

Public health considerations for mpox in EU/EEA

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European Centre for Disease Prevention and Control (ECDC)

AIDS Action Europe Webinar on Mpox, 12 May 2023

No conflicts of interest to declare

Outline

- Epidemiology
- Vaccination
- Risk communication and community engagement
- Conclusions

Global figures and trends on the mpox outbreak, 11 May 2023



87,377

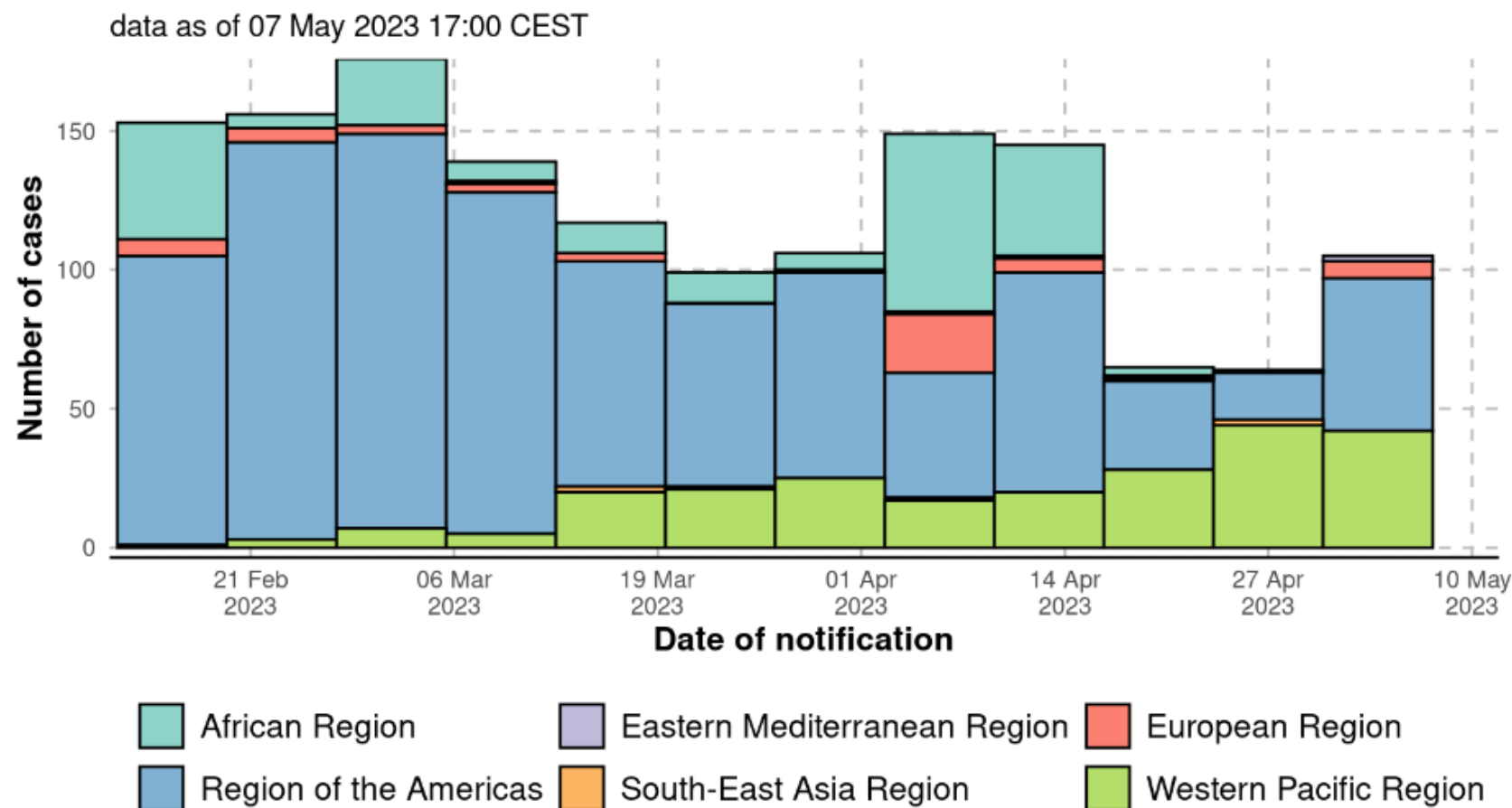
Confirmed cases

140

Deaths

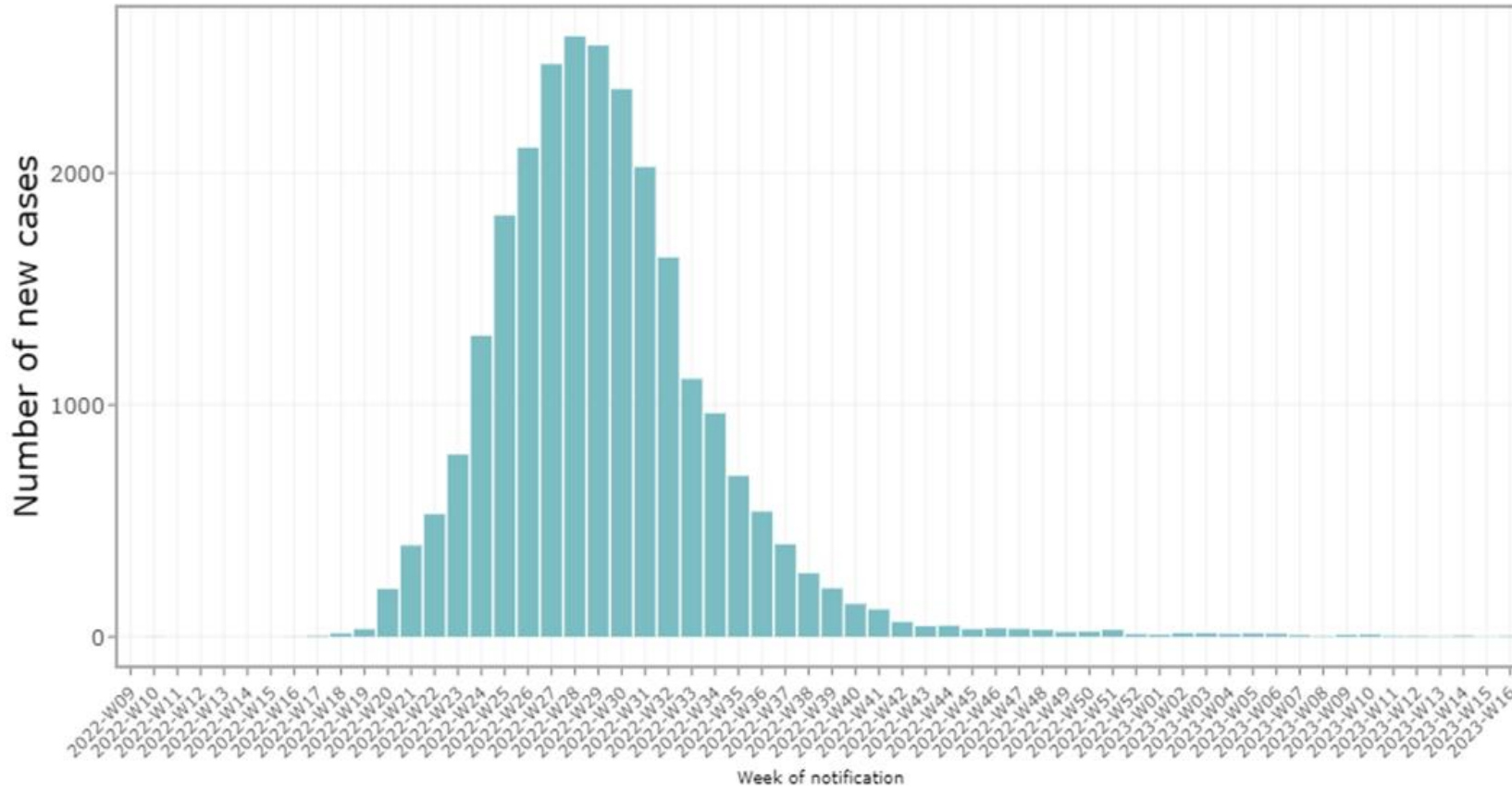
