

Mpox in detention settings in the WHO European Region

Introduction

In May 2022, an unusual and atypical multi-country outbreak of monkeypox virus (MPXV) led to the WHO declaration of a Public Health Emergency of International Concern¹. As of December 2023, a total of 92 783 confirmed cases and 171 deaths². In the WHO European Region, as of 11 January 2023, a total of 26,703 cases of mpox have been identified from 45 countries and areas, through IHR mechanisms, official public sources and TESSy³.

Symptoms of mpox include an unexplained acute skin rash, mucosal lesions (single or multiple oral, conjunctival, urethral, penile, vaginal, or ano-rectal lesions) or lymphadenopathy (swollen lymph nodes); single or multiple lesions in the ano-genital region or elsewhere on the body. Ano-rectal lesions can also manifest as ano-rectal inflammation (proctitis), pain and/or bleeding. Symptoms may begin between 2 to 21 days after exposure. Illness is usually mild and most recover within weeks without treatment.

The 2022-2023 global mpox outbreak has primarily affected adult men aged 18-44 years old and those who self-identified as gay or bisexual men or reported same-sex behaviour. Mpox can be spread by close person-to-person contact, including sexual contact⁴ and has the potential to cause outbreaks in prisons and other closed or congregate settings due to the confined condition where people live in close proximity. Consensual and coerced sexual relations may occur and often without access to condoms or other health protection materials. Suboptimal access to healthcare, poor nutritional status, coupled with comorbidities or co-infections such as HIV, viral hepatitis and TB, among the prison population increase vulnerability to mpox.

While knowledge about MPXV transmission risk in congregate facilities is limited, a number of reports of mpox cases in prisons have been documented to date. In March 2022, the Ministry of Health in Adamawa State, Nigeria, was notified of inmates presenting with rash in Yola prison. Following an outbreak investigation, 29 suspected cases were found to have occurred in the preceding 18 weeks, indicating that the outbreak had gone uncontrolled for some time and that additional efforts are needed to ensure early detection and response to mitigate mpox outbreaks in prisons in Nigeria⁵. In June 2022, in Porto prison, Portugal, an individual presenting symptoms was immediately transferred to the prison hospital while 8

¹ WHO Director-General declares the ongoing monkeypox outbreak a Public Health Emergency of International Concern [news release]. Geneva: World Health Organization; 23 June 2022

(<https://www.who.int/europe/news/item/23-07-2022-who-director-general-declares-the-ongoing-monkeypox-outbreak-a-public-health-event-of-international-concern>, accessed 12 January 2024).

² 2022-23 Mpox (Monkeypox) Outbreak: Global Trends [website]. Geneva: World Health Organization; 19 December 2023. (https://worldhealthorg.shinyapps.io/mpox_global/, accessed 12 January 2024).

³ Joint ECDC-WHO Regional Office for Europe Mpox surveillance bulletin (<https://monkeypoxreport.ecdc.europa.eu/>, accessed 112 January 2024)

⁴ Mpox (monkeypox) (<https://www.who.int/news-room/fact-sheets/detail/monkeypox>, accessed 12 January 2024)

⁵ Pembri E, Omoleke S, Paul H, Augustine T, Cuevas LE. Monkeypox outbreak in a correctional center in North Eastern Nigeria. *J Infect.* 2022 Dec;85(6):702-769. doi: 10.1016/j.jinf.2022.09.010, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9628705/>

contacts were placed in isolation⁶. In July 2022, a confirmed case of monkeypox was first identified in a correctional facility in the US (Cook County Jail in Chicago, Illinois). Fifty-seven residents were classified as having intermediate-risk exposures to the patient with mpox and no secondary cases were identified among a subset of 62% of these. Response measures were immediately put in place to prevent transmission, including the offer of vaccination for post-exposure prophylaxis (PEP)⁷.

