DANE COUNTY COVID-19 DATA

June 12, 2020 *Data from May 27—June 9*

Forward Dane

Dane County has been working hard to identify data that will help us determine how and when people can interact in a safe way. We want to provide these data to help everyone understand how decisions are being made to loosen or tighten some restrictions as we continue to respond to COVID-19. To establish these metrics, we conducted a deep review of existing plans, emerging scientific literature on COVID-19 spread, regional data, and national data.

In addition to the publicly facing nine metrics, we are monitoring process measures to help us understand where there may be gaps in the system. These process measures look at transmission dynamics (the "R" value of our epidemic), lab result reporting timeliness, outbreak monitoring within priority populations, capacity for supporting isolation/ quarantine, and contact attempts of both cases and contacts. The table below shows the measures we're using for a phased reopening of Dane County, and our current status.

Domain	Measure	Dane County Status
Epidemiology: We must have few enough cases of COVID-19 to be swiftly contained. This is an important parameter, and our thresholds for phased reopening are set at levels that align with the progression of our epidemic locally—a lower positivity rate than what is seen at the state level and a low number of cases per 100,000 residents.	1. Below a threshold of 5% for positive tests as a percent of total tests averaged across most recent 14 day period	1.3%
	2. Below a low incidence threshold of 0.71 new cases per 100,000 people per day (this is below 4 cases per day for Dane County) averaged over a 14 day period	16
Healthcare: A sustained, high testing level is a critical metric, as testing is how we detect active infection and prevent transmission of COVID-19. Alongside testing to monitor the course of the epidemic, it is vital that healthcare systems are equipped to manage patient care in the context of a surge caused by COVID-19 as well as protect healthcare workers from infection.	3. Testing supplies and staff facilitate adequate testing for disease control and surveillance (goal of over 800 per day in most recent 14 day period)	1220
	4. Percent of hospitals reporting robust testing in place for healthcare workers in the past week	100%
	5. Percent of hospitals reporting ability to treat all cases without crisis care • Facility use • Staffing • Critical supply	100%
	6. Decreasing or stable numbers of infected healthcare workers	✓
Public Health: Our ability to identify and isolate infections is critical to prevent further spread. Through rapid contact tracing, we can identify and notify contacts who have been exposed. Through education and isolation assistance, we can help keep people who test positive and their contacts separated from others for the duration of the infectious period, and lower the risk of spread in the community. Monitoring community spread—the percentage of cases with an unidentified risk factor—is how we can gain a sense of the scale of undetected disease spread.	7. All positive cases be contacted quickly to facilitate rapid isolation and quarantine for disease control	72%
	8. Proportion of new cases over the most recent 14 day period who don't know where they could have gotten COVID	24%
	9. Downward or stable trajectory of COVID-like syndromic cases reported within a 14 days period	✓

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Forward Dane Metrics: A Deeper Look

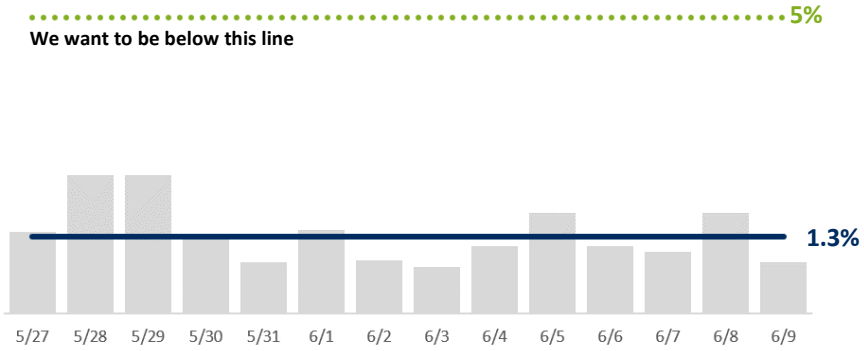
Epidemiology

We must have few enough cases of COVID-19 to be swiftly contained. This is an important parameter, and our thresholds for phased reopening are set at levels that align with the progression of our epidemic locally—a lower positivity rate than what is seen at the state level and a low number of cases per 100,000 residents.

For percent positivity, the 10% maximum level comes from World Health Organization. We're aiming for below 5% because it's where we've been when the epidemic has been most under control in Dane. If a high percentage of tests come back positive, it's clear there's not enough testing to capture all of the infected people in the community; testing is likely only being completed for the most severe cases or high-risk individuals. The low incidence threshold comes from CDC—less than 10 cases per 100,000 population over two weeks, or, less than 4 cases per day in Dane County.

