

Measure	Desired Change	Yesterday in the U.S.
No. of Tests	Increase	Up 3.4% (Cumulative)
Positive Test Rate	Decline	Down slightly to 19.2%
No. of Cases	Plateau	Up 3.3%, rate continues to slow
% of Deaths Per Case	Decline	Up slightly at 5.5%
No. of Deaths / 1M Pop.	Plateau	Up to 136.9
Recoveries : Deaths	Increase (>1:1)	Up to 1.83

Rationale for shading changes from yesterday: Positive test rate is too high, suggesting we aren't testing sufficiently; Recoveries up significantly

Highlights from Wednesday include:

- Recoveries in the U.S. were 10,584, the most recorded on any day (these were reported low yesterday, so there may have been a reporting lag). Still, recoveries the past 7 days were 44,153 versus 17,146 the prior 7-day period. Total recoveries from the virus are now 82,973 (10.1% of total cases; one week ago this rate was 6.3%)
- Total Cases now exceed 800,000 in the U.S., however, they increased by only 3.3% since Monday, the lowest rate since the beginning of the virus spread. Active Cases increased only 1.9%, and appear to be peaking.

Active Cases fell on Tuesday from their previous day's highs in California, Nevada, New York and North Dakota; in Vermont, these Active Cases were unchanged from Monday to Tuesday. On the flip side, Active Cases in Kansas yesterday exceeded their previous high, recorded on April 18.

- New infections per million population are declining in all except 13 U.S. states and the District of Columbia – Arizona, California, Indiana, Minnesota, Mississippi, Nebraska, New Mexico, North Dakota, Ohio, Rhode Island and Virginia. A declining trajectory in this metric is cited as one of the gating measures for re-opening states.
- Daily case growth (on a 5-day moving average basis) exceeds 10% in Iowa, Nebraska, North Dakota and Ohio. In 32 states, this figure is 5% or less.
- Internationally, countries showing relatively high incidence of new cases (more than 1,000 new cases and an increase of 10% over prior day) include India, Peru, Russia, Saudi Arabia and Singapore.
- We are observing Italy closely, as they may be at or near their peak in Active Cases – these have dropped each of the past two days from the peak recorded on Sunday.
- A number of states in recent days announced plans to ease stay-home restrictions. Of these, Vermont which announced plans to re-open some businesses as of yesterday - with restrictions - has a relatively low new daily infection rate and high test rate per capita. These are two necessary (but, by themselves, insufficient) metrics for restrictions to be eased. Georgia, South Carolina and Texas have relatively low testing rates. Georgia also has a relatively high new infection rate. We will prepare of more thorough discussion of this topic in Sunday's U.S.-focused report.

*Reporting Schedule***We Are Initiating A New Reporting Schedule, In Order To Be More Meaningful and Informative**

We have reached a point where it no longer makes sense to repeat the same information and graphics each day – frankly, the day-day-day changes are typically not significant. Furthermore, the volume of material is becoming unwieldy to both prepare and digest each day. So, as of today, we will begin a new weekly schedule, with each day having a particular focus:

The remainder of this week:

Day	Focus
Today	States ranked 21-30 in Total Cases: Missouri, Alabama, Arizona, Rhode Island, South Carolina, Wisconsin, Mississippi, Nevada, Utah and Kentucky
Thursday	States ranked 31 – 40, plus District of Columbia: Oklahoma, Delaware, Iowa, Minnesota, Oregon, New Mexico, Kansas, Arkansas, Idaho, South Dakota
Friday	States ranked 41 – 50: New Hampshire, Nebraska, Maine, West Virginia, Vermont, Hawaii, North Dakota, Montana, Wyoming and Alaska

Starting this weekend, and each week thereafter:

Day	Focus
Saturdays	International – top 20-25 countries in Total Cases
Sundays	United States – overall metrics; state-by-state comparisons
Mondays	States alphabetically: Alabama - Georgia, plus District of Columbia
Tuesdays	States alphabetically: Hawaii – Maryland
Wednesdays	States alphabetically: Massachusetts – New Jersey
Thursdays	States alphabetically: New Mexico – South Carolina
Fridays	States alphabetically: South Dakota - Wyoming

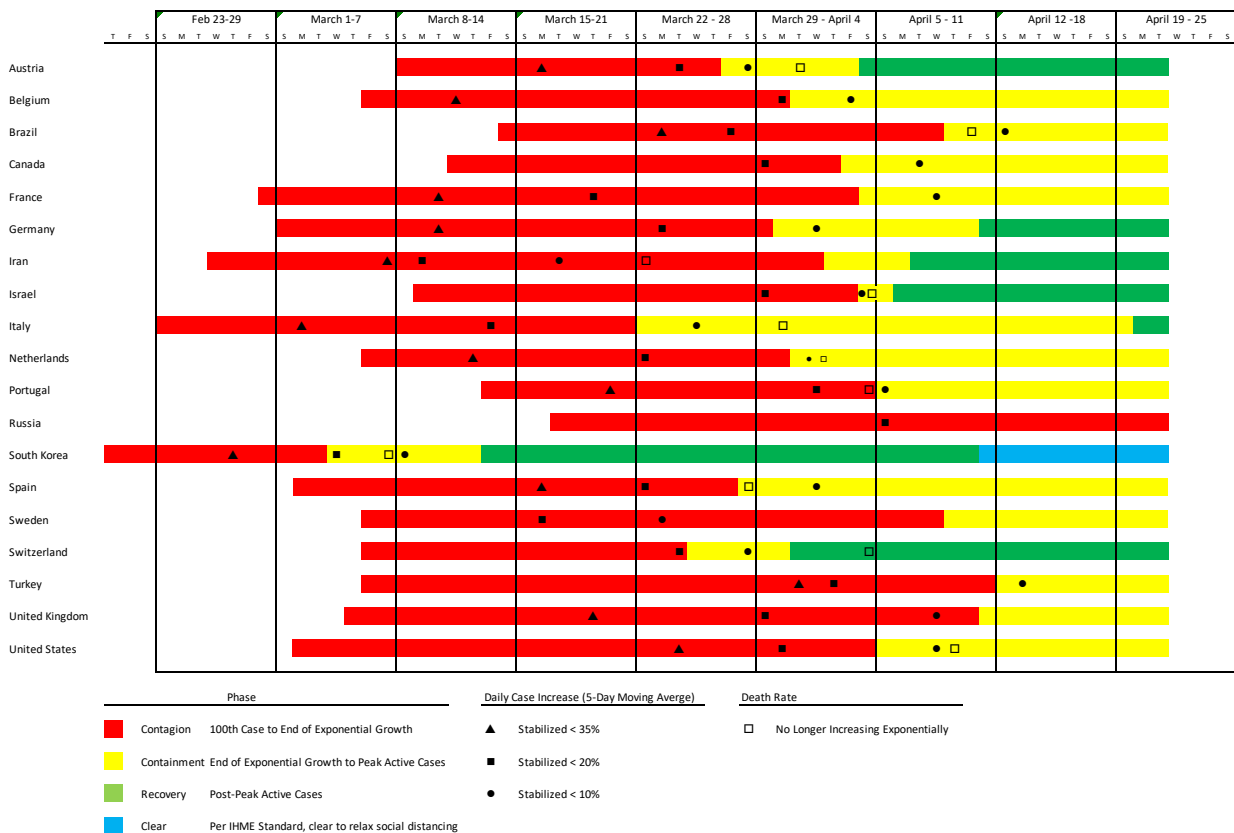
We will continue to provide the color-coded Virus Progression charts each day, so that the status of each country and state can be easily viewed each day. Also, we added a designation to these slides to designate the 7-day period during which each state hit its peak in new daily infections.

