

320 E. 9<sup>th</sup> Suite B  
Winfield, KS 67156  
Phone: (620) 221-1430  
Fax: (620) 221-0389



City-Cowley County  
Health Department

115 E. Radio Lane  
Arkansas City, KS 67005  
Phone: (620) 442-3260  
Fax: (620) 442-1759

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## Cowley County COVID-19 Report

*April 6, 2022*

To date, 10,104 COVID-19 cases have been identified from 26,008 tests performed on Cowley County residents between March 1, 2020, and March 31, 2022. Females account for 52% (5,254) and males account for 48% (4,850) of cases reported. Unfortunately, 152 Cowley County residents have died due to illness exacerbated by the SARS-CoV-2 virus. Females account for 42% (64) and males account for 58% (88) of deaths reported.

Each Cowley County community has been negatively affected, with some having greater than 25% of their residents becoming infected at least once. Below is a ranking of Cowley County communities that have been impacted. Their ranking was determined using their population size and the total number of cases reported for that zip code (1= most impacted, 9= least impacted).

1. 67023 (Cambridge): 81 cases- 40%
2. 67131 (Rock): 76 cases- 32%
3. 67156 (Winfield): 4,350 cases- 30%
4. 67005 (Arkansas City): 4,552 cases- 30%
5. 67019 (Burden): 253 cases- 27%
6. 67146 (Udall): 548 cases- 26%
7. 67102 (Maple City): 12 cases- 23%
8. 67008 (Atlanta): 101 cases- 18%
9. 67038 (Dexter): 131 cases- 12%

Many Cowley County residents have received COVID-19 vaccines. 19,292 individuals have received at least one dose of a COVID-19 vaccine. 16,783 individuals have completed a COVID-19 vaccine series. 1,433 breakthrough cases have occurred since the first was identified in May of 2021. January of 2022 accounted for 951 of the breakthrough cases. Below is a summary of breakthrough cases by vaccine type.

- Janssen (J&J): 166 cases
- Pfizer: 508 cases
- Moderna: 759 cases

The number of breakthrough cases by vaccine type is consistent with the number of doses administered within the county by vaccine type (i.e., most COVID-19 vaccines have been Moderna and the fewest have been Janssen).

Local breakthrough data was examined to develop a better understanding of COVID-19 vaccine efficacy. On average, individuals that completed a COVID-19 vaccine series (1 dose of Janssen, 2 doses of Pfizer, or 2 doses of Moderna) received protection from SARS-CoV-2 infection for 6.5 months. There were small differences between the vaccine types: Janssen 6.41 months, Pfizer 6.05 months, and Moderna 7.04 months.

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It is important to note that these numbers are based on local breakthrough data and were determined by taking the average of the existing data by vaccine type. The sample size is different for each and may have some influence on the efficacy data shared.

Considering the number of individuals that have completed a vaccine series (16,783) and the number of breakthrough cases (1,433) reported within the county, it can be determined that COVID-19 vaccines are still proving to be 91% effective at preventing SARS-CoV-2 infection in Cowley County. This data and local illness and recovery data suggests there are considerable levels of immunity to SARS-CoV-2 in the county. This is likely the reason for the steep decline of COVID-19 cases reported within the last 60 days. The Cowley County 7-day moving average is .14 (less than 1 case per day). There are currently 3 active cases in Cowley County based on a 10-day infectious period.