

February 1, 2023





Introduction: The Community Access National Network (CANN), with support from Gilead Sciences via its <u>Monkeypox Global Emergency Fund</u>, will present periodic reports regarding the 2022 Monkeypox (MPV) outbreak in the United States, as part of its <u>MPV Response Project for People Living with HIV</u>. This report is designed to consolidate data and resources from various federal, state, and local level sources for patients, providers, and advocates to access readily and easily, to identify where data and resources may be lacking, and to encourage and empower advocates in seeking more robust resources for their local communities.

Each report will maintain a national epidemiological report (Section 1), national vaccine equity report (Section 2), patient resource and informational list by jurisdiction (Section 3), review of available data regarding the intersection of HIV and MPV (co-infection, Section 4), and current news (Section 5). Reports, after the first report, will include an additional section dedicated to state-level surveillance highlight (Section 6), which is aimed at specifying which states are providing robust, public-facing situation reporting. Such reporting is critically important for communities, patients, and providers to assess individualized risk and prevention efforts.

SECTION 1: Epidemiological Report

The U.S. Centers for Disease Control & Prevention (CDC) has been tracking the MPV outbreak in the United States since May 17, 2022. As of January 20th, 2023, there have been a total of 30,061 identified MPV diagnoses, with the highest number of weekly diagnoses being in Week 32 (August 1st, 2022 – August 7th, 2022), with a weekly total of 3,169 diagnoses (CDC, 2022b)

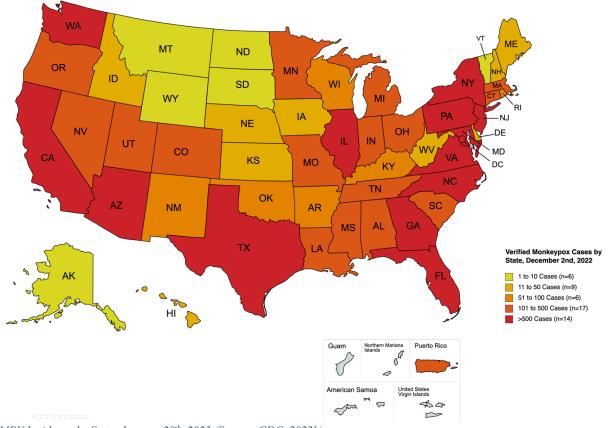


Figure 1 – MPV Incidence by State, January 20th, 2023 (Source: CDC, 2022b)





- Report No. 4 | MPV Response Project for People Living with HIV -

The states with the highest cumulative incidence of MPV as of January 20th, 2023, are (CDC, 2022c):

- 1.) California 5,719
- 2.) New York 4,218
- 3.) Florida 2,895
- 4.) Texas -2,863
- 5.) Georgia 1,985

That these states have the highest incidence rates is no surprise, as they are also all within the ten states with the largest populations in the United States. They also have high percentages of self-identified LGBTQ+ residents (Williams Institute, 2019).

MPV Diagnoses by Demographic Group

Note: These data are current as of the week ending Sunday, January 8th, 2023 (MMWR Week 1)

Since the beginning of the MPV outbreak, the majority of MPV cases identified (95.5%) have been diagnosed in men, with the largest number of cases being identified in men aged 31-35. Of the 28,689 cases identified, six age groups of men—21-24, 26-30, 31-35, 36-40, 41-45, and 46-50—have cumulative case counts over 2,000, with men aged 31-35 having 6,386 cases. Just 2.8% of all cases have been identified in women. In trans populations, transgender women are likelier to be diagnosed with MPV (0.8% of MPV diagnoses) than transgender men (0.3% of MPV diagnoses). Across all genders, persons aged 26-40 represent the majority of MPV diagnoses.

Communities of color are disproportionately impacted by MPV. In the Morbidity and Mortality Weekly Report (MMWR) Week 47, 41.4% of MPV diagnoses were in Black Americans and 27.4% in White Americans. Black Americans have represented the highest percentage of patients diagnosed since MMRW Week 29. In parts of the country where Hispanic American populations are higher, such as the American West and Northeast, Hispanic Americans are disproportionately impacted.

Monkeypox Cases by Race (as of January 8, 2023)					
Race	Race% Total Cases% Increase/Decrease from December 2022 Report				
Am. Indian/Alaska Native	0.0%	No Change	0.7%		
Asian	0.0%	-100%	5.9%		
Black	50%	31.3%	12.6%		
Hispanic/Latino	16.7%	-30%	18.9%		
Multiple	0.0%	-100%	2.3%		
Native Hawaiian/Pacific	0.0%	No Change	0.2%		
Other	16.7%	337.5%	-		
White	16.7%	-45.8%	59.3%		

Table 1 – Monkeypox Cases by Race, January 2023





- Report No. 4 | MPV Response Project for People Living with HIV -

Monkeypox Cases by Gender (January 18, 2023)						
Gender	Incidence	% Total Reported Cases	% Increase in New Diagnoses			
Man	28,106	95.3%	2.6%			
Transgender Man	72	0.2%	0.0%			
Transgender Woman	248	0.8%	12.7%			
Woman	854	2.9%	5.6%			
Another Sex/Gender	208	0.7%	2.5%			
TOTAL	29,488	100%	2.8%			

Table 2 – Monkeypox Cases by Gender, January 2023

* (Gender reporting is available in 98.3% of MPV cases)

Table 3 – Monkeypox Test Administration and Positivity Rate by Morbidity and Mortality Weekly Report Week, January 2023

Monkeypox Test Administration and Positivity Rate by MMWR Week, January 15, 2023					
MMRW Week	Number of Tests	Test Positivity	Percent Positive		
Week 20	12	7	58.3%		
Week 21	89	17	19.1%		
Week 22	147	35	23.8%		
Week 23	307	72	23.5%		
Week 24	357	132	37.0%		
Week 25	601	223	37.1%		
Week 26	1,039	473	45.5%		
Week 27	1,433	659	46.0%		
Week 28	3,869	1,975	51.0%		
Week 29	4,478	2,124	47.4%		
Week 30	5,640	2,228	39.5%		
Week 31	13,080	4,111	31.4%		
Week 32	16,741	3,829	22.9%		
Week 33	18,631	4,126	22.1%		
Week 34	15,282	3,328	21.8%		
Week 35	11,880	2,455	20.7%		
Week 36	7,830	1,533	19.6%		
Week 37	6,556	1,367	20.9%		
Week 38	5,628	1,128	20.0%		
Week 39	3,133	621	19.8%		





