

COVID-19 BRIEF

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

UAMS

Fay W. Boozman
College of Public Health

Jan. 3-Feb. 1, 2022

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 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.

Data used to prepare this briefing were downloaded from the Arkansas Department of Health on Jan. 2, 2022.

Key Findings. COVID-19 cases, hospitalizations, and deaths in Arkansas are once again increasing. The 15- and 30-day models, as shown in the figures on the next three pages, indicate we should expect increasing numbers of COVID-19 cases, hospitalizations, and deaths in Arkansas. If current trajectories continue, we expect a significant increase in cases followed by increasing numbers of hospitalizations and deaths, with respective lag times. The models suggest the new surge will last through January.

In summary:

- The models are forecasting 54,900 new COVID-19 cases by Jan. 17 and 168,793 new cases by Feb. 1, a 30% increase over 30 days. New daily cases are expected to average 5,626 per day over the next 30 days.
- We should expect approximately 1,062 individuals to be newly hospitalized by Jan. 17 and 2,190 by Feb. 1. Daily hospitalizations are projected to average 73 per day.
- The models are forecasting 230 new COVID-19 deaths by Jan. 17 and 511 by Feb. 1, or approximately 17 COVID-19 deaths per day.

The models are indicating significant growth following the holiday season, reflecting a third COVID-19 wave in Arkansas. Unlike 2020, if the Arkansas surge is like Omicron surges in other countries, then this surge will peak in the next 30 days, with a sustained level of new infections continuing into February and March.

Although the Omicron variant is relatively new, we know enough about it to make some fairly reasonable projections about how it will behave in Arkansas. Omicron, the now dominant variant in Arkansas, is highly infectious. Research suggests Omicron may be as infectious as the measles virus. Furthermore, while it has been speculated that Omicron may cause less serious

disease than Delta, it nevertheless is capable of causing severe illness in children and adults. In states with more advanced Omicron surges, hospital systems, including those which treat children only, are being severely challenged with increasing numbers of seriously ill patients. Hospitalization of children with COVID-19 in states well into the surge are high. In those same states, deaths due to COVID-19 disease are increasing at rates similar to the 2021 winter surge. We should expect the same here. In Arkansas, there are sufficient numbers of unvaccinated citizens to drive this third surge to unprecedented levels.

