



CITY OF HOLYOKE

FINDINGS FROM COVID-19 SEROPREVALENCE STUDY

WHAT IS A SEROPREVALENCE STUDY?

Information from testing sites provide the number of confirmed COVID-19 cases in a population, which may miss many cases if infected persons do not get tested. To get a better estimate of the number of people that were previously infected with SARS-CoV-2, the virus that causes COVID-19, a "seroprevalence study" can be conducted by testing individuals' blood samples for the presence of SARS-CoV-2 antibodies.

WHAT IS AN ANTIBODY?

Antibodies are created by your body's immune system soon after you have been infected with a virus or vaccinated against it. Antibodies can start to be detected in the blood 1-3 weeks after infection and may protect you from getting that disease again.*



A recent seroprevalence study estimated **how many Holyoke residents had a SARS-CoV-2 infection prior to January 31, 2021.**



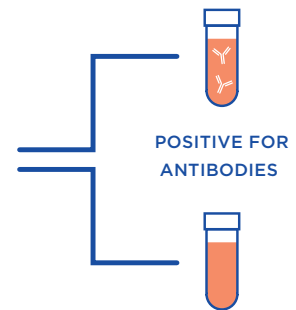
2000 HOUSEHOLDS
RANDOMLY SELECTED
FOR PARTICIPATION



472 PEOPLE
COMPLETED SURVEYS
FROM 280 HOUSEHOLDS



328 PEOPLE
PROVIDED BLOOD SAMPLES



**POSITIVE FOR
ANTIBODIES**

**NEGATIVE FOR
ANTIBODIES**

13.9% of the population of Holyoke had SARS-CoV-2 antibodies as of January 31, 2021**

THE RESULTS DIFFERED BY RACE & ETHNICITY, SEX, AND AGE



2 IN 12 PEOPLE
IDENTIFYING AS HISPANIC OR LATINX
HAD SARS-COV-2 ANTIBODIES



1 IN 12 PEOPLE
IDENTIFYING AS NON-HISPANIC WHITE
HAD SARS-COV-2 ANTIBODIES



PEOPLE YOUNGER THAN 19 WERE 2.2X MORE LIKELY
TO HAVE SARS-COV-2 ANTIBODIES THAN
THOSE 45-85 YEARS.

PEOPLE BETWEEN 20-44 WERE 1.5X MORE LIKELY
TO HAVE SARS-COV-2 ANTIBODIES THAN THOSE
45-85 YEARS.



MALES WERE 1.2X MORE LIKELY
TO HAVE SARS-COV-2 ANTIBODIES THAN FEMALES

THE CITYWIDE TESTING DATA DOES NOT CONTAIN ALL INFECTIONS

Based only on Holyoke testing data, 9.8% of Holyoke residents tested positive for COVID-19 at least once by January 31, 2021. This indicates that **at least 1,630 infections were not captured by the testing data.**

* Even those who have SARS-CoV-2 antibodies are recommended to get a COVID-19 vaccine because it is not clear how long or well these antibodies protect against recurrent infection.
** In the study, 27 of 328 people tested positive. We performed a statistical procedure called "weighting" to take into account the differences in our survey participants compared to the city as a whole. This gives a more representative measure of prior SARS-CoV-2 infections at the city-level.