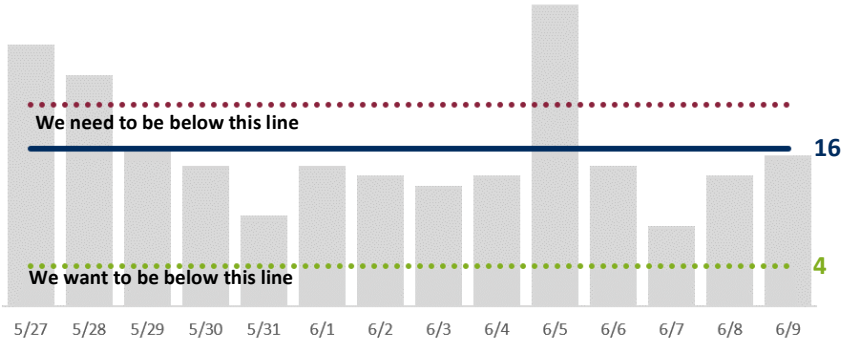
Measure: Below a threshold of 5% for positive tests as a percent of total tests average across the most recent 14 day period	
1.3%	**GREEN**: Below 5% positivity
	YELLOW: 5-10% positivity
	RED: Above 10% positivity

An average of 1.3% of tests were positive which was below the desired threshold.
Daily positivity ranged from 0.8% to 2.3%.



Measure: Below a low incidence threshold of 0.71 new cases per 100,000 people per day (this is below 4 cases per day for Dane County) averaged over a 14 day period	
16	**GREEN**: Below 4 cases
	YELLOW: 4– 20 cases
	RED: Greater than 20 cases

There was an average of 15.7 cases per day which was above the desired threshold.
Daily cases ranged from 8 to 30.



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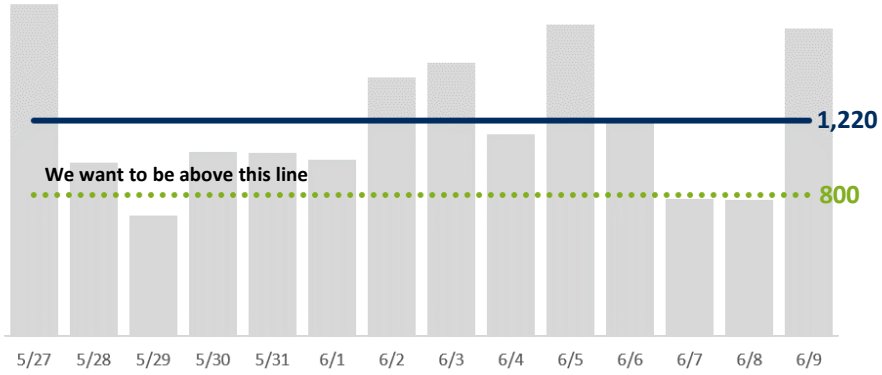
Healthcare

A sustained, high testing level is a critical metric that ensures our epidemiology criteria are meaningful. Testing is how we detect active infection, which leads to contact tracing and prevention of further disease transmission. There have been varied estimates for what a minimal level of testing may require, ranging from Wisconsin's statewide target of 85,000 tests/week (which would correlate to 1,128 tests per day for Dane County), to state-level estimates from Harvard Global Health Institute of 68 tests/100,000 population/day (372 tests/day for Dane County). We are aiming for a robust testing level of 800 tests per day since the case metrics are dependent on sufficient testing levels. If testing numbers decrease, process measures will be used to understand if the reason is due to lessened capacity or demand.

Alongside testing to monitor the course of the epidemic, it is vital that healthcare systems are equipped to manage patient care in the context of a surge caused by COVID-19. To establish that hospitals are operating outside of crisis care, one of our metrics measures facility use, staffing, and critical supplies across Dane County hospitals—the same metric used by the Badger Bounce Back plan. Given that healthcare workers power healthcare systems, we need to ensure evidence of robust testing of healthcare workers, and sustained low rates of positivity among healthcare workers.

Measure: Testing supplies and staff facilitate adequate testing for disease control and surveillance	
1220	**GREEN**: 800+ per day
	YELLOW: 400-800 per day
	RED: <400 per day

An average of 1,220 tests were conducted each day, which was above the desired threshold.
Daily tests ranged from 683 to 1,883.



Measure: Robust testing in place for healthcare workers	
100%	**GREEN**: 95% of hospitals arranged for testing of all COVID-19 symptomatic clinical staff per CDC guidelines
	RED: <95% of hospitals arranged for testing of all COVID-19 symptomatic clinical staff per CDC guidelines

100% of hospitals reported that they arranged for testing of all symptomatic clinical staff per CDC guidelines, which was above the desired threshold.

Healthcare workers, including non-medical staff who work in patient care settings, are at higher risk for exposure to COVID due to the nature of the essential service they provide to the community. Testing of healthcare workers is critical to protecting this workforce and ensure their capacity to care for patients seeking medical care.

