The US MPX Outbreak:

Overview and Response

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FCAA
September 7, 2022
August 2nd: White House names MPX coordinators

August 4th: HHS declares Public Health Emergency
Exponential Spread and Projecting Outbreak Trajectory

**EXPOENTIAL GROWTH:**
PROJECTED U.S. MONKEYPOX DIAGNOSES AS EARLIEST GROUP OF GAY MEN BECOMES FULLY VACCINATED

**14-FOLD INCREASE IN A MONTH:**
PROJECTED VS. ACTUAL GROWTH IN MPX DIAGNOSES

**U.S. MONKEYPOX CASES:**
- May 18: 1
- May 26: 10
- June 16: 100
- July 13: 1,000
- July 29: 5,000
- Aug. 10: 10,000
- Sept. 2: 20,000

**SOURCE:** amfAR analysis using data downloaded from Our World in Data, July 10th, 2022 based on current guidelines indicating that it takes six weeks from first dose of vaccine to achieve full protection. Analysis: Log-linear regression: log(cum_cases) = B_0 + B_1*t, t is days since June 1 (t=0). Resulting output used to estimate projected cases by August 4, 2022. Projected number of diagnoses will be affected by: 1. Proportion of population vaccinated by August 4th; 2. Whether diagnoses begin to reflect the actual number of cases; 3. Behaviors that facilitate transmission.
Warning about oral signs of monkeypox

Lesions can vary in number and location and resemble other common cuts you get in and around the mouth.

(Noe S, et al, 2022)
MPX Outbreak Heavily Affects HIV+ MSM

Proportion of people living with HIV diagnosed with MPX:

- **WHO:** 41% of MPX diagnoses globally in current outbreak
- **NEJM:** 41% of MPX diagnoses across countries
- **Lancet:** 40% of MPX diagnoses in Spain
- **European CDC:** 38% of MPX diagnoses across Europe
- **CDC:** 41% of MPX diagnoses in the United States

More Data Needed on Monkeypox, HIV Co-Infection

Experts say early signals suggest burden of infection in those living with HIV is high

by Jennifer Henderson, Enterprise & Investigative Writer, MedPage Today
August 18, 2022
Last Updated August 19, 2022

People with well-controlled HIV do not appear to have more severe illness but HIV-positive people might not respond as well to monkeypox vaccines.
MPX Infections and Diagnoses among HIV+ MSM

**Table S2. Demographics and clinical presentation of Human Monkeypox Virus infection in people with and without HIV**

<table>
<thead>
<tr>
<th>Clinical features, n (%)</th>
<th>People with HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rash</td>
<td>293 (98)</td>
</tr>
<tr>
<td>Fever</td>
<td>194 (62)</td>
</tr>
<tr>
<td>Headache</td>
<td>84 (27)</td>
</tr>
<tr>
<td>Myalgia</td>
<td>102 (33)</td>
</tr>
<tr>
<td>Lymphadenopathy</td>
<td>134 (43)</td>
</tr>
<tr>
<td>Pharyngitis</td>
<td>60 (19)</td>
</tr>
<tr>
<td>Proctitis</td>
<td>45 (15)</td>
</tr>
<tr>
<td>Low Mood</td>
<td>27 (9)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site of positive monkeypox virus PCR+, (n)</th>
<th>People with HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin lesion</td>
<td>304 (98)</td>
</tr>
<tr>
<td>Nose or throat swab</td>
<td>73 (24)</td>
</tr>
<tr>
<td>Urine</td>
<td>7 (2)</td>
</tr>
<tr>
<td>Blood</td>
<td>15 (5)</td>
</tr>
<tr>
<td>Sinus</td>
<td>14 (5)</td>
</tr>
</tbody>
</table>

**Description of rash, n (%)**

| Vascular-Pustular                   | 178 (58)        |
| Macular                               | 10/28 (3)       |
| Single ulcer                         | 32/28 (11)      |
| Multiple ulcers                       | 56/28 (19)      |
| Other                                  | 22/28 (10)      |

