

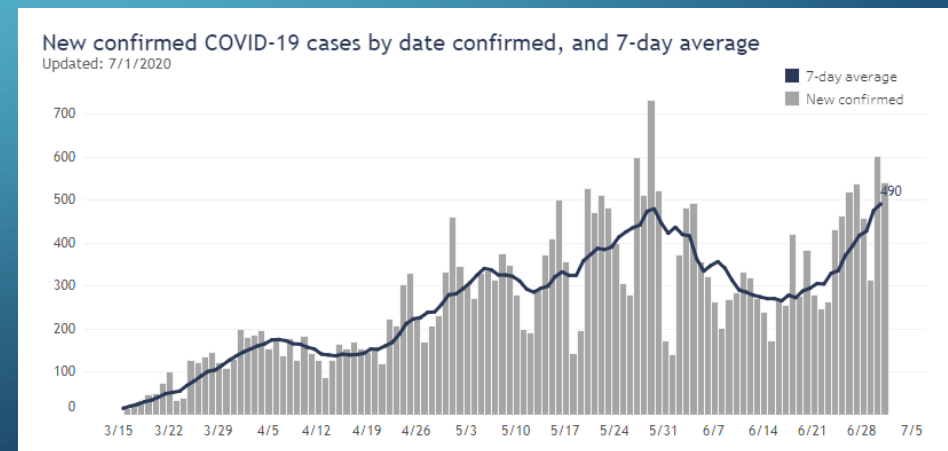
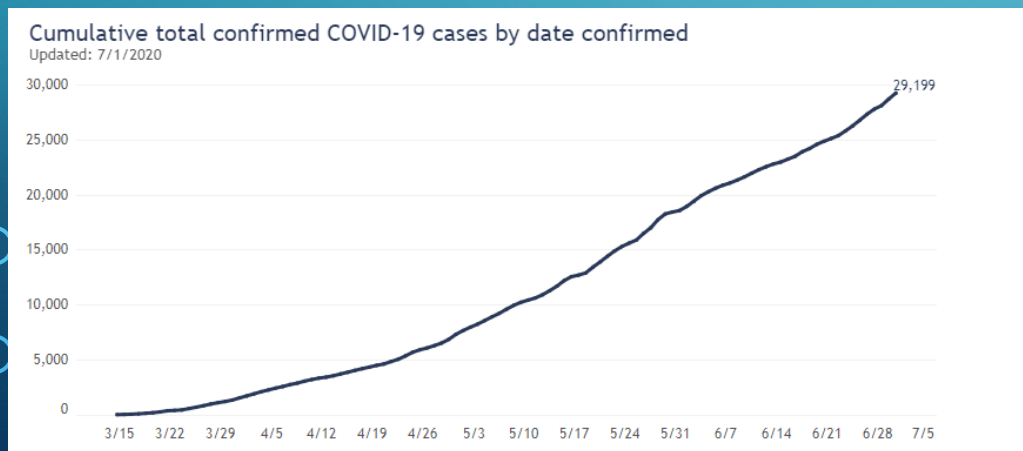


# BETTER TOGETHER

WISCONSIN'S EVOLVING STRATEGY TO MEET PUBLIC HEALTH NEEDS DURING  
COVID-19

# CURDS AND CURVES

- A bit about Wisconsin...Bubblers, Curds, Oh My!
- Where we started
- Bringing together staff



# COVID TIMELINE IN WI

THE CORONAVIRUS CRISIS

## Wisconsin Supreme Court Overturns The State's Stay-At-Home Orders

July 13, 2020 · 8:38 PM ET

HANNAH HAGEMANN

Wisconsin's Supreme Court has overturned the state's "stay at home" orders and mandated that all future statewide restrictions to battle the coronavirus must be approved by the legislature's rule-making committee before they could be implemented.



