

Mpox Outbreak Response Plan

UPDATED NOVEMBER 15, 2022

Background

Mpox, formerly known as Monkeypox, is a contagious disease caused by infection with the mpox virus. An outbreak of mpox began in late May 2022 in the U.S. and other countries where the virus does not usually spread. In Philadelphia and nationally, the outbreak peaked in late July, and cases have been declining since late August.

Prior to the current outbreak, nearly all mpox cases in people outside of Africa were linked to international travel to countries where the disease commonly occurs or through imported animals. The case fatality rate of the type of mpox virus causing the current outbreak has historically been 1% in Africa, although it appears to be substantially lower in the current outbreak. People with immunosuppression, children under 8 years of age, people with a history of eczema, and people who are pregnant or breastfeeding may be more likely to get seriously ill or die. Eleven deaths have been recorded in the current U.S. outbreak. Anyone can get mpox, but the current outbreak has largely been affecting gay and bisexual men and transgender people who have sex with men.

Mpox spreads from person to person through:

- Direct contact with an infectious rash, scabs or body fluids
- Respiratory droplets during prolonged face to face contact or during intimate physical contact
- Touching items (such as clothing or bedding) used by a person with mpox
- Pregnant people can spread the virus to their fetus through the placenta

Philadelphia Outbreak

PDPH identified the first confirmed case of mpox on June 2, 2022. As of November 15, 544 people in Philadelphia have tested positive for orthopoxvirus/mpox. Cases in Philadelphia are decreasing, with fewer than 10 cases per week identified since early October. Case trends in Philadelphia mirror those seen nationally. Detailed case data may be found [on the PDPH website](#).

AFFECTED POPULATIONS

Anyone can get and spread mpox; however, the current outbreak has largely been affecting gay and bisexual men and transgender people who have sex with men. According to the Centers for Disease Control and Prevention (CDC), direct contact with rashes, sores, or scabs on a person with mpox, including during intimate contact such as sex, is believed to be the most common way that mpox is currently spreading in the U.S.

Guiding Principles

The City's Mpox Outbreak Response Strategies are guided by the following principles:

1. Use a data-driven, equity lens for the development, implementation, and evaluation of all response activities.
2. Incorporate community voices in the development of response strategies and communication plans.
3. Focus resources on Philadelphia residents who are at highest risk of acquiring mpox while resources remain limited.
4. Expand access to testing and vaccination services as additional resources become available.
5. Conduct community engagement and outreach activities in a culturally sensitive manner while providing the most up-to-date information about transmission, vaccination, harm reduction, and other topics to help people protect themselves.
6. Ensure transparency and timeliness of information sharing.

Health Equity Approach

The COVID-19 pandemic both highlighted and exacerbated the long-standing health inequities in Philadelphia. Much like the COVID-19 response, achieving equity in the response to mpox requires intentional strategies to reach Philadelphians who may face a higher risk of acquiring the disease and who are likely to face barriers to testing, treatment, vaccination, and other services. One proven method for addressing inequities is to collaborate with partner organizations that are both trusted by the community and located in key geographic areas to ensure equitable access to information and services, such as testing and vaccination. PDPH has established a network of testing and vaccination partners that are best positioned to serve persons at high-risk of acquiring mpox.

PDPH closely monitors testing and vaccination data and will course correct when inequities are observed. In our initial vaccination efforts, we made focused efforts to ensure equity, with particular focus on Black Philadelphians at high risk because of early data showing lower vaccination rates among this population. Those efforts have included providing evening, weekend, and walk-up vaccination opportunities; distributing vaccine to community providers who care for diverse populations; use of PDPH records to reach out to people identified as at high risk; and partnering with trusted organizations to facilitate access to vaccination opportunities for eligible persons.

We will continue to assess the data and implement changes in the plan as needed to achieve equity in the protection of all at risk groups.

Mpox Outbreak Response Strategies

The Health Department's key response strategies are outlined below. These strategies will be reviewed frequently to ensure that they continue to align with community needs as the outbreak evolves over time.

Conduct case investigation and contact tracing to reduce transmission.