111

Countries reporting cases



Source: WHO

European region, mpox situation update, 04 May 2023



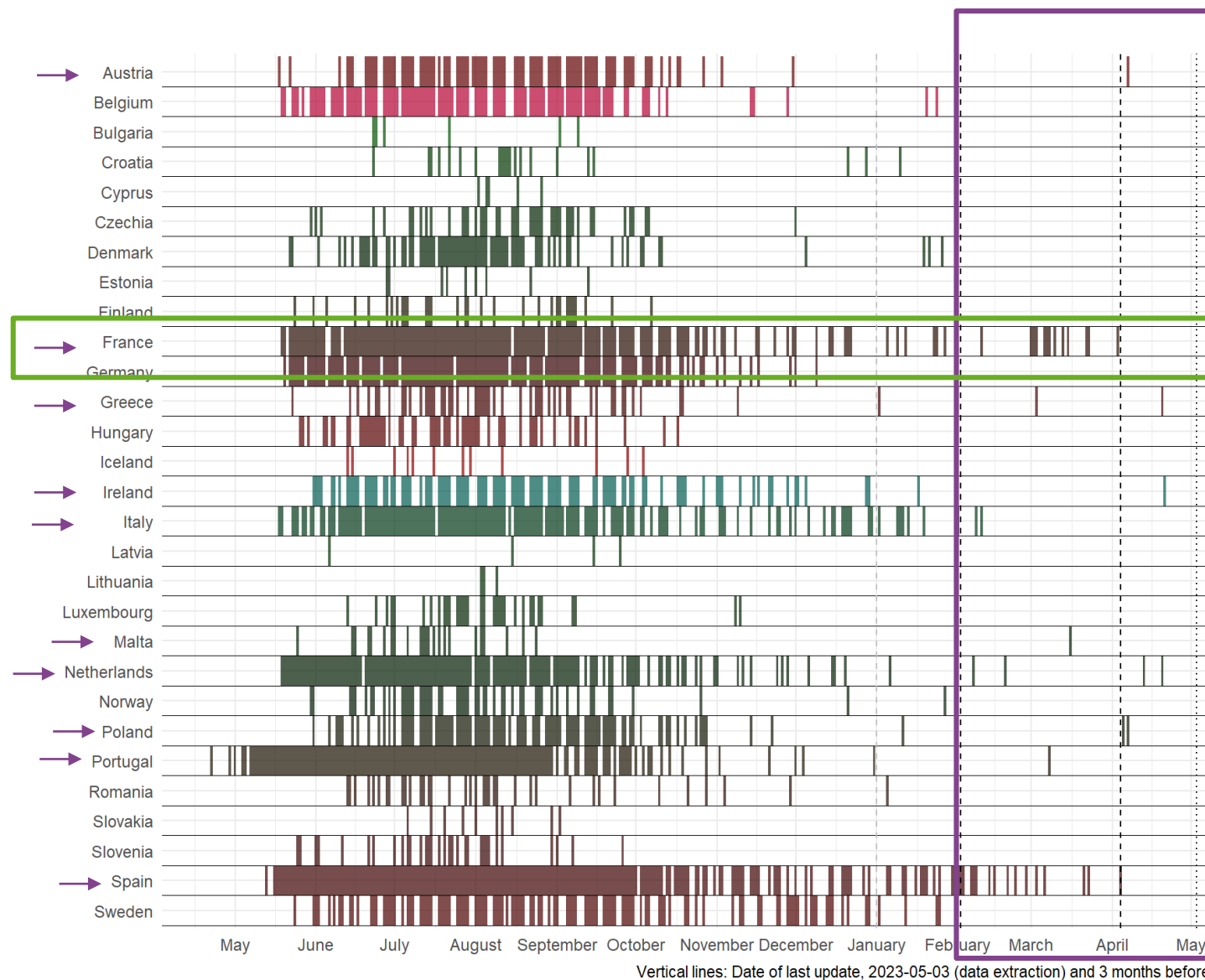
25,887 cases of mpox reported from 45 countries as of 04 May 2023

Spain (7 551), France (4 146), Germany (3 676), Netherlands (1 264), Italy (957), Portugal (949)

European region, mpox situation update, 04 May 2023



- 29 EU/EEA countries with at least one case since the beginning
- 10 countries reported at least one case the past 3 months



France (total 4 146 cases)

