ABOUT THE PUBLIC HEALTH MADISON & DANE COUNTY COVID-19 DASHBOARD

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Landing Page

People with COVID-19

The total number of people with COVID-19 includes all Dane County residents who have tested positive for COVID-19 via a polymerase chain reaction (PCR) test that was reported to the Wisconsin Electronic Disease Surveillance System (WEDSS), excluding the current day. Prior to September 27, 2021, people were only counted once, no matter how many times they received positive test results, because it was unknown whether someone could have more than one COVID-19 infection. Starting September 27, in alignment with the new CDC case definition, people who test positive are counted each time they have a new COVID-19 infection (defined as a positive test 90 days or more after their previous COVID-19 infection). Therefore, people may be counted more than once. Trends over time and time filters are based on the date of the first positive test result for each unique COVID-19 infection. Case counts are subject to change, especially for the most recent dates, as more results are reported to WEDSS and county of residence is updated after case interviews.

People who are hospitalized

"People who are hospitalized" refers to the current number of people who are hospitalized with COVID-19 in Dane County hospitals. This number is the sum of people reported by individual hospitals in Dane County to a system called EMResource. This number can include patients who are not Dane County residents. This data system does not provide identifiable data, so we are unable to discern what proportion of patients are Dane County versus non-Dane County residents, the vaccination status of the people who are hospitalized, or whether each individual is hospitalized *for* COVID or for something else but happened to test positive for COVID during their hospitalization. This data is also shown as a trend over time on the "Hospitalizations & Deaths: Trends" page of the dashboard, which also shows the number of inpatients who are in the Intensive Care Unit (ICU).

People who died

The total number of people who died is the number of deaths among people diagnosed with COVID-19 via a PCR test where the death certificate lists COVID-19 disease or SARS-CoV-2 as an underlying cause of death or a significant condition contributing to death. To be counted as a "COVID-19 death," it must meet the vital records criteria set forth by the CDC and Council of State and Territorial Epidemiologists (CSTE) case definition.

Change from last update

This is the change in the total number of people with COVID-19, number of people who are hospitalized, and total number of people who died since the dashboard was last updated. It often takes more than one day for cases and deaths to be reported, so the change may reflect new cases and deaths from the last several days. The total change will be higher on Mondays as this number reflects the difference from over the weekend.

Percent change in new cases and hospitalizations over the past two weeks

This is the percent change in the total number of people diagnosed with COVID-19 in the current week compared to the week before. We exclude the previous 3 days of data for people diagnosed with COVID-19 due to the preliminary nature of recent dates. Therefore, the "current week" would be ten days prior to today's date through four days prior to today's date, and the week before that would be 17 days prior to today's date through 11 days prior to today's date.

Two week trend

We utilize the Wisconsin Department of Health Services' methods for trajectory to determine whether the percent change in the number of people diagnosed with COVID-19 and the percent change in the number of inpatient hospitalizations from the previous to the current week is statistically significant. We categorize the trend as an increase, decrease, or stable trend with the definitions below:

Increase: the percent increase in the number of people diagnosed with COVID-19 or inpatient hospitalizations is > 10% and the p-value based on Poisson regression is <0.025.

Decrease: the percent decrease in the number of people diagnosed with COVID-19 or inpatient hospitalizations is > 10% and the p-value based on Poisson regression is <0.025.

Stable: Any other condition other than those described above.

Vaccination Status

This is the percentage of Dane County residents ages 5 and older who are up to date on their COVID-19 vaccines. Up to date means a person has received all recommended COVID-19 vaccines, including any booster dose(s) when eligible. The current Centers for Disease Control and Prevention COVID-19 vaccine recommendations are [here](#).

People with COVID-19

Current Weekly Case Rate per 100,000

This is calculated by adding cases for the past 7 days (starting from ten days prior to today's date through four days prior to today's date, which excludes the past 3 full days). To calculate a rate for the week, this is divided by Dane County's total population (552,536) and multiplied by 100,000. [See the CDC for more information](#). We exclude the previous three days of data to help assure the estimate is stable and less impacted by delays in laboratory processing or reporting of COVID-19 tests.

