

## The increasing risk of Mpox Clade I emphasizes the crucial role of the National Wastewater Surveillance (NSS) Program in prevention efforts.

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The NSS Program is essential for monitoring the Mpox virus, particularly the rapidly spreading Clade I variant. Analyzing wastewater samples provides public health officials with valuable insights into the virus's prevalence in different regions, aiding in effective prevention strategies. As of early December 2024, the CDC reported detecting the Mpox virus in over 80% of recent wastewater samples. This highlights the ongoing risk of transmission and the need for continued surveillance. The NSS Program helps health authorities allocate resources, tailor public messaging, and implement targeted responses to manage the virus. However, inconsistent testing methods at collection sites can compromise data quality. The major challenge is the comprehensive understanding of representative samples, and the refinement of real-time viral load collection via composite sampling are critical steps toward improving the reliability of public health data. These advancements will enable more accurate tracking of disease trends and better inform public health interventions. Additionally, expanding surveillance efforts in underserved areas is vital for safeguarding vulnerable populations who may face heightened risks due to limited access to healthcare resources. The Rhode Island State Health Laboratory has secured more than \$1.5 million in ELC/CDC funding. This funding will enhance the reporting of Mpox surveillance data to the Centers for Disease Control and Prevention (CDC), ensuring that timely and accurate information is provided for effective monitoring and response efforts. In this presentation, we will conduct a thorough analysis of surveillance data related to Mpox, highlighting significant trends that have emerged over time. We will delve into the implications of these trends for public health initiatives, discussing their potential impact on community health strategies. Additionally, we will offer strategic recommendations aimed at enhancing future response efforts to Mpox in the state, ensuring that we are better equipped to address this public health challenge.