In October 2022, researchers called to attention the limited awareness of the risks of MPXV transmission in prisons⁸. In January 2023, the WHO Regional Office for Europe Health in Prisons Programme (HIPP) developed a range of information material to support people deprived of liberty, including factsheets for people living in prisons⁹, visitors¹⁰, service providers and healthcare professionals¹¹. More recently, WHO has issued public health guidance focusing on congregate settings to support reduction of risk, spread and impact of mpox in settings in which people live in close proximity¹². Guidance specific to detention facilities has also been issued, including the Interim Guidance for Infection Prevention and Control for the Management of Mpox in People in Situations of Vulnerability such as Prisons and Other Custodial Facilities supported by the WHO Regional Office (PAHO).¹³

Methods

In the WHO European Region, Member States are requested to report case-based data for all cases that meet the WHO case definition outlined in the technical guidance “Surveillance, case investigation and contact tracing for mpox (monkeypox): Interim guidance, 22 December 2022”¹⁴ via The European Surveillance System (TESSy). In addition, WHO has expanded the HIPP surveillance system, designed to

⁶ Caso suspeito de varíola dos macacos no Estabelecimento Prisional do Porto [Internet journal “Observador”] (<https://observador.pt/2022/06/08/caso-suspeito-de-variola-dos-macacos-no-estabelecimento-prisional-do-porto/>, accessed 12 January 2024)

⁷ Hagan LM, Beeson A, Hughes S, et al. Monkeypox Case Investigation — Cook County Jail, Chicago, Illinois, July–August 2022. *MMWR Morb Mortal Wkly Rep* 2022;71:1271–1277. doi: <http://dx.doi.org/10.15585/mmwr.mm7140e2>, accessed 12 January 2024

⁸ Cocco N, Sebastiani T, Giuliani R, Cereda D, D’Arminio Monforte A, Tavoschi L, Ranieri R; RISE-Vac Consortium. Monkeypox epidemic in prisons: How to prevent it? *Lancet Reg Health Eur*. 2022 Oct 19;22:100530. doi: 10.1016/j.lanep.2022.100530, available at [https://www.thelancet.com/journals/lanep/article/PIIS2666-7762\(22\)00226-5/fulltext](https://www.thelancet.com/journals/lanep/article/PIIS2666-7762(22)00226-5/fulltext)

⁹ [Mpox prevention and control among people living in prison \[factsheet\]. Copenhagen: WHO Regional Office for Europe, 10 January 2023](https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-among-people-living-in-prison) (<https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-among-people-living-in-prison>, accessed 12 January 2024)

¹⁰ [Mpox prevention and control among people visiting prisons \[factsheet\]. Copenhagen: WHO Regional Office for Europe, 10 January 2023](https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-in-people-visiting-prison) (<https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-in-people-visiting-prison>, accessed 12 January 2024)

¹¹ [Mpox prevention and control \[Key recommendations for protecting people living and working in prison \(directed at prison officers and healthcare staff\)\]. Copenhagen: WHO Regional Office for Europe, 10 January 2023](https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-key-recommendations-for-protecting-people-living-and-working-in-prison) (<https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-key-recommendations-for-protecting-people-living-and-working-in-prison>, accessed 12 January 2024)

¹² [Public health advice on mpox and congregate settings: settings in which people live, stay or work in proximity \[Technical document\]. Geneva: WHO, 20 March 2023.](https://www.who.int/publications/m/item/public-health-advice-on-mpox-and-congregate-settings--settings-in-which-people-live--stay-or-work-in-proximity) (<https://www.who.int/publications/m/item/public-health-advice-on-mpox-and-congregate-settings--settings-in-which-people-live--stay-or-work-in-proximity>, accessed 12 January 2024)

¹³ Interim Guidance: Infection Prevention and Control for the Management of Mpox in People in Situations of Vulnerability such as Prisons and Other Custodial Facilities. Washington DC: PAHO. 1 December 2022. (<https://iris.paho.org/handle/10665.2/56880?show=full&locale-attribute=pt>, issued December 2022, accessed 12 January 2024)