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COVID-19 Community Level

The CDC has updated the thresholds and metrics used in assessing a community's COVID-19 levels. The level is determined based on a combination of three metrics — new COVID-19 admissions per 100,000 population in the past 7 days, the percent of staffed inpatient beds occupied by COVID-19 patients, and total new COVID-19 cases per 100,000 population in the past 7 days — to determine the COVID-19 community level. New COVID-19 admissions and the percent of staffed inpatient beds occupied represent the current potential for strain on the health system. Data on new cases acts as an early warning indicator of potential increases in health system strain in the event of a COVID-19 surge. Using these data, the COVID-19 community level is classified as low, medium, or high. The community level for Dane County will be updated on our dashboard weekly, on Fridays. For more information visit https://www.cdc.gov/coronavirus/2019-ncov/science/community-levels.html.

People with Probable COVID-19

People who test positive with an antigen test but who do not have a confirmatory PCR test meet the definition for a Probable COVID-19 diagnosis. People with Probable COVID-19 infection are only included on the trend graphs for new people (page 2 of the dashboard) and deaths (page 7 of the dashboard). Deaths among probable cases are deaths among people diagnosed with COVID-19 via an antigen test that meet the vital records criteria set forth by the CDC and CSTE case definition. They also include deaths among people who have no laboratory evidence of a COVID-19 infection, but where the death certificate lists COVID-19 as an underlying cause of death or a significant condition contributing to death.

Tests

These data include PCR tests only. Trends over time and time filters are based on the date of the test result. Test numbers for recent dates are subject to change as tests continue to be reported and processed.

Percent Positivity

Percent positive is calculated from the number of positive PCR tests that represent a new COVID-19 infection divided by the number of total PCR tests for each day. If someone has more than one positive test during a COVID-19 infection, only their first positive test is counted in the numerator, but all tests are counted in the denominator. As of September 27, 2021, if a person has more than one COVID-19 infection, then the first positive test for each new infection is used in the percent positive calculation. To learn more about how we calculate percent positivity, read our blog post.

Trends by Age

This page shows the number of people diagnosed with COVID-19 per day by different age groups. As described above, starting 9/27/2021 people are counted for each new COVID-19 infection. Note that the y-axis scale for each graph is determined by the maximum average people who tested positive within each age category. Therefore, trends may look similar while comparing across age groups, but the magnitude of trends may be very different. Hover your mouse over each line to see the rate per 100,000 within that age group, which can be compared across age groups.

Trends by Race and Ethnicity

This page shows the daily rate of people diagnosed with COVID-19 by their race and ethnicity. Race and ethnicity data are either documented on the laboratory or health care record, or given during client interviews. Rate ratios (RR) are used to describe the difference in rates between two groups. We usually compare groups of interest to a reference group, which in this case is the group that has better outcomes due to structural racism. When the rate ratio is greater than 1, the rate in that group is higher than the rate among the reference population.

Hospitalizations & Deaths: Trends

Hospitalizations and Intensive Care Unit (ICU) inpatients on this page are from the database EMResource, which is a different data source from the hospitalizations on the People Hospitalized & Deceased page. This number may include patients who are not Dane County residents. This data system does not provide identifiable data, so we are unable to discern what proportion of patients are Dane County versus non-Dane County residents, the vaccination status of the people who are hospitalized, and other demographic information. Inpatient counts on this trends page represent the daily COVID-19 census in Dane County hospitals as of 5 pm.

People Hospitalized & Deceased

The "total people ever hospitalized" and accompanying hospitalization demographic data is for Dane County residents who were reported as being hospitalized for COVID to WEDSS. This is different from the hospitalization data reported on the landing page and page 7 of the dashboard, which is not restricted to Dane County residents and for which we do not have identifiable data.

The "total people who died" and accompanying death demographic data is for deaths among people with a confirmed case of COVID-19 who died due to COVID-19.