Monkeypox Te	est Administration and Po	sitivity Rate by MMWR	Week, January 15, 2023
MMRW Week	Number of Tests	Test Positivity	Percent Positive
Week 40	2,362	507	21.5%
Week 41	2,110	433	20.5%
Week 42	1,630	338	20.7%
Week 43	1,305	240	18.4%
Week 44	1,307	199	15.2%
Week 45	1,052	166	15.8%
Week 46	867	131	15.1%
Week 47	636	134	21.1%
Week 48	676	104	15.4%
Week 49	569	82	14.4%
Week 50	543	83	15.3%
Week 51	339	42	12.4%
Week 52	334	38	11.4%
Week 53	318	22	6.9%
Week 1	364	49	13.5%
Week 2	91	11	12.1%

- Report No. 4 | MPV Response Project for People Living with HIV -

SECTION 2: Vaccine Equity Report

As of August 9, 2022, the U.S. Food and Drug Administration (FDA) authorized the emergency use of the JYNNEOS® vaccine as a two-dose regimen to increase the available vaccine supply. This change allows healthcare providers to split what was a single-dose regimen into two half-doses delivered four weeks apart (FDA, 2022). As a result, existing vaccine delivery data largely relies on first-dose reporting. As of January 17th, 2023, there were 725,903 first doses of the vaccine and 443,874 second doses administered in the United States. Of the first-dose vaccines administered, 338,100 (46.6%) have been administered to White Americans, 149,512 (20.6%) to Hispanic Americans, 81,964 (11.3%) to Black Americans, and 49,142 (6.8%) to Asian Americans. 66,234 (9.1%) first-dose vaccines have been delivered to persons for whom no race demographic information was reported.

As of January 16th, 2023, 1,183,553 vials have been allocated to the 50 states, Puerto Rico, and the District of Columbia, with 848 vials allocated to American Samoa, Guam, Northern Mariana Islands, Tribal Entities, and the U.S. Virgin Islands. Each vial contains 5 doses of the JYNNEOS® vaccine. California, New York, Florida, Texas, Illinois, and Georgia were each allocated more than 50,000 vials.

Note: 92,003 additional vials were made available to states in January 2023. Just three states have increased the number of vials requested since that time (Figure 3 & Table 7).





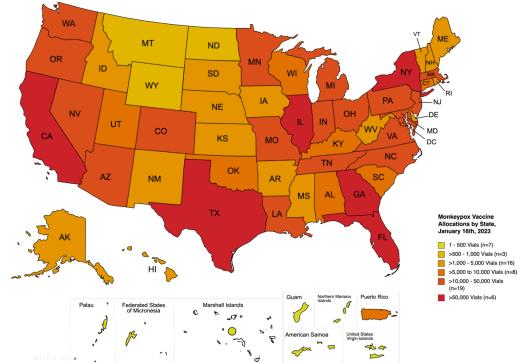


Figure 2 – Monkeypox Vaccine Allocations by State, January 2023

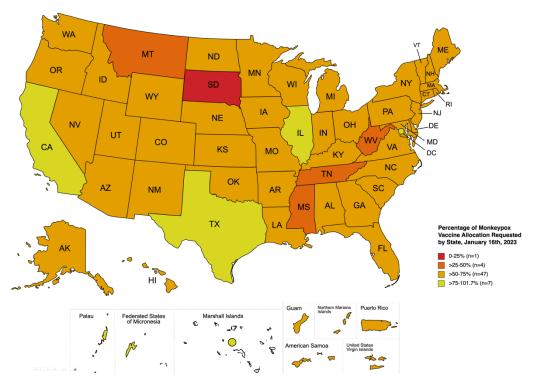


Figure 3 – Percentage of Monkeypox Vaccine Allocations Requested by State, January 2023





- Report No. 4 | MPV Response Project for People Living with HIV -

Table 4 – Monkeypox First-Dose Vaccine Administration by Race in 57 U.S. Jurisdictions, as of January 2023*

Monkeypox First-Dose Vaccine Administration by Race in 57 U.S. Jurisdictions (January 17, 2023)					
Race	Number of First Dose	% Total First Dose	% Increase/Decrease from Previous Report		
White	338,100	46.6%	-0.2%		
Hispanic	149,512	20.6%	0.4%		
Black	81,964	11.3%	-0.4%		
Asian	49,142	6.8%	-0.5%		
Other	17,995	2.5%	0.2%		
American Indian/Alaska Native	2,720	0.4%	1.6%		
Multiple	18,526	2.6%	1.5%		
Native Hawaiian/Pacific Islander	1,710	0.2%	0.0%		
Unknown	66,234	9.1%	0.5%		
TOTAL	725,903				

* (Data exclude vaccines delivered in Palau, American Samoa, Federated States of Micronesia, or Marshall Islands)

Table 5 – Monkeypox First-Dose	Vaccine Administration	by Sex, as of January 2023
J 1		

Monkeypox First-Dose Vaccine Administration by Sex (January 17, 2023)					
Sex	Number of First Dose	% Total First Dose	% Increase/Decrease from Previous Report		
Male	652,356	89.9%	-0.1%		
Female	60,972	8.4%	0.9%		
Unknown	12,575	1.7%	-0.4%		
TOTAL	725,903				

Table 6 – Monkeypox First-Dose Vaccine Administration by Age, as of January 2023

Monkeypox First-Dose Vaccine Administration by Age (January 1 ^h , 2023)					
Age	AgeNumber of First Dose% Total First Dose% Increase/Dec from Previous F				
0-4	289	0.0%	4.9%		
5-11	394	0.1%	2.4%		
12-17	563	0.1%	6.0%		







Age	Number of First Dose	% Total First Dose	% Increase/Decrease from Previous Report
18-24	57,118	7.9%	0.2%
25-39	335,091	46.2%	-0.4%
40-49	131,518	18.1%	0.0%
50-64	157,980	21.8%	0.4%
65+	42,940	5.9%	1.2%
Unknown	10	0.0%	7.7%
TOTAL	725,903		

