DANE COUNTY COVID-19 DATA
Deaths through August 18

How do we find out about COVID-19 deaths?

Public Health Madison & Dane County monitors the number of people diagnosed with COVID-19 who die every day. We identify deaths a couple of different ways: from information gathered by our case investigators and from the Wisconsin Statewide Vital Records Information System, where death certificates are stored.

Who gets counted as a COVID-19 death?

At this time, we report deaths among laboratory-confirmed COVID-19 cases who have COVID-19 listed as the cause of death or a contributing cause of death. This information is listed on the death certificate.

There are a few different ways we can look at COVID-19 death data.

COVID-19 Mortality Rate

The mortality rate is calculated as the number of COVID-19 deaths per 100,000 people. This is a common way to report the frequency of deaths in a population. Comparing mortality rates between geographic areas or populations may be tricky. For example, we know that older people are more likely to die of COVID-19. Adjusting for age or calculating rates by age before comparing between two places may be more appropriate if there's a big difference in the proportion of people who are 65 or older, for example.

COVID-19 Case Fatality Ratio/Rate

The case fatality ratio (CFR) is calculated as the percentage of confirmed COVID-19 cases who died due to the illness. This measure helps us understand how deadly COVID-19 is. Case fatality ratios can vary over the course of an epidemic, and are most accurate when calculated at the end of an epidemic.

Case fatality ratios may be *overestimated* when:

- We are only detecting people with symptoms who seek testing or care. If we aren't detecting mild or asymptomatic cases, our total cases will be low, making the case fatality rate seem higher than it really is.

Case fatality rations may be *underestimated* when:

- There is a delay in receiving death information, either because there is a lag in receiving death certificates or a person who had COVID-19 dies from COVID much later than when they were diagnosed.

- The death is incorrectly attributed to a cause other than COVID-19.

Excess Deaths

Deaths can be either directly or indirectly related to COVID-19. Indirect COVID deaths include deaths from causes other than COVID-19 that happened because health systems were overburdened or there were health care shortages due to COVID-19.Excess deaths are estimated based on historical data about the number of deaths we would expect, and whether or not the number of deaths are higher than expected based on those historical data.

Public Health
MADISON & DANE COUNTY

Comparing Dane County and Wisconsin Death Measures

	Dane	**WI**
Number of deaths	39	1,039
COVID-19 mortality rate	7.1 per 100,000	17.8 per 100,000
Case fatality ratio	0.8%	1.6%
Excess deaths	Not available	264 - 1,617*

The Dane County mortality rate and case fatality ratio is lower than the Wisconsin data. Important to keep in mind is that we have a relatively small number of deaths in Dane County at this time, and these rates may be unstable. Consequently, these differences may not be statistically different.

*Excess deaths is a provisional estimate from CDC

COVID-19 Mortality Rates by Age

Severe COVID illness is more likely among older individuals, so it is important to look at death data by age. Below, for both Dane County and Wisconsin, we see that mortality rate increase as age increases, with the highest mortality rate among cases 80 years or older. There have been no deaths in Wisconsin or Dane County among cases 0-19 years. Case fatality ratios follow a similar pattern. In Dane County, the highest case fatality ratio is among cases 80 years or older; 22% of cases in this age group have died. The lowest case fatality ratio is among cases 30-39 years (0.1%).

Dane	age	**WI**
0.0	20-29	1.0
1.3	30-39	1.6
0.0	40-49	4.7
3.0	50-59	9.1
8.7	60-69	23.3
33.0	70-79	67.7
127.0	80+	198.0
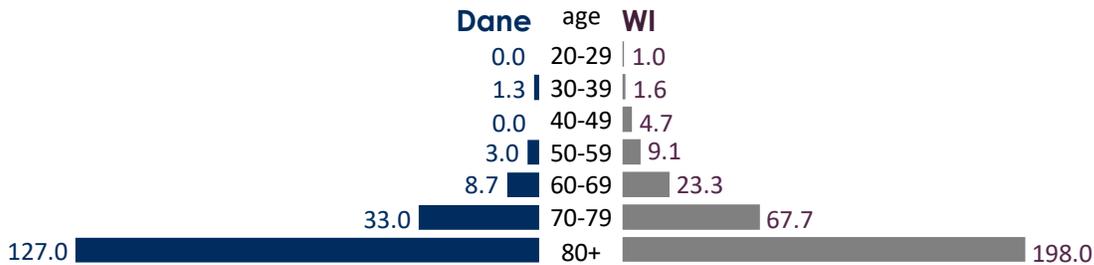
Dane County COVID-19 Deaths by Date of Death

More than half of all Dane County COVID-19 deaths occurred between March 24 and April 28 (23 of 39; 59%). 15 of the deaths that occurred in this time period were associated with a long term care facility (65%).