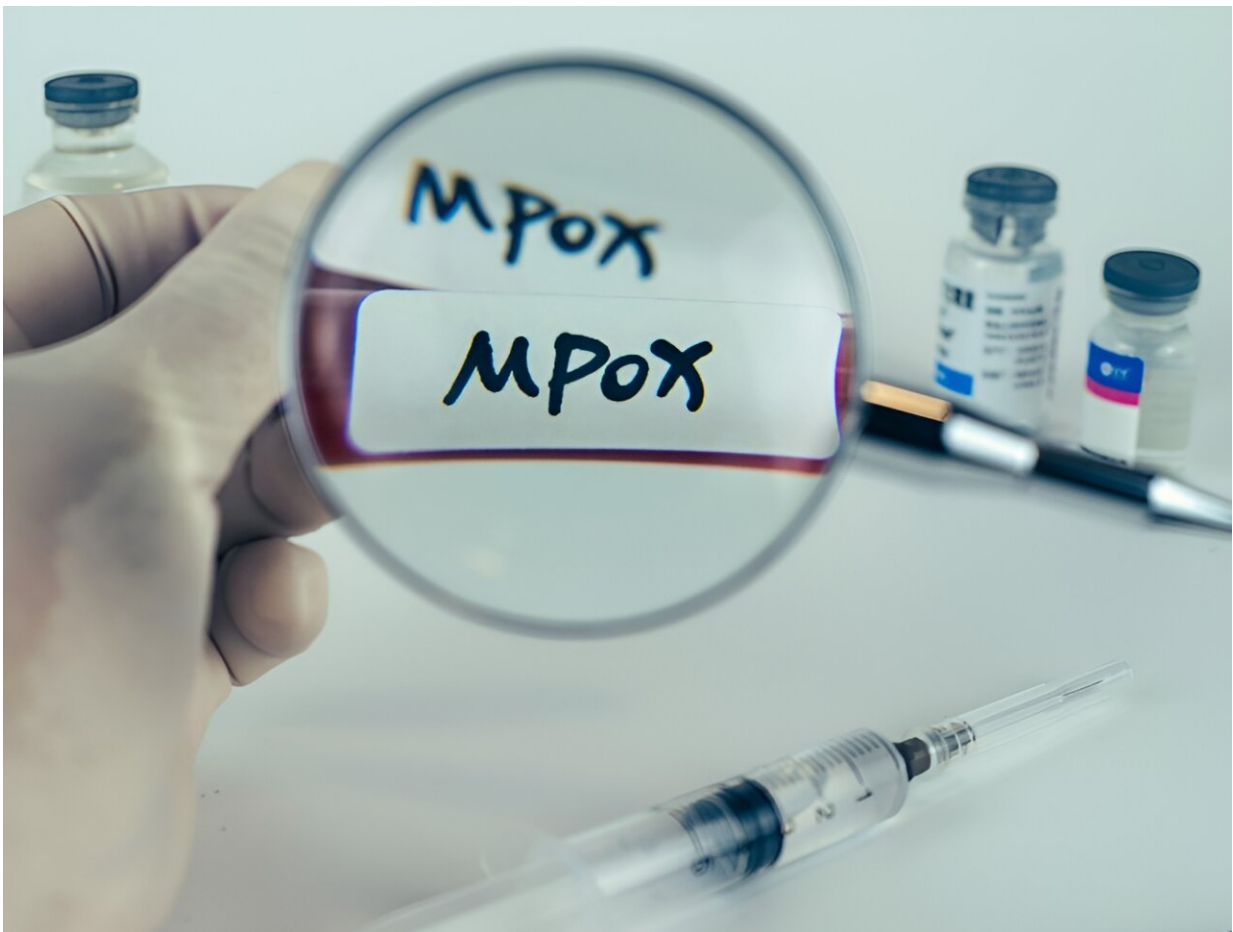


Changes in gay men's behaviors, not vaccine, halted mpox outbreak

February 29 2024, by Ernie Mundell



New research finds that the 2022 mpox outbreak among gay and

bisexual men began to slow down after just a few months—even though just 8% of high-risk people had received the mpox vaccine.

That suggests that it was changes in gay and [bisexual men](#)'s sexual behaviors, not the vaccine, that caused the outbreak to subside, researchers concluded.

"Once the mpox epidemic was recognized, behavioral modification in the men-who-have-sex-with-men community resulted in a sharp decline in [the rate of transmission] in North America ahead of vaccination rollout in the U.S.," concluded a team led by Miguel Paredes, an epidemiologist at the Fred Hutchinson Cancer Center in Seattle.

Paredes' team [published](#) its findings Feb. 29 in the journal *Cell*.

According to data from the U.S. Centers for Disease Control and Prevention, the 2022 outbreak of mpox (formerly called monkeypox) in the United States involved 31,698 known cases and 56 deaths. Globally, the outbreak involved almost 93,500 cases.

Mpox is spread largely through skin-to-skin contact, and the outbreak in Europe and the United States was largely localized to men who have sex with men. Cases were first detected in May of 2022, and the outbreak peaked in August. A vaccine against the disease had already been approved by the U.S. Food and Drug Administration in 2019 and was rolled out to at-risk people once the outbreak was recognized.

In the new analysis, Paredes' team used sophisticated computer modeling to track the origin and spread of mpox variants throughout the United States over the course of the [outbreak](#). They noted that once people within the gay community had been alerted to the danger, many quickly altered their behavior to engage sexually with fewer partners.

In August, just a few months after first being reported in the population, the spread of mpox began to slow, even though vaccines had not yet reached most of those at risk.

"Mpox transmission in North America began declining before more than 10% of high-risk individuals in the U.S. had vaccine-induced immunity," Paredes' team noted.

Speaking to *The New York Times*, Paredes said this supports the notion that public health messaging can "be really powerful to control epidemics, even as we're waiting for things like vaccines to come."

The study also found that cases were spreading within high-risk communities long before they were officially reported by public health authorities.

That highlights the importance of staying alert to emerging diseases. Doing so helps stop outbreaks and epidemics early, according to evolutionary biologist Trevor Bedford.

"If we can catch emerging pathogens earlier on, like even weeks, it will make a big difference in terms of changing the course of these epidemics," Bedford told the *Times*. He runs the lab at the Fred Hutchinson Cancer Center where Paredes works.

Virginia Pitzer is an epidemiologist at the Yale School of Public Health. Reviewing the findings, she stressed that vaccines still have a crucial role to play in curbing the spread of disease. Even though gay men's actions may have slowed mpox in the short-term, it's not clear that without a [vaccine](#), behavioral change could have kept the disease away for good.

"As we've seen with COVID, the behavioral change only lasts so long," she said.

More information: Find out more about mpox at the [U.S. Centers for Disease Control and Prevention](#).

Miguel I. Paredes et al, Underdetected dispersal and extensive local transmission drove the 2022 mpox epidemic, *Cell* (2024). DOI: [10.1016/j.cell.2024.02.003](https://doi.org/10.1016/j.cell.2024.02.003)

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