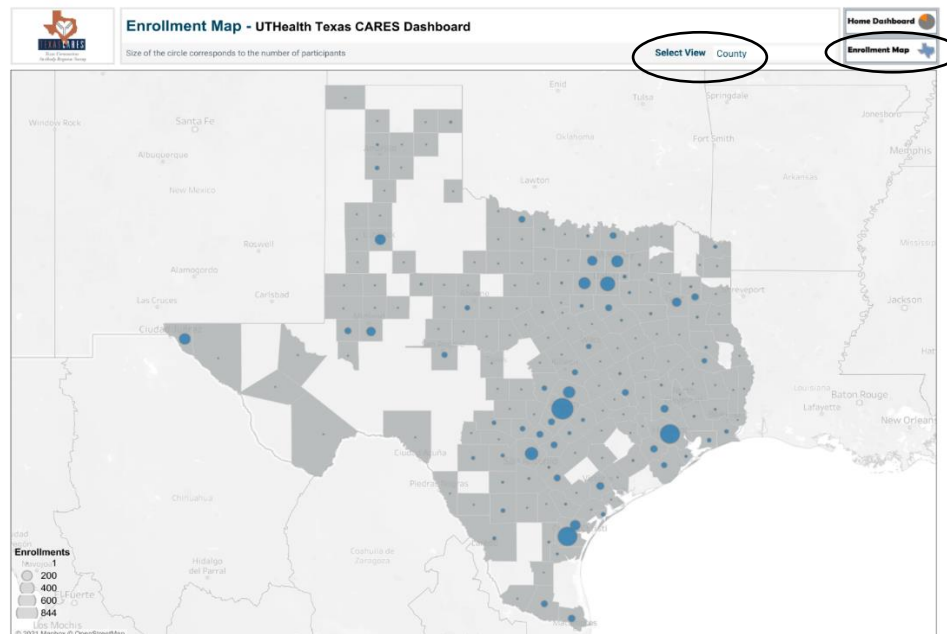
## Current Enrollments Total

- **What this means:** With no filters applied, this number reports the total number of Texans who have enrolled in the survey. All of the data presented on the dashboard is based on this number of enrolled participants. This figure is updated throughout the week, and will hopefully continue to grow as more Texans get involved in Texas CARES!

- **Why we measure this:** In research, this figure is called the "sample size" because participants are meant to represent a category of the Texas CARES population. It is not feasible for the entire Texas population to be studied, so a sample is needed. In this survey, the population under consideration is all Texans aged 5-80 years old. Larger sample sizes improve a survey's ability to identify statistically significant differences between variables of interest. The larger the sample size, the better chance a survey has of identifying true differences across topics.

- **Explore and Observe:** When the dashboard is in the default Home Dashboard setting, this number will reflect all Texas CARES participants. Notice when you choose to filter for certain variables, this figure will change to reflect the number of people for which your selected filters apply.

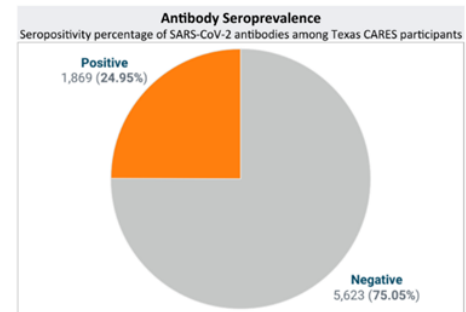
- **Enrollment Map View:** Select "Enrollment Map" from the options at the top right of the dashboard. Additionally, you can select the view using the dropdown menu at the top right to view enrollment by County, Trauma Service Area, Public Health Region, or City. The diameter of the circle represents the total enrollment per area.



## Antibody Seroprevalence

- What this means:** Antibodies: these are proteins created by your immune system in response to new pathogens that enter your body. These antibodies stick around in your blood, and serve as a memory of the initial infection that triggered their production. Due to this, the immune system can react quicker and more effectively if the body encounters that same pathogen again, and eradicate it before it causes illness. Some antibody responses last a lifetime, while others have been shown to wane over time.

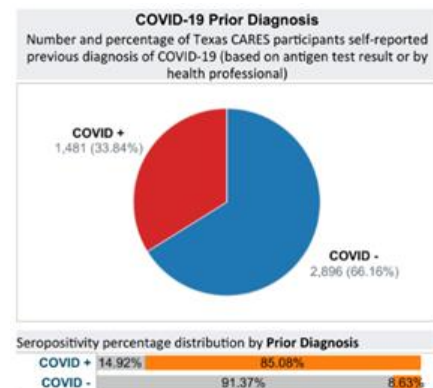
Seroprevalence: “Sero-” refers to your blood serum, where antibodies can be found, and “prevalence” is a term that means the proportion of individuals in a population who are positive for a measure of interest. *Therefore, Antibody Seroprevalence in this dashboard is a measure of the percentage of Texas CARES participants who have SARS-CoV-2 antibodies present in their blood serum relative to the whole survey population.*



- Why we measure this:** This measurement is at the heart of the Texas CARES survey. The presence of SARS-CoV-2 antibodies definitively indicates that you have been infected with COVID-19 in the past, even if you never developed signs or symptoms. However, since the scientific community does not yet fully know how long SARS-CoV-2 antibodies last in the blood, lack of antibodies does not necessarily mean that you have never been infected with the virus. By measuring antibody seroprevalence, we hope to better understand how many people have been infected with the virus and developed antibodies, how long antibodies persist in the blood, and whether there are any notable characteristics or differences among people who either do or do not produce antibodies.
- Explore and Observe:** Does the percentage of antibody positive individuals surprise you at all? Did you expect it to be higher or lower? Watch this pie chart change over time, as the dashboard is updated weekly. Do you expect the proportion of “positive” individuals to go up, down, or stay the same?