### Ascension Wisconsin to begin offering drive-through COVID-19 testing at six sites

Ascension Wisconsin said Monday that it has begun offering drive-through testing for COVID-19 at six sites in southeastern Wisconsin for ...  
Mar 24, 2020



Milwaukee Journal Sentinel

### Wisconsin stay-at-home order likely extends to May as coronavirus cases grow, but more help is coming for the...

Wisconsin stay-at-home order likely extends to May as coronavirus cases grow, but more ... Wisconsin now has 182 deaths from COVID-19.  
Apr 15, 2020



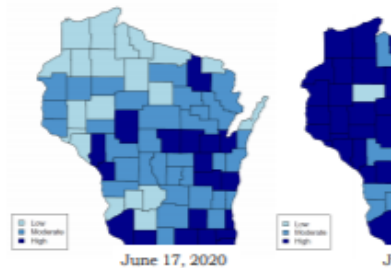
**EXECUTIVE ORDER #82**  
**Relating to Declaring a Public Health Emergency**

**WHEREAS**, the COVID-19 pandemic has impacted the lives of Wisconsinites throughout the state;

**WHEREAS**, despite the hard work Wisconsinites have done to slow the spread of COVID-19, data shows a new and concerning spike in infections;

**WHEREAS**, based on data collected by the Department of Health Services, the State of Wisconsin has experienced a drastic rise in COVID-19 cases throughout the entire state, with 61 of 72 counties (84 percent) representing 96 percent of the state's population experiencing high COVID-19 activity;

**WHEREAS**, this is a dramatic increase from where Wisconsin was in June, when only 19 of 72 counties (26%) were experiencing high COVID-19 activity, as depicted in the maps below:



**WHEREAS**, on June 1, 2020, there were 18,543 COVID-19 in Wisconsin; on July 1, 2020, there were 29,196 COVID-19, a 57 percent increase from June 1; and on July 1, 2020, there were 51,049 confirmed cases of COVID-19, a 75 percent increase

NEWS

## Wisconsin sees another record-setting coronavirus testing day, second biggest increase in cases

Sammy Gibbons Green Bay Press-Gazette

Published 3:56 p.m. CT May 22, 2020 | Updated 12:11 p.m. CT May 23, 2020

Appleton Post Crescent

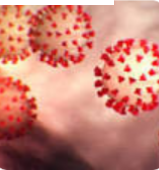
### As Wisconsin coronavirus cases pass 6,000, Evers loosens some restrictions on nonessential businesses

Coronavirus in Wisconsin. Confirmed cases of COVID-19 as of the Department of Health's latest update. NOTE: Counties ...  
Apr 27, 2020

lilwaukee

### Wisconsin Passes 4000 COVID-19 Cases, 200 Deaths

Wisconsin crossed two milestone numbers Friday with regard to the pandemic. Newly released figures from the Wisconsin Department of Health Services show that the state has now recorded 4,000 confirmed cases of COVID-19 and 200 deaths.



### 5:15 p.m.: Patrick Cudahy plants to close after 100 employees test positive

The Patrick Cudahy/Smithfield plant will be closing for two weeks because "a significant number of employees" tested positive for COVID-19.

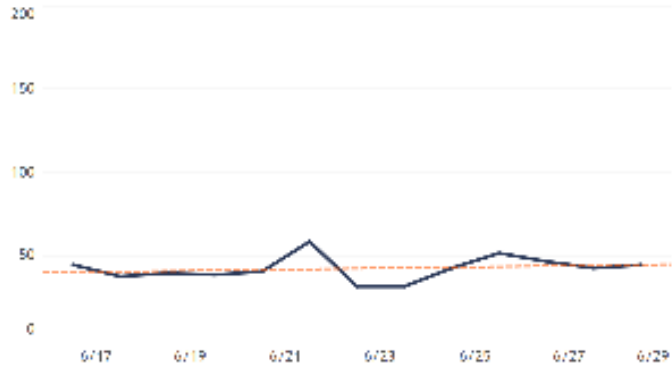
# BADGER BOUNCE BACK

## Wisconsin Gating Criteria

Updated at 10 AM daily

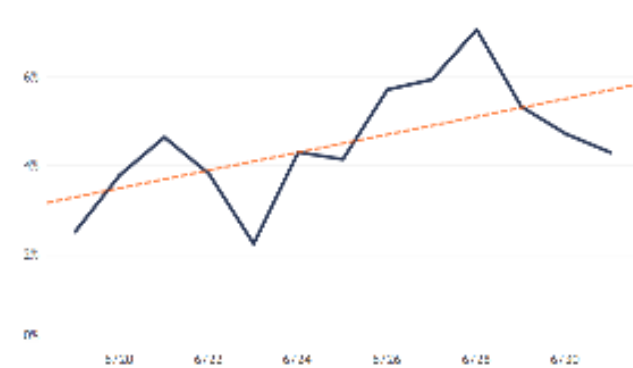


Emergency department visits with Influenza-like illnesses (ILI)  
Updated: 7/1/2020