Virus Progression: Hardest Hit Countries

Italy, and Possibly Spain, Now Appear To Be Past the Peak in Active Cases

Austria, China (not pictured), Germany, Iran, Israel, South Korea and Switzerland are already in Recovery (past peak in Active Cases). Only Russia is still experiencing exponential case growth.

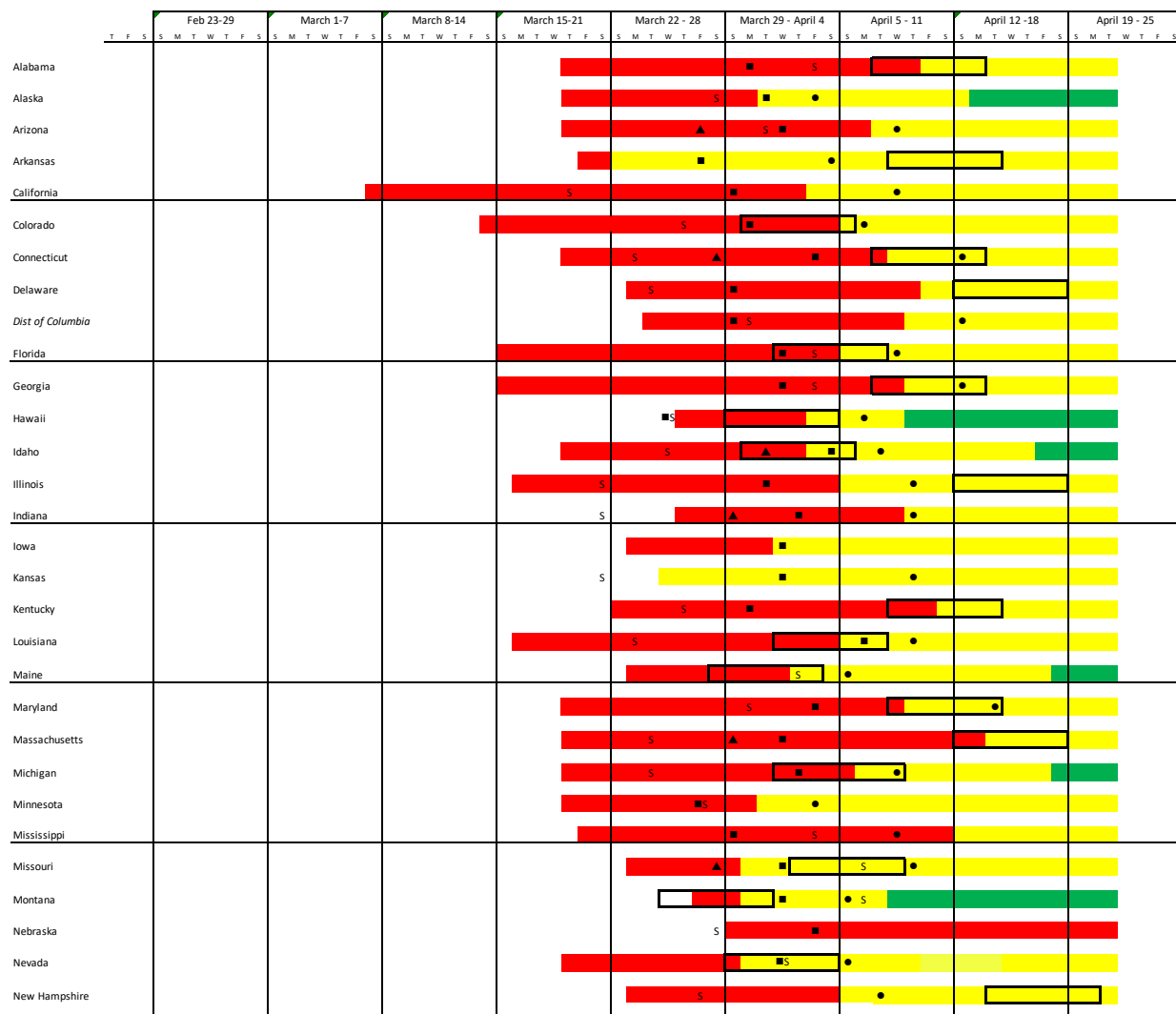
The graphic illustrates in color when the country first recorded 100 total cases (start of the "contagion" phase); when growth stopped following an exponential pattern (start of the "containment" phase); and, when peak total cases were recorded (start of the "recovery" phase). It uses symbols to indicate when average daily case growth rates fell (and were sustained) below certain benchmarks, as well as when deaths stopped growing exponentially.



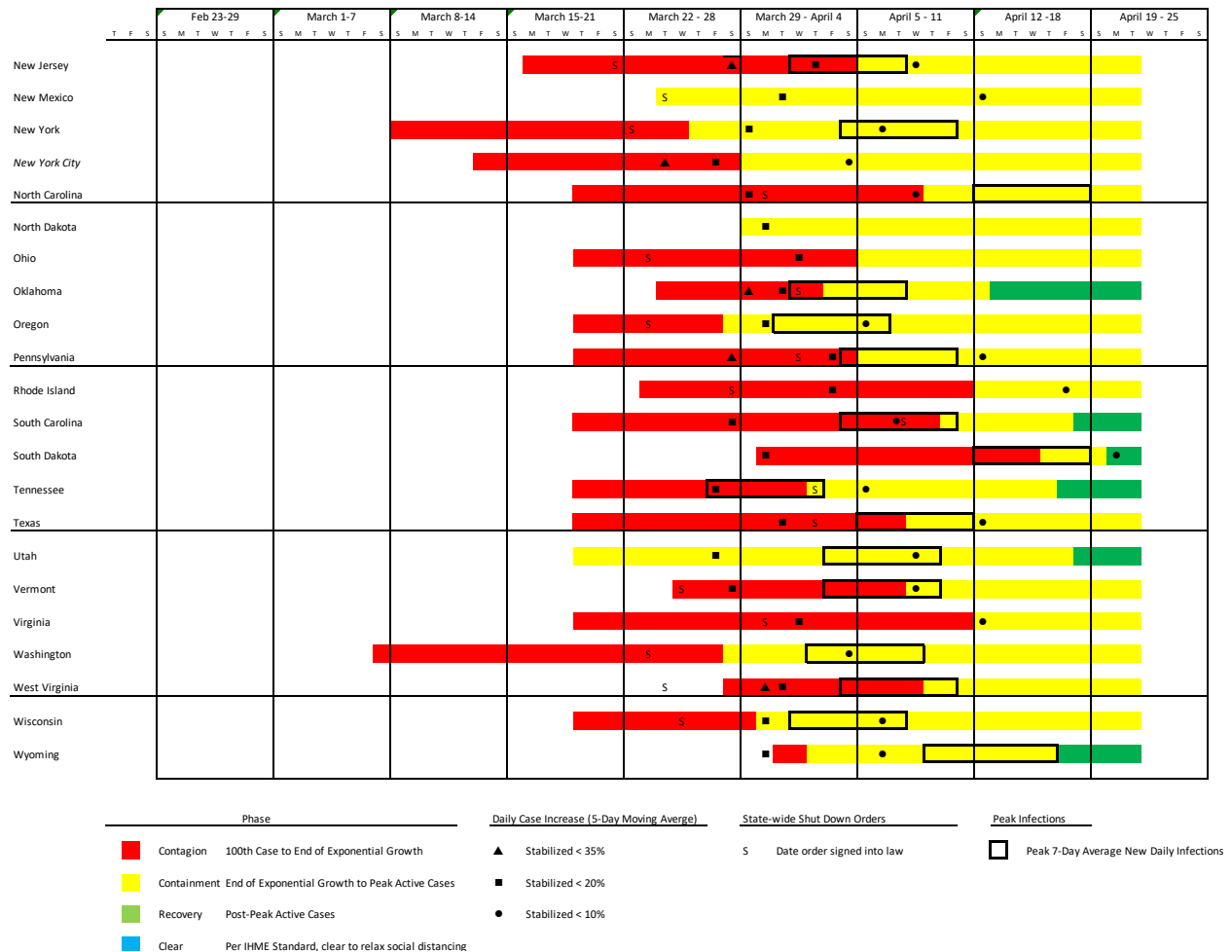
Virus Progression: US States, District of Columbia and New York City

The Majority of U.S. States are in Containment and Well on Their Way Toward Recovery

Today, we add a new notation for the 7-day period in which each state experienced its peak in New Daily Infections. This is designated by a heavy-lined box around the dates.