## COVID-19 Prior Diagnosis/COVID-19 Prior Diagnosis by Antibody Result

- What this means:** This section represents the self-reported previous diagnosis of COVID-19, either by antigen result or healthcare provider. Self-reported medical history has been shown to be a valid and reliable source of data when administrative data are unavailable. We are not testing each individual for COVID-19 infection.
- Why we measure this:** This data provides information on the proportion of individuals who have sought prior COVID-19 testing. It can also give us information on the characteristics of individuals who have sought testing, have tested positive, or have tested negative.



- Explore and Observe:** Note that not everyone enrolled has sought testing, so this section only applies to participants who reported a history of either a positive or negative COVID-19 diagnosis. Does anything surprise you about the COVID-19 Prior Diagnosis by Antibody Result section? Would you expect for everyone who reported a history of a positive COVID-19 diagnosis to be positive for antibodies? What about those who reported a history of a negative diagnosis who are positive for antibodies? What could be some possible reasons for these anomalies? Remember, the survey only reports whether a prior diagnosis had been established at any time in the past, so there's always the possibility that someone could have been infected with COVID-19 after receiving a negative diagnosis.

### Survey Population- Current enrollment

- What this means:** This section describes the occupational characteristics of individuals participating in Texas CARES. The category "Patients at Community Health Centers (FQHCs)" refers to patients who receive medical care from Federally Qualified Health Centers (FQHCs). FQHCs are facilities that receive federal funding to provide medical care to underserved populations, including those who qualify for Medicare and Medicaid.
- Why we measure this:** Demographic information like this helps us determine how well the Texas CARES survey population represents the larger Texas population. It also used to determine whether significant differences exist between sub-populations.
- Explore and Observe:** There are some interesting trends in this data! Take note of the proportion of participants positive for antibodies in the whole survey population under the Antibody Seroprevalence section. Now filter for each individual enrollment category by clicking on it and watch how antibody seropositivity changes. Do certain categories report higher or lower antibody seropositivity than the whole survey population? While we cannot say whether these differences are truly significant without statistical analysis, it is still interesting to note the groups that stray from average.



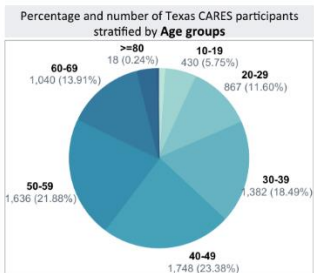
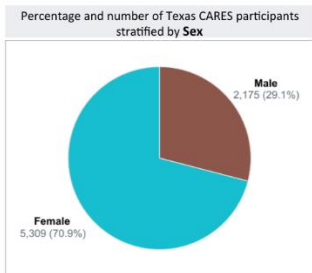
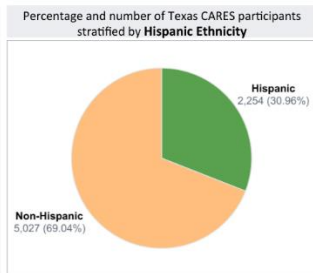
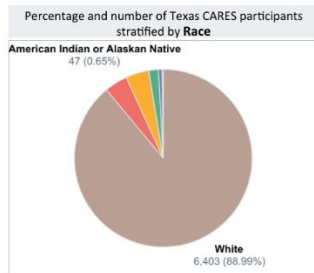
### Demographic Information: Race, Ethnicity, Sex, and Age

- Why we measure these:** All of the demographic information for which we collect data help us understand how well our sample population reflects the true demographic make-up of the Texas population. Discrepancies in representation of certain groups present in these categories limits the survey's ability to generalize its findings to these groups on the population level. Our goal is for this survey population to be as representative of the general Texas population as possible, and for these data to help us track our progress towards that goal. Furthermore, population studies have shown that the COVID-19 pandemic has affected certain demographic



groups differently. Most of these studies have focused on the relationship between demographic factors and disease severity. We seek to evaluate the relationship between the demographics and antibody seroprevalence to determine whether any meaningful disparities exist.

- Explore and Observe:** Are there any demographics that seem to poorly represent the Texas population? Are any groups more heavily represented than others? Look at each demographic by Antibody Result. Be sure to note how many survey participants make up these sub-populations.



Seropositivity percentage distribution by **Race**

Race	Percentage	Reference Percentage
White	74.98%	25.02%
Asian	75.91%	24.09%
Black	75.50%	24.50%
American Indian or Ala...	76.60%	23.40%
Hawaiian or Other Pacif..	92.31%	7.69%
Multi-racial	78.74%	21.26%

Seropositivity percentage distribution by **Ethnicity**

Ethnicity	Percentage	Reference Percentage
Hispanic	72.27%	27.73%
Non-Hispanic	76.51%	23.49%

Seropositivity percentage distribution by **Sex**

Sex	Percentage	Reference Percentage
Female	75.48%	24.52%
Male	74.11%	25.89%

Seropositivity percentage distribution by **Age groups**

Age Group	Percentage	Reference Percentage
<10	70.73%	29.27%
10-19	67.67%	32.33%
20-29	73.70%	26.30%
30-39	77.64%	22.36%
40-49	75.17%	24.83%
50-59	74.51%	25.49%
60-69	76.44%	23.56%
70-79	74.73%	25.27%
>=80	88.89%	11.11%