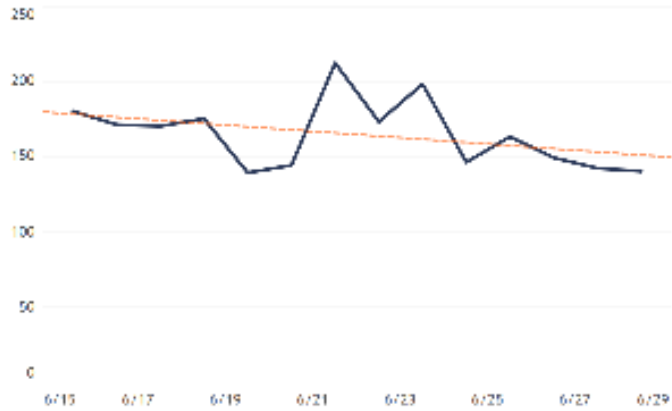
Updated daily - two day lag of data. Connected to ESSENCE (manual refresh).

Percent of people tested for COVID-19 who had positive results  
Updated: 7/1/2020



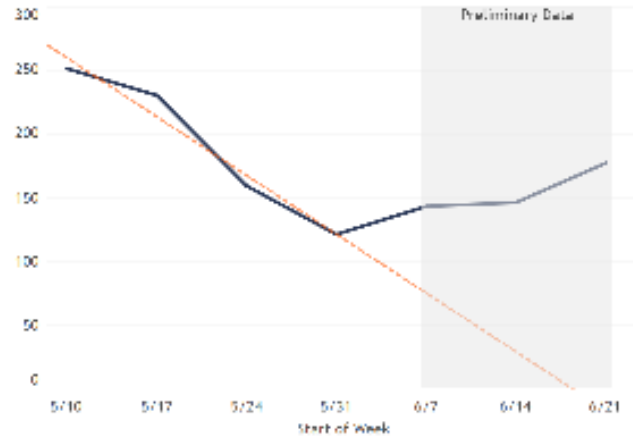
Updated daily. Connected to WEDSS data (automatic refresh).

Emergency department visits with COVID-related concerns  
Updated: 7/1/2020



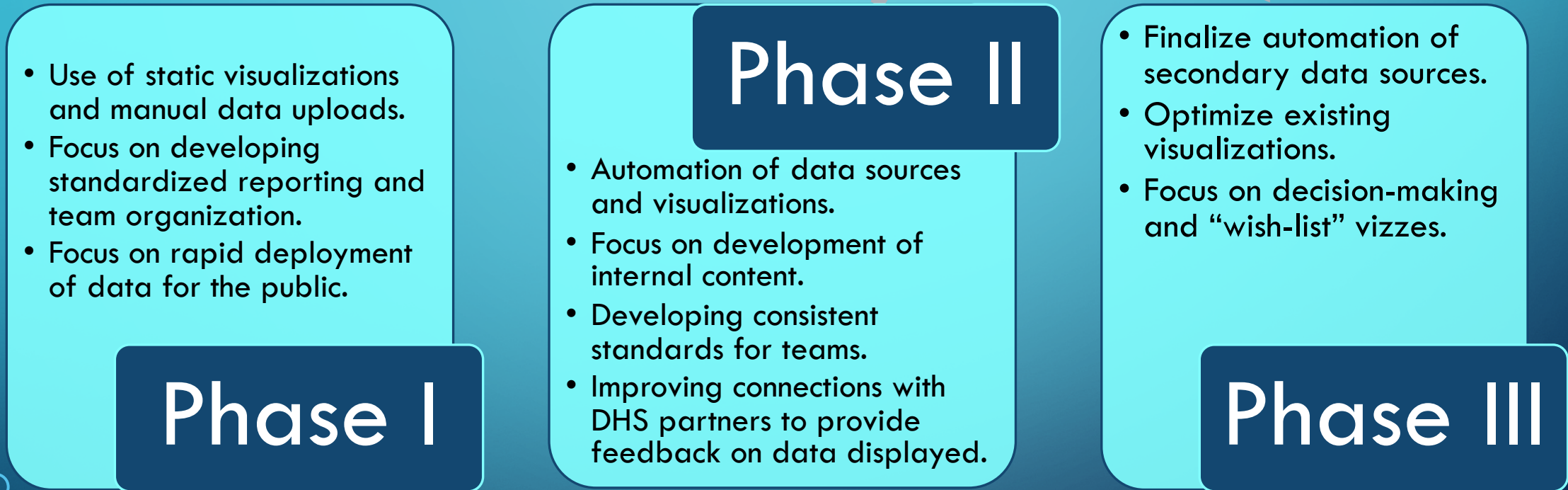
Updated daily - two day lag of data. Connected to ESSENCE data (manual refresh).

