

Public Health Brief

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The University of Arkansas for Medical Sciences' Fay W. Boozman College of Public Health COVID-19 Research Team decided in May, due to a changing COVID-19 pattern, to transition to a new format for the College's *COVID-19 Report*. Rather than solely focusing on COVID, the new *Public Health Brief* will focus on an important public health issue in Arkansas. The College will, from time-to-time, write a *Brief* specific to COVID in addition to an update included with the *Public Health Brief*.

With respect to content, COVID case and death data will not be included in the *Brief* for the foreseeable future. COVID home-testing has become widespread, and case data, as reported by state health departments, no longer accurately reflect true community spread and resulting forecasts are extremely biased. Deaths due to COVID continue. However, since December/January, the number of COVID deaths in the state have dropped considerably. While this is very good news from a health care and public health perspective, small numbers make forecasting models highly unstable and resulting forecasts unreliable.

Given these circumstances, this *Public Health Brief* will focus solely on Arkansas COVID hospitalizations data. Hospitalization data are extremely valid, as events are discreet and counts highly reliable. Low numbers make modeling difficult and subject to unknown bias. Nevertheless, there are sufficient hospitalization data to allow an assessment of COVID trends in Arkansas.

Data included in this *Brief* are from the Arkansas Department of Health through July 31, 2022.

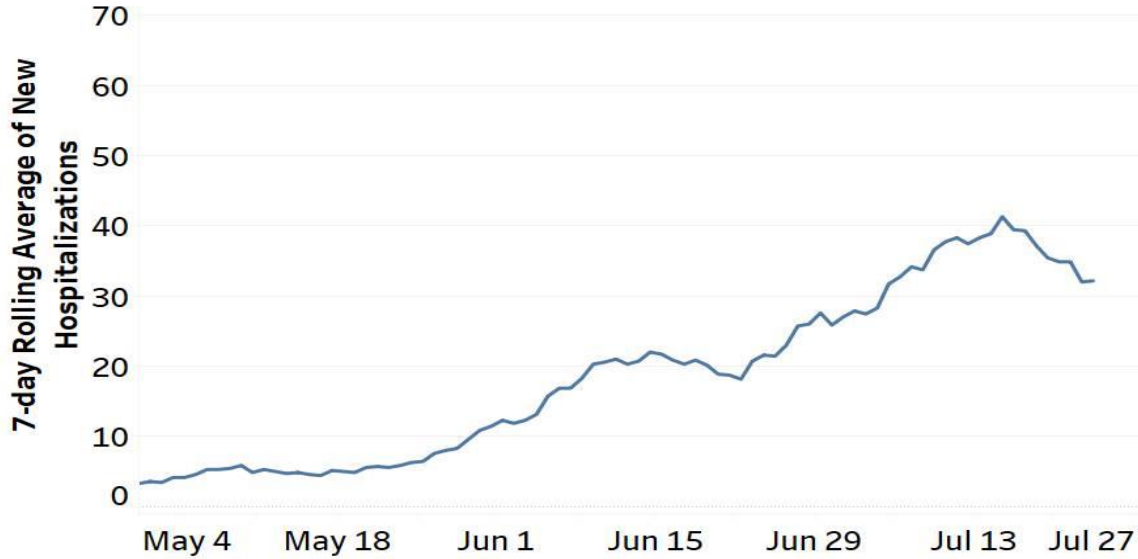
Quick Facts:

- There was an observable increase in cumulative COVID-19 hospitalizations from 37,500 on April 1, 2022 to 39,292 on July 31, 2022.
- Hospitalization data suggest a mini COVID-19 surge in the state. The current surge may have peaked around July 15.
- It is difficult to know whether the recent downward trend in Arkansas hospitalizations will continue, or are just a temporary lull. The trend will be more apparent by Aug. 15.

COVID hospitalizations in Arkansas steadily increased after May 4. A clear trend was apparent in the data. Arkansas was experiencing a mini COVID surge. However, around July 15, the pattern changed, suggesting a decline in COVID hospitalizations, as shown in Figure 1. The reader should keep in mind that hospitalizations lag about two weeks behind cases being

reported. However, there is wide variability in when any one hospital reports their hospitalizations as the numbers decline, and the resources devoted to reporting decline as well.

Figure 1. 7-day rolling average of COVID-19 hospitalizations



On April 4, Arkansas had 37,500 cumulative COVID hospitalizations since the beginning of the pandemic. In the last four months, the state recorded an additional 1,792 hospitalizations.

Table 1. COVID-19 weekly hospitalizations in Arkansas

| Week | New Hospitalizations During Week | Change From Previous Week |
|-----------|----------------------------------|---------------------------|
| 7/18-7/24 | 191 | -50 |
| 7/11-7/17 | 241 | 12 |
| 7/4-7/10 | 229 | 64 |
| 6/27-7/3 | 165 | 34 |
| 6/20-6/26 | 131 | 9 |
| 6/13-6/19 | 122 | -20 |
| 6/6-6/12 | 142 | 61 |
| 5/30-6/5 | 81 | 25 |
| 5/23-5/29 | 56 | 19 |
| 5/16-5/22 | 37 | 8 |
| 5/9-5/15 | 29 | -4 |
| 5/2-5/8 | 33 | 12 |
| 4/25-5/1 | 21 | 0 |
| 4/18-4/24 | 21 | 11 |
| 4/11-4/17 | 10 | -13 |
| 4/4-4/10 | 23 | 23 |

The drop of 50 in the week of July 18 to July 24 represents about seven fewer hospitalizations per day across the state. As of July 31, a total of 39,292 COVID hospitalizations have been recorded in the state.

It is difficult to tell whether recent declines in COVID hospitalizations indicate a sustained downward trend. At least three additional weeks' data will be necessary to confirm the apparent resolution of a mini-surge in hospitalizations. The reason additional data are needed before we are confident in saying the recent mini surge has resolved is because of hospitalization trends in states close to Arkansas. For example, data reported by the *Des Moines Register* on Aug. 4 (*Des Moines Register*) showed a 25% increase in COVID hospitalizations in Iowa over the previous week and a substantial increase in COVID patients requiring ventilation, about two times higher. If a similar pattern is followed in Arkansas in the next couple weeks, then the current decrease in COVID hospitalizations may be temporary.

As many have said or written, we may be through with COVID, but COVID is not through with us. The current surge of BA.4 and BA.5 variants in Arkansas will eventually abate. Yet, there is another variant, BA.2.75, named "Centaurus," now widely circulating in India and has shown up in very small numbers in the United States. BA.2.75 is even more infectious and perhaps more virulent than any of the previous COVID variants. Because of numerous mutations, there are early indications BA.2.75 may be able to evade induced and natural immunity developed over the past two years. Furthermore, there are early indications Centaurus causes more serious disease than either the BA.4 or BA.5 variants. If true, this suggests a greater proportion of people infected with COVID will require hospitalization. And, just to make matters worse, there is new evidence suggesting COVID is becoming resistant to medications used to treat COVID, such as Paxlovid, suggesting our small tool chest of medications to treat COVID-19 disease may be getting smaller.