We 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 these nine public-facing metrics, we are monitoring process measures to help us understand where there may be gaps in the system. The table below shows the measures we’re using for a phased reopening of Dane County, and our current status, with process measures reported where they are impacting an individual metric. We are no longer reporting region data for every measure in the snapshot and instead are following the activity level at the Regional level using the [DHS activity level tracker](https://dhsactivityleveltracker.com) — click on “South Central HERC Region.” Given the continuously evolving epidemic, this overall metric gives a good sense of the spread in the region.

### Domain: 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 the past 2 weeks, Dane County has a high activity level.**

1. Below a threshold of 5% for positive tests as a percent of total tests averaged across most recent 14 day period

   **Dane County Status:** 3.3%

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)

   **Dane County Status:** 133

### Domain: 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.

1. Testing supplies and staff facilitate adequate testing for disease control and surveillance (goal of over 800 per day for Dane County)

   **Dane County Status:** 4096

2. Percent of hospitals reporting robust testing in place for healthcare workers in the past week

   **Dane County Status:** 100%

3. Percent of hospitals reporting ability to treat all cases without crisis care

   - Facility use
   - Staffing
   - Critical supply

   **Dane County Status:** 100%

### Domain: 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.

1. All positive cases be contacted quickly to facilitate rapid isolation and quarantine for disease control

   **Dane County Status:** 48%

2. Proportion of new cases over the most recent 14 day period who don’t know where they could have gotten COVID

   **Dane County Status:** 35%

3. Downward or stable trajectory of COVID-like syndromic cases reported within a 14 days period

   **Dane County Status:** ✔️
Characteristics of Cases From UW-Madison vs. Non-UW

During this 14-day period, **166 UW students and 31 staff (197 total) tested positive**, making up 11% of our total cases.

The increase in **UW-associated cases** from September has been followed by an increase in cases not associated with UW.

20 (10%) of the **UW** cases were linked to dorms, 18 (9%) were linked to fraternities and sororities, and 41 (21%) were linked to apartment complexes on or near campus that have at least 10 or more cases. Note that these are not mutually exclusive: a student could, for example, live in a dorm but also be a member of a fraternity.

**78%** of the **UW cases** were between the ages of 18-22.

<table>
<thead>
<tr>
<th>Age Range</th>
<th>UW Cases (197 total)</th>
<th>Non-UW Cases (1,669 total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-22</td>
<td>154</td>
<td>1,295</td>
</tr>
<tr>
<td>23-29</td>
<td>14</td>
<td>116</td>
</tr>
<tr>
<td>30-39</td>
<td>9</td>
<td>77</td>
</tr>
<tr>
<td>40-49</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>50-59</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>60-69</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>70-79</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>80-89</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>90+</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

The age group with the most **non-UW cases** was ages 30-39.

**Of the 7 UW cases associated with a non-housing cluster**, 3 were from UW sports teams, 3 were from workplaces involving assisted/supported living services, and 1 was from a UW campus facility.

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**Characteristics of UW and Non-UW Cases**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>UW cases (197 total)</th>
<th>Non-UW cases (1,669 total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tested by a community test site</td>
<td>33 (17%)</td>
<td>904 (54%)</td>
</tr>
<tr>
<td>Tested by University Health Services</td>
<td>143 (73%)</td>
<td>-</td>
</tr>
<tr>
<td>Tested at other sites, such as health care settings</td>
<td>21 (11%)</td>
<td>765 (46%)</td>
</tr>
<tr>
<td>Risk characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close contact with another COVID-19 case*</td>
<td>106 (55%)</td>
<td>854 (59%)</td>
</tr>
<tr>
<td>Attended a gathering or party in the past 2 weeks*</td>
<td>63 (33%)</td>
<td>409 (28%)</td>
</tr>
<tr>
<td>Associated with a cluster</td>
<td>7 (4%)</td>
<td>150 (9%)</td>
</tr>
<tr>
<td>Non-UW college student</td>
<td>-</td>
<td>10 (1%)</td>
</tr>
</tbody>
</table>

*Calculated among people fully interviewed so far (192 UW cases and 1,459 non-UW cases)
See page 4 for more information about non-UW cases associated with a cluster
DANE COUNTY COVID-19 DATA
October 15, 2020  Data from September 29—October 12

Demographics
In this 14-day period, 26,318 people so far have tests processed for COVID-19. 1,866 people tested positive, and 41 of the people who tested positive were reported hospitalized to the Wisconsin Electronic Disease Surveillance System. There was at least one hospitalization in every age group above age 22. Hispanic Dane County residents who tested positive were overrepresented in cases and hospitalizations compared to their representation in the overall Dane County population.

Data from September 29 to October 12 below
See our data dashboard for all-time demographic data

The age group with the highest number of cases is ages 30-39. Age 18-22 is the only group that has fewer cases this week than last week. Every other age group has a greater number of cases this week compared to last week.