Table 7 – Monkeypox Vaccine Allocation by Jurisdiction, January 2023

Monkeypox Vaccine Allocation by Jurisdiction (JYNNEOS®), (January 13, 2023)						
Jurisdiction	Allocation	%Total Supply	Requested	%Allocation	Shipped	%Shipped
Alabama	8,383	0.7%	4,523	54.0%	4,523	100.0%
Alaska	1,080	0.1%	600	55.6%	600	100.0%
American Samoa	60	0.0%	40	66.7%	40	100.0%
Arizona	19,653	1.7%	12,173	61.9%	12,173	100.0%
Arkansas	4,260	0.4%	2,460	57.7%	2,460	100.0%
California	112,309	9.5%	114,189	101.7%	114,189	100.0%
Los Angeles	73,802	6.2%	65,522	88.8%	65,522	100.0%
Colorado	19,525	1.6%	12,805	65.6%	12,805	100.0%
Connecticut	8,928	0.8%	6,328	70.9%	6,328	100.0%
Delaware	2,795	0.2%	1,655	59.2%	1,655	100.0%
District of Columbia	31,455	2.7%	27,415	87.2%	27,415	100.0%
F. S. Micronesia	20	0.0%	20	100.0%	20	100.0%
Florida	112,680	9.5%	74,720	66.3%	74,720	100.0%
Georgia	54,502	4.6%	33,582	61.6%	33,582	100.0%
Guam	120	0.0%	80	66.7%	80	100.0%
Hawaii	4,472	0.4%	3,272	73.2%	3,272	100.0%
Idaho	2,420	0.2%	1,380	57.0%	1,380	100.0%
Illinois	19,618	1.7%	15,298	78.0%	15,298	100.0%
Chicago	51,529	4.4%	40,629	78.8%	40,629	100.0%
Indiana	13,392	1.1%	7,812	58.3%	7,812	100.0%
Iowa	3,201	0.3%	1,941	60.6%	1,941	100.0%
Kansas	3,576	0.3%	2,156	60.3%	1,916	88.9%
Kentucky	8,180	0.7%	4,100	50.1%	4,100	100.0%
Louisiana	14,122	1.2%	8,862	62.8%	8,862	100.0%
Maine	2,331	0.2%	1,331	57.1%	1,331	100.0%
Marshall Islands	20	0.0%	20	100.0%	20	100.0%
Maryland	23,299	2.0%	14,539	62.4%	14,539	100.0%
Massachusetts	25,791	2.2%	18,831	73.0%	18,831	100.0%





Jurisdiction	Allocation	%Total Supply	Requested	%Allocation	Shipped	%Shipped
Michigan	17,598	1.5%	9,818	55.8%	9,818	100.0%
Minnesota	13,398	1.1%	8,198	61.2%	8,118	99.0%
Mississippi	3,861	0.3%	1,821	47.2%	1,821	100.0%
Missouri	11,353	1.0%	6,053	53.3%	6,053	100.0%
Montana	998	0.1%	478	47.9%	478	100.0%
Nebraska	2,141	0.2%	1,421	66.4%	1,421	100.0%
Nevada	11,282	1.0%	7,402	65.6%	7,402	100.0%
New Hampshire	1,927	0.2%	1,187	61.6%	1,187	100.0%
New Jersey	24,029	2.0%	16,149	67.2%	16,149	100.0%
New Mexico	4,936	0.4%	3,056	61.9%	3,056	100.0%
New York	52,015	4.4%	34,695	66.7%	34,695	100.0%
New York City	122,144	10.3%	103,124	84.4%	103,124	100.0%
North Carolina	27,128	2.3%	16,808	62.0%	16,788	99.9%
North Dakota	775	0.1%	435	56.1%	435	100.0%
No. Mariana Islands	60	0.0%	40	66.7%	40	100.0%
Ohio	23,213	2.0%	12,573	54.2%	12,573	100.0%
Oklahoma	7,736	0.7%	4,756	61.5%	4,756	100.0%
Oregon	16,238	1.4%	11,218	69.1%	11,218	100.0%
Palau	20	0.0%	20	100.0%	20	100.0%
Pennsylvania	21,871	1.8%	13,851	63.3%	13,831	99.9%
Philadelphia	10,650	0.9%	6,630	62.3%	6,630	100.0%
Puerto Rico	6,227	0.5%	3,267	52.5%	3,267	100.0%
Rhode Island	4,214	0.4%	2,774	65.8%	2,774	100.0%
South Carolina	8,367	0.7%	4,287	51.2%	4,287	100.0%
South Dakota	1,751	0.1%	291	16.6%	291	100.0%
Tennessee	17,602	1.5%	6,762	38.4%	6,762	100.0%
Texas	50,814	4.3%	43,314	85.2%	43,314	100.0%
Houston	27,026	2.3%	14,146	52.3%	14,146	100.0%
Tribal Entities	120	0.0%	0	0.0%	0	100.0%
U.S. Virgin Islands	260	0.0%	180	69.2%	180	100.0%
Utah	6,469	0.5%	4,709	72.8%	4,709	100.0%
Vermont	2,006	0.2%	1,146	57.1%	1146	100.0%
Virginia	24,199	2.0%	15,459	63.9%	15,459	100.0%
Washington	28,950	2.4%	19,270	66.6%	19,270	100.0%
West Virginia	2,277	0.2%	1,057	46.4%	1,057	100.0%
Wisconsin	7,874	0.7%	4,534	57.6%	4,454	98.2%
Wyoming	501	0.0%	281	56.1%	281	100.0%
TOTAL	1,183,553		857,493	72.5%	857,053	99.9%







- Report No. 4 | MPV Response Project for People Living with HIV -

SECTION 3: Patient Resources

Patients often struggle to identify accurate and easy to navigate information on their eligibility for the JYNNEOS® (vaccine) or TPOXX® (antiviral treatment) available in their area or even their state. The table below is designed to link directly to a state, territory, or jurisdiction's MPV/MPX informational pages, describe the types of provider entities in which vaccination or treatment may be obtained, and if an online, central booking tool exists for patients. Links contained within descriptions point directly toward resource lists correlated to the given jurisdiction.

The U.S. Centers for Disease Control and Prevention currently maintains a <u>Patient's Guide to Monkeypox</u> <u>Treatment with TPOXX</u>, directing patients to ask their provider for assistance in accessing the anti-viral treatment, should they need it.

Disclaimer: The accuracy of the information provided is based solely that the links provided were "live" only during the period of information gathering related to this report.

Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
Alabama (New Page as of 12/14/22)	 Vaccines available through local Health Department. Information about TPOXX is limited but indicates that TPOXX may be obtained. The Alabama Department of Public Health issued the following guidance: <u>https://www.alabamapublichealth.gov/bcd/assets/adph_han_mpx_update080222.pdf</u> 	No
<u>Alaska</u>	 Vaccines available through select community partners and Local Health Department (limited <u>online vaccination booking</u> available) TPOXX information is limited. Physicians may request TPOXX using the following form: <u>https://health.alaska.gov/dph/Epi/id/Documents/Monkeypox/TPOXX-Checklist.pdf</u> 	No
Arizona (New Page)	 Vaccines available through County health Departments. TPOXX is distributed through the Northern, Central, and Southern Arizona regional hubs, but information about the medication is provided primarily to healthcare providers (<u>Link</u>). Patients must provide informed consent to receive medication. 	No
<u>Arkansas</u>	 Vaccines available through select community partners, pharmacies, FQHCs, and County Health Departments. TPOXX available through provider referral and coordinated by State Health Department. The Arkansas Department of Health has released the following guidance: <u>https://www.healthy.arkansas.gov/images/uploads/pdf/HAN_TPOXX.pdf</u> 	No

Table 8 - Monkeypox, Vaccine, and TPOXX Access Resources by Jurisdiction





Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>California</u>	 Vaccines available through provider referral coordinated by County Health Departments. Information about TPOXX is limited but is available through provider request. Providers are instructed to contact their LHD for prescribing or accessing TPOXX for patients. 	No
<u>Colorado</u>	 Vaccines available through select community partners, pharmacies, and County Health Department (including mobile clinics, schedule and booking on webpage). Information about TPOXX is available on the following website: <u>https://cdphe.colorado.gov/diseases-a-to-z/if-you-have-monkeypox</u> 	No
<u>Connecticut</u>	 Vaccinations available through select community partners and Local Health Departments Information about TPOXX is limited and largely geared toward providers. The Connecticut Department of Public Health has released the following guidance: <u>https://portal.ct.gov/-/media/Departments- and-Agencies/DPH/dph/infectious_diseases/Monkeypox/TPOXX-Treatment-Request- Communication.pdf</u> 	No
<u>Delaware</u>	 Vaccine available at <u>Newark Urgent Care</u>, <u>Beebe Healthcare</u>, and State Health Department clinics Information about TPOXX is limited and geared primarily toward providers. The Delaware Division of Public Health has released the following guidance: <u>https://dhss.delaware.gov/dph/epi/files/troxxrderingprocess.pdf</u> 	No
<u>District of</u> <u>Columbia</u>	 Vaccines available through District Health Department walk-up clinic. No in-territory specific TPOXX information is available. 	No
<u>Florida</u>	 Vaccines available through select community partners (very limited) and County Health Department. Vaccine information is available on each county's website. Patients may find their LHD using the following search portal: https://www.floridahealth.gov/all-county-locations.html?utm_source=floridahealth.gov/programs-and-services/county-health-departments/find-a-county-health-department/index No in-state specific TPOXX information is available. 	No
<u>Georgia</u>	 Vaccines available through State and County Health Departments Centralized vaccine appointment book is available at the following link: <u>https://gta-vras.powerappsportals.us/en-US/</u> No in-state specific TPOXX information is available. 	Yes





						· ·		/
Report No. 4	MPV F	Response	Project	for	People	Living	with]	HIV -

Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>Hawaii</u>	 Vaccines available through select community partners, FQHCs, and Local Health Departments. The Hawaii Department of Health lists those locations at the following link: <u>https://health.hawaii.gov/docd/disease_listing/monkeypox/#section2</u> TPOXX available through provider referral coordinated by State Health Department. 	No
<u>Idaho</u>	 Vaccines available through select community partners and Local Health Department clinics. Idaho Public Health District contacts may be found here: <u>https://healthandwelfare.idaho.gov/health-wellness/community-health/public-health-districts</u> The state refers patients to the national Building Healthy Online Communities vaccine finder database: <u>https://MPVvaxmap.org/</u> No in-state specific TPOXX information available. 	No
<u>Illinois</u>	 Vaccines are available through select community partners, FQHCs, STI clinics, and County Health Departments The state refers patients to the national Building Healthy Online Communities vaccine locator database: <u>https://MPVvaxmap.org/</u> TPOXX available through provider referral coordinated by County Health Department or directly through County Health Department clinics. 	No
<u>Indiana</u>	 Vaccines available through providers and County health Departments (including mobile unit outreach). Vaccine clinics are highly restricted and located primarily in Indianapolis at the Indiana University Methodist Hospital (by registration) and Public University of Indianapolis (IUPUI). Interested patients should refer to the following site for updated clinic information: https://www.in.gov/health/erc/infectious-disease- epidemiology/diseases-and-conditions-resource-page/monkeypox/vaccine-clinics/ TPOXX available through provider referral coordinated by State Health Department. Providers must complete the following form for each patient: https://redcap.isdh.in.gov/surveys/?s=3REN7J3XRDE3FTTJ 	No
<u>lowa</u>	 Vaccines available through County Health Departments and select community providers. Interested patients may find vaccine locations using the following site: <u>https://idph.iowa.gov/ehi/monkeypox/vaccine</u> No in-state specific TPOXX information available 	No





Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>Kansas</u>	 Vaccines available through select community partners and Local Health Departments Interested patients may find vaccine providers using the following site: <u>https://www.kdhe.ks.gov/1952/Monkeypox-Vaccine</u> TPOXX available through provider referral coordinated by State Health Department. 	No
<u>Kentucky</u>	 Vaccine available through select community partners and County Health Departments Interested patients may find vaccine providers using the following document: <u>https://chfs.ky.gov/agencies/dph/dehp/idb/Documents/MPXVaxLocations.pdf</u> TPOXX available through provider referral and coordinated by State Health Department. 	No
<u>Louisiana</u>	 Vaccines available through select <u>community partners</u> and Parish/local Health Departments Interested patients may find vaccine providers using the following document: <u>https://ldh.la.gov/assets/oph/monkeypox/vaccine- locations/MonkeypoxVaccineLocations.pdf</u> TPOXX available through select community partners and coordinated through State Health Department. 	No
<u>Maine</u>	 Vaccines and TPOXX available through select community partners listed on webpage. Interested patients may find vaccine providers using the following site: https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/zoonotic/monkeypox.shtml#vaccine Interested patients may find TPOXX providers using the following site: https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/zoonotic/monkeypox.shtml#vaccine 	No
<u>Maryland</u>	 Vaccines are available through County Health Department with <u>pre-registration</u> Provider referral coordinated through State Health Department. 	No
<u>Massachusetts</u>	 Vaccines are available through select community partners, STI clinics, and FQHCs Interested patients may find vaccine providers using the following site: <u>https://www.mass.gov/info-details/monkeypox-vaccination#how-to-obtain-vaccine-</u> Provider referral coordinated through State Health Department. 	No





Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>Michigan</u>	 Vaccines are available through County health Departments and provider referral Information about TPOXX is limited and geared toward providers. Michigan has released the following guidance for ordering TPOXX: https://www.michigan.gov/mdhhs/-	No
<u>Minnesota</u>	 Vaccines are available through select community partners, FQHCs, STI clinics, and County Health Departments The state refers patients to the national Building Healthy Online Communities vaccine finder database: <u>https://MPVvaxmap.org/</u> No in-state specific TPOXX information is available. 	No
<u>Mississippi</u>	 Vaccines are available through select community providers and County health Departments Interested patients may find vaccine providers using the following site: <u>https://msdh.ms.gov/msdhsite/_static/resources/19327.pdf</u> TPOXX available through provider referral/request coordinated by State Health Department. The state has released the following guidance about TPOXX: <u>https://msdh.ms.gov/page/resources/19266.pdf</u> Providers may access the TPOXX request form using the following site: <u>https://apps.msdh.ms.gov/redcap/surveys/?s=JKE7D38YEADAENFT</u> 	No
<u>Missouri</u>	 Vaccines are available through provider referral and Local Health Departments No in-state specific TPOXX information is available. 	No
<u>Montana</u>	 Vaccines available through select County Health Departments The state refers patients to the national Building Healthy Online Communities vaccine finder database: <u>https://MPVvaxmap.org/</u> Required state approval for TPOXX. 	No
<u>Nebraska</u>	 Vaccines available after state notification via local Health department TPOXX information refers to Strategic National Stockpile 	No
<u>Nevada</u>	 Vaccines and TPOXX available through select County Health Departments and their partners. Interested patients may find vaccine providers using the following site: <u>https://dpbh.nv.gov/Programs/Immunization/Monkeypox/MPX-Vaccination/</u> 	No





					/
Report No. 4	MPV Respon	se Project for	People	Living	with HIV -

Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>New Hampshire</u>	 Vaccines and TPOXX coordinated by select providers and through County Health Departments. Interested patients may find vaccine providers using the following site: <u>https://www.dhhs.nh.gov/sites/g/files/ehbemt476/files/documents2/monkeypox-vaccine-locations.pdf</u> 	No
<u>New Jersey</u>	 Vaccines and TPOXX available through County Health Departments, select FQHCs, and other community partners. Interested patients may find vaccine providers using the following site: <u>https://www.nj.gov/health/monkeypox/vaccines/index.shtml</u> 	No
<u>New Mexico</u>	 Vaccines coordinated via State Health Department screening site Interested patients may register to receive the MPV vaccine using the following site: <u>https://monkeypoxnm.org/</u> No specific TPOXX information available. 	Yes
<u>New York</u> (state)	 Vaccines available through select County Health Departments TPOXX available through <u>select community partners</u>. 	No
<u>New York City</u>	 Vaccines available through City Health Department sites. Interested patients may schedule an appointment for the MPV vaccination using the following site: https://vaccinefinder.nyc.gov/ TPOXX available through provider referral coordinated with City Health Department. For those without a provider, visit ExpressCare. 	Yes
<u>North Carolina</u>	 Vaccines available through County Health Departments (CHDs may coordinate with community partners) Interested patients may find vaccine providers using the following site: <u>https://www.ncdhhs.gov/divisions/public-health/monkeypox/monkeypox-vaccine-locations/additional-monkeypox-vaccine-locations</u> TPOXX is available through selected community providers. Interested patients may find TPOXX providers using the following document: <u>https://www.ncdhhs.gov/media/17917/download?attachment</u> 	No
<u>North Dakota</u>	 Vaccines available through select County health Departments and select community partners Interested patients may find vaccine providers using the following site: <u>https://www.health.nd.gov/monkeypoxvaccinelocator</u> No specific information on in-state access to TPOXX. 	No





Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>Ohio</u>	• Vaccines are available to limited geographies and require a provider referral, coordinated through local health departments.	No
<u>Oklahoma</u>	• Vaccines available through provider referral coordinated through Local health Departments or through County Health Department Clinics. Central information phone number.	No
<u>Oregon</u>	 Vaccines and TPOXX available through select community partners and County Health Departments Interested patients may use the following website to find a vaccination event: <u>https://www.oregon.gov/oha/PH/Monkeypox/Pages/vaccine.aspx</u> The state refers patients to the national Building Healthy Online Communities vaccine finder database: <u>https://MPVvaxmap.org/</u> 	No
<u>Pennsylvania</u>	 Vaccines and TPOXX available through provider referral coordinated through County or State Health Department. Centralized information phone number. Interested patients may call the following number for MPV vaccine information: <u>877-PA-HEALTH</u> 	No
<u>Puerto Rico</u>	• Vaccines available through <u>select community partners</u> , no in- territory specific information available for TPOXX.	No
<u>Rhode Island</u>	 Vaccines available through County Health Departments and select community partners (spreadsheet of event information with clickable registration link in-sheet), no in-state specific information on TPOXX. Interested patients may use the following spreadsheet to view provider locations and register for vaccination: https://docs.google.com/spreadsheets/d/1hMD7R36nI6e1T0BFYG0i-l2ewaMS-WTmokpZ1cjBqyo/edit - gid=0 	Yes
South Carolina	 Vaccines available through select community partners and State Health Department Interested patients may located vaccine providers using the following site: <u>https://sc-</u><u>dhec.maps.arcgis.com/apps/instant/nearby/index.html?appid=5be0e6ed97eb4f2a874fe9</u> <u>c7bdd577e2</u> Patients may also use the Public Health Clinics Web Chat at the following site: <u>https://scdhec.gov/health/health-public-health-clinics/clinics- notice-privacy-practices</u> TPOXX available through provider referral or local health department. 	No





Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>South Dakota</u>	 Vaccines available through community partners, TPOXX available through provider referral, coordinated with State Health Department. Interested patients may find a vaccine provided using the embedded vaccine locator map in the "Your Health" tab at the following site: <u>https://doh.sd.gov/diseases/infectious/diseasefacts/monkeypox.aspx</u> 	No
<u>Tennessee</u>	 Vaccines available through County Health departments Interested patients may contact their local health departments to inquire about vaccine availability using the following site: https://www.tn.gov/health/health-program-areas/localdepartments.html Providers may directly request TPOXX for patients using the following form: https://redcap.health.tn.gov/redcap/surveys/?s=N7NLA4KFK77FLKJH 	No
<u>Texas</u>	 Vaccines and TPOXX available through County Health departments and private provider referrals. Interested patients may contact their local health department to inquire about vaccine availability using the following site: https://dshs.state.tx.us/regions/lhds.shtm 	No
<u>Utah</u>	 Vaccines available through County health Departments and select community partners Interested patients may contact the providers listed on the following site under the "Vaccine Information" tab to inquire about vaccine availability: <u>https://epi.health.utah.gov/monkeypox/</u> TPOXX available through private provider referral coordinated through State Health Department. 	No
<u>Vermont</u>	 Vaccines and TPOXX available through select community partners, FQHCs, and County health Departments. The state refers patients to the national Building Healthy Online Communities vaccine finder database: <u>https://MPVvaxmap.org/</u> 	No
<u>Virginia</u>	 Vaccines available through select community partners, FQHCs, STI Clinics, and County Health Departments Interested patients may contact their local health departments to inquire about vaccine availability using the following site: https://www.vdh.virginia.gov/health-department-locator/ No in-state specific TPOXX information is available. 	No