¹⁴ Surveillance, case investigation and contact tracing for mpox (monkeypox): interim guidance, 22 December 2022. Available at <https://www.who.int/publications/i/item/WHO-MPX-Surveillance-2022.4>, assessed 21.12.2023.

enable voluntary notifications of COVID-19¹⁵ through an online reporting system, to include notification of probable (clinical assessment and exposure history) and confirmed (laboratory-confirmed) mpox cases in order to provide timely information on mpox epidemiology in prisons and other places of detention. Reports are submitted by focal points nominated by the Ministries of Health in the context of HIPP's regular monitoring (these focal points may be representatives of the departments of health but could also be from other ministries, such as justice or interior; they can also be academic centers with access to data).

Objectives of mpox surveillance are to rapidly identify cases and clusters of infections as well as the sources of infection in order to: provide optimal clinical care; isolate cases to prevent further transmission; identify, manage and follow-up contacts to recognize early signs of infection; identify risk groups for infection and for severe disease; protect prison workers; and tailor effective control and prevention measures. According to WHO guidance, any individual meeting the definition for a suspected case should be offered polymerase chain reaction (PCR) testing for mpox, where resources allow¹⁶.

Key indicators for mpox in the HIPP surveillance system include the number of tests performed, number of detainees screened for signs and symptoms, number of probable and confirmed cases, confirmed case demographics (sex at birth, sexual orientation, prior occupation and medical history) and vaccination coverage (annex 1). Prison occupancy level (proportion of number of people incarcerated within total official capacity) is also reported.

Results

Data were collected between 25 November 2022 and 31 May 2023. In this period, 57 voluntary notifications were submitted by focal points of 15 Member States in the WHO European Region: Austria, Belgium, Czechia, Denmark, Finland, Georgia, Lithuania, Luxembourg, Malta, Portugal, Republic of Moldova, Slovakia, Slovenia, Spain and United Kingdom (UK). Some Member States reported on a monthly basis (e.g. Spain, Republic of Moldova and Lithuania), whilst others reported occasionally, i.e. the most common pattern was to submit one or two notifications over this period.

Among all notifications, four mpox confirmed cases were reported (Austria, Portugal and two cases in England and Wales, UK). Austria reported one probable case and one confirmed case. The confirmed case was a male, who self-reported as a man who has sex with men (MSM), and HIV positive. No vaccine had been administered.

Portugal reported a confirmed case who was male at birth, MSM and HIV positive. Vaccination status was unknown.

England and Wales (UK) reported two confirmed cases in this time period and no further details were reported. It was also reported as unknown if any vaccine had been administered.

The three countries reporting cases had an occupancy level at the time of reporting of 100.0%, 97.8% and 98.6%, respectively for Austria, Portugal and England and Wales. Among the 15 Member States reporting, five of them exceeded the 100% occupancy rate and another three were above 90%, considered by the

¹⁵ <https://www.who.int/europe/publications/i/item/WHO-EURO-2021-2576-42332-58598>

¹⁶ Surveillance, case investigation and contact tracing for mpox (monkeypox): interim guidance, 22 December 2022. Available at <https://www.who.int/publications/i/item/WHO-MPX-Surveillance-2022.4>, assessed 21.12.2023.

council of Europe as an indicator of “imminent prison overcrowding, a high-risk situation against which authorities should feel concerned and should take measures to avoid further congestion”¹⁷.

Discussion

In order to provide an overview of the performance of prison surveillance for mpox, HIPP’s surveillance system was expanded to enable notification of mpox cases. A secondary objective was to use notified data to rapidly identify cases and clusters of infections arising from detention places.

The data presented suggests the maturity of the surveillance system is still developing and further efforts must be developed for notification to become part of standard practice. The reporting system was open to all 53 Member States of the WHO European Region. However, only 15 Member States reported via the HIPP surveillance system, including those reporting zero cases. The benefit of having set up and further expanded this system was that it enabled Member States that are more aware of the value of surveillance to develop mechanisms and efforts to report to HIPP.

