

Factors potentially contributing to the decline of the mpox outbreak in the Netherlands, 2022 and 2023

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Research by experts from The Dutch National Institute for Public Health and the Environment (RIVM) hypothesize that it is not likely that

preventive vaccination was a driver of the outbreak's decline, as the mpox incidence started to decline before the start of the vaccination program. Rather, the reason appears to have been that infection-induced immunity in high-risk groups was an important factor explaining the decline.

To be effective in preventing new cases, future vaccination programs need to be implemented fast after the first cases are observed. The study, [published](#) today in *Eurosurveillance*, provides an in-depth analysis of the 2022–2023 mpox [outbreak](#) in the Netherlands, which predominantly affected gay, bisexual, and other men who have sex with men (GBMSM).

The Netherlands experienced a significant decrease in mpox cases starting in July 2022, following the first reported case on May 20 2022. By December 31 2023, a total of 1,294 cases had been documented. The primary preventive vaccination (PPV) program was launched on July 25 2022, with 29,851 doses administered by April 30 2023.

The overall vaccine uptake rate was 45.8%, with 35.4% of the target population being fully vaccinated. The efficacy of full vaccination in preventing symptomatic mpox was estimated at 68.2%, highlighting the effectiveness of vaccinations despite the outbreak's natural decline.

Haverkate found no significant reduction in high-risk behaviors among GBMSM attending sexual health centers during the outbreak, suggesting that [behavioral changes](#) were not the primary factor in the outbreak's decline. The authors posit that immunity acquired through infection among [high-risk groups](#) substantially contributed to the decrease in mpox cases.

Strategic actions for effective mpox management

Several key strategies for managing future mpox outbreaks are recommended.

Firstly, the importance of prompt vaccination implementation is underscored, advocating for the swift initiation of vaccination programs as soon as initial cases are detected to curb widespread transmission. Secondly, the study highlights the need for ongoing surveillance, emphasizing the necessity of maintaining vigilant monitoring of mpox cases and high-risk behaviors to inform timely public health interventions. Lastly, it calls for a comprehensive evaluation of vaccination program effectiveness, suggesting continuous assessment and adaptation of strategies based on emerging data and population dynamics.

These recommendations aim to enhance the effectiveness of public health responses and mitigate the impact of mpox outbreaks.

Prevention of future outbreaks

The research emphasizes the necessity of prompt vaccination efforts to effectively control future mpox outbreaks. Although the [vaccine](#) demonstrated substantial effectiveness, its impact was mitigated by the timing of the vaccination rollout. Infection-induced immunity and other factors likely played a significant role in the outbreak's decline before widespread vaccination.

This study highlights the essential role of timely vaccination in managing infectious disease outbreaks and offers valuable insights for [public health](#) strategies against mpox.

More information: Factors potentially contributing to the decline of

the mpox outbreak in the Netherlands, 2022 and 2023, *Eurosurveillance* (2024). [DOI: 10.2807/1560-7917.ES.2024.29.21.2300608](https://doi.org/10.2807/1560-7917.ES.2024.29.21.2300608) , www.eurosurveillance.org/content/view/full/69312 S.2024.29.21.2300608

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