PDPH is conducting case investigation for persons who test positive for mpox and contact tracing to identify persons who have been exposed to cases. Cases are assigned to PDPH case investigators to gather information about transmission, provide isolation recommendations, and to identify contacts who may have been exposed. PDPH then follows up with contacts to offer post-exposure prophylaxis vaccination and provide guidance on monitoring for symptoms following the exposure. CDC recommends that the vaccine be given within 4 days from the date of exposure to prevent onset of the disease. If given between 4–14 days after the date of exposure, vaccination may reduce the symptoms of disease, but may not prevent the disease. Timely vaccination of contacts is a high priority as it is an effective intervention for limiting disease transmission.

Expand testing capabilities to quickly identify mpox cases.

Widespread testing of persons with possible mpox symptoms is essential to comprehensive case identification, and thus outbreak control. On June 22, CDC announced they would begin shipping orthopoxvirus tests to 5 commercial laboratory companies to make testing more convenient and accessible for patients, which has greatly expanded testing capacity. The Health Department has strongly encouraged healthcare providers to expand testing capabilities, resulting in broadened access throughout the city. PDPH continues to mobilize healthcare providers to test patients with mpox symptoms by issuing testing guidance given varying requirements for specimen processing. Including testing capabilities in healthcare settings is critical so patients can receive comprehensive care for any co-infections or illnesses other than mpox from their healthcare provider.

PDPH is also supporting low-threshold sexual health sites, as well as Federally Qualified Health Centers (FQHCs), to expand and maintain testing capacity by providing testing supplies, personal protective equipment (PPE), training on specimen collection, and/or transport of specimens to the Pennsylvania Department of Public Health's Bureau of Laboratories for testing.

Communicate guidance, including testing and reporting requirements, to healthcare providers through the Health Alert Network (HAN), Health Information Portal (HIP), and other networks to ensure ongoing coordination.

The Health Alert Network (HAN) is PDPH's primary method of sharing timely information about urgent public health incidents with local clinicians and public health practitioners. Information about the current outbreak has included clinical presentation and how to manage suspect cases, conduct testing and vaccination, and acquire treatment for eligible patients. PDPH has issued the below advisories regarding the current mpox outbreak, all of which can be found on the [Health Information Portal \(HIP\) website](#). Healthcare providers can sign up to receive these alerts via email by completing a form on the HIP.

Philadelphia Department of Public Health Mpox Outbreak Response Plan

Table 1. Health Alerts Issued by PDPH regarding the Mpox Outbreak as of 11/21/22

Topic	Issue Date
Mpox Virus Infection in the United States and Other Non-Endemic Countries	5/25/22
Exposure Risk Assessment and Clinical Manifestation of Mpox	6/8/22
Update on Clinical Presentation and Epidemiology on Mpox in Philadelphia	7/8/22
Tecovirimat Treatment for Mpox	7/27/22
Pain Management Recommendations for Mpox	8/2/22
Mpox Vaccination Strategy and Prioritization of First Doses	8/4/22
Intradermal Injection for Mpox Vaccine	8/18/22
Update: Tecovirimat Treatment for Mpox	8/22/22
JYNNEOS Eligibility Update	9/1/22
Severe Manifestations of Mpox among People who are Immunocompromised Due to HIV or Other Conditions	10/4/22
Mpox Updates: Testing, Treatment, and Vaccine Updates	11/4/22
Update on Managing Mpox in Patients Receiving Therapeutics	11/21/22

In early June, PDPH delivered resource packets to Philadelphia urgent care and health centers to educate staff on proper management of suspect cases and patients presenting with possible mpox symptoms. Resource packets included Frequently Asked Questions for Clinicians, Mpox Case Definitions, Information on HAN Enrollment, and Mpox Factsheets for the Public. This outreach may be replicated if significant changes in guidance occur.

Vaccinate contacts of cases and persons at high risk of exposure using an equitable strategy in partnership with other healthcare providers, including sexual wellness centers.

Vaccine availability and the network of mpox vaccine providers has greatly expanded since the beginning of the outbreak. Clinic operations have shifted from PDPH operations to other providers who are trusted by affected populations.

ALLOCATION

Table 2 describes the number of JYNNEOS vaccine vials that PDPH has ordered from the Strategic National Stockpile (SNS) as of November 2022. Philadelphia has also received 3,070 doses of JYNNEOS from the Pennsylvania Department of Health’s (PADOH) supply.