Deaths associated with COVID-19 must be reported by health care providers or medical examiners/coroners, and recorded in WEDSS by local health departments in order to be counted as a COVID-19 death.

Deaths among people with COVID-19 that were the result of non-COVID reasons (e.g., accident, overdose, etc.) are not included as a COVID-19 death.

Deaths are confirmed via death certificate. A death does not appear on the dashboard until it is confirmed to be due to COVID-19 infection with a statistical death abstract; this can take days or even months.

Death data should be considered preliminary due to reporting delays and potential changes to death data, which are generally finalized several months after the end of the year.

COVID-19 Vaccination: Core Measures

This page shows the percent of Dane County residents who have completed a vaccination series (a single dose of the Johnson & Johnson vaccine, or two doses of the Pfizer or Moderna vaccines), the percentage of Dane County residents ages 5 and older who are up to date with their COVID-19 vaccines, and the percentage of Dane County residents ages 65 and older who are up to date with their COVID-19

vaccines. The Centers for Disease Control and Prevention defines up to date as having received all recommended COVID-19 vaccines, including any booster dose(s) when eligible. More information can be found at https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html. Percentages are calculated by PHMDC and may differ slightly from percentages reported by DHS.

As of December 2021, we removed the language about herd immunity, and the herd immunity targets, from the vaccination tab of the dashboard. The concept of herd immunity, or the idea that if enough people in a population are vaccinated the impacts of COVID can be managed, is still important to the fight against COVID-19. However, there are some differences with COVID that make herd immunity more difficult to reach than other diseases. For example, there are still too many people who are unvaccinated (either because they don't want to, or because they are not old enough) allowing COVID to continue to spread. In addition, the COVID vaccines do not protect 100% against infection, and the level of protection is changing as the virus continues to change. The COVID vaccines do remain protective against severe illness and death. For these reasons, there is no longer a numeric goal for vaccination. Instead, the goal is to have as many people in Dane County vaccinated (and boosted, if eligible!) as a way to protect ourselves and one another.

Frequently Asked Questions

Do these numbers reflect everyone who has had COVID-19 in Dane County?

No. There are people who have had COVID-19 who were not tested, or who only tested with an at-home test which are not included in our numbers. See our testing page for the latest information on testing.

How do you calculate the number of people tested?

We receive testing data from public and private laboratories via a statewide reporting system called the Wisconsin Electronic Disease Surveillance System. We only receive reports on lab tests done for Dane County residents. Numbers for recent dates are subject to change as tests continue to be processed.

The Total Tests count on the dashboard displays the total number of PCR tests conducted (minus the current date), including multiple tests conducted for the same person. The Total People Tested count displays the total number of unique individuals tested. When tests are processed, they are assigned an ID number and are matched to a person's existing ID number if they have had a previous test. The Tests by Date chart shows the total number of tests each day (including multiple tests for the same person) based on the date of the test result from 3/7/20 forward, and does not show tests for the current date. There were 69 COVID-19 tests prior to 3/7/20.

What if somebody gets tested more than once? Are they being counted each time?

All positive tests for a person within a 90-day period are considered part of the same COVID infection. As of 9/27/21, a positive test result that is 90 days or more after the previous COVID infection is considered to be a new COVID infection. Therefore, a person may be counted more than once depending on how many COVID infections they have had.

How do you calculate percent positivity?

Percent positive is calculated from the number of new positive PCR tests that represent a new COVID-19 infection divided by the number of total PCR tests for each day. If someone has more than one positive

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test during a COVID-19 infection, only their first positive test is counted in the numerator, but all tests are counted in the denominator. If a person has more than one COVID-19 infection, then the first positive test for each new infection is used in the percent positive calculation.

Are antibody tests included in the dashboard?

Antibody tests are not included in either our case counts or test counts.

Are home tests included in the dashboard?