			•	· ·	/
Report No. 4 MPV	Response	Project for	People	Living w	ith HIV -

Jurisdiction	Distributing Entity Type HD, HIV/STI clinics, FQHCs, hospitals, pharmacies, other	Centralized Appointment
<u>Washington</u>	 Vaccines are available through select community partners and County Health departments (<u>locator</u> tool for *some* partners is available) Interested patients may inquire about vaccines by calling the following number: <u>1-833-829-HELP</u> TPOXX is available through provider referral and coordinated through County health Departments. 	No
<u>West Virginia</u>	 Vaccines available through County health Departments No in-state specific TPOXX information is available. 	No
<u>Wisconsin</u>	 Vaccines are available through select community partners, certain FQHCs, and County Health Department clinics Interested patients may contact the providers listed on the following site to inquire about vaccine availability: https://www.dhs.wisconsin.gov/lh-depts/counties.htm No in-state specific TPOXX information is available 	No
<u>Wyoming</u>	 Vaccines are available through Local Health Offices Interested patients may inquire about vaccines from the providers listed on the following site: <u>https://health.wyo.gov/publichealth/nursing/phn-co-offices/</u> No in-state specific TPOXX information 	No

SECTION 4: HIV and MPV

According to a paper published in September 2022, among 1,969 persons diagnosed with MPV in eight U.S. jurisdictions—California, Los Angeles County, San Francisco, the District of Columbia, Georgia, Illinois, Chicago, and New York state—38% were identified in People Living with HIV/AIDS (PLWHA). Additionally, 41% of those diagnosed had been diagnosed with a Sexually Transmitted Infection (STI) in the preceding year. Among persons with MPV, hospitalization was more common in PLWHA than in those without HIV infection (Curran, et al., 2022).

A recent report released by the CDC that observed a small sample of 57 patients found HIV co-infection in over 80% of cases (Miller, et al., 2022).

To date, only 3 jurisdictions track HIV/MPV co-infection, including (updated, January 2023):

- Michigan 49.75% of persons diagnosed with MPV were also positive for HIV
- North Carolina 51.7% of persons diagnosed with MPV were also positive for HIV
- Rhode Island 27.4% of persons diagnosed with MPV were also positive for HIV





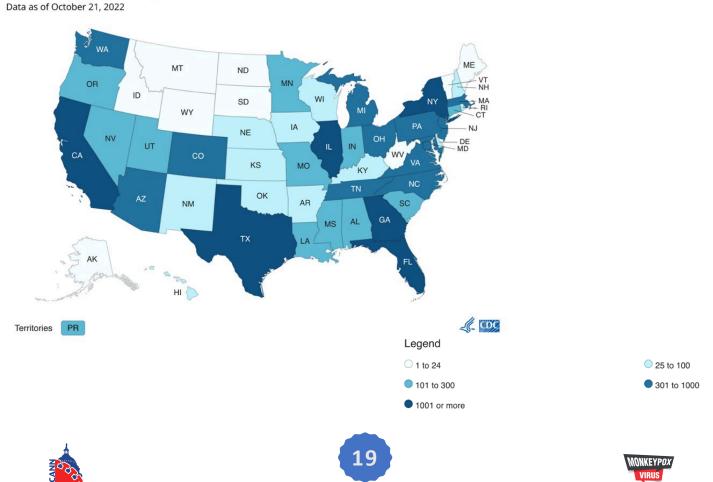
- Report No. 4 | MPV Response Project for People Living with HIV -

Because the current MPV outbreak appears to be most readily transmissible among sexual networks of gay, bisexual, transgender, and other men who have sex with men (MSM), a cohort disproportionately affected by HIV, it is important to prioritize PLWHA for testing, vaccination provision, and treatment with TPOXX (*where available*). In addition to PLWHA, persons who are candidates for or are currently prescribed a regimen of Pre-Exposure Prophylaxis (PrEP) should be prioritized.

In addition to screening and testing PLWHA, healthcare providers should be using MPV testing and screening as an opportunity to test and screen for other STIs, including HIV. Healthcare providers should be using these opportunities to link patients to other types of care and services.

Wider surveillance is necessary to create a more complete picture of HIV/MPV co-infection. While jurisdictional reporting is an excellent starting point, this reporting needs to be standardized across all jurisdictions. Data sharing from jurisdictions has fluctuated over the course of the 2022 MPV outbreak, with some jurisdictions joining data collection efforts, other jurisdictions inconsistently reporting data, and others still not reporting data to the CDC at all. The CDC's ability to compel data from jurisdictions is limited and largely reliant on funding opportunities. Congress has yet to appropriate additional funding for the CDC to address the 2022 MPV outbreak.

The CDC has put together a map showing reported MPV cases per 100,000 Estimated Men who have Sex with Men (MSM) populations who are either PrEP indicated or PLWHA. This map details the relative risk of contracting MPV in areas where HIV prevalence is high.



United States reported monkeypox cases per 100,000 persons in the population at increased risk of monkeypox virus exposure*

- Report No. 4 | MPV Response Project for People Living with HIV -

SECTION 5. Current News

• Epidemiologic and Clinical Features of Mpox in Transgender and Gender-Diverse Adults — United States, May–November 2022 – Centers for Disease Control & Prevention MMWR, December 30th, 2022

As of November 9, 2022, a total of 28,730 cases of monkeypox (mpox) had been reported in the United States,* primarily among adult cisgender men reporting recent male-to-male sexual contact. Transgender and genderdiverse persons, who constitute an estimated 0.5% of the U.S. adult population, face unique health disparities and barriers to care. However, data on the epidemiologic and clinical features of *Monkeypox virus* infections in this population are limited. CDC analyzed U.S. case surveillance data on mpox cases in transgender and genderdiverse adults reported during May 17–November 4, 2022. During this period, 466 mpox cases in transgender and gender-diverse adults were reported, accounting for 1.7% of reported cases among adults. Most were in transgender women (43.1%) or gender-diverse persons (42.1%); 14.8% were in transgender men. Among 374 (80.3%) mpox cases in transgender and gender-diverse adults with information available on sexual or close intimate contact, 276 (73.8%) reported sexual or close intimate contact with a cisgender male partner during the 3 weeks preceding symptom onset. During the ongoing outbreak, transgender and gender-diverse persons have been disproportionately affected by mpox. Members of this population frequently reported recent sexual or close intimate contact with cisgender men, who might be in sexual networks experiencing the highest incidence of mpox. These findings highlight the importance of tailoring public health prevention and outreach efforts to transgender and gender-diverse communities and could guide strategies to reduce mpox transmission.