Cluster in Centre Val del Loire

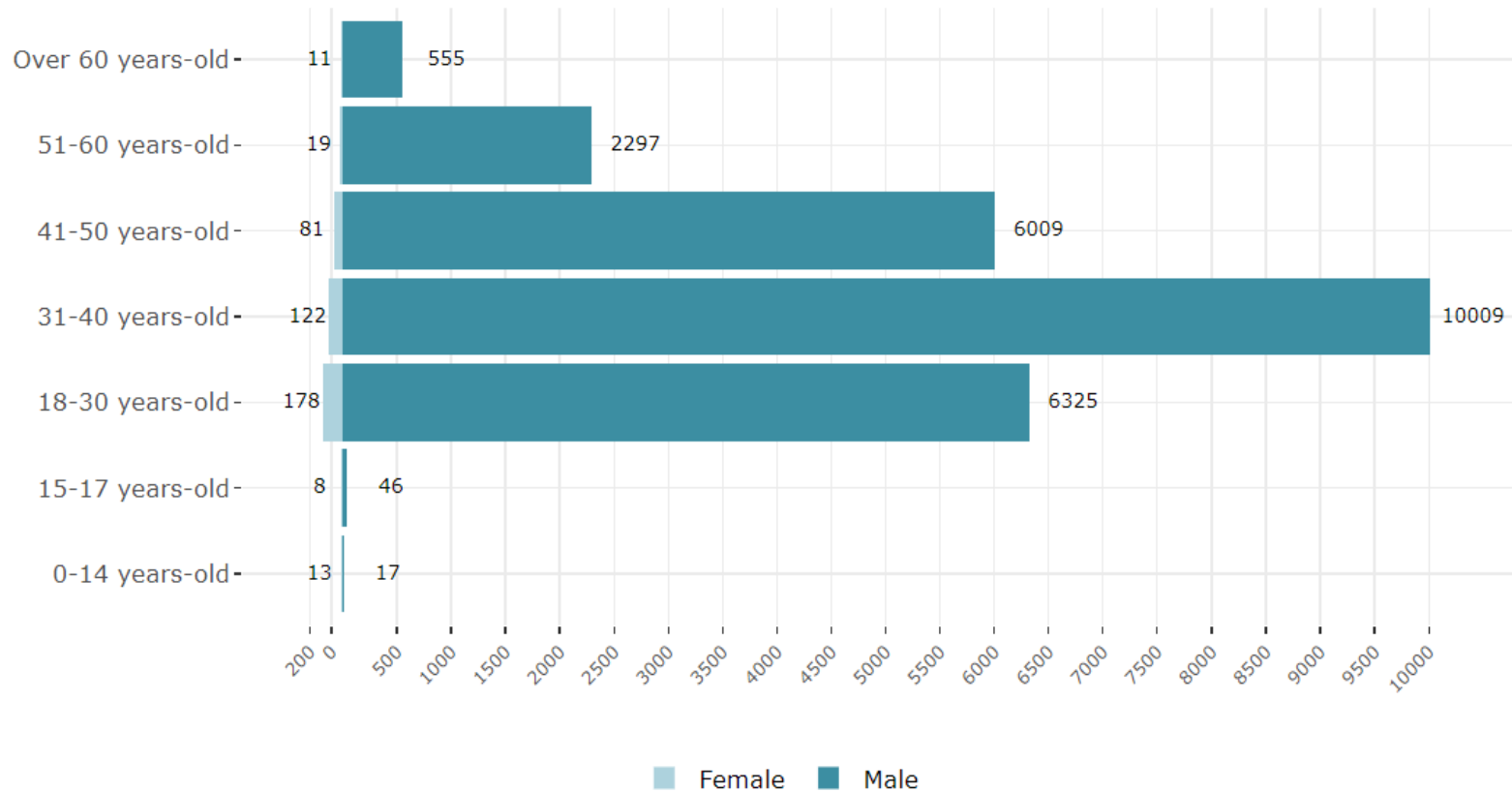
1 Jan-3 April 2023: 19 cases (16 since 1 March)

- 24-56 years old; 18/19 MSM; no hospitalizations; no links to common event

10 cases (53%) vaccinated:

- 7 not vaccinated
- 2 incomplete vaccination
 - 1: 1 dose in childhood
 - 1: 1 dose in 2022
- 10 reported a complete vaccination schedule
 - 4: 1 dose in childhood + 1 dose in 2022
 - 6: 2 doses in 2022

Age and gender distribution of mpox cases, European region



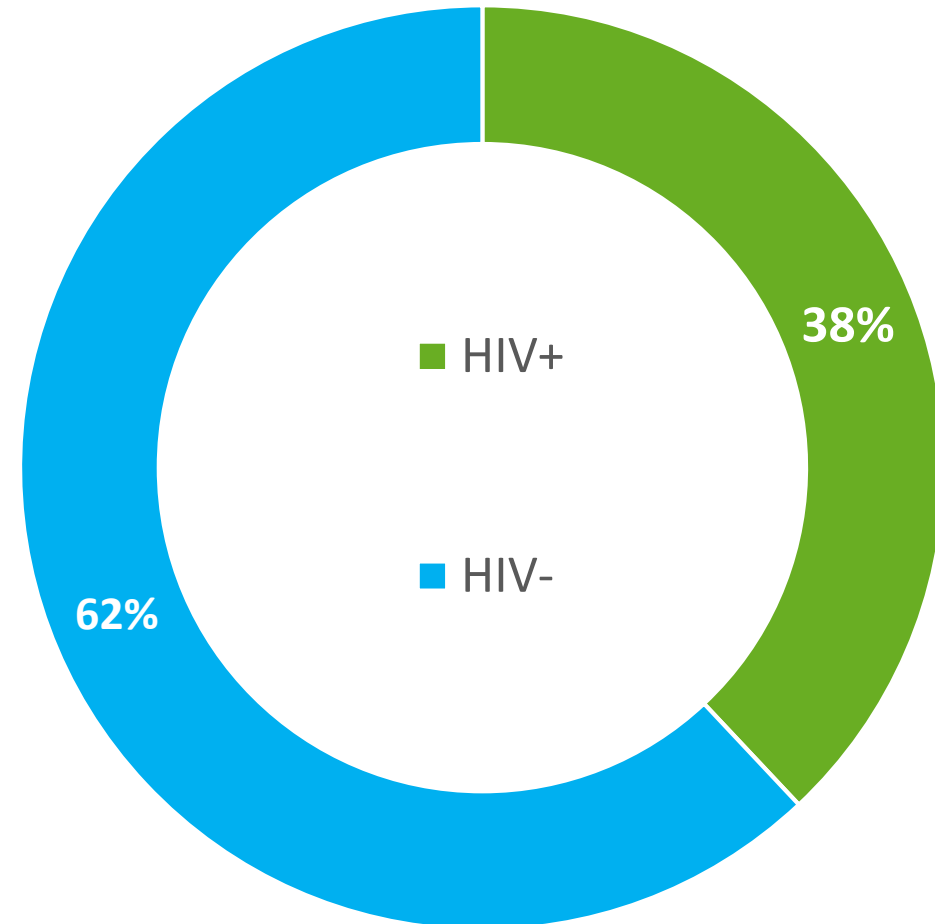
98% of cases
among male

39% of cases
among those aged
31-40

Sexual orientation of male mpox cases in Europe

Sexual Orientation	Count (%)
MSM	10,831 (42.8%)
Bisexual	131 (0.5%)
Heterosexual	335 (1.3%)
Unknown or undetermined	2,723 (10.8%)
Not reported	11,261 (44.5%)
Total	25,281 (100%)

