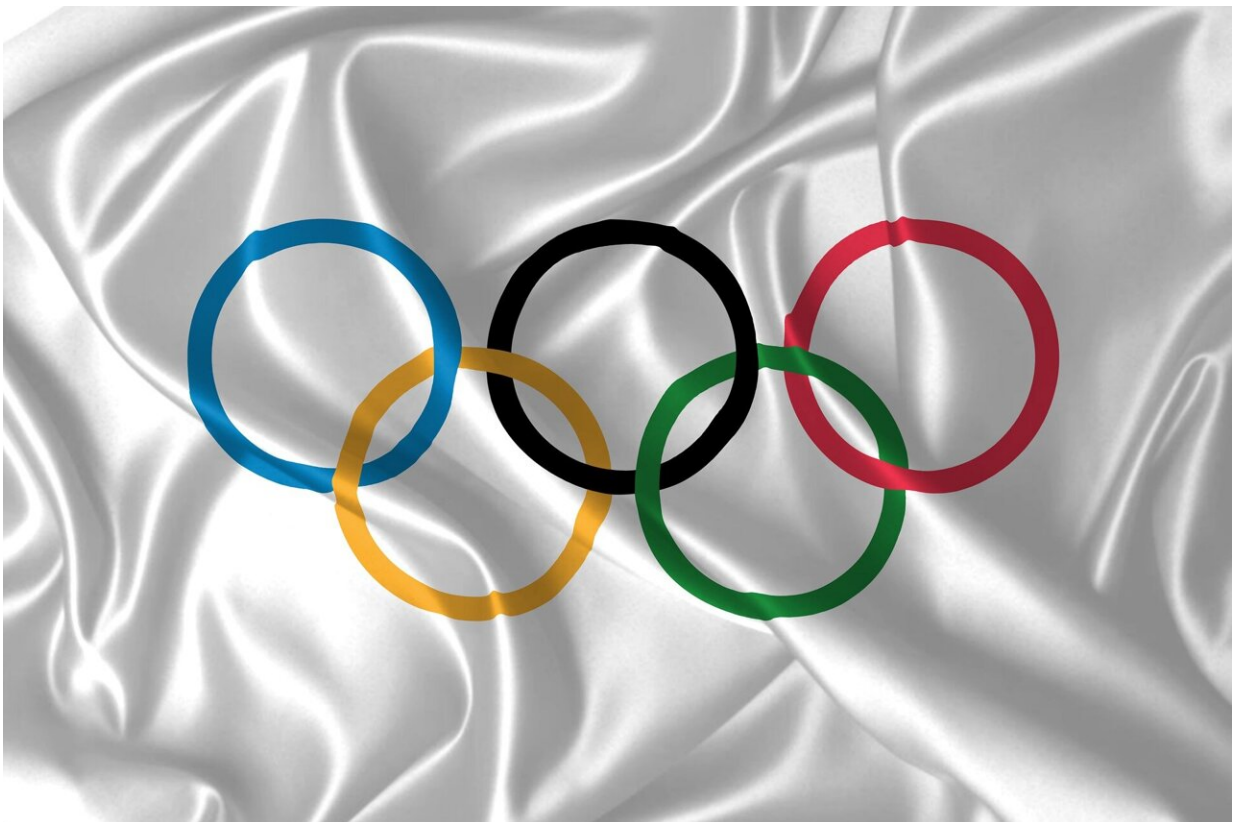


Pathogen prioritization for wastewater surveillance ahead of the Paris 2024 Olympic and Paralympic Games

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A new study by researchers from the French national public health institute aimed to identify priority pathogens that could be suitable for

wastewater surveillance (WWS) during the Paris 2024 Olympic and Paralympic Games taking place from 26 July to 11 August and 28 August to 8 September, respectively. The study is published in *Eurosurveillance*.

The [pathogens](#) were evaluated using a Delphi method which integrated evidence from peer-reviewed publications and expert opinion.

WWS has become more prominent due to its role during the COVID-19 pandemic. As a non-intrusive, cost-effective surveillance tool, WWS offers many advantages for the monitoring of SARS-CoV-2 over clinical surveillance data, as data on virus circulation can be obtained regardless of an infected person's symptomatic status and testing/test-seeking behavior. The tool can also act as an early warning system.

The six priority pathogens selected in the study were poliovirus, influenza A virus, influenza B virus, mpox virus, SARS-CoV-2 and measles virus. They were chosen based on three inclusion criteria: analytical feasibility, relevance with regards to the 2024 Paris Games and pathogen characteristics, and their value for informing [public health policies](#).

The study

A list of 60 pathogens of interest for surveillance in the 2024 Paris Games was initially compiled. Their analytical feasibility was then assessed by reviewing evidence from peer-reviewed publications demonstrating the detectability of pathogens in sewage, refining the list to 25 pathogens.

The relevance and added value to inform decision making criteria were assessed by a panel of 32 experts, who also proposed five additional pathogens.

A total of 30 pathogens were evaluated by the panel, and consensus was deemed to have been reached if there was 70% agreement among experts. While measles had not originally reached the consensus threshold, it was included due to its resurgence worldwide, and increased risk of importation and transmission during the Paris games.

Public health relevance

While not a new concept, wastewater-based surveillance has gained considerable momentum since its use during the COVID-19 pandemic to inform public health actions, and it is being discussed whether its use could be extended to other pathogens and contexts, such as mass gatherings.

The study constitutes a starting point to develop and execute a WWS strategy for the Paris 2024 Games. It offers a model framework for identifying context-specific WWS targets in mass gatherings and if successful, it could encourage the adoption of similar WWS strategies for similar events in the future.

Additional planning and refinement

More work is needed before implementing the strategy during the 2024 Paris games, and the authors recommend leveraging the existing network of 54 sites for monitoring SARS-CoV-2 circulation in [wastewater treatment plants](#) across France. After a wastewater sampling strategy proposal is approved, operators in charge of sampling and partner laboratories will be selected.

Laboratory methods will need to be optimized for efficiency and cost-effectiveness. In case of technical constraints, the sampling strategy could be adapted and pathogen targets and/or WWS objectives further

refined.

A WWS plan for the Paris 2024 Games would serve as an exploratory tool, providing a pilot to continue monitoring measles [virus](#), influenza A and influenza B viruses in Paris wastewater.

More information: Pathogen prioritisation for wastewater surveillance ahead of the Paris 2024 Olympic and Paralympic Games, France, *Eurosurveillance* (2024). [DOI: 10.2807/1560-7917.ES.2024.29.28.2400231](#)

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