

Study says pandemic impaired reporting of infectious diseases

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In a recent study, Johns Hopkins Medicine and University of Southern California researchers found that during the pandemic, there was a significant decrease in the reporting of infectious diseases in categories of transmission — respiratory, injection drug-use associated, foodborne/waterborne, vectorborne and sexual. Credit: Graphic created by M.E. Newman, Johns Hopkins Medicine, using public domain images

With the health care community heavily focused on COVID-19 since the

first quarter of 2020, there have been concerns that reporting of other infectious diseases—and the resulting data that enables them to be more effectively treated and controlled—may have been impacted.

Researchers at Johns Hopkins Medicine and the University of Southern California analyzed the number of reported cases of 42 infectious diseases at the state and national levels between March 2020 and March 2021, compared with those recorded over the previous five years. Their findings were reported online June 7, 2021, in the journal *Clinical Infectious Diseases*.

The researchers looked for reporting differences by [geographic location](#) and by five routes of [transmission](#): sexual, foodborne/waterborne, vectorborne (such as mosquito transmission), injection drug-use associated and respiratory.

Among the study's highlights was a nationwide 82% drop in the number of cases of mumps reported in 2020, compared with the previous year. Between the same dates, the number of reported cases of chlamydia in the United States fell almost 15%, from 1.57 million to 1.34 million.

"We found substantial differences in the reporting of diseases between 2019 and 2020 by route of transmission, with the greatest relative decrease—nearly 51%—seen for [respiratory diseases](#)," says Matthew Crane, a [medical student](#) at the Johns Hopkins University School of Medicine and the study's lead author. "There also were significant decreases for drug use-associated diseases [47%], vector-borne diseases [44%] and foodborne/[waterborne diseases](#) [40%]."

Regarding reporting variation by geographic location, Crane says he and his colleagues found decreases of 50% or greater in 2020 relative to 2019 in five states: Hawaii (75%), Kentucky (66%), Nebraska (65%), Missouri (59%) and North Dakota (55%). Five other states had

decreases between 40% and 49%, three states were between 30% and 39%, and seven states were between 20% and 29%. There were decreases in reporting of infectious diseases in 34 states during the pandemic compared with the 2015–2019 period.

"Overall, we found decreased reporting of almost all nationally notifiable [infectious diseases](#) and conditions during the COVID-19 pandemic," Crane says. "These decreases were found nationwide and at the state level, and appeared in all of the disease transmission routes we studied."

Crane says it's unknown whether the observed decreases indicate true reductions in infectious disease cases or an impairment of typical disease reporting during the pandemic.

"We believe that both factors likely contributed to our findings," he says.

Based on these findings—and similar results in an [earlier study](#) looking at pandemic-driven reporting variations for sexually transmitted infections—the researchers feel there is a critical need for more investment in disease surveillance in order to understand whether infectious disease transmission may have been underreported during the COVID-19 pandemic.

More information: Matthew A Crane et al, Reporting of Infectious Diseases in the United States During the Coronavirus Disease 2019 (COVID-19) Pandemic, *Clinical Infectious Diseases* (2021). [DOI: 10.1093/cid/ciab529](#)

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