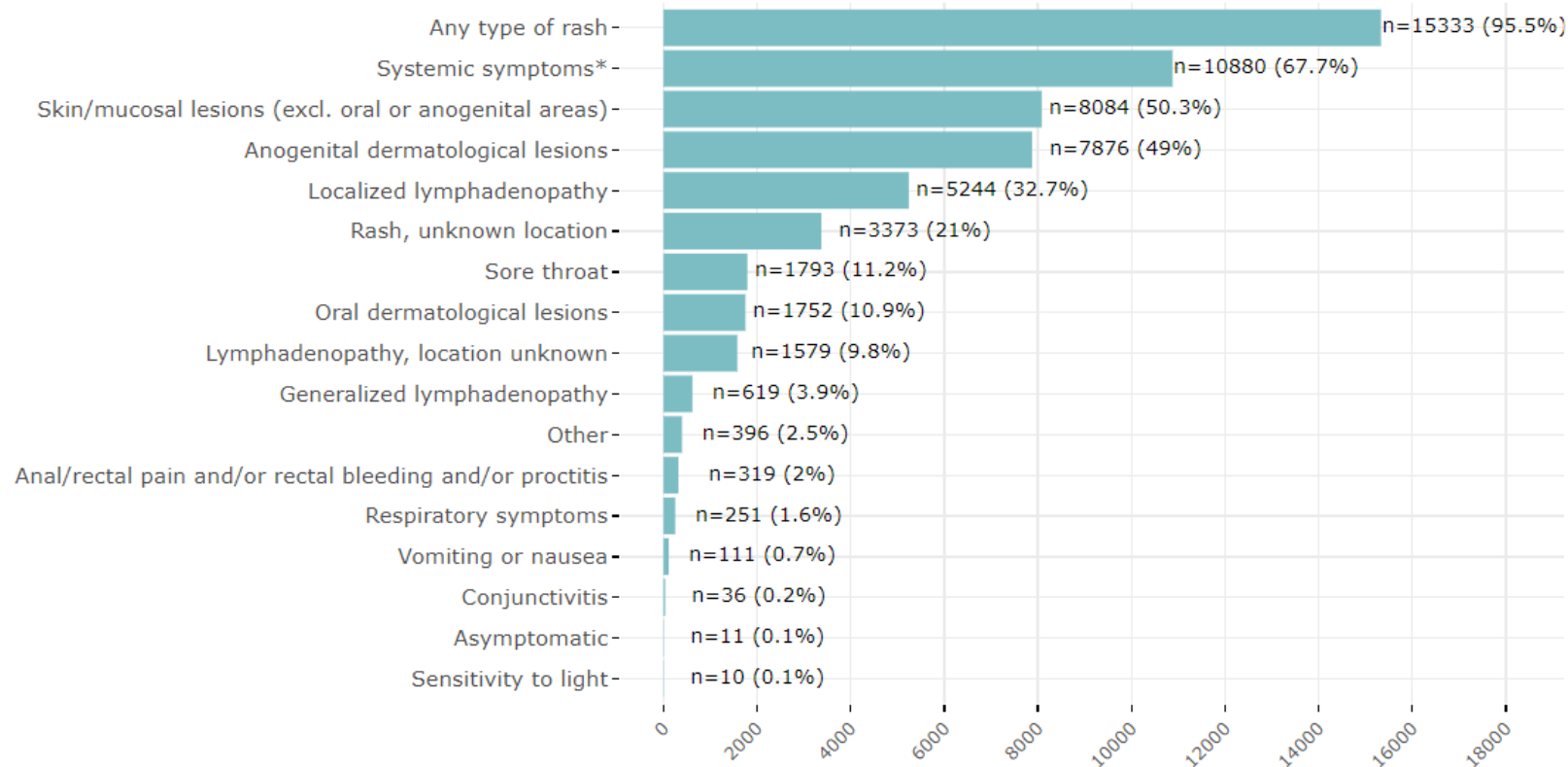
HIV status of reported mpox cases in Europe (n=10,651)