Table 2. Philadelphia Vaccine Allocations as of 11/15/22

	Number of Vials	Date Ordered/Received
Strategic National Stockpile	2,625	Received prior to August
	2,420	Ordered August 1
	720	Ordered August 15
	1,120	Ordered August 22
PADOH supply	400	Received August 4
	1,000	Received August 12
	600	Received August 19
	1,070	Received August 26
Total vials	9,955	

INTRADERMAL STRATEGY

Because vaccine supply is limited, PDPH, like several other jurisdictions, initially adopted a one-dose outbreak response approach to vaccinate as many contacts of cases and high-risk persons as possible with a plan to address the need for second doses for conveying long-term immunity after the vaccine supply increased. In August, the U.S. Food and Drug Administration (FDA) recommended changing to an intradermal strategy using 20% of the usual dose, resulting in Philadelphia’s ability to expand the number of people eligible for vaccination. After review of the scientific evidence, discussions with experts, and input from vaccine providers and members from impacted communities, PDPH adopted the below strategy:

- The intradermal vaccine strategy is recommended as the preferred method of vaccination in Philadelphia for all providers due to the opportunity it offers to prevent further spread of mpox by vaccinating far more Philadelphia residents.
- The intradermal strategy should be offered as the preferred vaccination method to those eligible for JYNNEOS vaccination who are:
 - 18 years or older
 - Do not have a history of keloids (hypertrophic scarring)
- Subcutaneous dosing should be continued for those under age 18 and those with a history of keloids.
- Two doses 28 days apart are recommended for the intradermal strategy.
 - Those who received a subcutaneous dose can receive an intradermal dose for their second dose.
- Patients who decline intradermal vaccination but will accept subcutaneous vaccination should not be denied vaccination via the subcutaneous approach but should be educated about the reasons to prefer the intradermal approach.
- If an intradermal injection is attempted but the dose is inadvertently given subcutaneously, the dose should be readministered through the correct route (intradermally) immediately. No waiting period is needed.
- PDPH is not currently recommending the use of ACAM2000, the older smallpox vaccine, due to substantially higher risks of serious side effects than are seen with the JYNNEOS vaccine.

TARGET POPULATION

As vaccine supply has increased and the outbreak has changed, PDPH has expanded eligibility for mpox vaccination to anyone who believes they are likely to be exposed to mpox. PDPH has advised providers to continue outreach to people who are most at risk, including gay, bisexual, transgender, other men who have sex with men, or non-binary persons who:

- Have had multiple or anonymous sex partners in the past 14 days
- Have had any newly diagnosed STI in the past 12 months, including gonorrhea, chlamydia, early syphilis, or HIV
- Have recently attended or plan to attend any venue where anonymous sex or sex with multiple partners will occur (e.g., saunas, bathhouses, sex clubs, sex parties)
- Have met recent partners or plan to meet new partners through social media platforms (such as Grindr, Tinder, or Scruff), or at clubs, raves, sex parties, or saunas

Anyone who has had close contact (skin-to-skin) with someone with mpox in the past 14 days should be vaccinated immediately.

PROVIDERS

Vaccine providers that serve large populations of potentially eligible persons, including low-threshold sexual health sites, have been invited to participate as mpox vaccine providers. The below organizations have been provided vaccine and are distributing doses to patients as of November 15:

- Bebashi Transition to Hope
- Children's Hospital of Philadelphia (CHOP) Adolescent Initiative
- Courage Medicine
- Covenant House
- Dr. Ala Stanford Center for Health Equity (ASHE)
- Drexel Partnership
- Einstein Community Practice Center
- Greater Philadelphia Health Action, Inc (GPHA)
 - Carl Moore
 - Hunting Park Health Center

- Jefferson Health
 - Family Medicine Associates
 - Infectious Disease Clinic at Jefferson Hospital Ambulatory Practice (JHAP)
- Mazzoni Center
- Penn Medicine
 - Hospital of the University of Pennsylvania
 - Penn Presbyterian Medical Center
 - Pennsylvania Hospital Wood Clinic
 - Delancey Internal Medicine South Philly
 - Penn Family Medicine University City
 - Penn Internal Medicine University City
 - MacGregor Infection Medicine and Travel Program
- PDPH Ambulatory Health Services
- Philadelphia FIGHT
 - John Bell Health Center
 - Lax Treatment Center
- Prevention Point
- Temple Health
 - Temple University Hospital – Episcopal
 - Temple University Hospital – Main

As of November 14, mpox vaccine is also available at 10 local [Rite Aid pharmacy locations](#) across the City. All locations are offering walk-up vaccinations during their regular pharmacy hours, or appointments can be made online or by phone.