2% of cases in this 14-day period were hospitalized. The risk of being hospitalized increases with age: 16% of cases age 70+ were hospitalized while 2% of cases age 23-69 were hospitalized.
Epidemiology

This week we had an increase in the average number of cases per day, and we are still in the red for average number of cases.

We define a cluster of cases as two or more cases associated with the same location around the same time.

Of the 1,669 non-UW cases in this period, **150 (9%) were associated with a cluster**: 45 from less public-facing workplaces, 20 from childcare facilities (7 children and 13 adults), 18 from more public-facing workplaces, 17 from congregate facilities, 17 from health care facilities, 8 from weddings, 7 from bars and restaurants, 6 from schools, 4 from gatherings, 3 from supported living services, 3 from gyms or athletic facilities, and 2 from churches.

The six school cases were all staff and came from clusters in two schools where staff were working in person but no children were present.

A single case in a congregate living facility (e.g., long term care facilities, fraternities and sororities), a childcare facility, or a school initiates a facility investigation by our staff. A case “in” a facility means that the person who tested positive was in the facility while they were infectious. These types of facilities are prone to outbreaks and can contain vulnerable populations, and our case investigators work with them to ensure they are following best safety practices. The goal is to prevent a cluster of cases from occurring within the facility.

In this 14-day period, there were 12 schools (7 students and 8 staff), 9 childcare facilities (3 children and 7 adults), and 15 congregate facilities that had a single case (or multiple cases that were not linked to each other) but have so far prevented further spread from occurring.

**Measure**: Below a threshold of 5% for positive tests as a percent of total tests average across the most recent 14-day period

- **GREEN**: Below 5% positivity
- **YELLOW**: 5-10% positivity
- **RED**: Above 10% positivity

**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

- **GREEN**: Below 4 cases
- **YELLOW**: 4–20 cases
- **RED**: Greater than 20 cases
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

<table>
<thead>
<tr>
<th></th>
<th>GREEN: 800+ per day</th>
<th>YELLOW: 400-800 per day</th>
<th>RED: &lt;400 per day</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4096</strong></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

An average of 4,096 tests were conducted each day, which was above the desired threshold. Daily tests ranged from 1,605 to 6,339.

Measure: Robust testing in place for healthcare workers

<table>
<thead>
<tr>
<th></th>
<th>GREEN: 95% of hospitals arranged for testing of all COVID-19 symptomatic clinical staff per CDC guidelines</th>
<th>RED: &lt;95% of hospitals arranged for testing of all COVID-19 symptomatic clinical staff per CDC guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
DANE COUNTY COVID-19 DATA

October 15, 2020  Data from September 29—October 12

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

**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 change in the number of healthcare workers who tested positive for COVID-19.

Daily infections among healthcare workers ranged from 4 to 13.

![Graph showing infections among healthcare workers](image)

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.

**Hospitalizations**

In the past two weeks, the number of patients hospitalized with COVID-19 in Dane County has increased, peaking at 78 hospitalizations on October 13. The South Central Region has a growing trajectory for COVID patients hospitalized and no significant change for COVID patients in the ICU. Increases in hospitalizations are concerning because strained health care systems may struggle to meet the needs of all patients.

The number of people in the hospital with COVID-19 increased in the past two weeks.

![Graph showing hospitalizations](image)
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

<table>
<thead>
<tr>
<th></th>
<th>GREEN: 85% or more of all new cases are contacted within 48 hours of being tested</th>
<th>YELLOW: 70-84% of cases are contacted within 48 hours of being tested</th>
<th>RED: &lt;70% of cases are contacted within 48 hours of being tested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>48%</td>
<td></td>
<td></td>
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</tbody>
</table>

48% 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. 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. 44% of positive tests were reported within 24 hours, and 65% of cases were interviewed within 24 hours of their test result.

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

<table>
<thead>
<tr>
<th></th>
<th>GREEN: &lt;20% of cases don’t know where they could’ve gotten COVID-19</th>
<th>YELLOW: 20-30% of cases don’t know where they could’ve gotten COVID-19</th>
<th>RED: Over 30% of cases don’t know where they could’ve gotten COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35%</td>
<td></td>
<td></td>
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</tbody>
</table>

35% 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 who don’t know how they got sick means there likely are people unknowingly spreading the virus in the community.

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

<table>
<thead>
<tr>
<th></th>
<th>GREEN: No significant increase in COVID-like syndromic cases for most recent 14 days</th>
<th>RED: Significant increase in COVID-like syndromic cases for most recent 14 days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13 12 14 18 19 22 19 15 11 9 27</td>
<td></td>
</tr>
</tbody>
</table>

There was no statistically significant change in COVID-like syndromic cases.

Syndromic cases can be an early warning indicator for future hospitalizations.