School closures will force many U.S. health care workers to stay home

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(HealthDay)—At least 1 in 7 U.S. health care workers have to miss work

to care for their children if the coronavirus pandemic keeps schools closed—and their absence could result in more patient deaths, researchers say.

Teams from Yale University and Colorado State University used U.S. Census data to project the child care needs of health care workers.

"Closing schools comes with many trade-offs, and can create unintentional child care shortages that put a strain on the health care system," said study co-lead author Eli Fenichel, associate professor of bioeconomics and ecosystem management at Yale.

About 29% of U.S. health care workers have children between 3 and 12 years of age, the analysis showed. In households without a non-working adult or a sibling age 13 or older to care for them, 15% of health care workers will require child care if schools close.

If they can't make other child care arrangements, their absence could compromise the ability of the U.S. health care system to respond to the coronavirus pandemic, the study published April 3 in *The Lancet Public Health* journal warned.

The authors noted, however, that precise forecasts of the effect of school closures on coronavirus deaths are difficult. They said that's due to conflicting estimates of virus transmission and infectivity, and how having fewer health care workers affects survival of patients with COVID-19.

"Closing schools and distancing in general is about bending the curve to stay below hospital capacity and reduce COVID-19 mortality, but how we distance in order to bend the curve can also influence the hospital capacity we need to stay below. We need to account for both," Fenichel said in a journal news release.

Understanding the trade-offs is key to planning the public health response to COVID-19, he said.

"If the survival of infected patients is sufficiently sensitive to declines in the health care workforce, then school closures could potentially increase deaths from COVID-19," Fenichel added.

The analysis projected that school closures would be especially difficult for nurse practitioners (22% will need child care); physician assistants (21%); diagnostic technicians (19%); physicians and surgeons (16%); and nearly 13% of aides who are single parents and helping with infection control in nursing homes.

States most likely to have unmet child care needs among health care workers include South Dakota, Oregon and Missouri (21% in these states will need child care).

States least likely to have unmet child care needs include New Mexico (10%); and New Jersey (11%).

The researchers estimated that if the death rate among infected patients rises from 2% to more than 2.4% and the number of health care workers falls by 15%, school closures could result in more deaths than they prevent.

"The U.S. health care system appears disproportionately prone to labor shortages from school closures, particularly among those health care workers providing infection control in nursing homes," said co-lead author Jude Bayham, an assistant professor of agricultural and resource economics at Colorado State.

"These potential health-care workforce shortages should be a priority when assessing the potential benefits and costs of school closures, and

alternative child care arrangements must be part of the [school](#) closure plan," he added.

More information: The U.S. Centers for Disease Control and Prevention has more on the [new coronavirus](#).

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