COVID-19 cases among health care workers  
Updated: 7/1/2020



Daily data refresh. Graph updated each Monday to add additional week of data. Connected to WEDSS (automatic refresh).

# RESPONSE PHASES



# EXAMPLE: EVOLUTION OF CASE DATA

## Percent of confirmed COVID-19 cases by age group

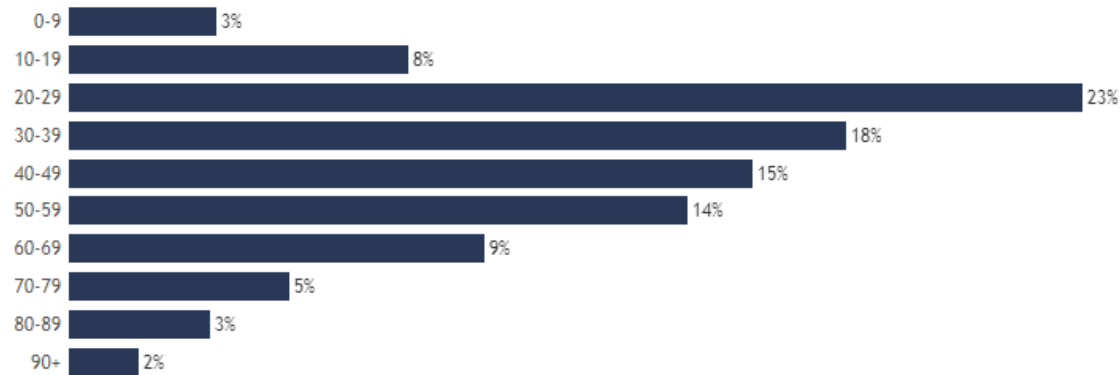
Updated: 7/1/2020 (Total: 29,199)

View cases by:

- Age group (years)
- Gender
- Race
- Ethnicity
- Region

Select case confirmation status:

- Confirmed
- Probable
- Confirmed and probable



## Percent of confirmed COVID-19 cases by age group

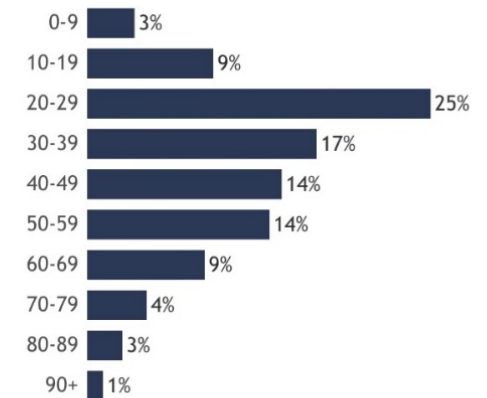
Updated: 7/27/2020 (Total: 49,417)

View cases by:

Age group (years) ▼

Select case confirmation status:

Confirmed ▼



# TABLEAU AT DHS

- Flexibility and public-friendly design options
- Interface allows for agile response to urgent requests
- Automated data connections with data sources
- Abundance of Tableau developers thanks to easy-to-learn interface
- Tableau champions