(continued on next page)



Opening Up America Again

The President Released His Guidelines For Getting the Country Moving

On Thursday, April 16, 2020, President Trump released his guidelines for three phases of [Opening Up America Again](#). Each state governor, however, retains the authority to determine how and when to open their states, based on the unique circumstances of their respective states.

The President outlined a staged approach, based on the state meeting certain "gating" criteria:

- Symptoms
 - Downward trajectory of influenza-like illness (ILI) reported within a 14-day period, and
 - Downward trajectory of COVID-19 syndromic cases reported within a 14-day period
- Cases
 - Downward trajectory of documented cases reported within a 14-day period, or
 - Downward trajectory of positive tests as a percent of total tests within a 14-day period (flat or increasing volume of tests)
- Hospitals
 - Treat all patients without crisis care, and
 - Robust testing program in place for at-risk healthcare workers, including emergency antibody testing

Whether these criteria will be applied is ultimately a state-by-state decision, and will be subject to other considerations. Therefore, no certainty can be provided as to how closely these state-by state decisions will follow the guidelines suggested.

These considerations notwithstanding, the following pages are intended to paint a picture of how closely each state is tracking toward the guidelines suggested by the President and the CDC.

We are producing a one-page summary of key measures for selected states per day. We began with those states with the most Total Cases: in order – New York, New Jersey, Massachusetts, Pennsylvania and Michigan on Sunday; California, Illinois, Florida, Louisiana and Texas, Monday; and, Georgia, Connecticut, Maryland, Washington, Indiana, Ohio, Colorado, Virginia, Tennessee and North Carolina, yesterday.

Today, we add the next twenty, in order of Total Cases - Missouri, Alabama, Arizona, Rhode Island, South Carolina, Wisconsin, Mississippi, Nevada, Utah and Kentucky.

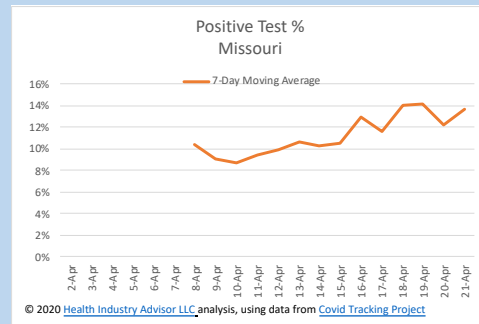
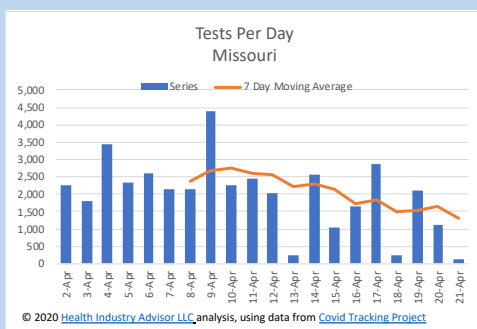
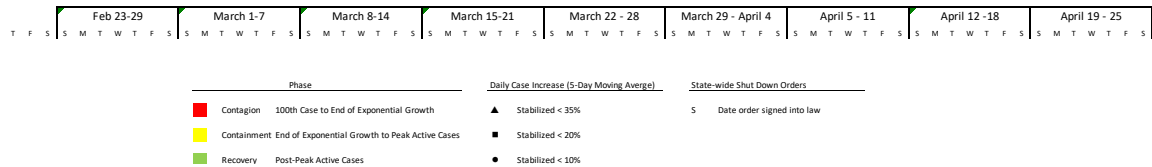
On these pages, we show:

- Our Virus Progression chart for the state, indicating when the state first recorded 100 total cases (start of the "contagion" phase); when growth stopped following an exponential pattern (start of the "containment" phase); and, when peak total cases were recorded (start of the "recovery" phase)
- Tests per day, and a 7-day moving average (given the provision for flat or increasing test volume)
- Positive test %, daily and 7-day moving average
- New Daily Infections per 1 Million Population – this metric may be better aligned with the gating criteria; also, it is the metric proposed by IHME to determine when social distancing may be relaxed
- Active cases per day, to indicate how active infections are trending
- % of Visits for Influenza-Like Illness (ILI) from [CDC.gov](https://www.cdc.gov), indicating the trajectory of these illness per the criteria above
- Projected Hospital Resource Needs from [Covid19.Health data.org](https://covid19.healthdata.org), indicating how these needs are trending

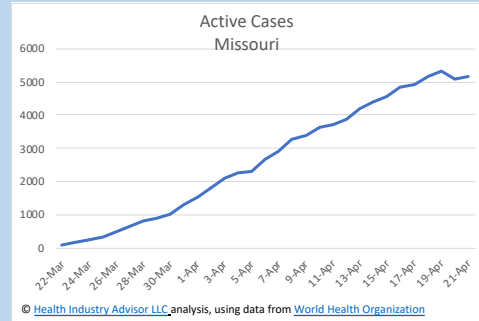
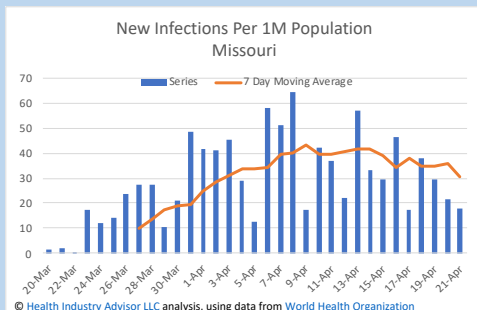
Note: these measures are not necessarily those that will be used by the states, however, they could serve as useful proxies. **Still, no one should rely on any of the following for a determination of what actions each state will take, and when.**

Missouri

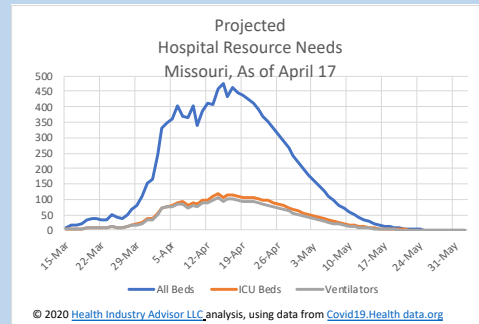
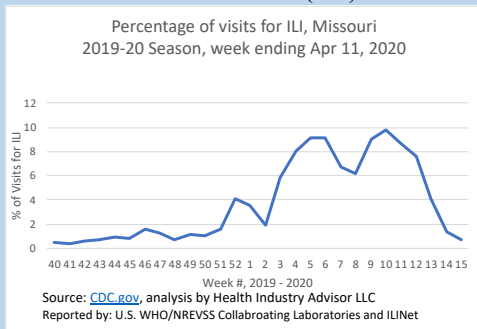
Timeline



Note: on several days, Missouri only reported positive tests. Thus, day-by-day bars are omitted for better readability.