Figure 1a: Cumulative COVID cases

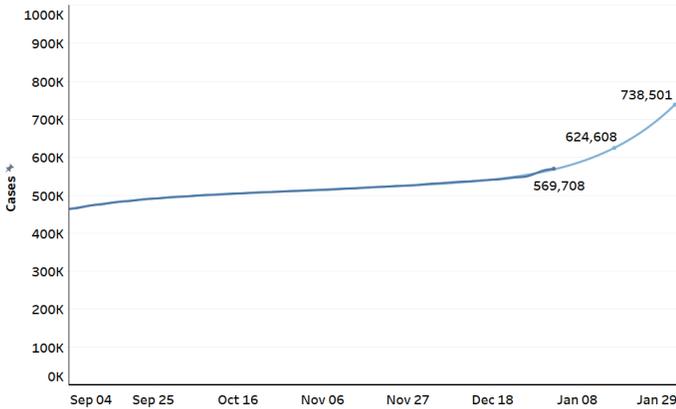


Figure 1b: 15-day COVID cases

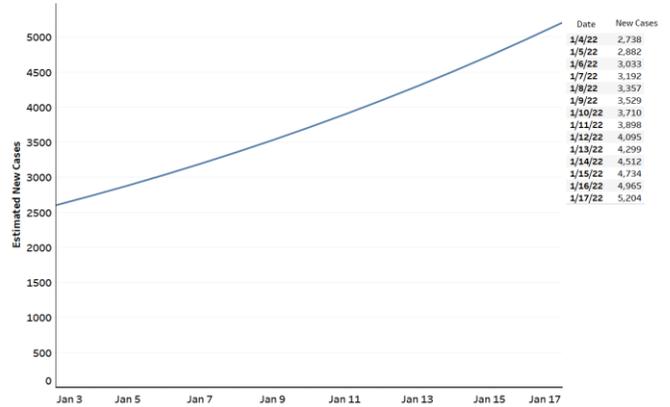


Figure 1c: 30-day COVID cases

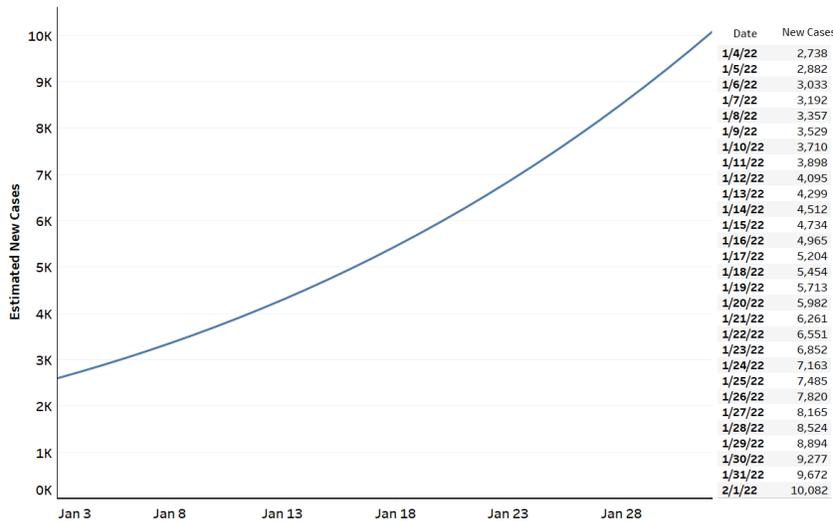


Figure 2a: Cumulative COVID hospitalizations

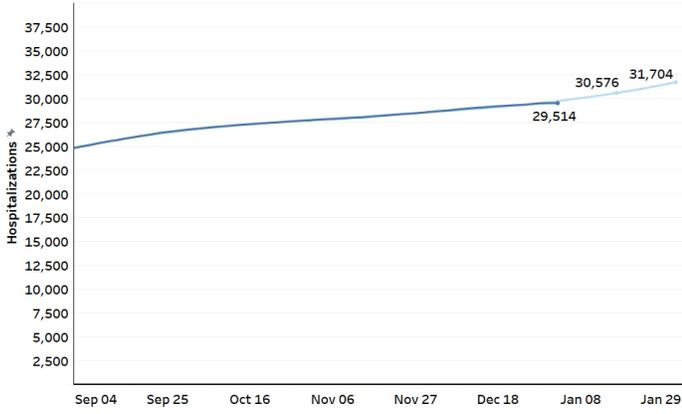


Figure 2b: 15-day COVID hospitalizations

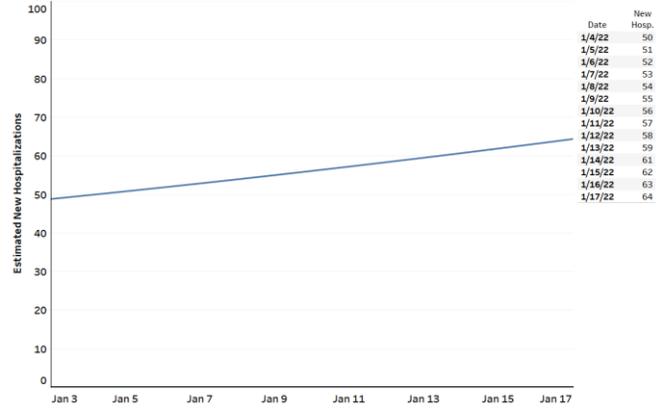


Figure 2c: 30-day COVID hospitalizations

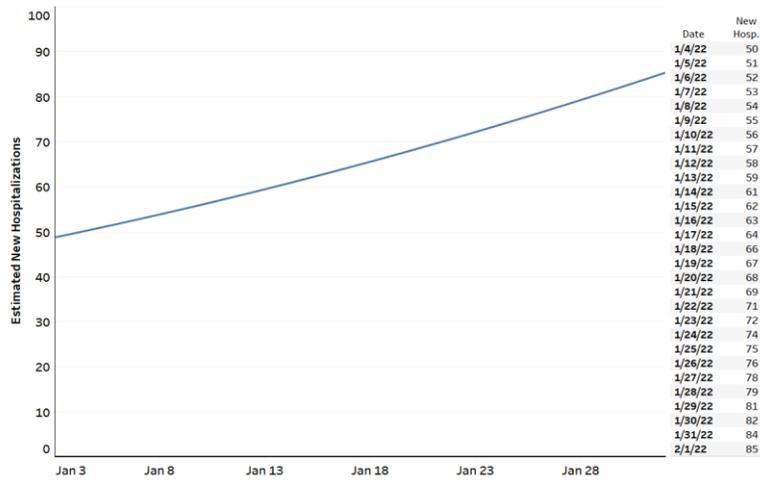


Figure 3a: Cumulative COVID-19 deaths

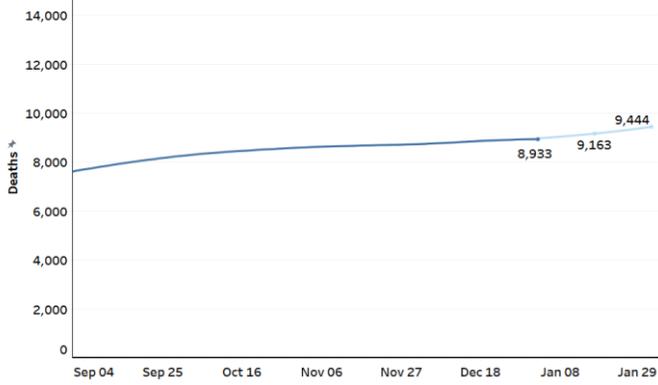


Figure 2b: 15-day COVID-19 deaths

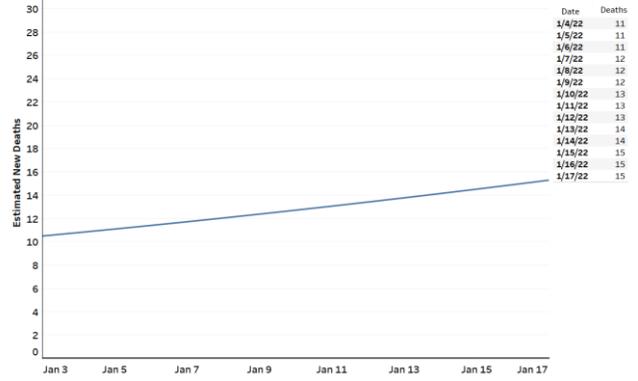


Figure 3c: 30-day COVID-19 deaths

