

# COVID-19 BRIEF

Changes in COVID-19 Cases,  
Hospitalizations, and  
Death Projections

UAMS

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UAMS's College of Public Health (COPH) publishes periodic briefings designed to update 15- and 30-day COVID-19 projections of cases, hospitalizations, and deaths between each of the monthly releases of the *UAMS COPH COVID-19 Report*. Briefings also will be published when cases, hospitalizations, or deaths rapidly change during times between each monthly report.

All forecasts and projections were developed using COVID-19 data from the Arkansas Department of Health through Jan. 30.

**Key Findings.** COVID-19 *cumulative* cases, hospitalizations, and deaths in Arkansas continue to increase. Cumulative numbers will continue to grow as long as COVID-19 remains a public health threat. What is more important for understanding what is presently happening is rates in the last four weeks. Cases and hospitalizations have decreased in the last two weeks, and the 15- and 30-day models, as shown in the figures below, indicate we should expect declining new cases and hospitalizations into March. These suggest we are on the downward side of the latest exponential growth curve.

The models suggest we should expect COVID-19 deaths to continue to increase for the next two weeks, but at a slower rate. The models are forecasting continued increasing death rates because deaths lag cases and hospitalizations by as much as two to four weeks.

Despite declining cases and hospitalizations, we should, nevertheless, expect significant numbers of both. Cases could be as high as 5,000 per day through the next month. New hospitalizations could be as high as 128. The models tend to react slowly to changes in data trajectories, so the "as high as" estimates are truly estimates, not projections of real numbers.

In summary:

- The models are forecasting 110,315 new COVID-19 cases by Feb. 14 and 154,602 new cases by March 1, a 20% increase over the next 30 days. New daily cases are expected to average 5,153 per day.
- We should expect 2,195 individuals to be newly hospitalized by Feb. 14 and 3,832 by March 1. New daily hospitalizations average 128 per day.
- The models are forecasting 204 new COVID-19 deaths by Feb. 14 and 392 by March 1, or around 13 deaths per day.

Declines in cases and hospitalizations are evident across all ages, as seen in the figures below. The greatest decline in both has been in young adults 19 to 25.

Compared to earlier this month, the models suggest a fairly rapid decline in new daily cases and hospitalizations. There will be a slower decline in deaths, as deaths lag the other two measures. It is very likely the third and largest COVID wave has peaked in Arkansas. Even so, we are not out of the woods. The Omicron variant is highly infectious and capable of causing severe illness. Positivity rates are still high, suggesting continuing community spread. There are a large number of Arkansans unvaccinated or partially vaccinated.

As we wrote in the *Report*, just because infections and hospitalizations are declining, does not mean the virus has gone away. There is no reason to throw common sense out the window. COVID-19 is still here. It can still infect. And, COVID-19 can still cause serious illness. Vaccination is the best method of prevention. Masks still work. Avoiding crowds, especially while indoors, is still effective coupled with vaccination and masking.