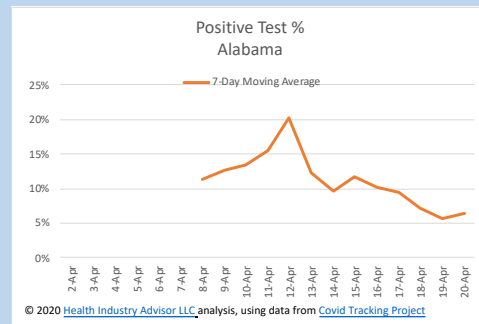
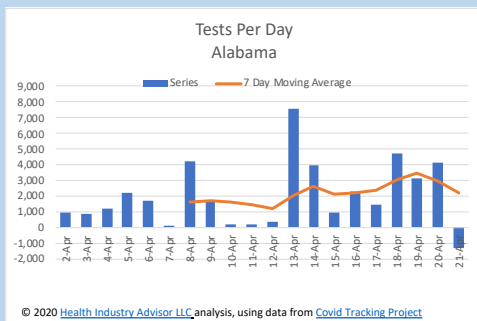
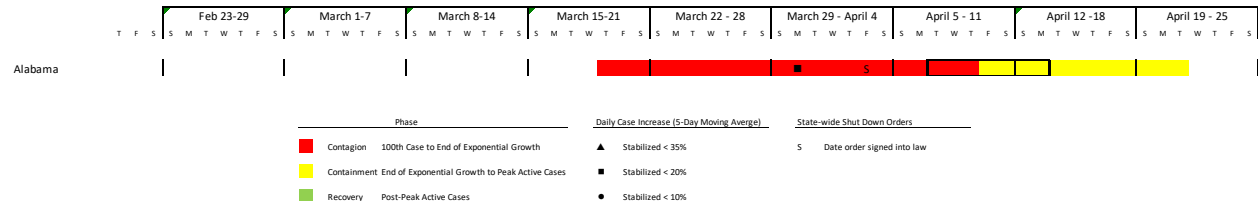


Influenza Like Illness (ILI) Trend

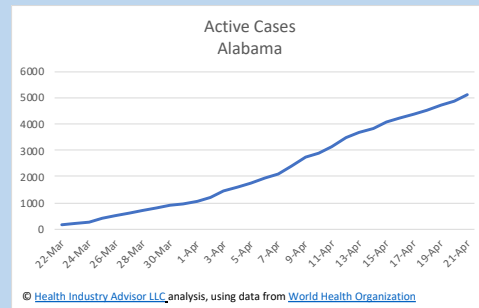
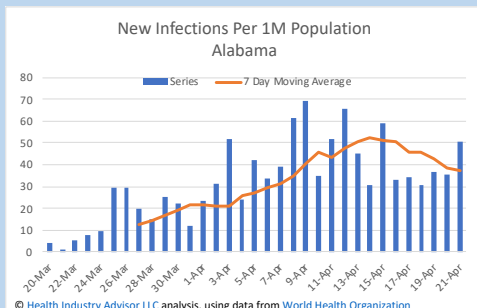


Alabama

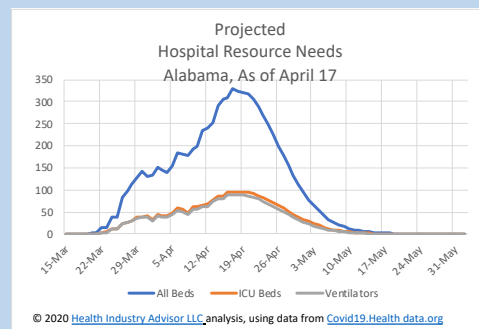
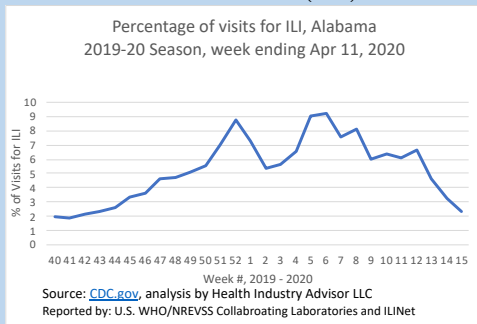
Timeline



Note: on several days, Alabama only reported positive tests. Thus, day-by-day bars are omitted for better readability.

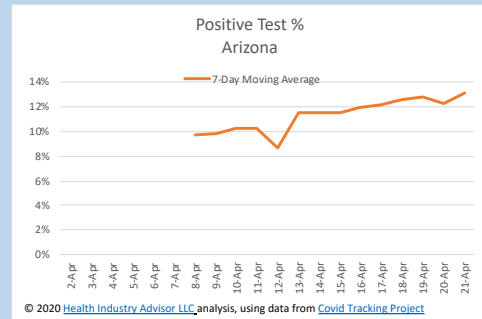
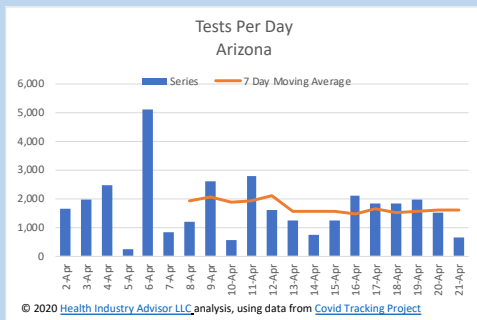
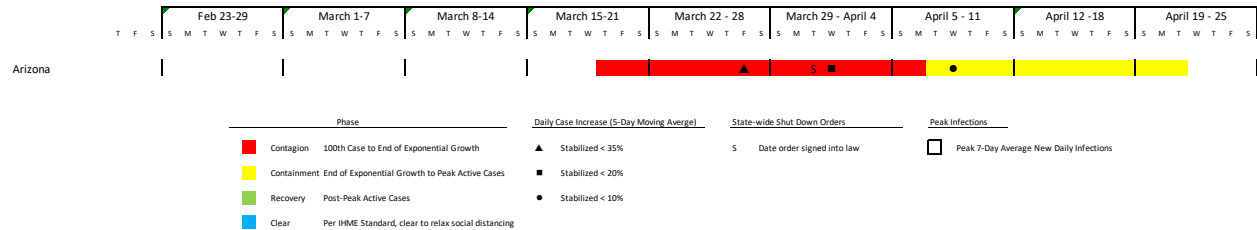


Influenza Like Illness (ILI) Trend

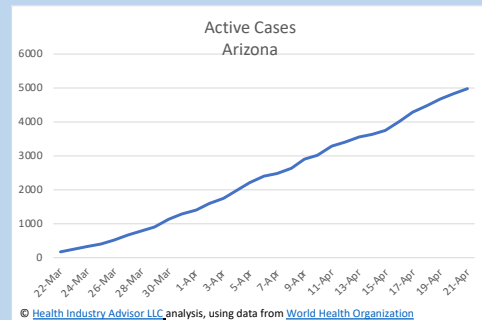
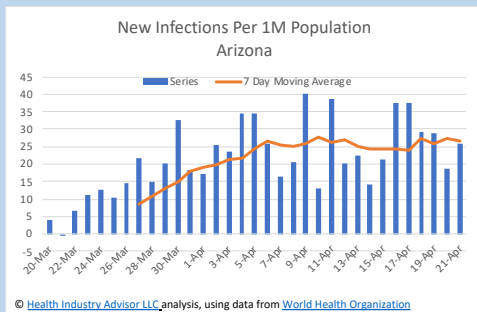