• Drug Sensitivity of Currently Circulating Mpox Viruses – New England Journal of Medicine, January 19th, 2023

As of November 10, 2022, the ongoing global monkeypox (recently renamed mpox) outbreak has resulted in 79,231 cases in 110 countries and 49 deaths, according to the Centers for Disease Control and Prevention. Approximately 10% of patients with mpox are hospitalized. Tecovirimat (ST-246), cidofovir, and brincidofovir (CMX001) are the antiviral agents currently used for the treatment of mpox. The currently circulating mpox viruses (MPXVs) have genomic alterations that were not observed previously and appear to affect virus biology, as indicated by the clinical and epidemiologic features seen with the viruses in the current outbreak, which are different from those seen in previous mpox outbreaks. These alterations may also affect virus sensitivity to antiviral drugs.

• <u>A slight increase in Mpox cases across the globe, along with an increase in deaths</u> – News-Medical.net, January 24th, 2023

Almost 85,000 laboratory-confirmed monkeypox (Mpox) cases and 80 deaths have been reported between January 1, 2022, and January 15, 2023, to the World Health Organization (WHO) in 110 countries, areas, or territories in the six WHO regions. A total of 11 countries have reported an increase in the weekly number of cases between January 2-15, 2023, with the highest increase reported in Mexico. However, 78 of the 110 countries have not reported new cases for over 21 days.





• <u>Testing, Vaccination, Contact Tracing Targets Needed to Contain Mpox in the US</u> – *Contagion Live, January 23rd, 2023*

As of this week, the U.S. Centers for Disease Control and Prevention (CDC) <u>estimates</u> there have been 30061 confirmed mpox infections in the United States. Mpox, formerly called <u>monkeypox</u>, is a zoonotic Orthopoxvirus. The smallpox relative causes a blister-like rash that can be itchy and painful. Mpox is spread primarily through skin-to-skin contact, or through the bodily fluids of an infected person.

In May 2022, the virus infiltrated hundreds of nonendemic countries around the world, including the US. Though vigilant contract tracing and deploying smallpox vaccine have helped mitigate the spread, mpox continues to circulate, primarily among men who have sex with men (MSM).

New <u>research</u>, published in *JAMA*, calculated the target levels of testing, contact tracing, and vaccination that are required to reduce the effective reproduction number (Rt) of mpox to less than 1 for high-risk MSM.

• An evaluation of pediatric Mpox specimens – News-Medical.net, January 25th, 2023

The World Health Organization has <u>recommended a new name</u> for monkeypox, asking countries to forget the In a recent study posted to the <u>medRxiv</u>* preprint server, researchers in the United States performed the clinical evaluation of pediatric monkeypox (mpox) specimens.

During the 1970s and 1980s, the median age of mpox infection reported in the United States was between four and five years old. However, in recent decades, the median age has risen. In the 1980s, pediatric mpox was associated with a death rate of up to 10%. Clinical microbiology testing is facing significant hurdles when diagnosing infectious illnesses in a low-risk group. The most troubling challenge is the possibility of reporting false positive test results because of poor positive predictive value in settings with low prevalence.

• FDA issues draft guidance on mpox drug development – Regulatory Focus, January 19th, 2023

In a much-anticipated draft guidance issued on Thursday, the US Food and Drug Administration (FDA) said that unlike smallpox therapeutics, treatments for mpox cannot be developed under the Animal Rule, which enables the agency to approve products without human clinical trials in limited circumstances.

The agency also said that sponsors should talk to regulators early to discuss appropriate clinical trial designs and metrics to prove safety and efficacy. The guidance does not apply to the development of preventative vaccines for mpox, which "raise different and additional considerations," FDA said.

• <u>Mpox Cases Among Cisgender Women and Pregnant Persons</u> — <u>United States, May 11</u>– <u>November 7, 2022</u> – *Centers for Disease Control and Prevention MMWR, January 6th, 2023*

Monkeypox (mpox) cases in the 2022 outbreak have primarily occurred among adult gay, bisexual, and other men who have sex with men (MSM); however, other populations have also been affected. To date, data on mpox in cisgender women and pregnant persons have been limited. Understanding transmission in these populations is critical for mpox prevention. In addition, among pregnant persons, *Monkeypox virus* can be transmitted to the fetus during pregnancy or to the neonate through close contact during or after birth. Adverse pregnancy outcomes, including spontaneous abortion and stillbirth, have been reported in previous mpox outbreaks.







During May 11–November 7, 2022, CDC and U.S. jurisdictional health departments identified mpox in 769 cisgender women aged \geq 15 years, representing 2.7% of all reported mpox cases. Among cases with available data, 44% occurred in cisgender women who were non-Hispanic Black or African American (Black), 25% who were non-Hispanic White (White), and 23% who were Hispanic or Latino (Hispanic). Among cisgender women with available data, 73% reported sexual activity or close intimate contact as the likely route of exposure, with mpox lesions most frequently reported on the legs, arms, and genitals. Twenty-three mpox cases were reported in persons who were pregnant or recently pregnant[§]; all identified as cisgender women based on the mpox case report form. Four pregnant persons required hospitalization for mpox. Eleven pregnant persons received tecovirimat, and no adverse reactions were reported. Continued studies on mpox transmission risks in populations less commonly affected during the outbreak, including cisgender women and pregnant persons, are important to assess and understand the impact of mpox on sexual, reproductive, and overall health.

SECTION 6: State Surveillance Highlights

As of January 25th, 2023:

- 28 states (<u>AL</u>, <u>AR</u>, <u>CA</u>, <u>CO</u>, <u>CT</u>, <u>DE</u>, <u>FL</u>, <u>GA</u>, <u>IL</u>, <u>IN</u>, <u>KY</u>, <u>LA</u>, <u>MD</u>, <u>MA</u>, <u>MI</u>, <u>MN</u>, <u>MS</u>, <u>NV</u>, <u>NJ</u>, <u>NM</u>, <u>NY</u>, <u>NC</u>, <u>RI</u>, <u>SC</u>, <u>VA</u>, <u>WA</u>, & <u>WI</u>) and the <u>District of Columbia</u> provide detailed demographic reporting on Monkeypox virus incidence on state-run websites. Both DE and FL omit race demographics from their reporting. Since the last report, Nevada has added detailed reporting and the state of Texas has ceased reporting.
- 14 states (<u>AZ</u>, <u>HI</u>, <u>ID</u>, <u>IA</u>, <u>KS</u>, <u>ME</u>, <u>MT</u>, <u>ND</u>, <u>OH</u>, <u>OR</u>, <u>SD</u>, <u>TN</u>, <u>UT</u>, & <u>WY</u>) provide case counts, but no demographic breakdowns on state-run websites. Since the last report, Arizona has added case counts.
- 9 states (AK, AZ, MO, NE, NH, OK, PA, VT, & WV) and Puerto Rico report data directly to the CDC with no reporting on state-run websites.