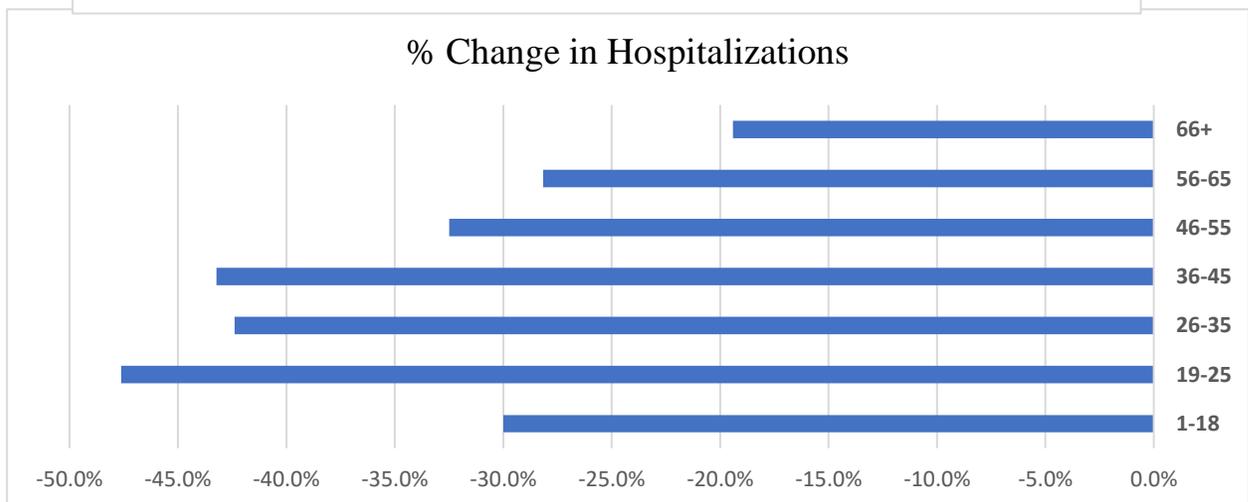
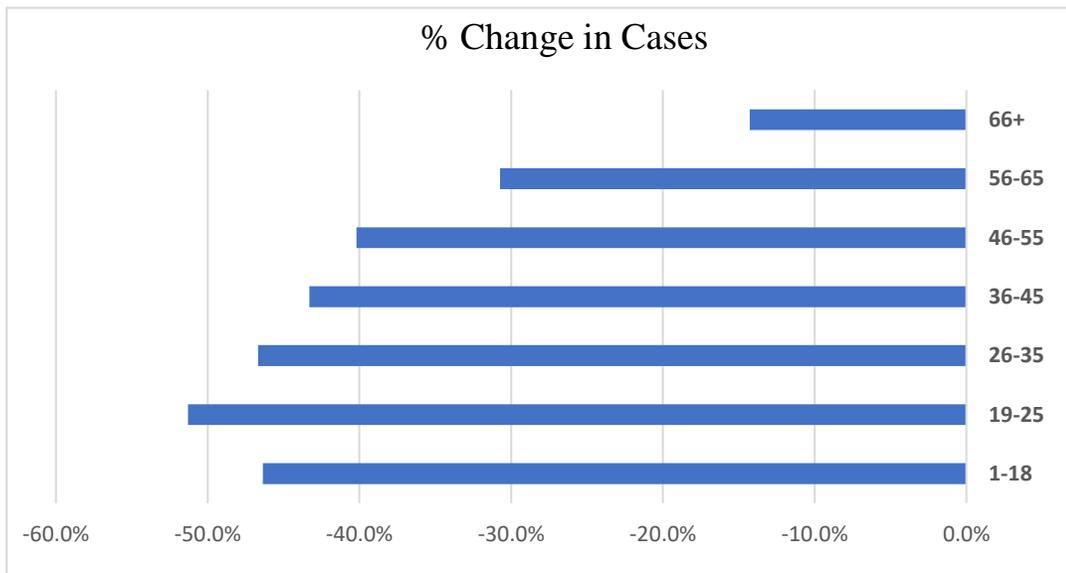