Arizona

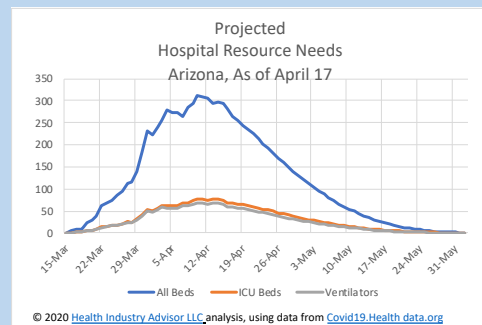
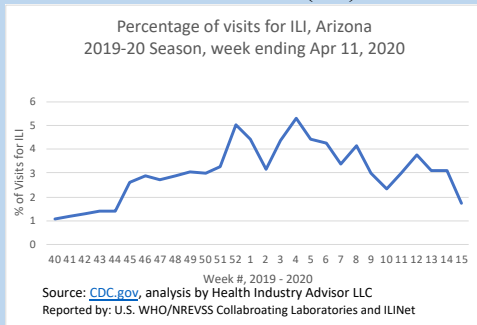
Timeline



Note: on several days, Arizona only reported positive tests. Thus, day-by-day bars are omitted for better readability.



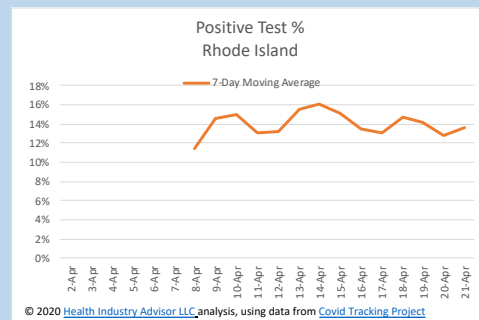
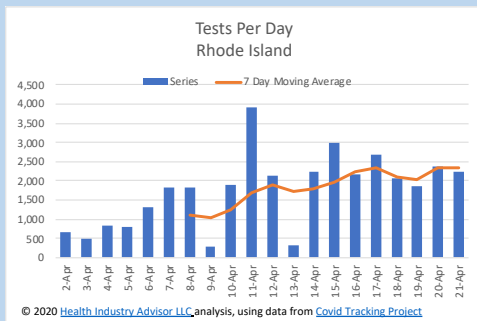
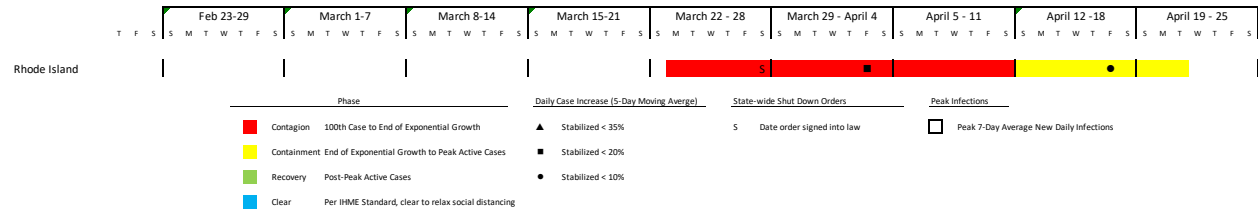
Influenza Like Illness (ILI) Trend



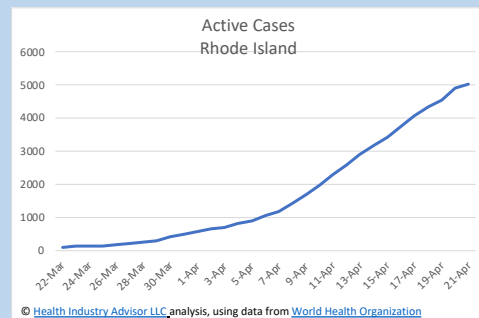
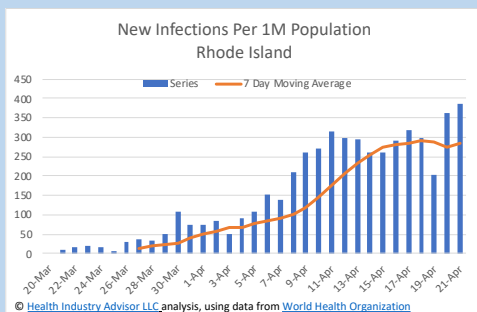
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Rhode Island

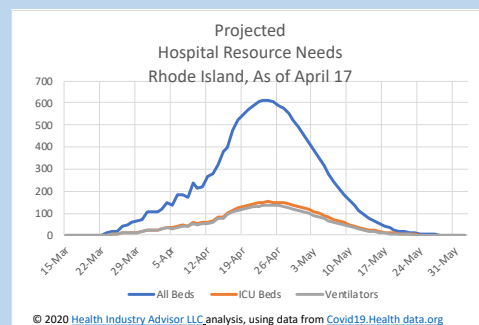
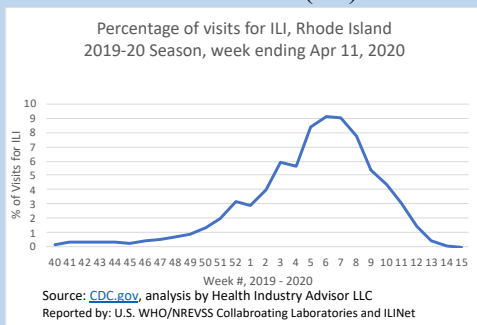
Timeline



Note: on several days, Rhode Island only reported positive tests. Thus, day-by-day bars are omitted for better readability.

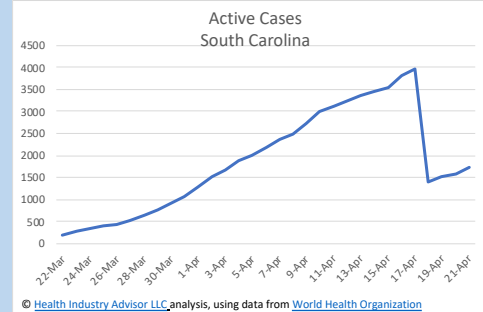
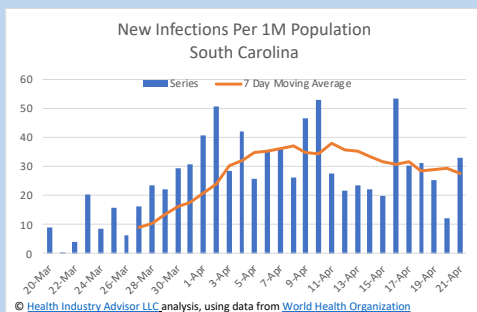
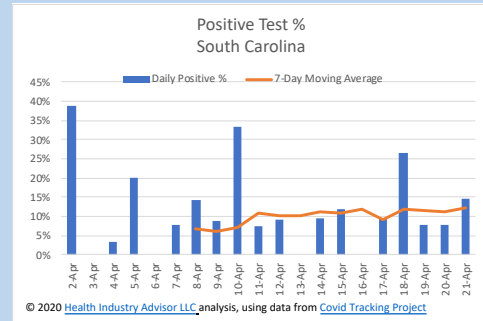
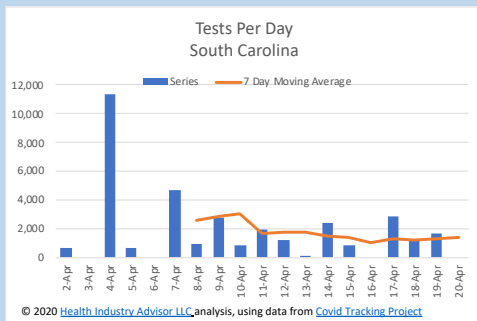
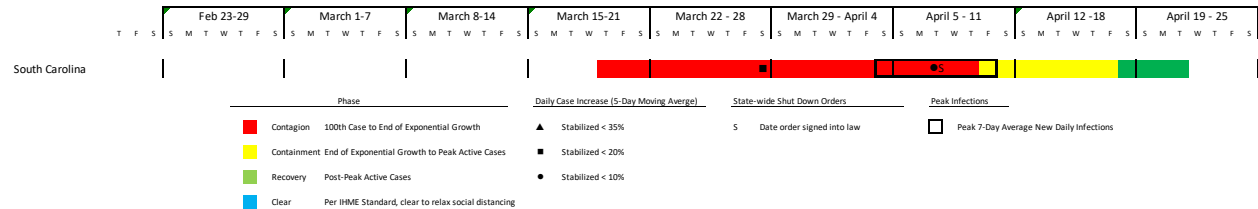