Tests conducted at home are not counted on the dashboard. Per the CDC case definition, positive home tests do not meet the Confirmed or Probable case definition because they are done without the oversight of a medical or laboratory professional. However, home tests are reported to the health department by clients, schools, and in some cases, the test manufacturer. Although not shown on the dashboard, people who test positive for COVID-19 via home tests may be contacted by public health staff and given support and guidance if we receive notification of their positive home test. People who test positive are also encouraged to have a PCR test to confirm their infection, and/or to report their positive home test to PHMDC. If a PCR test is performed and is positive, then the person would be counted on the dashboard. More information about home tests can be found on our website.

How do you calculate the case count?

All case counts reflect the number of people who tested positive prior to the current date. A person is counted each time they have a new COVID-19 infection (defined as a positive test 90 days or more after their previous COVID infection). Prior to September 27, 2021, people were only counted once in the case count because it was not known whether people could be infected with COVID more than once. The new and cumulative case count by date graph shows people who tested positive by the date the positive result was received, and does not show cases for the current date.

What are the population denominators used for the dashboard?

Prior to March 10 2022, the population denominators on the dashboard were from the U.S. Census Bureau 2019 Population Estimates, which gave a total population for Dane County of 546,695. Beginning March 10, 2022, the population denominators on the dashboard are from the Vintage 2020 Bridged-Race Postcensal Population Estimates (Single Year July 1, 2020), which gives a total population for Dane County of 552,536.

Why did the "Cases Ever Hospitalized" number increase but the number of Current COVID-19 Inpatients stayed the same?

The "Cases Ever Hospitalized" number is the cumulative number of Dane County residents who tested positive for COVID-19 that were reported as being hospitalized for COVID-19 to WEDSS. We learn about hospitalizations either at the time of interview by the case investigator, or when hospitals submit reports to WEDSS to report that someone is hospitalized. Case investigators review each hospitalization report to verify whether the hospitalization was due to COVID-19, and we only mark someone as hospitalized if COVID-19 was the reason for or a contributor to the hospitalization.

The "Current COVID-19 Inpatients" and "Current COVID-19 Patients in ICU" numbers are reported by hospitals in Dane County to a different system called EMResource; these numbers can include patients who are not Dane County residents. This data system does not provide identifiable data, so we are unable to discern what proportion of patients are Dane County versus non-Dane County residents.

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If the cumulative number of hospitalizations increases but the current number of inpatients stays the same or decreases, there could have been more discharges than new patients admitted. Additionally, if the cumulative number of hospitalizations stays the same but the current number increases, a non-Dane County resident may have been hospitalized, or that patient may have not yet been reported to WEDSS.

Where can I find the date of death for COVID-19 deaths among Dane County residents?

This can be found on the Wisconsin Department of Health Services' website; scroll to "Number of reported COVID-19 deaths among confirmed and probable cases of COVID-19 by date of death" and select "Dane County." We report deaths by month on page 7 of our dashboard.

When is a death added to the dashboard?

When an individual who had COVID-19 dies, our practice is to wait for a death certificate to confirm whether COVID-19 was listed on the death certificate as an underlying or contributing cause of death. Usually death certificates are available within a few weeks after death. When an autopsy is performed, death certificates can take many months to be completed.

Are UW student positive cases included in the average number of cases? If yes, why?

Yes, UW students are included in our dashboard totals. We use the most updated population denominator for Dane County, which is 552,536 (from the July 2020 Postcensal Population Estimates). Per census rules, students would be included in this population count, as "college students who live away from home should be counted at the on- or off- campus residence where they live and sleep most of the time." We use 552,536 to calculate rates for Dane County, which includes students.

Keep in mind, we report differently than UW does on their dashboard. We assign cases based on date of test result, but they assign based on date they learn about the case. The positive tests from the university testing sites are included in our numbers, but the dates don't always align perfectly.

UW-Madison is not an island. An increase in cases on campus may impact the surrounding community, including populations at higher risk of exposure (e.g., essential workers) and populations more vulnerable to severe COVID illness (e.g., people of color, people aged 65 and older, and people with chronic conditions). As a reminder, Public Health Madison & Dane County does not have authority to inform plans for UW since they are a state government entity.

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