<table>
<thead>
<tr>
<th>Number of skin lesions, n (%)</th>
<th>People with HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>123 (40)</td>
</tr>
<tr>
<td>5-10</td>
<td>77 (25)</td>
</tr>
<tr>
<td>11-20</td>
<td>68 (22)</td>
</tr>
<tr>
<td>21+</td>
<td>25 (8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No Lesions or missing data, n (%)</th>
<th>People with HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>5</td>
</tr>
</tbody>
</table>

*The table reflects a summary of the literature on the clinical presentation of monkeypox virus infection in people with HIV. The data are presented in a tabular format, with columns for clinical features, skin lesion sites, and lesion number.

**July 2022**

**monkeypox vaccine**

**efficacy & time to protection**

- The monkeypox (MPX) vaccine is very effective but...
  - The vaccine takes a little time to work.
  - Protection is lower after only one dose.
  - People living with HIV might take longer to have lower protection.

**Immune response rates after 1st and 2nd shots**

<table>
<thead>
<tr>
<th>HIV status (n)</th>
<th>1st shot</th>
<th>2nd shot</th>
<th>42 days: after 14 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV+ (n=351)</td>
<td>29%</td>
<td>67%</td>
<td>96%</td>
</tr>
<tr>
<td>HIV- (n=88)</td>
<td>29%</td>
<td>83%</td>
<td>98%</td>
</tr>
</tbody>
</table>

n = the number of people in each group.
* Results from MVA-011 study, based on ELISA testing.
** The second shot was given after 28 days. Waiting longer for the 2nd shot will still be effective, but protection will be lower until then.
US MPX Diagnoses by Race/ Ethnicity

TACKLING MPX IN BLACK AND LATINO COMMUNITIES

MPX (mpxs, an alternative to the stigmatizing term “monkeypox”) is endemic in Central and Western Africa and affects primarily heterosexuals, but has been introduced into a global network of men who have sex with men (MSM), i.e., gay and bisexual men) along with transgender women. This new strain was first diagnosed in the U.S. on May 18th and has grown into a global crisis, with the U.S. leading the world in the number of diagnosed cases (52,978 as of August 11th).

As we saw with COVID-19, it did not take long for MPX diagnoses among Black and Latino people for us to see their share of the U.S. population. Also, as we saw with COVID-19 (limited testing especially in marginalized groups) we saw that Black and Latino communities are underrepresented in the data about who and how to respond most effectively. A report of national data released by CDC showed a majority of MPX diagnoses among Black and Latino MSM and 43% of diagnoses among Asian men living with HIV Atlanta, Georgia is one illustration of this hand. On July 15, 57% of cases were among Black people, but for July 21, 45% of cases were Black, 3% were Latino, and 5% were people living with HIV of whom 67% were Black. As of August 8, 62% of cases were Black, 6% were Latino, and 5% were people living with HIV of whom 58% were Black.

ALL HANDS ON DECK

It is likely that disparities impacts of MPX among MSM in Black, Latino, and other communities of color will continue. WE CAN TAKE ACTION:

BROWN/HARRIS ADMINISTRATION: DECLINE EQUALITY IN ALL FEDERAL RESPONSES

The President should explicitly recommit to a caring MPX response centered on MSM and trans people of color. The administration should ensure an ongoing commitment to ensuring that the LGBT+ communities and other communities of color have equitable access and are protected.

CIVIL RIGHTS AND OTHER CIVIL SOCIETY GROUPS: PUT MPX ON YOUR AGENDA

National and local organizations (including LIGA organizations) and other communities are located various that need to talk about MPX and ensure that policy responses focus on MSM and trans people of color.

HIV COMMUNITY-BASED ORGANIZATIONS (CBOs): EDUCATE AND PROTECT

We need a nationwide mobilization of CBOs that builds on responses in early months and is grounded in culturally congruent, non-stigmatizing outreach led by MSM and trans people of color.