Influenza Like Illness (ILI) Trend

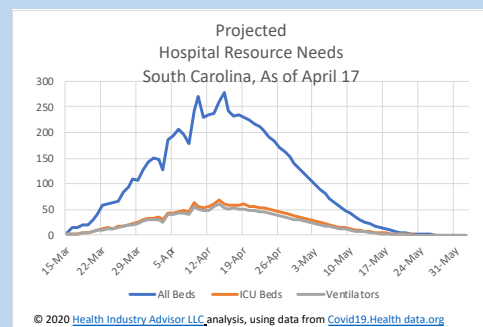
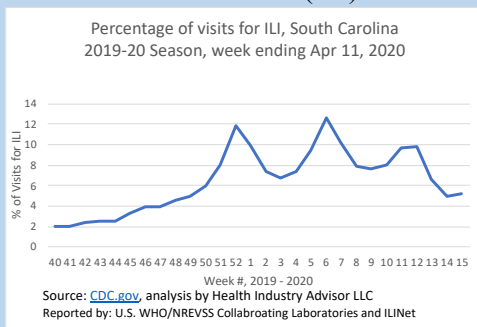


South Carolina

Timeline

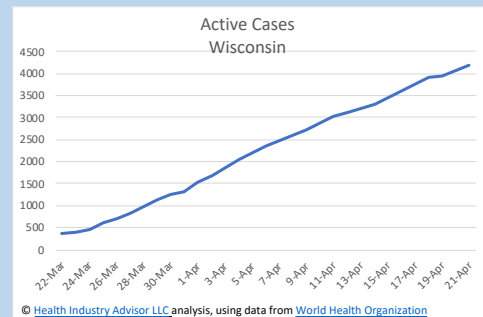
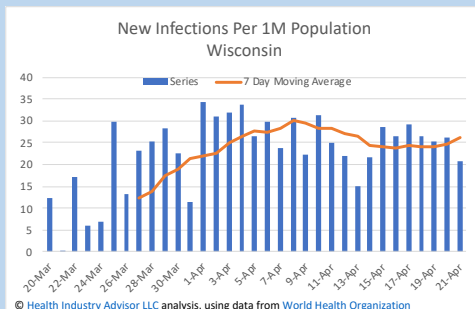
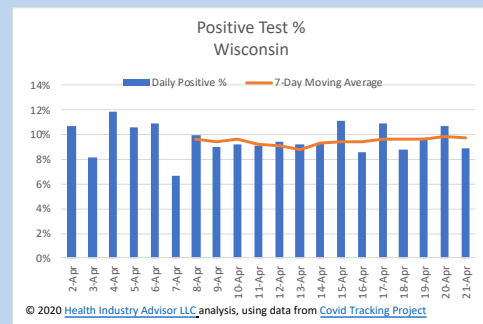
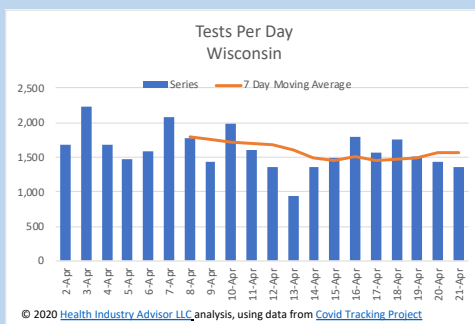
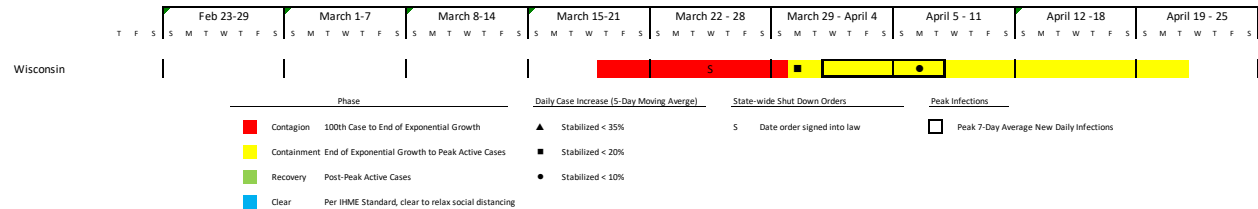


Influenza Like Illness (ILI) Trend

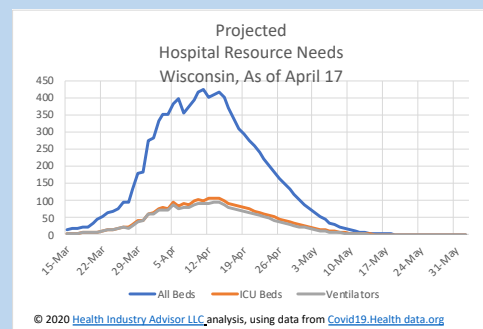
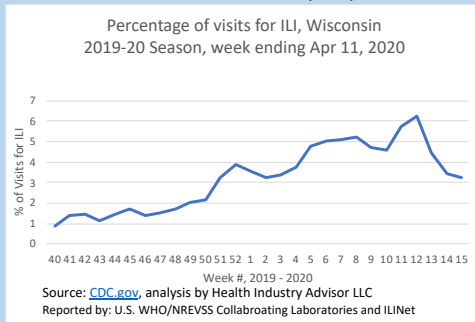


Wisconsin

Timeline

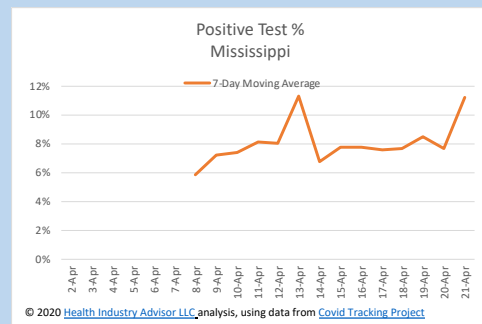
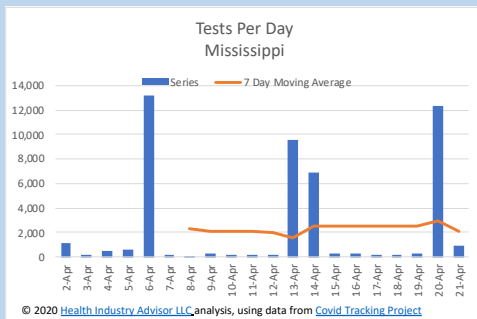
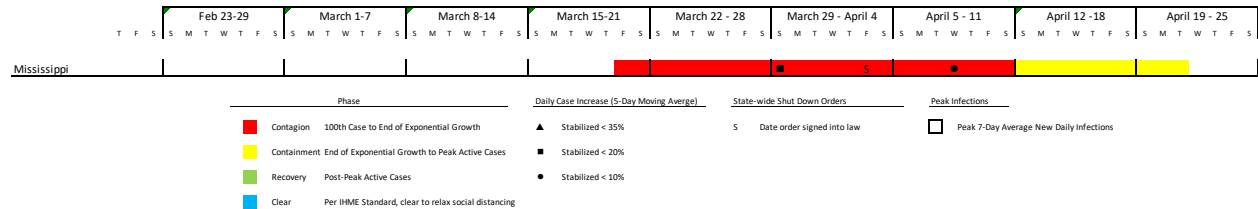


