

# Illinois cross-team collaboration identified mpox cases coinfecting with HIV



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CATEGORY: Epidemiology and Laboratory Capacity (ELC)

CATEGORY: Partnership and Innovation

The Illinois Department of Public Health (IDPH) Communicable Diseases Section partnered with the HIV Section to run routine analyses of mpox cases to identify individuals coinfecting with HIV. They used this information to develop clinical guidance and to prioritize therapeutics distribution.

In Spring 2022, cases of mpox were identified in individuals with no history of travel to countries or contact with travelers from countries where mpox is endemic. Cases were detected primarily in men who have sex with men (MSM), with a different clinical course and initial rash location than previously seen in cases from endemic countries.

## The “What”

Surveillance for mpox was quickly set up in Illinois using their disease surveillance system and REDCap to collect data on and manage cases and contacts. This allowed for prompt and accurate data sharing between local, state, and national partners. Testing for mpox was initially performed



only at the Centers for Disease Control and Prevention (CDC) with Laboratory Response Network (LRN) labs set up to test less specifically for Orthopoxviruses. With mpox cases increasing rapidly in the U.S. and Illinois, there was an immediate need to describe common characteristics of cases to be able to target information, testing approval, treatment and vaccination for mpox.

The Illinois Department of Public Health (IDPH) Communicable Diseases Section partnered with the HIV Section to run routine analyses of cases to identify mpox cases that were coinfecting with HIV. The HIV Section utilized SAS software to match mpox cases to HIV cases in their reporting system. Information on viral load status (suppressed vs. unsuppressed) was also matched. Once the match was performed, differences in the clinical outcomes of hospitalization and treatment between groups of mpox cases were compared.



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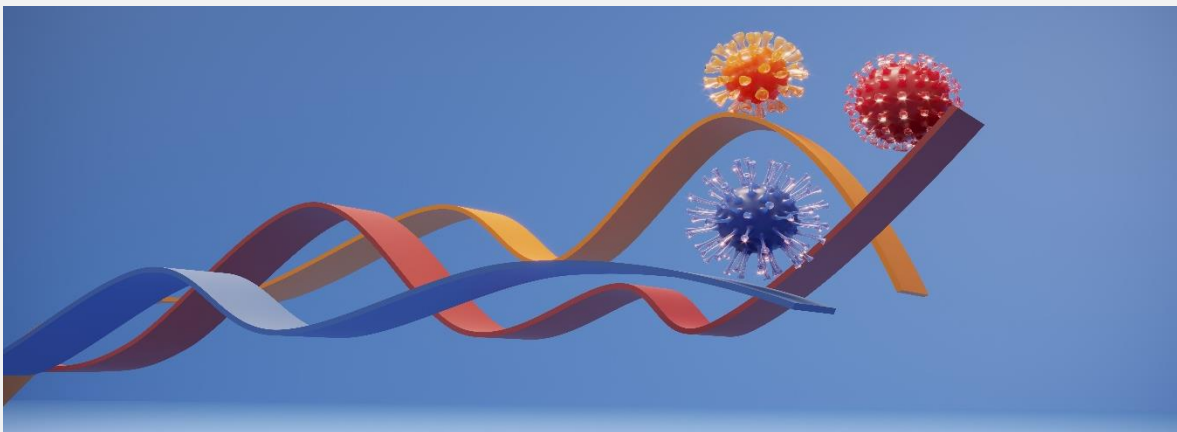
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### The “So What”

Weekly matching and analyses of cases found that mpox cases that were coinfecting with HIV with an unsuppressed viral load were hospitalized and treated more than other mpox cases. As of April 2023, 44% of mpox cases were co-infected with HIV and 66% of hospitalized mpox cases were coinfecting with HIV. Hospitalizations were highest among mpox cases that were coinfecting with HIV that were virally unsuppressed (17%) followed by cases with HIV that were virally suppressed (10%), HIV negative cases (6%), and cases with unknown HIV status (3%). Similar trends were seen for mpox cases that were treated (42%, 23%, 15% and 10%, respectively). These findings helped develop clinical guidance and prioritization of therapeutics distribution.



### The “Now What”

Because this match was already established, IDPH joined a CDC publication matching mpox, HIV and STI data in August 2022 with six other U.S. jurisdictions. This analysis found there was a high coinfection of mpox and HIV, and among these coinfecting individuals, a higher percentage were in care than the national average. This study also found a higher prevalence of PrEP use in

HIV-negative mpox cases than the national average. Over a third of mpox cases also had an STI diagnosis within the last year. These findings helped identify HIV care providers and sexual health providers as an ideal setting to deliver mpox vaccinations and information to the population affected.