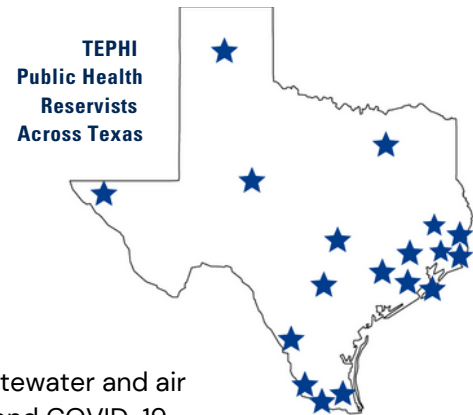


Pandemic Preparedness and Response Training Program

In March 2022, TEPHI launched the **Pandemic Preparedness and Response Certificate Training Program** with the goal of **training more than 3,000 Texans** to serve as the state's public health reserve force. This certificate program is one of the first of its kind in the nation, offered in partnership with public health departments and with plans to expand to community colleges.

CERTIFICATE PROGRAM COMPONENTS

- Fundamentals of Epidemiology
- Foundations of Infectious Diseases
- Surveillance of Infectious Diseases
- Public Health Pandemic Preparedness and Response
- Capstone Tabletop Exercise



Comprehensive Early Detection Systems

- TEPHI is establishing a first-of-its-kind program to monitor wastewater and air filters across Texas for novel viruses of epidemic potential beyond COVID-19.
- This innovative, broad-spectrum testing program will detect new public health threats early, providing advanced warning of community transmission.
- Results will be analyzed using state-of-the-art geospatial methods, interpreted by experts, and then shared with health officials and policymakers to verify results, act early, and keep Texans safe. Early warning criteria will be established jointly with Texas Department of State Health Services (DSHS).

Initiatives with Local Impact and National Relevance

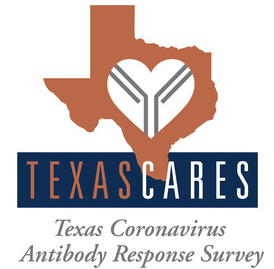
- In February 2022, TEPHI, in partnership with U.S. Customs and Border Protection, facilitated an interactive webinar on regulatory requirements for international shipping of potentially infectious materials.
- TEPHI researchers are publishing an applied biosafety guide on professional development needs to prepare for the current and next pandemic.*
- TEPHI is launching an innovative public health communications program to improve communication strategies and combat misinformation related to epidemic prevention and pandemic preparedness.
- TEPHI is partnering with DSHS Public Health Region 6/5S to offer the first annual Public Health Summit on July 14, 2022, in Houston, emphasizing effective public health communication.

For more information on TEPHI, and to view their COVID-19 dashboard, visit <https://TEPHI.Texas.gov>.

* Emery, R. J.; Patlovich, S. J.; King, K. G.; Lowe, J. M.; Rios, J. (2022, April 8). "Assessing the Established Competency Categories of the Biosafety, Infection Prevention, and Public Health Professions: A Guide for Addressing Needed Professional Development Training for the Current and Next Pandemic." Applied Biosafety. <http://doi.org/10.1089/apb.2022.0002>

AFFILIATED INITIATIVE: Texas Coronavirus Antibody Response Survey (Texas CARES)

Texas CARES is one of the largest longitudinal COVID-19 seroprevalence surveys in the world. Texas CARES is managed by a collaborative team from The University of Texas Health Science Center at Houston (UTHealth) School of Public Health, in partnership with Texas Department of State Health Services (DSHS), Clinical Pathology Laboratories (CPL), and The University of Texas System. Data collected through Texas CARES continues to provide answers to important questions about antibody response to COVID-19 in Texas. This program provides a unique opportunity for participants to track their antibody levels in response to COVID-19 infection and/or vaccination over time.



As of March 2022, 34% of Texas CARES participants have developed antibodies to the N-protein in response to a COVID-19 infection (left), while 95% of participants have developed antibodies to the S-protein (right) from either a COVID-19 infection or vaccination.

Antibody Seroprevalence: N-test

Antibodies made in response to a COVID-19 infection

TOTAL ENROLLED: 89,755

August 2020 - April 2022

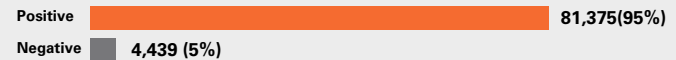


Antibody Seroprevalence: S-test

Antibodies from a past COVID-19 infection and/or vaccination

TOTAL ENROLLED: 85,821*

April 2021 - April 2022



*The S-test was added on April 15, 2021, which accounts for the difference in total test count.

KEY FINDINGS

- 95% of the Texas CARES population has antibodies generated from either a prior COVID-19 infection or from the vaccine, and therefore, possess some level of protection from COVID-19 (as indicated by S-test results).
- Unvaccinated individuals with a previous infection have lower S-test levels of antibodies to the spike protein compared to fully vaccinated individuals.
- Antibody levels seem to peak about 120 days after infection and then decrease, though they remain detectable after 275 and even 500 days, varying by individual.
- More than a third of children had antibodies to the virus, and of those, 54% reported never experiencing symptoms.
- COVID-19 antibodies from infection persist for six months (or greater) in children, but the level of protection is unknown.

RECENT HIGHLIGHTS

- Texas CARES has recruited ~90,000 participants across Texas (as of April 12, 2022).
- 64,762 participants have completed antibody tests and surveys at two timepoints (72% of the 89,731 participants who completed the first antibody test).
- 45,917 participants have completed antibody tests and surveys at three timepoints (77% of participants who are eligible for their 3rd test). Eligibility for the second and third antibody tests continues through spring 2022.
- The Texas CARES team is publishing findings in premier medical and scientific journals.**
- Texas CARES is analyzing breakthrough infections, reinfection rates, and post-COVID conditions in adults and children.
- The Texas CARES cohort will be expanded to include children under the age of five and underserved populations.

For more information on Texas CARES and to view the Texas Seroprevalence dashboard, visit www.TexasCARESproject.org

** Messiah, S.E., DeSantis, S., Leon-Novelo, L., et al. (2022, March 18). "Durability of SARS-CoV-2 Antibodies from Natural Infection in Children and Adolescents." *Pediatrics*. <https://doi.org/10.1542/peds.2021-055505>

AFFILIATED INITIATIVE: Texas SARS-CoV-2 Variant Network Project

Texas SARS-CoV-2 Variant Network (Texas SCoV2) is a statewide COVID-19 variant monitoring program managed collaboratively by the UTHealth School of Public Health and DSHS. Texas SCoV2 has created a networked partnership among DSHS, academic, commercial, and public health laboratories for high throughput SARS-CoV-2 sequencing and analysis for Texas. Once fully operational, the network will enable an efficient and comprehensive approach to identifying the presence of known variants of interest (VOI) and variants of concern (VOC) and will provide the capability to identify new variants as they emerge.

RECENT HIGHLIGHTS

- Texas SCoV2 is building sequencing capacity throughout Texas to better prepare for future pandemics.
- Texas SCoV2 has been expanding viral informatic and geospatial analytics capacity with partner institutions.
- As of April 12, 2022, sequence data from 2,109 samples are being analyzed at UTHealth School of Public Health, and 1,961 sequences have been submitted to DSHS.
- All 11 Texas Public Health Regions have a sample collection site and/or sequencing facility actively contributing to this project's sequencing efforts.