Distribution of symptoms (n=16 061) in the European Region

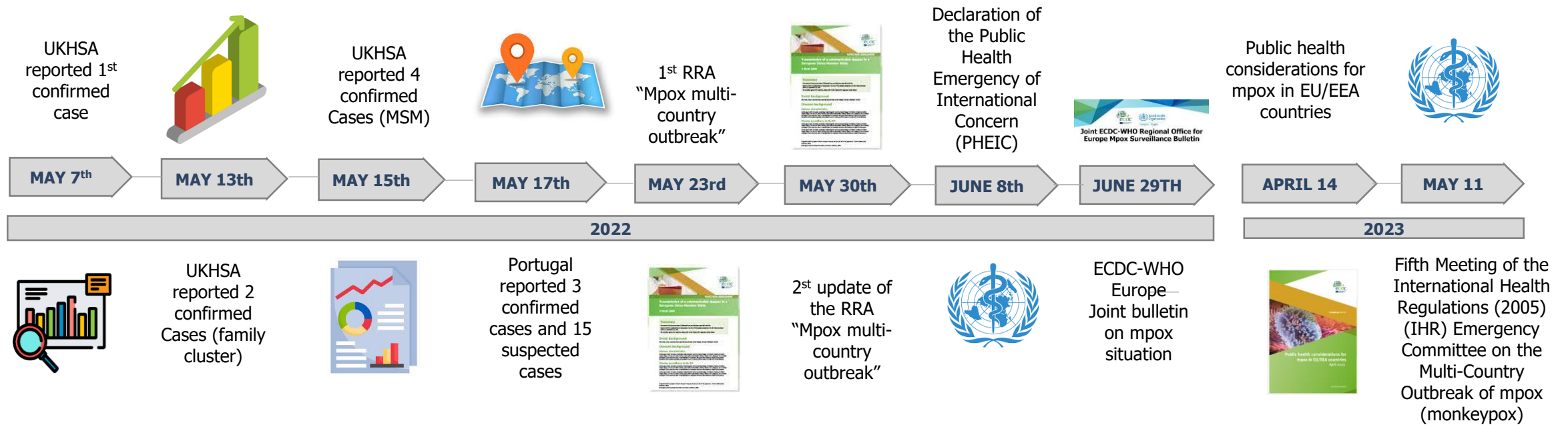


The median time between symptom onset and diagnosis was 7 days



*Fever, fatigue, muscle pain, chills, headache

Timeline of Public Health response on mpox in EU/EEA

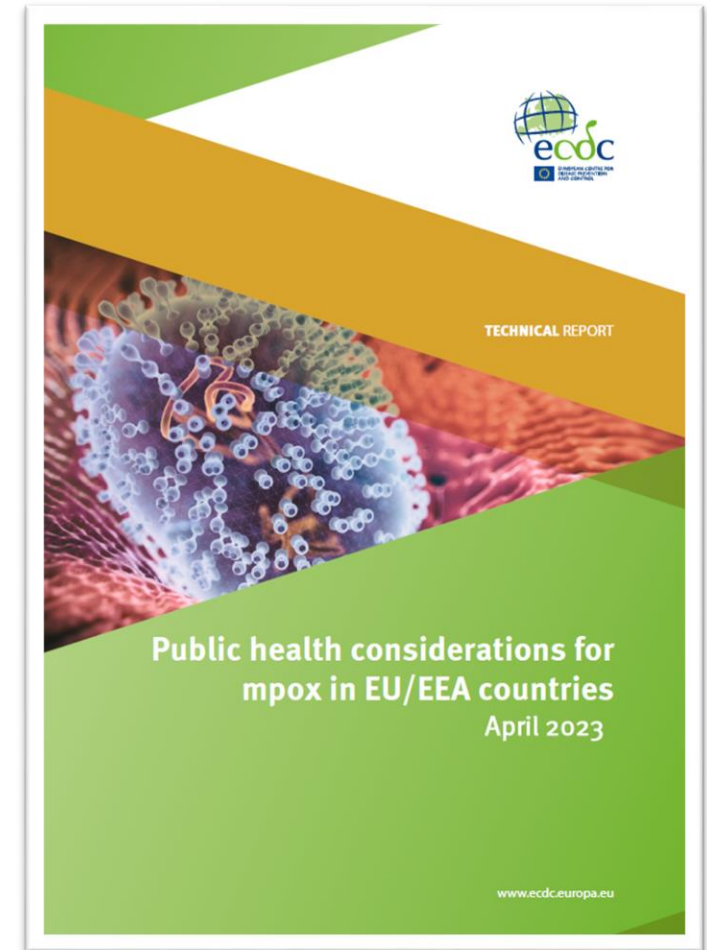


- Significant **decline in the number** of reported cases compared to the previous reporting period and no changes in the severity and clinical manifestation of the disease.
- There are **remaining uncertainties about the disease**, regarding modes of transmission in some countries, poor quality of some reported data, and continued lack of effective countermeasures in the African countries, where mpox occurs regularly.
- These are long-term challenges that would be better addressed through sustained efforts in a **transition towards a long-term strategy** to manage the public health risks posed by mpox, rather than the emergency measures inherent to a public health emergency of international concern (PHEIC).

Mpox is no longer considered a PHEIC

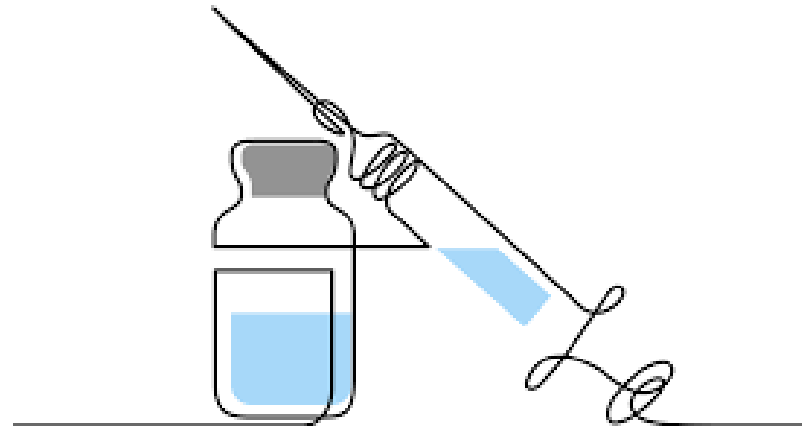
Public health considerations for mpox in EU/EEA countries

- **Vaccination**
- Surveillance
- Testing
- Contact tracing and partner notification
- Infection prevention and control
- **Risk communication and community engagement**



<https://www.ecdc.europa.eu/en/news-events/ecdc-highlights-measures-mitigate-possible-increase-mpox-cases-during-spring-and-summer>

Vaccination



Vaccination strategy

Primary preventive (pre-exposure) vaccination (PPV)

PPV refers to the vaccination of groups of individuals at high risk of exposure to MPXV infection. The level of risk of infection may differ between these groups, is linked to the specific epidemiological situation

- **Gay, bisexual, or other men or transgender people who have sex with men**
 - recent history of multiple sexual, attending sex on premises venues
 - chemsex practices
 - use of or eligibility for PrEP for HIV
 - recent history of STI
- **Sex workers**
- **Occupational exposure (HCW)**
- **Severe disease (children, pregnant women, immunosuppressed individuals)**

Two doses are required for optimal protection and can be given 28 days apart. The mpox vaccine takes approximately 14 days before it is effective.



Post-exposure vaccination (PEPV)

PEPV refers to the immunisation against MPXV of close contacts of cases to prevent the onset of disease or mitigate disease severity. Such strategy depends on the possibility to identify contacts of cases through contact tracing.

- **Close contacts of cases**
 - sexual partners,
 - household contacts,
 - healthcare workers,
 - and individuals with other prolonged physical or high-risk contact
- In the context of limited supply, contacts with a high risk of developing severe disease if infected should be prioritised (**children, pregnant women, and immunocompromised individuals**)

PEPV should be administered within four days of first exposure (and up to 14 days after exposure in the absence of symptoms)

Vaccination strategies

Vaccination strategies was collected from a rapid desk review of official sources (27 March to 3 February 2023)

Table A1. Countries with vaccination strategies (n=24)

Vaccination strategy	Countries
Primary (pre-exposure) preventive vaccination (PPV) and Post-exposure vaccination (PEPV)	Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Latvia, Lithuania, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden
Primary (pre-exposure) preventive vaccination (PPV)	Italy, Liechtenstein
Post-exposure vaccination (PEPV)	Cyprus, Estonia, Latvia, Malta

Sources: ECDC survey responses, HSC survey responses and rapid desk review of official sources.

Vaccination doses administered

Table A3. Number of doses administered by country by month (n=29)*, data as of 3 March 2023

Country	Year/Month									Total	
	2022						2023				
	June	July	Aug	Sept	Oct	Nov	Dec	Jan			Feb
Austria	---			1 150		1 286					2 436
Belgium	---		1 565	1 292	861	2 069	1 121	790			7 698
Croatia	---	---		4	121	175	72				372
Cyprus	---	---	10	4	2		1				17
Czechia	---	---				90	80	109	78		357
Denmark	30	104	2 804	5 072	822	289					9 121
Estonia	---	---	---	5	4	0	0				9
Finland	---	---	---	5	1 065	50	800	250			2 170
France	787	14 133	66 029	39 521	18 881	6 442	2 892				148 685
Germany	115	9 090	12 257	10 064	10 155	10 079	5 845				57 605
Hungary	---	---	---	---	106	183	105				394
Iceland	---	40	0	215	119	160	39	25			598
Ireland	4	28	83	363	844	1 294	2 239	2 802			7 657
Italy	---	---	3 808	10 356	7 473	3 090	1 082				25 809
Latvia	---	---		10			91				101
Liechtenstein	---	---	---	---	---	---	5	6	4		15
Luxembourg	---	---	384	684	178	55	19				1 320
Malta	---	---	1	1	0	0	0				2
Netherlands	---	785	14 292	9 638	3 101	1 408	526	39	3		29 792
Norway	---		8	18	94	356	494	604			1 574
Poland	---								261		261
Portugal	---	81	298	293	569	903	747				2 891
Slovenia	---	---	---	100	186	150	46	27			509
Spain			6 376	14 549	5 046	4 929	2 126				33 026
Sweden	---	9	50	715	1 752	1 411	620				4 557
Total	936	24 270	107 965	94 059	51 379	34 419	18 950	4 652	346		336 976

Notes: Bulgaria, Greece, Lithuania, and Slovakia have not started the mpox vaccination.

---: The vaccination campaign has not started.

*Detailed country-specific information:

Czechia: Data for February 2023 are not complete.

Latvia: The doses reported in December 2022 are cumulative data and include doses administered in September, October, and December 2022.

Poland: The doses reported in December are cumulative data and include all doses administered since October 2022.