While demographic reporting exists in a majority of states, reporting standards vary widely from state to state. An example of this occurs in the classification of "Hispanic" individuals. While some states classify "Hispanic" or "Latino" as a race category, others classify it as an ethnic category. This means that, while race categories such as "Black" and "Asian" have specific case counts, "Hispanic" case counts are counted entirely separately from race, making it difficult to compare state-by-state incidence demographics.

Other issues exist when states do not provide comprehensive racial demographic reporting. An example of this is the state of Alabama where race demographics are broken down into four categories: White, Black, Other, and Unknown. Nearly 10% of Alabama's population falls into the "Other" category, which again makes identifying disparities in other demographic groups difficult to measure.

Further issues exist related to the reporting of sex and/or gender identity.







- Report No. 4 | MPV Response Project for People Living with HIV -

As of January 25th, 2023:

- 7 states (CA, CO, DC, KY, MN, SC, and WI) provide broad gender-based reporting that includes the following categories: Women, Transgender Women, Men, Transgender Men, and Other.
- 7 states (CT, LA, MA, NY, NC, OH, and TN) provide some gender-based reporting but combine all non-cisgender categories into an "Other" category, rather than breaking them out into detailed demographics.
- 13 states (AL, AR, DE, GA, IN, MD, MI, MS, NV, NJ, NM, VA, and WA) provide gender-based reporting that does not include non-cisgender categories.







- Report No. 4 | MPV Response Project for People Living with HIV -

REFERENCES:

- Administration for Strategic Preparedness and Response. (2022, September 21). Washington, DC: United States Department of Health and Human Services: Administration for Strategic Preparedness and Response: Strategic National Stockpile: JYNNEOS Vaccine Distribution by Jurisdiction. <u>https://aspr.hhs.gov/SNS/Pages/JYNNEOS-Distribution.aspx</u>
- Alabama Department of Public Health. (2022, September 25). What You Need to Know About Monkeypox in Alabama. Montgomery, AL: Alabama Department of Public Health: Monkeypox: Data. <u>https://tableau.adph.state.al.us/views/MPXFINALusingextractallsheets/MPXPublic?%3Adisplay_count</u> <u>=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAppBanner=false&%3AshowVizHome=n</u>
- Alabama NEDSS Base System. (2022, November 01). What You Need to Know About Monkeypox in Alabama. Alabama Department of Public Health. <u>https://tableau.adph.state.al.us/views/MPXFINALusingextractallsheets/MPXPublic?%3Adisplay_count</u> <u>=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAp</u> pBanner=false&%3AshowVizHome=n
- Centers for Disease Control and Prevention. (2022a, September 29). *Technical Report 3: Multi-National Monkeypox Outbreak, United States, 2022*. Atlanta, GA: United States Department of Health and Human Services: Centers for Disease Control and Prevention: Poxvirus: Monkeypox: 2022 Outbreak Cases & Data: Technical Report. <u>https://www.cdc.gov/poxvirus/monkeypox/cases-data/technical-report/report-3.html</u>
- Centers for Disease Control and Prevention. (2022b, December 02). U.S. Monkeypox Case Trends Reported to CDC. Atlanta, GA: United States Department of Health and Human Services: Centers for Disease Control and Prevention: Poxvirus: Monkeypox. https://www.cdc.gov/poxvirus/monkeypox/response/2022/us-map.html
- Centers for Disease Control and Prevention. (2022c, September 23). 2022 U.S. Map & Case Count. Atlanta, GA: United States Department of Health and Human Services: Centers for Disease Control and Prevention: Poxvirus: Monkeypox. <u>https://www.cdc.gov/poxvirus/monkeypox/response/2022/us-map.html</u>
- Colorado Department of Public Health. (2022, October 26). *Colorado Monkeypox Data*. Colorado Department of Public Health: Diseases A to Z: Monkeypox. <u>https://cdphe.colorado.gov/diseases-a-to-z/monkeypox</u>
- Curran, K.G., Eberly, K., Russell, O.O., et al. (2022, September 09). HIV and Sexually Transmitted Infections Among Persons with Monkeypox — Eight U.S. Jurisdictions, May 17–July 22, 2022. MMWR Weekly 71(36), 1141-1147. <u>http://dx.doi.org/10.15585/mmwr.mm7136a1</u>
- Food and Drug Administration. (2022, August 09). Monkeypox Update: FDA Authorizes Emergency Use of JYNNEOS Vaccine to Increase Vaccine Supply. Silver Spring, MD: United States Food and Drug Administration: News & Events: FDA Newsroom: Press Announcements. <u>https://www.fda.gov/newsevents/press-announcements/monkeypox-update-fda-authorizes-emergency-use-jynneos-vaccineincrease-vaccine-supply</u>
- Georgia Department of Public Health. (2022, October 26). Georgia Monkeypox Situational Report October 26, 2022. Georgia Department of Public Health: GA Monkeypox Outbreak Cases and Vaccination. <u>https://dph.georgia.gov/document/document/mpx-situational-report-october-26-2022/download</u>







- Massachusetts Department of Public Health. (2022, October 27). *Monkeypox Cases and People Vaccinated by Age, Sex and Race/Ethnicity*. Massachusetts Department of Public Health: Bureau of Infectious Disease and Laboratory Sciences: Monkeypox. <u>https://www.mass.gov/doc/weekly-report-monkeypox-cases-and-people-vaccinated-october-27-2022/download</u>
- Miller, M J., Cash-Goldwasser, S., Marx, G.E., Schrodt, C.A., Kimball, A., Padgett, K., Noe, R.S., McCormick, D.W., et. al. (2022, October 26). Severe Monkeypox in Hospitalized Patients — United States, August 10–October 10, 2022. *MMWR ePub*. <u>http://dx.doi.org/10.15585/mmwr.mm7144e1</u>
- Williams Institute. (2019, January). LGBT Demographic Data Interactive. Los Angeles, CA: University of California Los Angeles, School of Law, Williams Institute. https://williamsinstitute.law.ucla.edu/visualization/lgbt-stats/?topic=LGBT#density