Figure 1a: Cumulative COVID cases

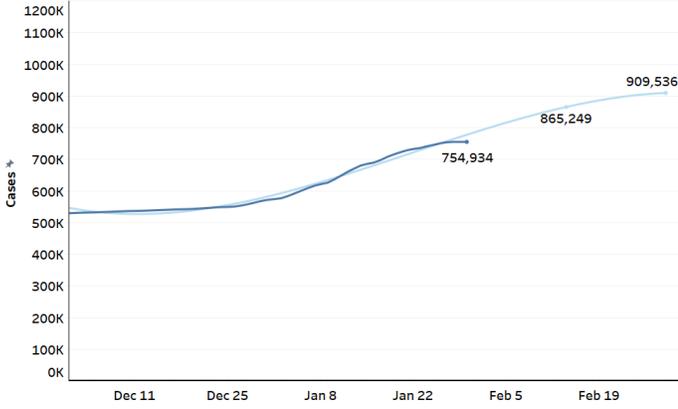


Figure 1b: 15-day COVID cases

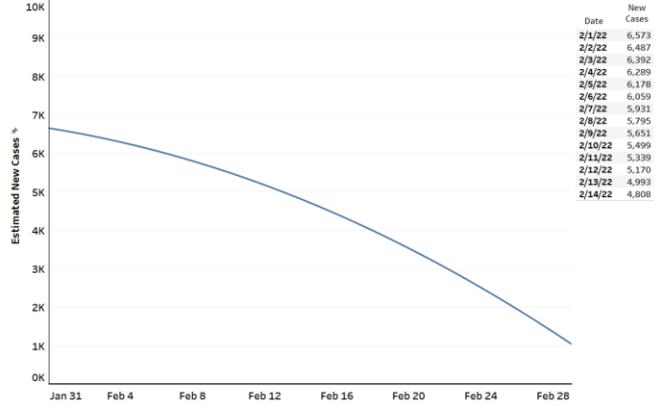


Figure 1c: 30-day COVID cases

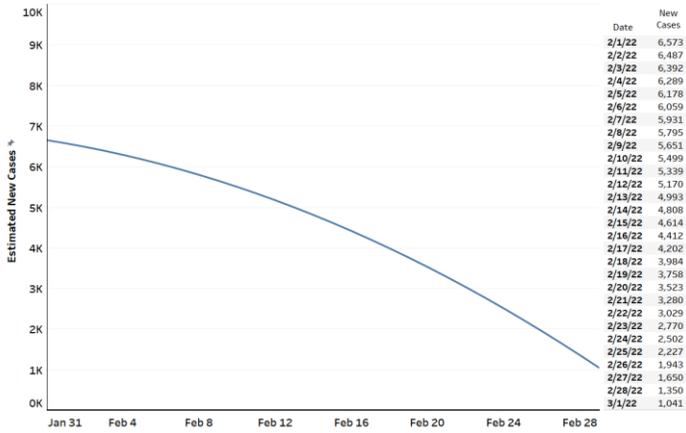


Figure 2a: Cumulative COVID hospitalizations

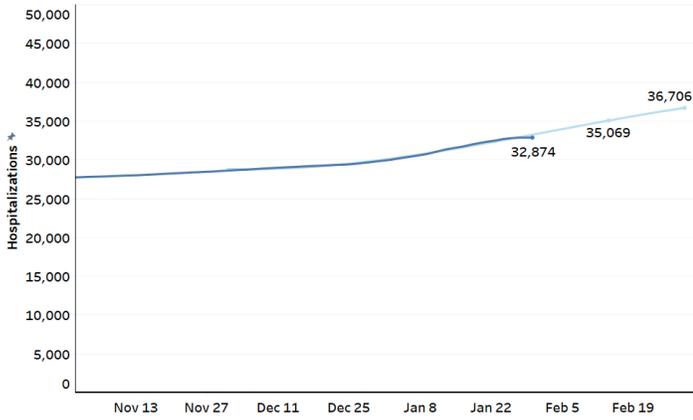


Figure 2b: 15-day COVID hospitalizations

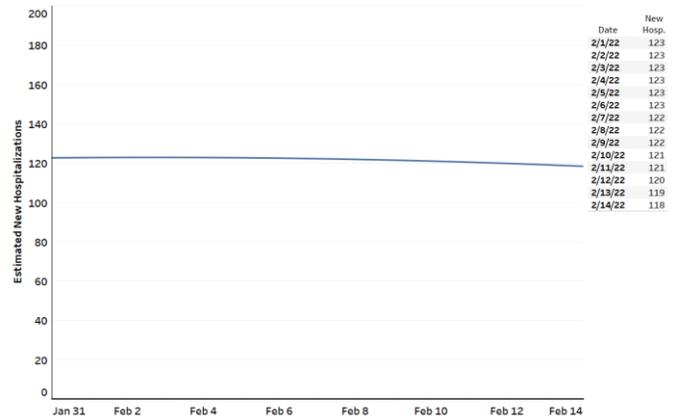


Figure 2c: 30-day COVID hospitalizations

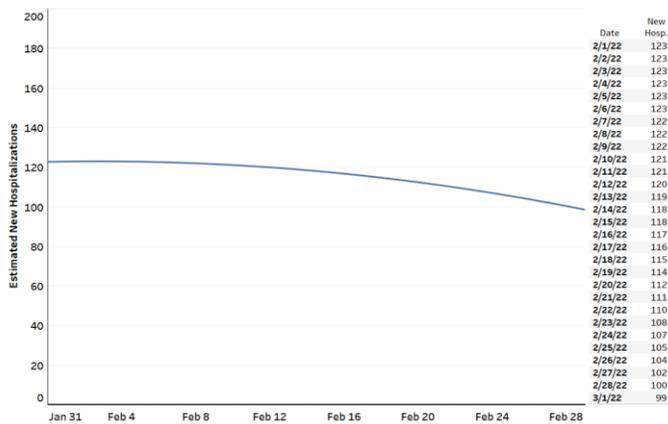


Figure 3a: Cumulative COVID-19 deaths



Figure 3b: 15-day COVID-19 deaths

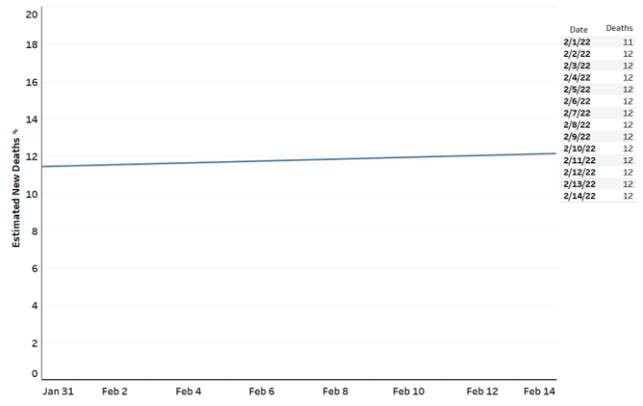


Figure 3c: 30-day COVID-19 deaths