Vaccine effectiveness studies 1/2



Reference	Country	Study population	Incidence/ Vaccine effectiveness
[16,17] Payne Payne	US (43 jurisdictions) Oct 2022	Males aged 18-49 years eligible for vaccination	Mpox incidence among males aged 18–49 years eligible for MVA-BN vaccination was 9.6 times as high as that among unvaccinated males compared with those who had received two vaccine doses and 7.4 times as high as that among people who had received only the first dose.
[18] Hazra			<p>Effectiveness at reducing the risk of mpox disease</p> <p>1 dose → 78% [95% CI 54-89%] 2 doses 69 – 86% [95% CI: 48 – 95]</p> <p>There is not difference between subcutaneous and intradermal administration routes</p>
[20] Farrar	Dec 2022		one Jynneos vaccine dose ≥14 days before illness onset than among unvaccinated patients.
[21] MMWR	US Dec 2022	18-49-year-old males	The vaccine was effective at reducing the risk of mpox disease, with two doses providing the best protection adjusted VE= 69%, (95% CI=48-81%) regardless of how the vaccine was administered.
[22] Bertran	UK Dec 2022	High-risk GBMSM of all age-groups	Vaccine effectiveness of 78% (95% CI=54-89%) after a single dose of MVA-BN vaccine.

Ongoing studies

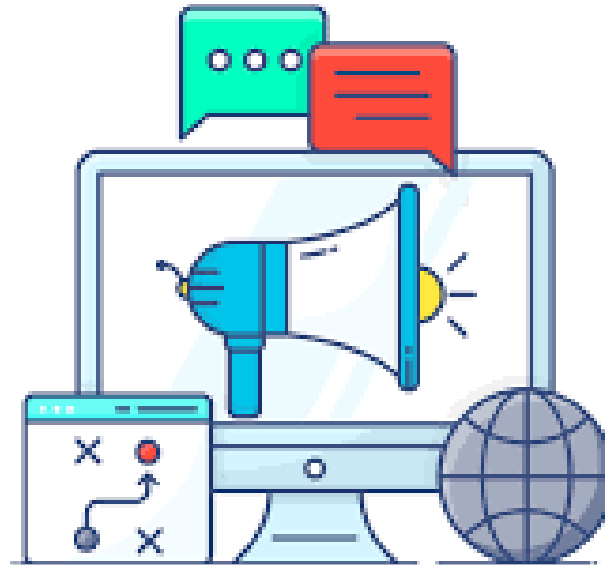
- SEMVAc: EMA coordinating study on mpox in German clinics
 - Multi-center, prospective, observational cohort

- USMVAc:
 - Observational cohort using large healthcare data sources

Vaccination recommendations

- Individual level vaccination should not replace other protective measures
 - Those vaccinated should continue to avoid close contact with people who have mpox
- The limited evidence available indicates that the vaccine provides protection against MPXV.
- Infection can still appear after one vaccine dose, but illness appears less clinically severe, and hospitalisations are reduced
- The evidence indicates that two doses provide the highest vaccine effectiveness and therefore vaccination with two doses should be considered for all eligible individuals.
- Considering limitations in vaccine supply, PPV and PEPV strategies may be combined focusing on individuals at substantially higher risk of exposure and close contacts of cases, respectively.

Risk communication and community engagement



Principles of RCCE in Outbreak Response I

10 Risk Communication Principles

1. Identify **target groups** relevant to the mpox outbreak in Europe.

Raise a level of **concern** proportionate to the risk of different population groups.

Tailor risk communication through **channels** that target group(s) use (1).

Identify **spokespersons** who the affected population groups trust.

Explain the **science** simply, to foster trust and acceptance.

Acknowledge **uncertainty**, by labelling public health advice as preliminary.

Recognize **people's fatigue** for restrictions as a barrier to their compliance with health advice.

Package messages and health advice relevant to **specific settings and circumstances**.

Provide public health advice **specific to the mpox outbreak**.

Use **pictures** of mpox symptoms to increase understanding, but not generate fear.

Principles of RCCE in Outbreak Response II

RCCE is nothing without working with communities!

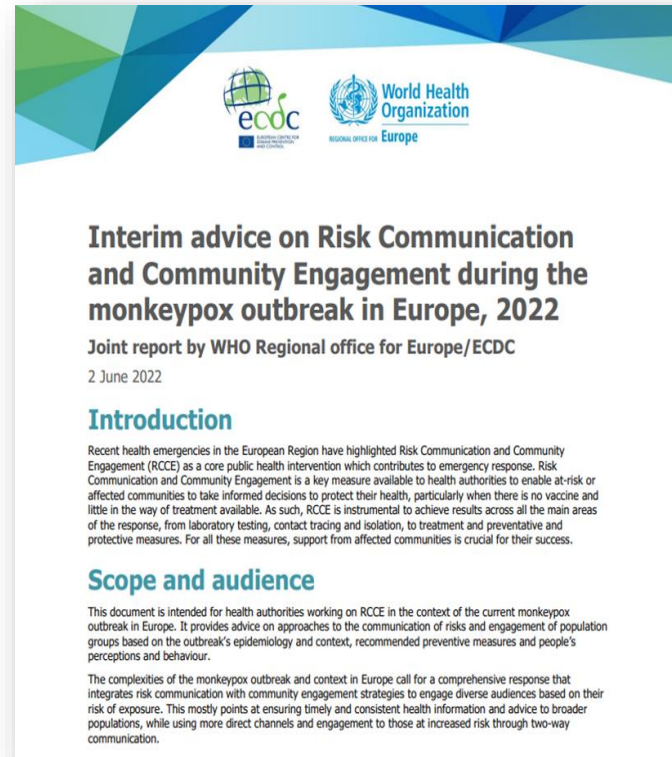
- Actively engaging CSOs, community groups and leaders to
- gather and use community insights, knowledge, and perceptions to design interventions alongside communities;
- engage at-risk groups on how they can reduce their risk of exposure and act in case they suspect mpox and/or have symptoms;
- engage organizers of mass gatherings to share accurate, practical and targeted information to participants.



Challenges of RCCE Context

The features of the mpox outbreak in Europe contribute to a complex RCCE context:

- **Predominantly affected group** - As most cases reported in MSM, increase risk of stigmatization.
- **Uncertainty** - Unknown aspects of the disease in early stage of the outbreak, currently evidence related with vaccination. Need to communicate uncertainty
- **Mass gatherings** - Festivals and events – including festivals and Pride events – where large numbers of people will gather
- **Stigmatization & health seeking behaviour**

RCCE guidance at their use



Interim advice on Risk Communication and Community Engagement during the monkeypox outbreak in Europe, 2022