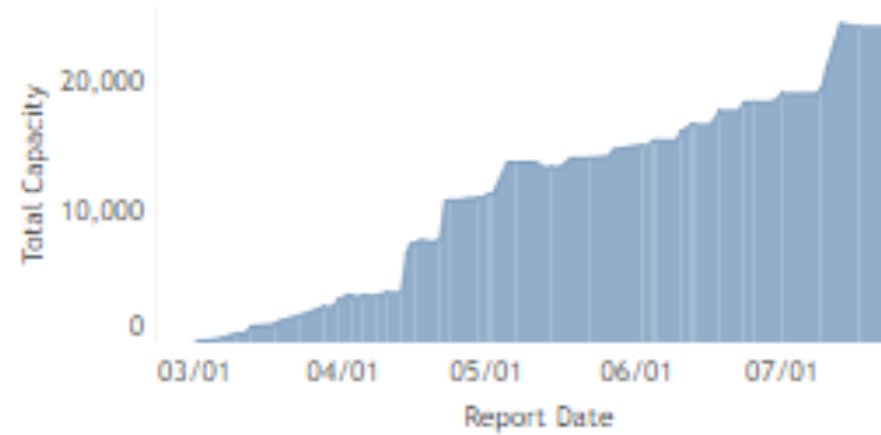
# EXAMPLE: DE-SILO DATA

Last Updated: 7/27/2020 1:45:24 PM  
Updated once daily

Current Daily Testing Capacity

24,156

Wisconsin's Lab Testing Capacity Over Time



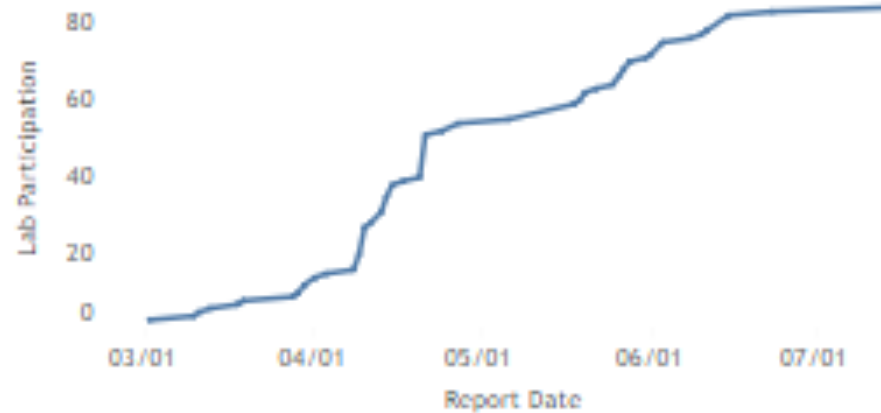
Labs Currently Performing Testing

83

Labs Planning to Test

24

COVID-19 Lab Participation Rate Over Time





The image features a blue gradient background with white circuit-like lines in the corners. These lines consist of straight paths that branch out and terminate in small circles, resembling a network or data flow diagram. The lines are positioned in the top-left, top-right, bottom-left, and bottom-right corners, framing the central text.