Influenza Like Illness (ILI) Trend

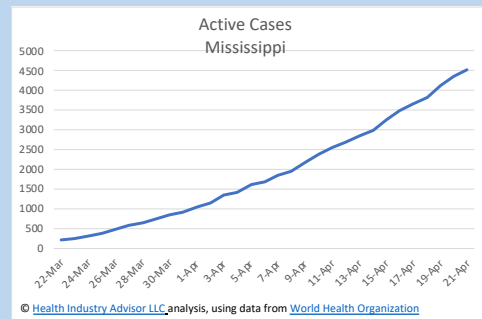
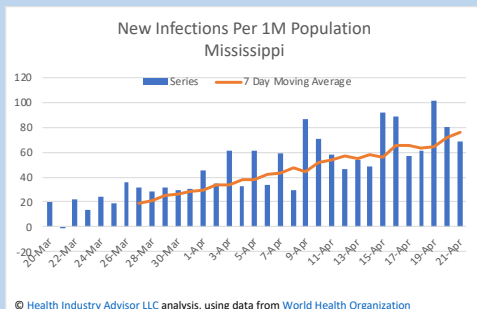


Mississippi

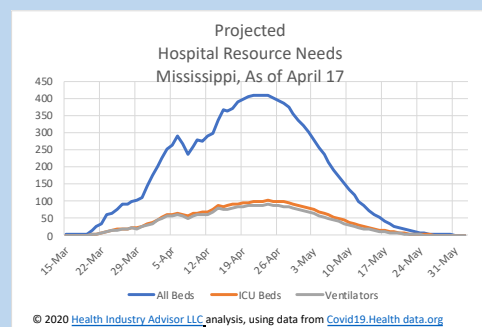
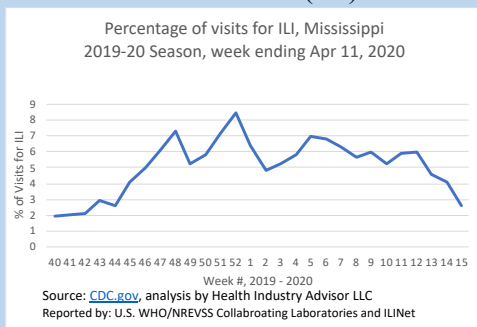
Timeline



Note: on several days, Mississippi only reported positive tests. Thus, day-by-day bars are omitted for better readability.

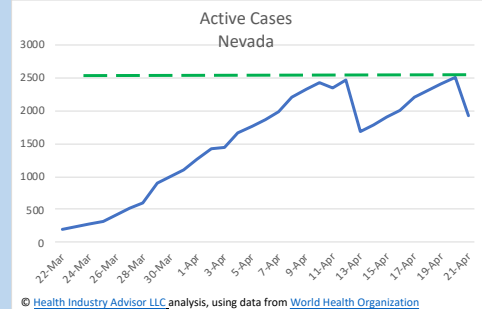
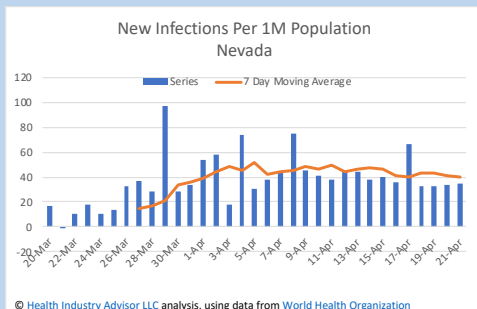
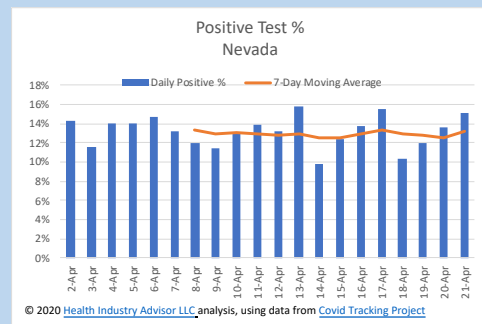
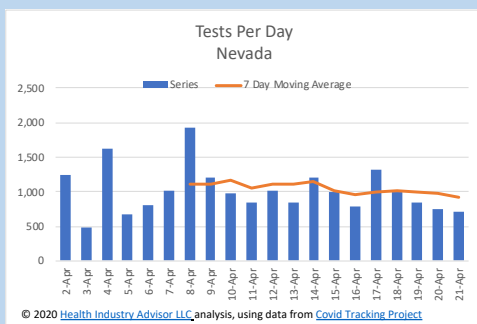
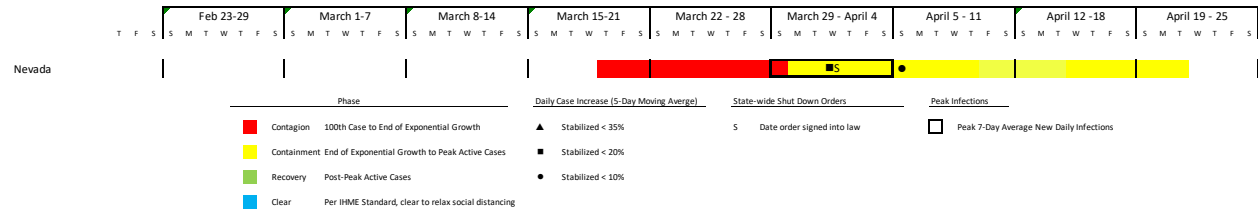


Influenza Like Illness (ILI) Trend

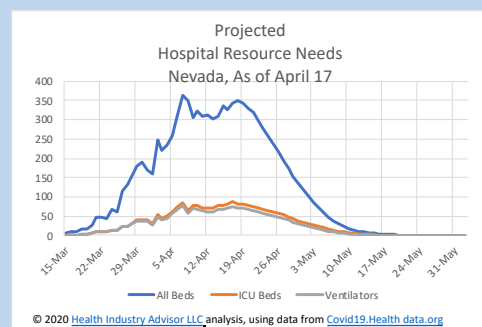
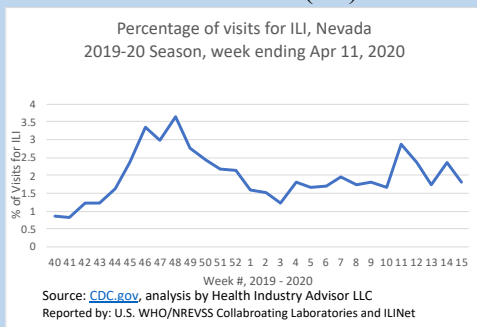