An important limitation of this short report is that, while its aim is to provide an overview of the performance of prison surveillance for mpox in the whole WHO European Region, only 15 of 53 Member States responded. Thus, data should be cautiously interpreted as some of the missing countries, particularly Eastern Europe and Central Asian countries, are large and some have rare practices of data transparency, as suggested in previous reports¹⁸. The quality of the data notified by represented countries is also suboptimal, as many were unable to provide data for all variables (only 21 reports were fully complete), including on preventive measures adopted, such as screening, testing and vaccination. The five countries able to provide information on vaccination coverage indicated zero (including Austria), suggesting this option is not being used as PEP or PrEP (in case of outbreaks).

WHO considers that mass vaccination of incarcerated populations is not required nor recommended at this time. However, primary preventive (pre-exposure) vaccination (PPV) is recommended for individuals at high-risk of exposure (gay, bisexual or other men who have sex with men (MSM) with multiple sexual partners; individuals with multiple casual sexual partners; sex workers; health workers at risk of repeated exposure, laboratory personnel working with orthopoxviruses; clinical laboratory and health care personnel performing diagnostic testing for monkeypox; and outbreak response team members). Post-exposure preventive vaccination (PEPV) is recommended for contacts of cases ideally within four days of first exposure (and up to 14 days in the absence of symptoms). Moreover, decisions on use of smallpox or mpox vaccines should be based on a full assessment of risks and benefits on a case-by-case basis¹⁹. Considering only notifications made, the limited data presented suggests recommendations for

¹⁷ White Paper on Prison Overcrowding. Strasbourg: Council of Europe, Directorate General Human Rights and Rule of Law. 30 June 2016 (<https://rm.coe.int/16806f9a8a>, accessed 13 January 2024)

¹⁸ Status report on prison health in the WHO European Region 2022. Copenhagen: WHO Regional Office for Europe. (<https://www.who.int/europe/publications/i/item/9789289058674>, accessed 21.12.2023).

¹⁹ Vaccines and immunization for monkeypox: Interim guidance, 16 November 2022. Copenhagen: WHO Regional Office for Europe. (<https://www.who.int/publications/i/item/WHO-MPX-Immunization>, accessed 26 January 2024)

routine screening of signs and symptoms in detention places have not been embraced. In spite of this, there were four cases identified in detention places.

WHO recommends that medical screening on entry should include comprehensive screening to determine primary health care needs including sexually transmitted or blood-borne diseases prior to admission²⁰. Active case finding is a key prevention measure to promote early diagnosis, treatment and to prevent further disease transmission. However, active case finding in prison settings seems to frequently concentrate on a limited list of communicable diseases, such as hepatitis (A, B and C), human immunodeficiency virus (HIV), sexually transmitted infections (STIs; chlamydia, gonorrhoea, syphilis and trichomoniasis) and tuberculosis (TB)²¹. There is a need to increase diagnostic efforts and surveillance for mpox in correctional facilities²² and mpox should be considered as part of regular screening for newly admitted or transferred individuals. Early detection is crucial to ensure rapid response, including case investigation and management, contact tracing and management, implementation of infection prevention and control measures to mitigate the outbreak.

Based on the principle of equivalence, access to PPV or to PEPV is recommended, as appropriate and according to WHO guidance^{23,24}. Countries should make national decisions on vaccination of target risk groups against mpox and prioritize these groups for effective use of vaccines, in consultation with national immunization technical advisory groups (NITAGs) and their national regulatory agencies and include all relevant stakeholders. However, it should be noted that the stigmatization of sexual behavior in prisons is common and education to people living in prison needs to focus on how mpox spreads, on safe sex and on the need to report symptoms²⁸.

Finally, it is important to stress that even though people living in prison represent a small proportion of the population, the average turnover is estimated to be around 30%, meaning that most of these people return to the community. Moreover, people working in prisons, including lawyers, volunteers and visitors, move in and out of the premises on a daily basis. This means that any case emerging within prison walls has the potential to rapidly spread to the community, not to mention the amplified within prison transmission of infectious diseases. For all these reasons, notification of cases identified in detention places must be coordinated with national surveillance mechanisms and should be fostered by competent bodies in all countries in the region.