# STATE OF WISCONSIN TABLEAU INFRASTRUCTURE

# TABLEAU SERVER OVERVIEW

- Centralized server
- Permission management
- Tableau embeds on the web

Cases

Lab  
Capacity

Testing

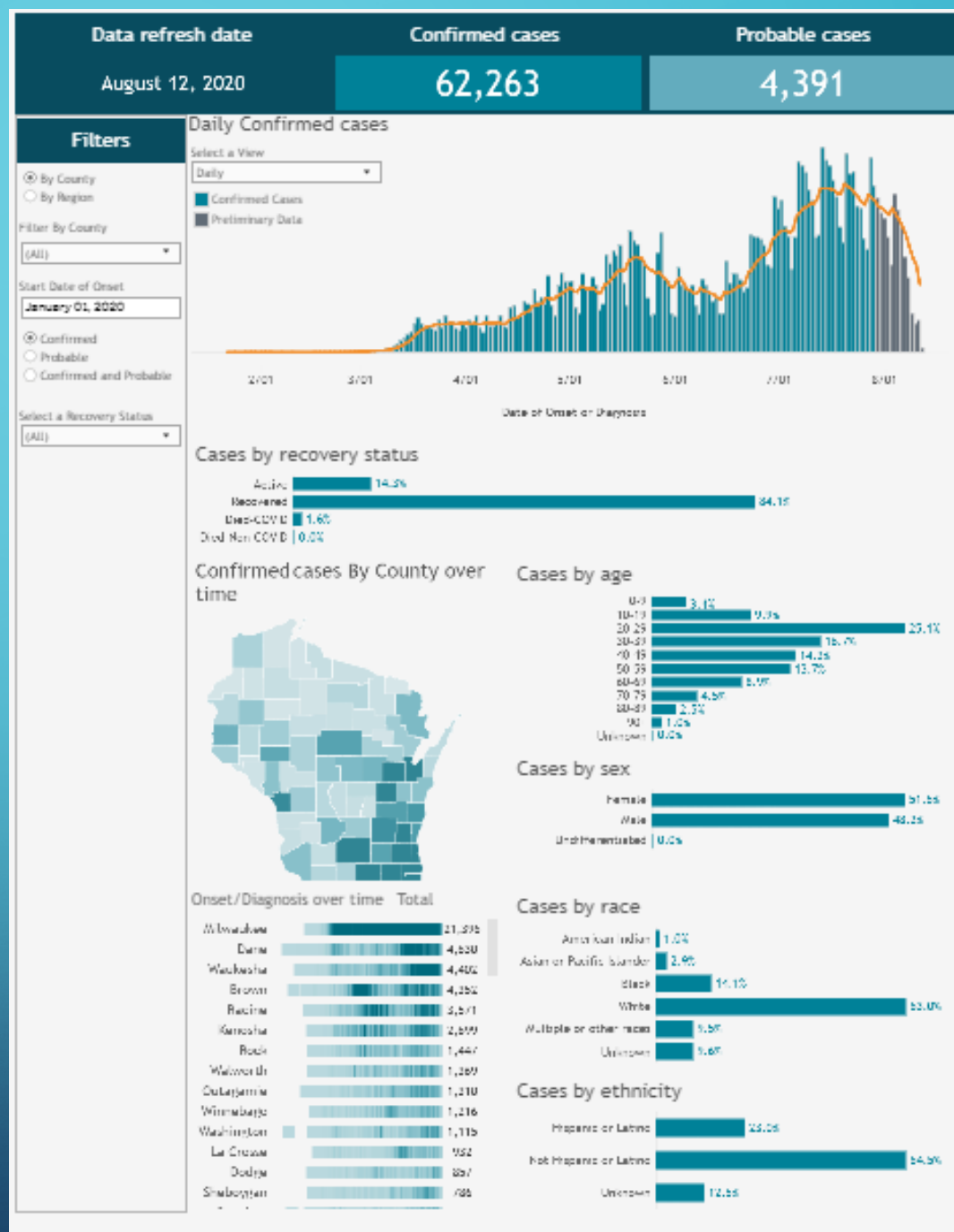
Hospitals

Medicaid

# SCALING TABLEAU SERVER

- Server and site administration coordination
- More traffic = more problems
- Data connections

# EXAMPLE: VISUALIZING FOR DIFFERENT AUDIENCES



# DATA QUESTIONS DRIVEN BY THE PUBLIC

- Prioritization group daily
- Plain language
- Commonly asked questions
  - Age group
  - Probable cases
  - Time period
  - Summary statistics
  - Footnotes
  - Local data

# EXAMPLE: ADAPTING TO MEET DEMAND



WISCONSIN DEPARTMENT  
of HEALTH SERVICES

August 12, 2020  
2:00 p.m.

## Wisconsin COVID-19 Update

1,023,723 People Tested Negative (+9,446)

62,263 People Tested Positive (+478)

5,125 People Hospitalized (+33)

1,011 Deaths (+5)

52,350 Recovered (84% of all cases)

### Protect Yourself and Those Around You



Practice physical  
distancing



Wear a mask when  
appropriate



Wash your hands  
frequently with soap  
and water



Cover your nose and mouth  
when you cough or sneeze

## Wisconsin COVID-19 Summary Statistics

Cumulative data, Updated: 8/12/2020

### Testing\*

Total people tested: 1,085,986 (+9,924 from prior day)

Positive (Confirmed Case): 62,263 (+478)

Negative: 1,023,723 (+9,446)

### Confirmed Case Information

#### Recovery Status

Recovered: 52,350 (84.1%)

Active: 8,884 (14.3%)

#### Deaths

Deaths: 1,011 (+5)