Nevada

Timeline



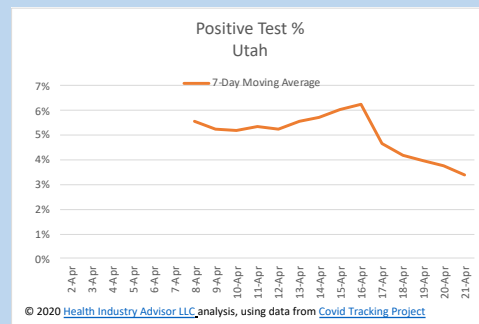
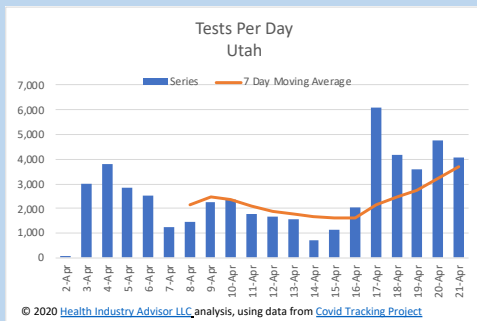
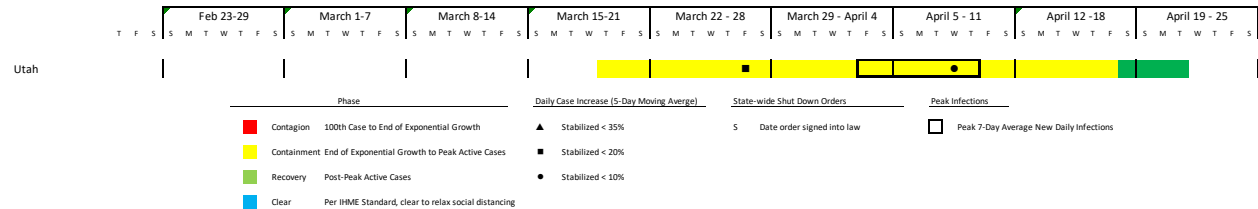
Influenza Like Illness (ILI) Trend



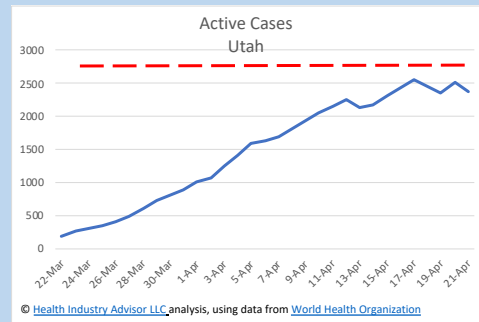
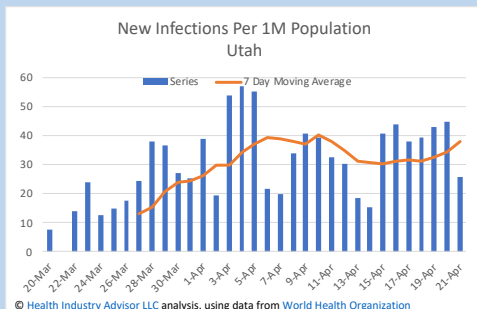
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Utah

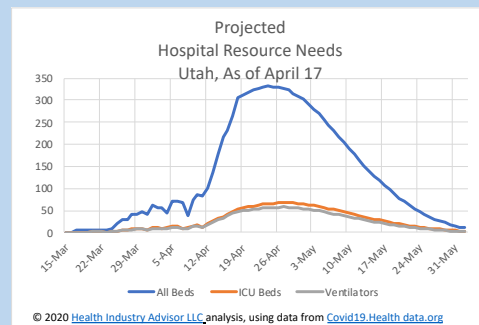
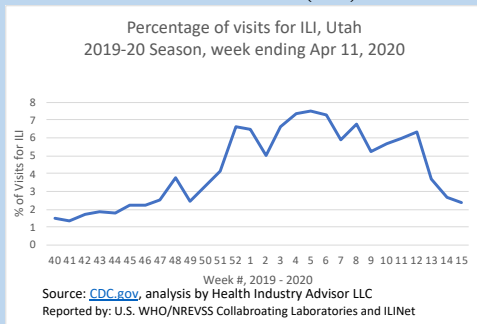
Timeline



Note: on several days, Utah only reported positive tests. Thus, day-by-day bars are omitted for better readability.



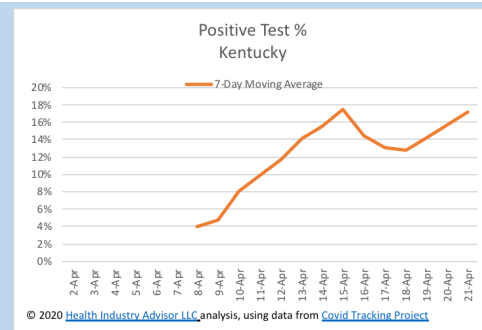
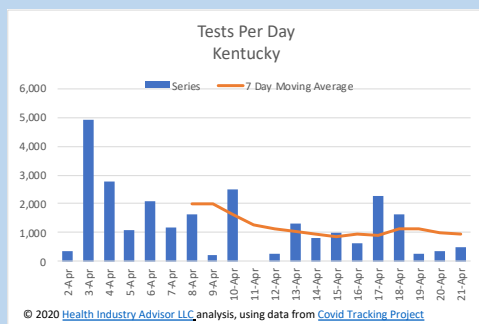
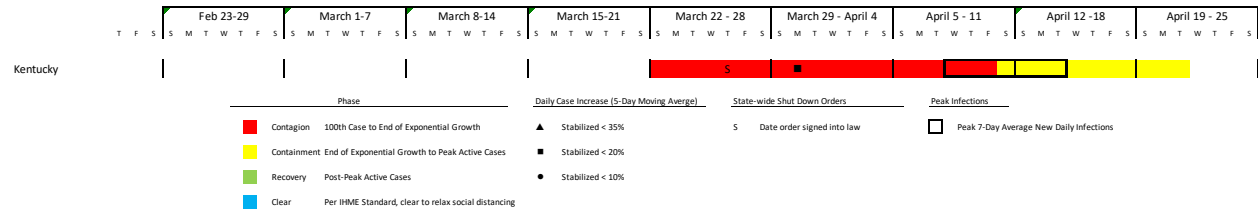
Influenza Like Illness (ILI) Trend



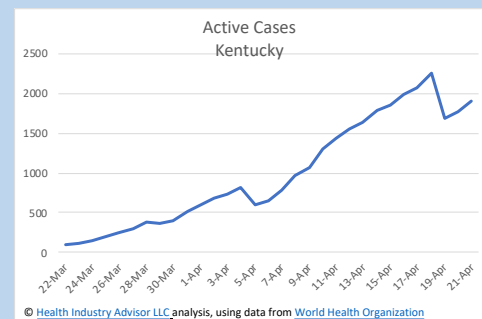
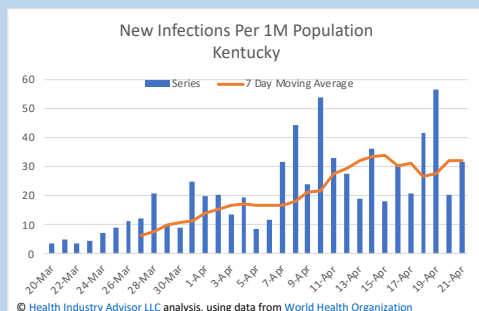
Information throughout the Dashboard is provided as a courtesy, based on data from the above-named sources. HIA has no responsibility for the accuracy and updating of any data. Sources: worldometers.info; covidtracking.com, <https://covid19.healthdata.org/united-states-of-america>, and nyc.gov. Graphics depict data as of the date in the header.

Kentucky

Timeline



Note: on several days, Kentucky only reported positive tests. Thus, day-by-day bars are omitted for better readability.



Influenza Like Illness (ILI) Trend