Joint report by WHO Regional office for Europe/ECDC

2 June 2022

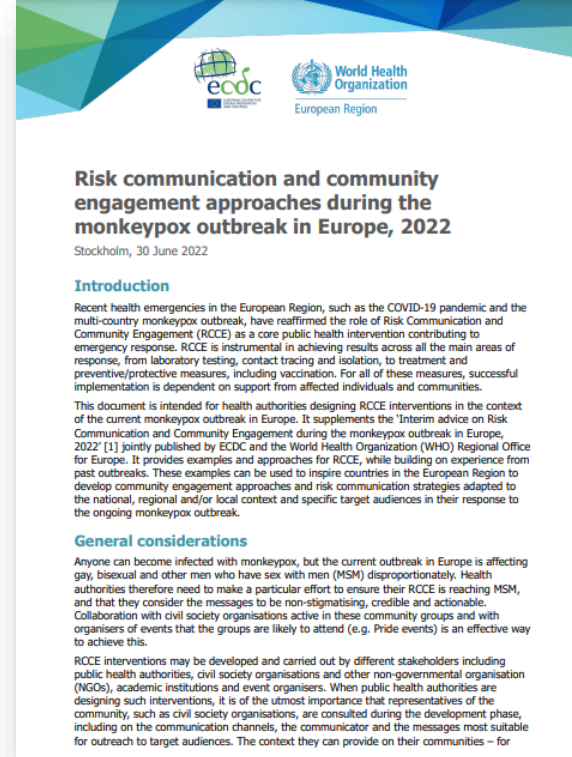
Introduction



Recent health emergencies in the European Region have highlighted Risk Communication and Community Engagement (RCCE) as a core public health intervention which contributes to emergency response. Risk Communication and Community Engagement is a key measure available to health authorities to enable at-risk or affected communities to take informed decisions to protect their health, particularly when there is no vaccine and little in the way of treatment available. As such, RCCE is instrumental to achieve results across all the main areas of the response, from laboratory testing, contact tracing and isolation, to treatment and preventative and protective measures. For all these measures, support from affected communities is crucial for their success.

Scope and audience

This document is intended for health authorities working on RCCE in the context of the current monkeypox outbreak in Europe. It provides advice on approaches to the communication of risks and engagement of population groups based on the outbreak's epidemiology and context, recommended preventive measures and people's perceptions and behaviour.

The complexities of the monkeypox outbreak and context in Europe call for a comprehensive response that integrates risk communication with community engagement strategies to engage diverse audiences based on their risk of exposure. This mostly points at ensuring timely and consistent health information and advice to broader populations, while using more direct channels and engagement to those at increased risk through two-way communication.



Risk communication and community engagement approaches during the monkeypox outbreak in Europe, 2022

Stockholm, 30 June 2022

Introduction

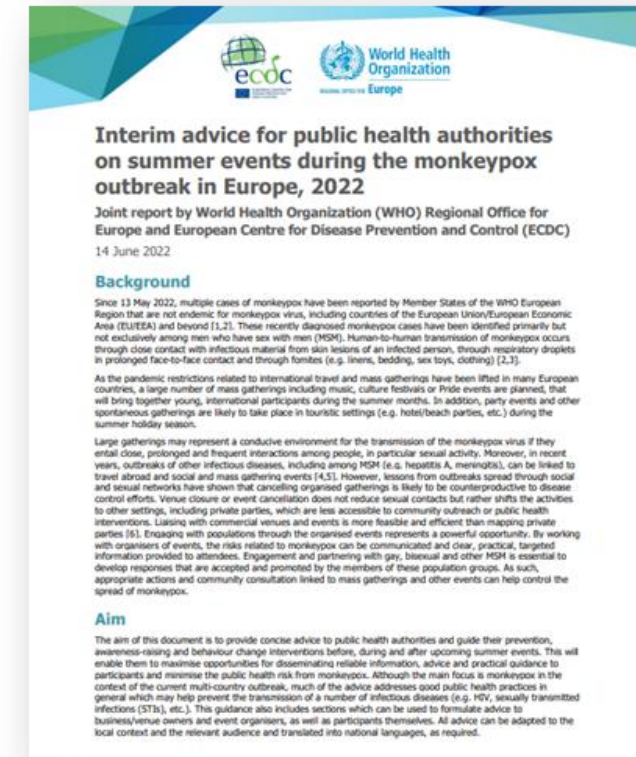
Recent health emergencies in the European Region, such as the COVID-19 pandemic and the multi-country monkeypox outbreak, have reaffirmed the role of Risk Communication and Community Engagement (RCCE) as a core public health intervention contributing to emergency response. RCCE is instrumental in achieving results across all the main areas of response, from laboratory testing, contact tracing and isolation, to treatment and preventive/protective measures, including vaccination. For all of these measures, successful implementation is dependent on support from affected individuals and communities.



This document is intended for health authorities designing RCCE interventions in the context of the current monkeypox outbreak in Europe. It supplements the 'Interim advice on Risk Communication and Community Engagement during the monkeypox outbreak in Europe, 2022' [1] jointly published by ECDC and the World Health Organization (WHO) Regional Office for Europe. It provides examples and approaches for RCCE, while building on experience from past outbreaks. These examples can be used to inspire countries in the European Region to develop community engagement approaches and risk communication strategies adapted to the national, regional and/or local context and specific target audiences in their response to the ongoing monkeypox outbreak.

General considerations

Anyone can become infected with monkeypox, but the current outbreak in Europe is affecting gay, bisexual and other men who have sex with men (MSM) disproportionately. Health authorities therefore need to make a particular effort to ensure their RCCE is reaching MSM, and that they consider the messages to be non-stigmatising, credible and actionable. Collaboration with civil society organisations active in these community groups and with organisers of events that the groups are likely to attend (e.g. Pride events) is an effective way to achieve this.

RCCE interventions may be developed and carried out by different stakeholders including public health authorities, civil society organisations and other non-governmental organisation (NGOs), academic institutions and event organisers. When public health authorities are designing such interventions, it is of the utmost importance that representatives of the community, such as civil society organisations, are consulted during the development phase, including on the communication channels, the communicator and the messages most suitable for outreach to target audiences. The context they can provide on their communities – for



Interim advice for public health authorities on summer events during the monkeypox outbreak in Europe, 2022

Joint report by World Health Organization (WHO) Regional Office for Europe and European Centre for Disease Prevention and Control (ECDC)

14 June 2022

Background

Since 13 May 2022, multiple cases of monkeypox have been reported by Member States of the WHO European Region that are not endemic for monkeypox virus, including countries of the European Union/European Economic Area (EU/EEA) and beyond [1,2]. These recently diagnosed monkeypox cases have been identified primarily but not exclusively among men who have sex with men (MSM). Human-to-human transmission of monkeypox occurs through close contact with infectious material from skin lesions of an infected person, through respiratory droplets in prolonged face-to-face contact and through fomites (e.g. linens, bedding, sex toys, clothing) [2,3].

As the pandemic restrictions related to international travel and mass gatherings have been lifted in many European countries, a large number of mass gatherings including music, culture festivals or Pride events are planned, that will bring together young, international participants during the summer months. In addition, party events and other spontaneous gatherings are likely to take place in touristic settings (e.g. hotels/beach parties, etc.) during the summer holiday season.