Percent who died: 1.6%

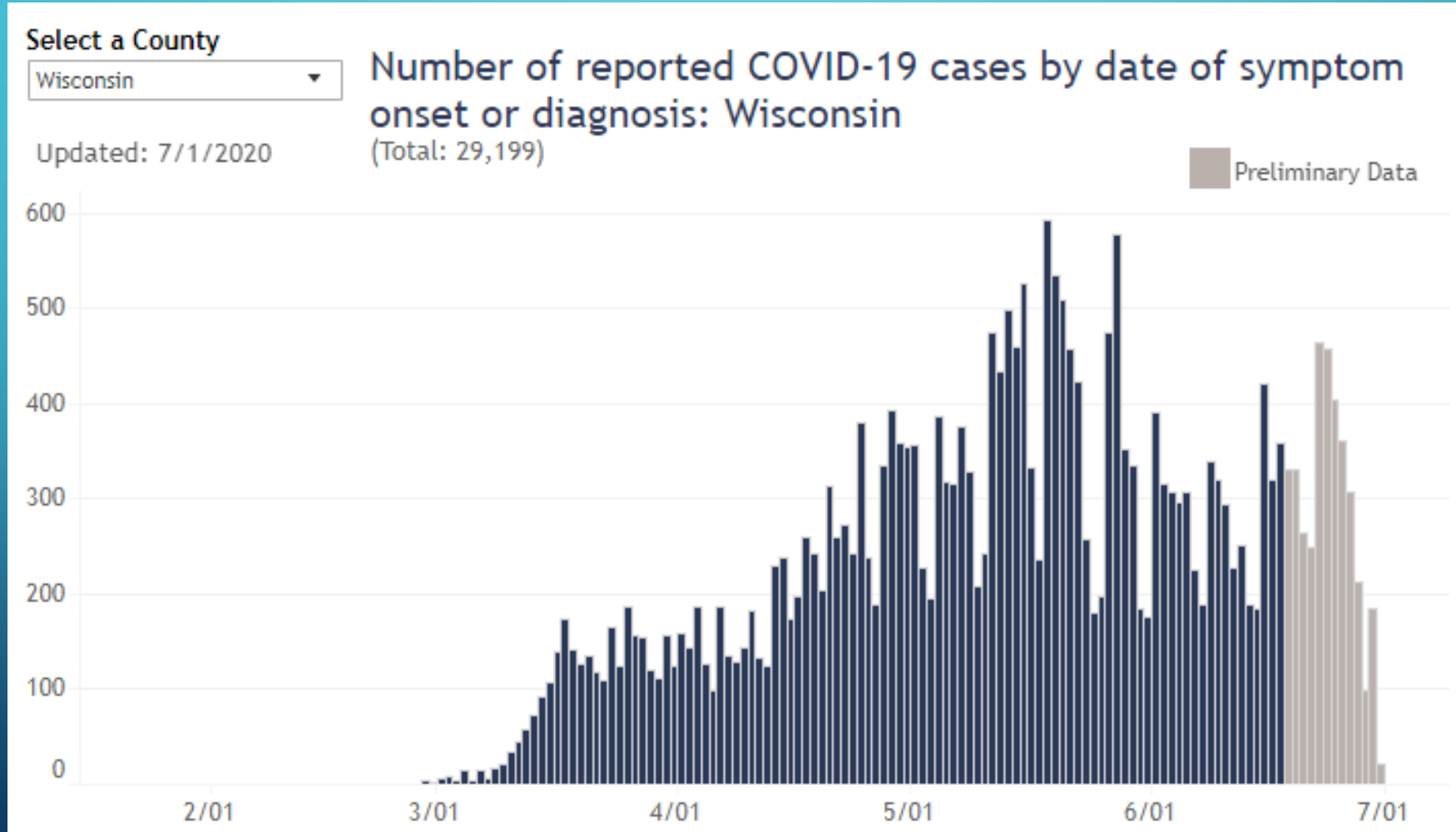
#### Hospitalizations

Ever hospitalized: 5,125 (+33)

Percent ever hospitalized: 8.2%

\*Testing data represent the number of people tested by the diagnostic test that detects the virus in the nose or throat (and not a blood test that detects antibodies). Multiple tests per person are not included in these summary statistics.

