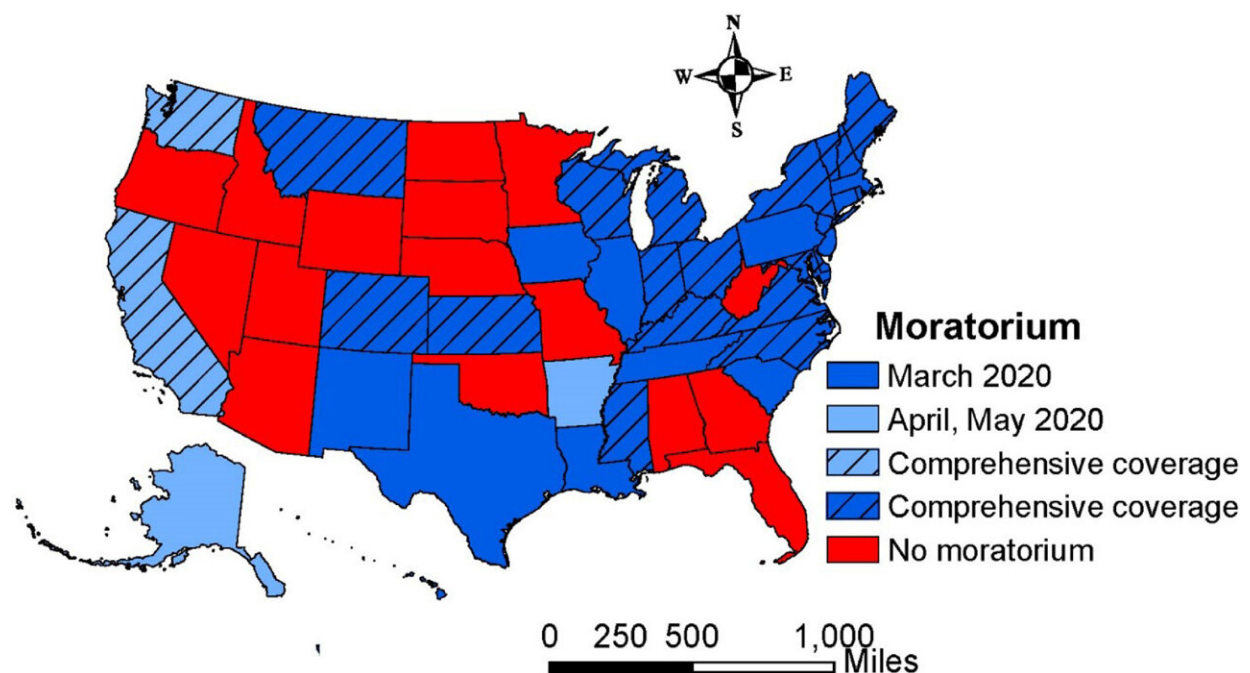


# New study explicitly links protection of water access with lower COVID-19 infection and death rates

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Author analysis based on Food and Water Watch 2021. Credit: American Journal of Preventive Medicine

A new analysis finds US states that prevented utilities from turning off water service to households that were behind on their payments during the COVID-19 pandemic experienced significantly lower rates of infection and death from the pandemic while the moratoria were in

effect. The study in the *American Journal of Preventive Medicine* underscores the importance of water equity and the need for government actions to create more uniform protections from water shutoff across all states.

During the COVID-19 epidemic, 34 states enacted moratoria on [water](#) shutoffs from most [water utilities](#) so that people could access clean water. Among the 34 states, 20 states imposed a comprehensive moratorium covering both public and private water systems, while the rest issued moratoria covering only [public water systems](#). Only 11 states still had an active moratorium by the end of 2020, and this number decreased to three by September 2021.

"This study shows the importance of state governments' leadership in [public health](#)," said lead investigator Xue Zhang, Ph.D., Departments of City and Regional Planning and Global Development, Cornell University, Ithaca, NY, USA. "Using modeling typical of other public health studies, we found states with moratoria on water shutoffs had lower infection and death growth rates. We hope what we learned from the pandemic can contribute to [universal access](#) to water in the future."

The researchers used event study analysis, a common epidemiological model, to estimate the impacts of state water policy on public health. The study looked at daily infection and death growth rates from April 17 to December 31, 2020 in every state. Data from Food and Water Watch were used to determine if states had a water shutoff moratorium in place on each day of the study period. The study controlled for mask mandates, at-risk groups, and percentage of health insurance coverage.

Across all 50 states, on average, a moratorium was in place about 42% of the time, and comprehensive coverage about 22% of the time. For the days in states with a moratorium on water shutoffs, daily infection growth rate was 0.235% lower, and the death growth rate was 0.135%

lower. For states with comprehensive moratoria there was an additional 0.169% decrease in the infection growth rate and a 0.228% decrease in the death growth rate. The study also found that states with a higher percentage of minorities and essential workers had higher COVID-19 daily infection and death rates.

A related analysis of the data suggests that a nationwide moratorium on water shutoff might have prevented as many as half a million people from COVID-19 infections and nearly 9,000 deaths.

"Access to water is absolutely critical during the pandemic," said co-investigator Mildred Warner, Ph.D., Departments of City and Regional Planning and Global Development, Cornell University, Ithaca, NY, USA. "This study shows the importance of a national standard for access to water, especially for low-income households. The COVID-19 pandemic has revealed so many structural inequities in our society, and access to drinking water is one that demands our attention."

The investigators observed that while Congress acted to prevent housing evictions during the pandemic, national leadership is absent in protecting equitable access to water. They noted that in the US, water bills have increased faster than inflation. Research suggests that 35.6% of US households may not be able to afford their water bills over the next five years. They propose payment plans and arrearage management programs for low-income households. Better data collection and reporting are necessary to help inform policy and solutions.

"The [study](#) confirms that water shutoff moratoria are an important public health tool to help prevent the spread of disease," said co-investigator Mary Grant, Food and Water Watch and Food and Water Action, Baltimore, MD, USA. "Since March 2020, we have called on all levels of government to suspend water shutoffs, so that people would have the water necessary to stay safe at home. Now, during the Delta

wave, nearly all of the protections that were in place have expired. This research should help inform policy solutions to improve water access to protect public health."

**More information:** Xue Zhang et al, Water Shutoff Moratoria Lowered COVID-19 Infection and Death Across U.S. States, *American Journal of Preventive Medicine* (2021). [DOI: 10.1016/j.amepre.2021.07.006](https://doi.org/10.1016/j.amepre.2021.07.006)

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