

Overview: Measuring Percent Positive

There are several ways to calculate and track percent positive. The CDC defines the different ways in the following URL: <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/calculating-percent-positivity.html>. The Douglas County Health Department measures percent positive using two of the CDC methods, people over people and test over test.

Comparing percent positive by person (people over people) and percent positive by test (test over test)

A weekly calculation of percent positive using the people over people method will result in a higher percent positive, while the percent positive using the test over test method will result in a lower percent positive. This is because testing capacity has increased to the point where repeated testing is becoming more commonplace. **For percent positive by test, a person is counted each time they have a test performed. Therefore, if they get multiple positive or negative results, they are counted each time they are tested.** This makes the weekly percent positive by test appear lower as there are many repeat tests included in the denominator of the calculation. **By contrast, the weekly percent positive by person only includes each person once across the duration of the pandemic. Therefore, the denominator of percent positive by person is smaller as it only includes each person once, no matter how many times they have been tested.**

The methodology used for the graphic below is the “people over people” method.

Weekly percent of positives by person over tests by person

By test report date compared to test collection date

This graph shows two trendlines that show the weekly percentage of people who have tested positive for COVID-19 by both the date the test was reported and by the date the test was collected. The Douglas County Health Department has been reporting percent positive based on test report date. Some entities use the date the specimen was collected, so the trend line for percent positive by collection date is also displayed. Tracking by person displays the number of new people who have been tested for the virus and is consistent with how Nebraska and others measured the epidemic from its beginning.

Tracking the percentage of people testing positive helps show us how many people over the course of the pandemic have been infected by COVID-19. The trend line is presented as a weekly percentage to track overall trends. Increasing trends in the weekly percent positive (by person) trend line could indicate an increase in COVID-19 infections.

Percent positive is calculated as the number of positive tests (confirmed cases) divided by total people tested. People are included as testing positive on the date their positive test result was reported (by report date) or the date their positive test result was collected (by specimen collection date). **If they tested positive more than once, they are only included once on the date their first positive test result was either reported or collected. People who tested negative and never positive are counted once on the date their first negative test result was reported (by report date) or collected (by specimen collection date).** However, if someone tests negative, and then positive at a later date, they are removed from the negative count and counted as a positive.

Data source: These data are from the Nebraska Electronic Disease Surveillance System (NEDSS). The data in this chart are based on laboratory-confirmed cases of COVID-19 extracted from NEDSS. People with negative test results are reported electronically or entered manually into the NEDSS electronic laboratory module. This figure includes data on both diagnostic, confirmatory polymerase chain reaction (PCR) tests and on antigen tests for detection of the virus that causes COVID-19. No antibody test results are included in this figure. We strive for transparency and accuracy in our data. As individual results are processed into the system and investigated by public health, there may be corrections to the status and details of cases that result in changes to these data.