# EXAMPLE: LOCAL DATA FOR THE PUBLIC



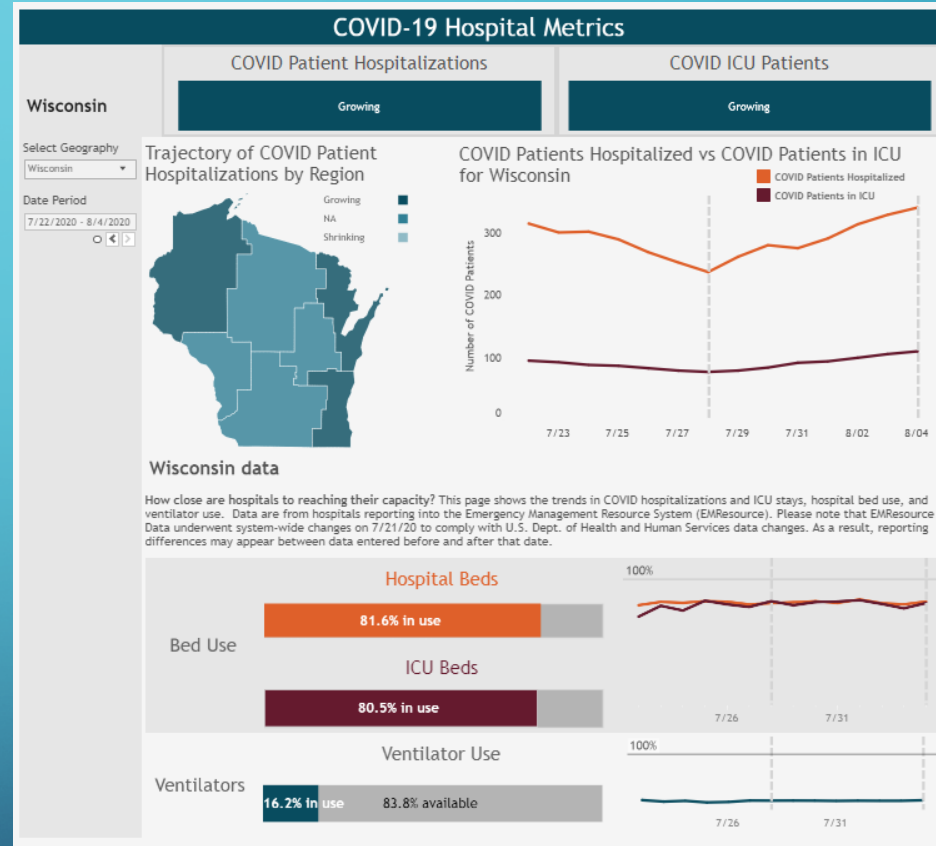
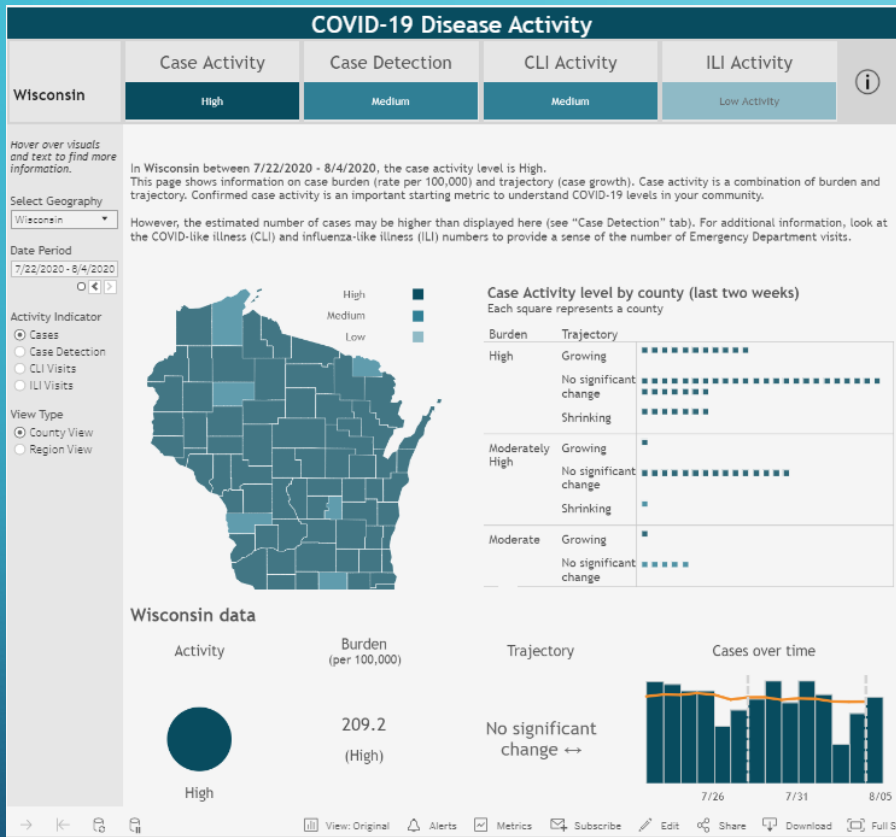
# WORKFLOW OVERVIEW



- Replacing visualizations
- New visualizations
- Optimization
- Cleaning and documentation



# PREVIEW OF METRICS FOR LOCAL PUBLIC HEALTH\*



\*THESE DATA ARE STILL IN DRAFT.

# REFLECTIONS

## SUCCESS STORIES

- Coordination between multiple parties
- Prioritization of incoming requests
- System connectivity and sustainability

## OPPORTUNITIES FOR IMPROVEMENT

- Data connection optimization
- Server data and content management
- Process Improvements
- Common storage
- Dashboard accessibility

# NEXT STEPS

- New public health metrics
- Data quality
- System connectivity
- Formalized data management
- Dashboard portal
- And more...