In an effort to promote equitable access to vaccine, PDPH issued a Request for Proposals (RFP) to expand mpox vaccination services and related outreach activities for populations who are at high risk for mpox. Funding announcements were made on October 27, 2022, to the below organizations across three tracks.

Table 3. Organizations funded for Mpox Vaccination Activities

Track 1: Mpox vaccination services*
Bebashi Transition for Hope
Courage Medicine
Drexel Medicine
Mazzoni Center
Philadelphia FIGHT
Track 2: Collaboration to support mpox vaccination services
Galaei/Urban Affairs Coalition
Track 3: Community engagement for mpox vaccination
COLOURS Organization/Urban Affairs Coalition
Prevention Meets Fashion

*Note that It Takes Philly/the Ala Stanford Center for Health Equity was funded for Track 1 activities through a separate funding mechanism.

PDPH-OPERATED CLINICS

PDPH is currently offering mpox vaccine at four Health Center Annex locations on Tuesdays from 8:30am – 12:30pm with walk-up availability. Information about those clinics and others may be found at <https://www.phila.gov/programs/mpox/vaccines/>.

From July 2022 – November 2022, PDPH operated multiple mpox vaccination clinics per week across the City at Health Center 1, located at Constitution Health Plaza; The William Way LGBT Community Center; The Shoppes at LaSalle; Mi Salud Wellness Center; and Action Wellness West-Filbert Street. PDPH has utilized several methods to identify and vaccinate eligible persons accordant with the changing landscape of vaccine availability and eligibility. PDPH will continue to employ the below methods throughout the duration of the outbreak to connect persons with vaccination opportunities:

- Calling identified contacts of cases after they are identified through case investigation
- Calling social network contacts of exposed persons (contacts)

Earlier in the outbreak, PDPH was issuing clinic invitations to people who were identified in existing databases as an individual who could be exposed to mpox without knowing it. All persons who were identified in these databases were contacted about vaccination opportunities multiple times. PDPH was also issuing clinic invitations to people who registered using the [Mpox Vaccine Interest Form](#). The Vaccine Interest Form is no longer accepting registrations. Anyone who signed up using the form but has not been vaccinated according to PDPH records has been contacted with information about other vaccination opportunities.

Coordinate provision of antiviral medications (TPOXX) to reduce disease severity.

Tecovirimat (TPOXX) is an antiviral therapy that has been approved by the FDA and procured by CDC for the treatment of smallpox. Its uses have been expanded for the treatment of mpox under the expanded access investigational new drug (EA-IND) to decrease symptom severity and viral load for people infected with mpox virus. TPOXX should be considered for:

- Have severe disease
- Are at high risk of severe disease:
 - People with immunocompromising conditions
 - Pediatric populations, particularly those under 8 years of age
 - Pregnant or breastfeeding people
 - People with a history or presence of atopic dermatitis or other active exfoliative skin conditions
 - People with one or more complication
- Have aberrant infections involving accidental implantation in eyes, mouth, or other areas where infection might constitute a special hazard

PDPH is coordinating with healthcare providers to provide TPOXX to patients with symptoms of mpox that are determined to be of significant severity as soon as possible after diagnosis and after obtaining signed informed consent from the patient. PDPH has acquired TPOXX regimens from the Strategic National Stockpile (SNS) to preposition and deliver to providers in the case of an emergent need. As of November 15, 2022 Philadelphia residents have received TPOXX.

Provide guidance and resources for infection control precautions and medical countermeasures to congregate settings and unsheltered populations.

PDPH provided [guidance to prevent mpox spread](#) to congregate settings, including correctional and detention facilities, emergency shelters, transitional housing, recovery homes, group homes, residential substance use treatment facilities, and dormitories at institutes of higher education. Any cases identified in persons residing or working in congregate settings are assigned to outbreak coordinators who can provide specific guidance on isolation, cleaning and disinfection, and PPE to prevent spread within the facility. Information about mpox prevention, including the potential for transmission through close physical contact and sharing of items (e.g., linens, clothing, utensils, cups, etc.) have been shared with partners to provide to staff, volunteers, and residents. PPE that can also be used for COVID-19 mitigation has been pre-positioned with partners.