²⁰ Prisons and Health. Copenhagen: WHO Regional Office for Europe. ISBN: 9789289050593. (<https://www.who.int/europe/publications/i/item/9789289050593>, accessed 13 January 2024)

²¹ Systematic review on active case finding of communicable diseases in prison settings. Prevention and control of communicable diseases in prison settings. ECDC Scientific advice. Stockholm, 2017. ISBN 978-92-9498-097-7 (<https://www.ecdc.europa.eu/sites/default/files/documents/Systematic-review-on-communicable-diseases-in-prison-settings-final-report.pdf>, accessed 14 January 2024)

²² Adebisi YA, Jimoh ND, Ogunkola IO, Bamsaiye A, Idahor CO, Bale BI, Marah M, Mustapha AA, Ebenezer OO, Lucero-Priso DE 3rd. Monkeypox outbreak: The need to include prisons in public health response. *Ann Med Surg (Lond)*. 2022 Oct;82:104582. doi: 10.1016/j.amsu.2022.104582

²³ Vaccines and immunization for monkeypox: Interim guidance, 16 November 2022. Copenhagen: WHO Regional Office for Europe. (<https://www.who.int/publications/i/item/WHO-MPX-Immunization>, accessed 26 January 2024)

²⁴ [Mpx prevention and control \[Key recommendations for protecting people living and working in prison \(directed at prison officers and healthcare staff\)\]](https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-key-recommendations-for-protecting-people-living-and-working-in-prison). Copenhagen: WHO Regional Office for Europe, 10 January 2023 (<https://www.who.int/europe/publications/m/item/mpox-prevention-and-control-key-recommendations-for-protecting-people-living-and-working-in-prison>, accessed 12 January 2024)

Annex 1

MONKEYPOX REPORTING

Only answer this question if the following conditions are met: Answer was "Prisons" at question '[Setting]' (For which setting are you submitting your answers?)

Please enter a number in all rows or click "Do not know".

	CAPACITY	DO NOT KNOW
11. What is the total number of monkeypox tests ever performed?	<input type="text"/>	<input type="text"/>
12. How many detainees have ever been screened for signs and symptoms of monkeypox?	<input type="text"/>	<input type="text"/>
13. How many detainees have ever been classified as probable case [see definition at https://www.who.int/publications/item/WHO-MPX-Surveillance-2022.3] of monkeypox?	<input type="text"/>	<input type="text"/>
14. How many detainees have ever been classified as a confirmed case of monkeypox?	<input type="text"/>	<input type="text"/>
Considering only the confirmed cases among detainees (14), how many of those are:		
14.1 Sex at birth:		
14.1.1 Male	<input type="text"/>	<input type="text"/>
14.1.2 Female	<input type="text"/>	<input type="text"/>
14.1.3 Other	<input type="text"/>	<input type="text"/>
14.2 Sexual orientation:		
14.2.1 Heterosexual	<input type="text"/>	<input type="text"/>
14.2.2 Men who have sex with men/homosexual or bisexual male	<input type="text"/>	<input type="text"/>
14.2.3 Women who have sex with women	<input type="text"/>	<input type="text"/>
14.2.4 Bisexual	<input type="text"/>	<input type="text"/>
14.2.5 Other	<input type="text"/>	<input type="text"/>
14.3 Prior occupation:		
14.3.1 Sex workers	<input type="text"/>	<input type="text"/>
14.3.2 Health workers	<input type="text"/>	<input type="text"/>
14.4 14.4 Medical history:		
14.4.1 HIV positive	<input type="text"/>	<input type="text"/>
14.4.2 Immunocompromised	<input type="text"/>	<input type="text"/>
15. How many detainees are currently vaccinated against smallpox/monkeypox?	<input type="text"/>	<input type="text"/>