Large gatherings may represent a conducive environment for the transmission of the monkeypox virus if they entail close, prolonged and frequent interactions among people, in particular sexual activity. Moreover, in recent years, outbreaks of other infectious diseases, including among MSM (e.g. hepatitis A, meningitis), can be linked to travel abroad and social and mass gathering events [4,5]. However, lessons from outbreaks spread through social and sexual networks have shown that cancelling organised gatherings is likely to be counterproductive to disease control efforts. Venue closure or event cancellation does not reduce sexual contacts but rather shifts the activities to other settings, including private parties, which are less accessible to community outreach or public health interventions. Limiting with commercial venues and events is more feasible and efficient than targeting private parties [6]. Engaging with populations through the organised events represents a powerful opportunity. By working with organisers of events, the risks related to monkeypox can be communicated and clear, practical, targeted information provided to attendees. Engagement and partnering with gay, bisexual and other MSM is essential to develop responses that are accepted and promoted by the members of these population groups. As such, appropriate actions and community consultation linked to mass gatherings and other events can help control the spread of monkeypox.

Aim

The aim of this document is to provide concise advice to public health authorities and guide their prevention, awareness-raising and behaviour change interventions before, during and after upcoming summer events. This will enable them to maximise opportunities for disseminating reliable information, advice and practical guidance to participants and minimise the public health risk from monkeypox. Although the main focus is monkeypox in the context of the current multi-country outbreak, much of the advice addresses good public health practices in general which may help prevent the transmission of a number of infectious diseases (e.g. HIV, sexually transmitted infections (STIs), etc.). This guidance also includes sections which can be used to formulate advice to business/venue owners and event organisers, as well as participants themselves. All advice can be adapted to the local context and the relevant audience and translated into national languages, as required.



Monkeypox outbreak

An outbreak of monkeypox is ongoing since early May, affecting multiple countries in the EU/EEA and worldwide.

[Read more about the monkeypox outbreak](#)

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Monkeypox multi-country outbreak

Situation update, 8 June 2022

On 14 May 2022, a familial cluster of two cases of monkeypox was reported in the United Kingdom (UK) by the UK Health Security Agency (UKHSA). These cases had no relation to a case imported from Nigeria that was previously reported on 7 May 2022 in the UK. In the following days, several other EU/EEA Member States and other countries have reported cases of monkeypox linked to travel to these countries.

Latest updates

News
ECDC and WHO publish joint technical report on navigating monkeypox during the summer season

Navigating monkeypox: considerations for gay and bisexual men and other men who have sex with men

10 June 2022

What is the situation with monkeypox?
There have been monkeypox cases identified in several countries throughout and beyond Europe. Although anyone can become infected with monkeypox, most cases are currently being detected in gay and bisexual men and other men who have sex with men. Information about this outbreak of monkeypox is still emerging and we are continuously learning more. Stay up-to-date and stick to reliable sources of information (see section 'Stay calm and stay informed' below).

How is monkeypox passed on?
Monkeypox can be transmitted through close physical contact (skin-to-skin), including during sex. It can also spread through respiratory droplets in prolonged face-to-face contact, and through contaminated objects (such as clothing, bedding and sex toys).

Common symptoms of monkeypox and what to do if you develop symptoms
Monkeypox can take the form of rashes, spots, ulcers or blisters anywhere on the body, but often in the genital area. It may also cause swollen and painful lymph glands, fever, headache and muscle aches; chills or exhaustion. Most of those affected by the current outbreak will probably just need a few weeks of recovery at home, but a few people have been hospitalised due to their monkeypox symptoms or subsequent skin infections.

If you have any of the above symptoms:

- seek medical advice by contacting your local health provider or sexual health clinic;
- take a break from visiting gatherings, venues or events and avoid having close contact, including sex, until you have sought the advice of a health provider and know that you are well.

Gay sex stigma and monkeypox
Monkeypox is not a 'gay disease' and gay men are not to be blamed or shamed for the outbreak. Stigma is counterproductive. Monkeypox is nothing to be ashamed of and is not associated with a specific sexual orientation. Do not let stigma prevent you from accessing the healthcare you need. You can help by combatting stigma, sharing information, paying attention to symptoms, and if diagnosed, by following the recommendations of your healthcare provider (e.g. by self-isolating and helping health authorities to notify close contacts).

European Centre for Disease Prevention and Control (ECDC)
45,109 followers
4d •

#Update on the #Monkeypox multi-country outbreak.

Since the start of the outbreak:

Geographical distribution of confirmed monkeypox cases in the EU/EEA, as of 08 Jun 2022

- >=100 cases reported
- 50-99 cases reported
- 10-49 cases reported
- 1-9 cases reported
- No reported cases
- Not included

Countries not visible in the main map extent:
Malta
Liechtenstein

180 | 2 comment

COMMUNICABLE DISEASE THREATS REPORT

CDTR

Week 23, 5-11 June 2022

Tool Kit for Event Organisers

Working with community groups, event organizers, ECDC and WHO launched guidance and ready-to-use materials to enable event organizers to deliver accurate and timely messaging, **before, during and after** an event:

1. The role of organisers have in prevention of MPX

The steps they can take to strengthen prevention

- Messages to share with participants, before, during and after the event
- Questions and Answers on symptoms, transmission and protective

Key messages

Community actors to be engaged

- Tips on mapping Civil Society Organizations & other community actors

The resources you can consult

- Multimedia
- Images
- Sound bites
- Video clips

Conclusions I

- Cases of mpox has been reported sporadically in 2023, with just one outbreak in France
- Mpox is not longer considered a PHEIC as the long-term challenges would be better addressed through sustained efforts in a transition towards a long-term strategy.
- Those vaccinated should continue to avoid close contact with people who have mpox, and testing should be available for those exposed despite vaccination scheme.
- The limited evidence available indicates that the vaccine provides protection against MPXV.
- The evidence indicates that two doses provide the highest vaccine effectiveness and therefore vaccination with two doses should be considered for all eligible individuals.

Conclusions II

- RCCE is a key element in public health preparedness and response. Although risk communication is necessary, it is not sufficient. Finding ways to engage with at-risk groups, including community-based organisations and civil society is key
- Quick integration of RCCE and collaboration with regional and local actors was positive
- Moving forward there is a need to assess the value and impact of the RCCE activities and outputs for MS
- Integrate mpox detection, prevention, care and research with existing and innovative HIV and sexually transmitted disease prevention and control programmes, and other health services as appropriate.

Thanks to the mpox team and consulted experts

This report of the European Centre for Disease Prevention and Control (ECDC) was coordinated by Daniel Cauchi and Joana Haussig and was written by the following ECDC experts (in alphabetical order): Luis Alves de Sousa, Agoritsa Baka, Daniel Cauchi, Orlando Cenciarelli, Silvia Funke, Joana Haussig, Nina Lagerqvist, Lina Nerlander, Juliana Reyes, Frank Sandmann, Theodora Stavrou.

The report was sent for consultation to:

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Germany: Klaus Jansen (Robert Koch Institute, RKI).

Portugal: Paula Vasconcelos (Direção-Geral da Saúde – Ministry of Health).

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European Medicines Agency (EMA): Catherine Cohet, Lorna Leal.

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SDG team at ECDC: Teymur Noori, Anastasia Pharris and Lina Nerlander

Thank you!