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Measure: Treat all patients without crisis care based on facility use, staffing status, and critical supply status

100%

GREEN: 95% of hospitals answer no to all 3 questions:

- *Facility use status*: the facility is damaged/unsafe or non-patient care areas are being used by the facility for patient care
- *Staffing status*: trained staff are unavailable or unable to adequately care for the volume of patients even with extension techniques
- *Critical supply status*: critical supplies are lacking, resulting in reallocation of life-sustaining resources and/or other extreme operating conditions

RED: Yes to one or more questions

100% of hospitals reported that they treated all patients without crisis care which was above the desired threshold.

Keeping the healthcare system stable is essential to ensuring care for COVID and non-COVID patients.

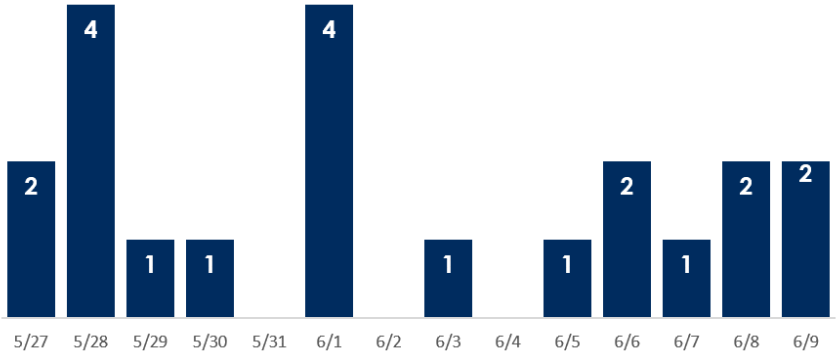
Measure: Decreasing or stable numbers of infected healthcare workers

GREEN: No significant increase in healthcare worker infections for most recent 14 days

YELLOW: Significant increase in healthcare worker infections due to a known cluster in a single facility for most recent 14 days

RED: Significant increase in healthcare worker infections for most recent 14 days not contained to a single facility

There was no statistically significant increase in the number of healthcare workers who tested positive for COVID-19.
Daily infections among healthcare workers ranged from 0 to 4.



Healthcare workers, including non-medical staff who work in patient care settings, are at higher risk for exposure to COVID and for spreading COVID to vulnerable community members due to the nature of the essential service they provide to the community.

Ensuring that infections among healthcare workers are not increasing is important to ensure that the healthcare workforce is not depleted and is not unknowingly passing on the virus to other individuals in the healthcare setting.

An increase of healthcare workers testing positive in a single facility is different than a significant increase in healthcare workers across the system—the former may be more straightforward to address, whereas the latter may indicate a larger underlying issue.

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Public Health

Our ability to identify and isolate people with COVID is critical to prevent further spread. Through rapid lab result reporting, followed by rapid contact tracing, we can identify and notify contacts who have been exposed. Through education and isolation assistance, we can help keep people who test positive and their contacts separated from others for the duration of the infectious period, and lower the risk of spread in the community.

Monitoring community spread—the percentage of cases with an unidentified risk factor—is how we can gain a sense of the scale of undetected disease spread. Keeping a pulse on the numbers of folks entering emergency departments and urgent care with COVID-like symptoms can help us understand potential surges in COVID that are not being captured by testing data.

Measure: All positive cases can be reported and interviewed quickly to facilitate rapid isolation and quarantine for disease control

72%

GREEN: 85% or more of all new cases are contacted within 48 hours of being tested

YELLOW: 70-84% of cases are contacted within 48 hours of being tested

RED: <70% of cases are contacted within 48 hours of being tested

72% of cases were contacted within 48 hours of being tested.

In order to contain the spread of the virus it is imperative to quickly identify who has the virus and contact them to ensure they are isolated from others, and to identify people they had contact with while they were infectious so those people can also be notified and isolated. We want to see a high percentage of cases contacted within this 48 hour window. This metric is also highly dependent on how quickly individual labs can process tests and report the results.

Measure: Proportion of contacted COVID-19 cases who don't know where they could have gotten COVID in most recent 14 day period

24%

GREEN: <20% of cases don't know where they could've gotten COVID-19

YELLOW: 20-30% of cases don't know where they could've gotten COVID-19

RED: Over 30% of cases don't know where they could've gotten COVID-19

24% of cases who tested positive didn't know where they could've gotten COVID-19.

We calculate this measure based on several known risk factors for COVID-19, such as being in close contact with someone who has tested positive for COVID-19. A high percent of cases with no known route of disease transmission means there is likely a large number of individuals unknowingly spreading the virus in the community, which makes isolation and contact tracing much more difficult.

Measure: Downward or stable trajectory of COVID-like syndromic cases reported within a 14 day period

GREEN: No significant increase in COVID-like syndromic cases for most recent 14 days

RED: Significant increase in COVID-like syndromic cases for most recent 14 days

There has not been a significant increase in COVID-like syndromic cases.