HEALTH DEPARTMENTS ENGAGE AND FUND COMMUNITY PARTNERS

We need to look for ways to distribute MPX vaccines to community partners, doing forward, such efforts must grow and health departments should remove contracting barriers so that community partners trusted in our local communities of color can be quickly funded. Further, outreach should be done in communities of color.

BLACK AND LATINO MSM HEAVILY REPRESENTED IN MPX DIAGNOSES

In the United States, 73% of the cases were men who have sex with men (MSM) in 2022.

MMWR Week

Race / Ethnicity

- American
- Indian/Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Multiple Races
- Native Hawaiian or Other Pacific Islander
- White

Monkeypox cases reported to CDC: Race/Ethnicity by Week
MPX Vaccine First Dose by Race/Ethnicity

White: 31% MPX cases, 45% MPX vaccines
Latinx: 32% MPX cases, 22% MPX vaccines
Black: 33% MPX cases, 10% MPX vaccines
Asian: 3% MPX cases, 9% MPX vaccines

Equality | Prognosis
White People Get Bigger Share of Monkeypox Shots, Early Data Show

While most cases are concentrated among people of color, White people are getting most of the shots.
MPX Vaccine: Second Doses Lagging among MSM

Very few in the U.S. getting full monkeypox vaccine series - CDC chief

- 200k doses vaccine across 19 jurisdictions, Aug 23rd
- 97% first doses
- Few coming back for second
For this @NBCNews @NBCOUT #monkeypox feature, I wanted to look past the epidemiology, politics and furor over vaccines, and to ask gay men and other queer people how the outbreak has impacted their happiness and well-being. Here are their stories:

Rapid Epidemiologic Study of Prevalence, Network and Demographics of Monkeypox Infection (RESPND-MI)

The QUICk Survey

We are interested in learning whether people are being stigmatized due to MPV. Referring either to your experience being diagnosed with MPV, having exposures or symptoms of the virus, or simply imagining how you would feel if you had MPV, indicate your level of agreement with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>People avoid touching me once they know I had MPV</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People I care about stopped calling after learning I had MPV</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I have lost friends by telling them I had MPV</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Telling someone I had MPV is risky</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I work hard to keep my MPV a secret</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>I am very careful who I tell that I had MPV</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People with MPV are treated like outcasts</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Most people believe a person who has MPV is dirty</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Most people are uncomfortable around someone with MPV</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel guilty because I had MPV</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People's attitudes about MPV make me feel worse about myself</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel I'm not as good a person as</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

How MSM are responding to the outbreak

How monkeypox spoiled gay men’s plans for an invincible summer

Queer men across the U.S. talked to NBC News about the dates they never went on, the sex they never had and the gatherings they avoided...
Stigma and the US MPX outbreak

History doesn’t have to repeat itself with stigma and monkeypox

By Ofole Mgbako  Aug. 18, 2022

D.C. attack investigated as a hate crime after attackers used anti-gay slur and mentioned monkeypox

Police said the attackers approached the two men and made derogatory comments “based on their sexual orientation” before assaulting them and fleeing.

Major Lab Techs Allegedly Refusing to Take Blood from Possible Monkeys Patient: Report

A number of Labcorp and Quest Diagnostics technicians are allegedly not taking blood samples from patients who may be infected with monkeypox, raising concerns about testing delays.

By Charmaine Patterson  Published on August 4, 2022 09:52 PM
Gay, bisexual, and other men who have sex with men are taking steps to protect themselves and their partners from monkeypox.

- 48% reduced number of sex partners
- 50% reduced one-time sexual encounters
- 50% reported reducing sex with partners met on dating apps or at sex venues
amfAR’s Approach to U.S. MPX Outbreak

Funder Briefing: Responding to the Monkeypox Virus Outbreak

- Forecasting analyses
- Releasing policy briefs w/ O’Neill
- Publishing research commentaries
- Funding research studies
Thank You!

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