PDPH regularly works with outreach workers from the Office of Homeless Services (OHS), the Department of Behavioral Health and Intellectual disAbility Services (DBHIDS), the Substance Use Prevention and Harm Reduction (SUPHR) division of the Health Department, and other identified community-based organizations who provide services to individuals experiencing homelessness to develop and distribute useful guidance and appropriate PPE. PDPH continues to work with these outreach groups to make sure educational materials are strategically developed to reach targeted groups based on the latest CDC guidance.

Efforts to work with providers to increase vaccine access and walk-up availability is crucial to reaching high risk individuals who are not otherwise connected to healthcare systems. PDPH has also held PEP clinics at identified encampment sites and shelter facilities where cases have reported staying, and the COVID-19 homeless outreach team began incorporating JYNNEOS vaccination during regularly scheduled outreach clinics in Kensington and other priority areas in September 2022.

Issue timely, accurate, culturally competent, and non-stigmatizing public information about mpox.

PDPH is working with partners like the Mayor's Office of LGBT Affairs to develop messaging and informational materials that address communities where mpox is currently spreading without stigma. The PDPH Call Center is available to answer questions directly by phone (interpretation services available), 215-685-5488, or email, PublicHealthInfo@phila.gov, Monday through Friday, 8am – 6pm. Residents can also digitally access the most up to date information about the outbreak via City social media channels, @PHLPublicHealth, or at this website: <https://www.phila.gov/programs/mpox/>

PDPH is launching a paid media campaign hosted on dating applications. The advertisements will note the availability of mpox vaccination and point users to the mpox information page on the [Philly Keep on Loving website](#). This strategy will help to reach people who are using online applications to meet partners.

Partner with community-based and other organizations that serve affected populations to gain input on key response strategies, share information, facilitate access to vaccination, and address other needs without stigma.

The below strategies summarize current efforts to partner with affected communities to ensure equitable and effective engagement. PDPH continues to meet with local leaders representative of affected communities to obtain feedback and input on emergency response strategies and has established a Community Advisory Group for formalized and routine integration of community expertise into the planning process. This group began meeting in September 2022 and continues to meet on a monthly basis.

CANVASSING

PDPH staff have visited organizations such as bars, restaurants, dance/music venues, and intimate retail stores to talk with staff about displaying mpox information and resources for clientele and community members. Canvasses occur on a continual basis as new information and resources become available and necessary to disseminate.

INFORMATION SHARING AND SESSIONS

PDPH created a [toolkit](#) that has been shared with community-based organizations consisting of digital assets (e.g. social media posts), harm reduction strategies, and other resources that leaders can share with networks and residents. We also issue a weekly newsletter to identified partners summarizing the latest data, news, vaccination opportunities, and educational materials.

PDPH staff organized a virtual, citywide information session on September 7 to discuss clinical information, vaccine rollout and availability updates, testing resources, and answer questions from the public. Staff and clinicians are also available to participate as panelists in community-led virtual or in-person information sessions or at community events by hosting an information table with educational resources by request.

Continuously monitor surveillance and vaccination data to ensure the City's response strategies are effective and equitable.

PDPH collects detailed information as part of the case investigation and vaccination processes to assess impact of response efforts. Data are reviewed regularly to determine if outbreak control strategies are reaching impacted populations.

PDPH has published case counts and vaccination data at <https://www.phila.gov/programs/acute-communicable-disease-program/mpox/> to establish transparency in outbreak response progress. A data dashboard containing demographic information on mpox cases in Philadelphia and Philadelphia residents who have been vaccinated against mpox is also hosted on this website. Data are updated weekly.

Conclusions

This is an evolving outbreak that is characterized by limited resources, similar to the resource shortages that have occurred through the COVID-19 response. Responding to multiple concurrent emergencies remains a challenge for healthcare providers, community-based organizations, community members, and government agencies at all levels. However, we have better tools to respond to mpox now than we had during the early months of the COVID-19 pandemic, including an already available diagnostic test, an effective vaccine, antivirals, and information about transmission that can help people to protect themselves. The Health Department has scaled response efforts to outbreak activity, particularly focusing on the expansion of providers who can test, vaccinate and treat, as well as the incorporation of trusted messengers and organizations that can both inform the city's response strategies and share critical information to persons who are at highest risk of acquiring mpox.