



# **TESSy - The European Surveillance System**

## **Monkeypox (MPX) Reporting Protocol Version 3.1, 8 September 2022**

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## Summary of changes

### 8 September 2022 (version 3.1)

- Updated case definitions.
- Updated coded value list of *CaseDefinition* variable with category WHO\_Aug2022 to collect information on the new case definition by WHO from 25 August 2022.

### 5 August 2022 (version 3.0)

- Updated to RecordTypeVersion 3.
- Removed variables SmallpoxVaccine and DateLastVaccDose.
- Added variables PrEPHIV, SexWorker, NumberSexPartners, OtherGender, VaccPoxPrev, VaccPoxPrevDate, VaccPoxCurrentStatus, VaccPoxBrand1, VaccPoxBrand2, VaccPoxDate1, VaccPoxDate2, VaccPoxPurpose1, VaccPoxPurpose2, Complications, and ComplicationsOther.
- Updated coded value list of ClinicalSymptoms variable with category PROCT for reporting of proctitis, category DIARR for reporting of diarrhoea, category LYMPHLOCUNK for reporting lymphadenopathy where the location is not known, and category GENITEDEM for reporting of genital soft-tissue oedema/swelling.
- Corrected designation of category SORTHR to SORETHR in the coded value list of ClinicalSymptoms variable.
- Updated coded value list of SpecimenMPX variable with category CSF for reporting of specimen collection of cerebrospinal fluid.
- Added validation rules.

### 22 June 2022 (version 2.0 revised)

- Added YUNK (yes for unknown reason) to the coded value list for Hospitalisation.

### 16 June 2022 (version 2.0)

- Updated to RecordTypeVersion 2.
- Changed coded value list for TravelPlaces to include all places worldwide.
- Added RASHLOCUNK (Skin/mucosal lesions where the location is not known) to the coded value list for ClinicalSymptoms variable.

## How to use this document

This Reporting Protocol provides information for data managers in reporting countries in two main sections:

- [Reporting to TESSy](#) – contains guidelines on how to prepare data for submission to TESSy, deadlines for reporting, subject-specific information (e.g. new changes to metadata), and links to further information.
- [Annex](#) – contains:
  - A history of metadata changes for the subject(s) covered by this Reporting Protocol.
  - The metadata set for the subject(s) covered by this Reporting Protocol.

## Finding further information

 Paragraphs denoted by the information icon tell where you can find further information.

Updated links to all the schedules, documentation and training materials mentioned in this Reporting Protocol are included in the [TESSy Technical Guidelines & Tools](#) (see the menu 'Technical Guidelines and Tools' when logged in TESSy), including:

- Metadata sets and history.

- Tutorials for data transformation using respectively Excel and Access.
- TESSy user documentation.
- [CSV](#) and [XML](#) transport protocols.

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## Introduction

This reporting protocol is intended for reporting national case-based data for surveillance of monkeypox from all the countries and areas of the WHO European Region, including the 27 countries of the European Union (EU) and the additional three countries of the European Economic Area (EEA), to the European level.

Data are submitted through the case-based record type MPX to the European Surveillance System (TESSy) database hosted at ECDC.

Data can be reported to TESSy either manually, for entry of single cases, or through metadata-standardised CSV or XML files for multiple cases (please see technical annex).

**Case data including retrospective updates to cases already in TESSy should be reported weekly, Tuesdays by 10:00AM.**

This reporting protocol is supplemented by a technical annex, which contains updated generic information for data submission.

First cases should be reported to WHO/ECDC through IHR/EWRS mechanisms. Any additional cases should be reported to TESSy only. Please note that all data are collected jointly with the World Health Organisation – Regional Office for Europe (WHO/Europe) to fulfil Member States reporting requirements to WHO. Duplicate reporting is therefore not required.

## Case definition

Probable and confirmed cases should be reported according to the current WHO case definition for monkeypox (**Annex 2**). Information on the case definition used should be provided in the variable CaseDefinition. If a national case definition is used this information should also be provided in the variable CaseDefinition.

## Aim

To support the timely and complete reporting of key information on monkeypox epidemiology in the countries and areas of the WHO European Region, including the 27 countries of the European Union (EU) and the additional three countries of the European Economic Area (EEA).

## Surveillance Objectives

1. Monitor the intensity and geographical spread of the monkeypox virus in the population in time, place and person;
2. To understand the natural history and epidemiology of the disease including risk factors for infection in order to assess its impact and prepare accordingly
3. To describe the population at highest risk of infection and severe outcomes in order to target preventive or control measures
4. Assess the impact of any control and prevention measures.

# Reporting to TESSy

This section provides both an overview of the TESSy reporting process and tips on where you can find useful information.

The overall process includes:


1. Familiarising yourself with the data collection deadlines
2. Preparing (exporting and transforming) your data
3. Checking that your data comply with the metadata
4. Checking that your data source profile is up-to-date
5. Submitting your data to TESSy
6. Finalising and approving your submission.

## Data collection schedule

Case data including retrospective updates to cases already in TESSy should be reported at least twice weekly, Tuesdays by 10:00AM and Fridays by 10:00AM.

## Preparing data

Data may be entered directly in TESSy for individual records ('Manually create a record'). For any batch reporting by file upload (CSV or XML format) please note that once the data has been exported from your national database it needs to be in a format that TESSy can accept (see 'checking metadata').

 Tutorials covering how you can transform your data to the correct TESSy format using Excel or Access are available on the [TESSy documents website](#). Information on the file formats is available in the [CSV Transport Protocol](#) and [XML Transport Protocol](#).

## Checking metadata

The TESSy metadata define the fields and valid data formats for input to TESSy for a given subject.

To ensure data can be saved correctly in TESSy, please check the data are correctly formatted according to the most recent metadata set.

Changes to the metadata for the subject of this Reporting Protocol are described in:


- [Changes to current metadata](#) – changes since the last Reporting Protocol.
- [Annex Metadata change history](#) – all preceding changes.

It is especially important to focus on:

- **Field formats**  
Many fields require that data are formatted in a specific way. For example, dates must be in the **YYYY-MM-DD** format; dates in the DD/MM/YYYY format will be rejected.
- **Coded values**  
Some fields only permit the use of specific values (coded values). For example, **M, F, UNK**, or **Other** are the coded values for *Gender* and any other value in a *Gender* field will be rejected.
- **Repeatable fields**  
For variables where multiple items of the coded value list apply, the field should be repeated as needed to include only one item per field. If not applicable, use N/A.

The metadata file contains all the definitions and rules you need to comply with to format your data correctly. The file can be downloaded as an Excel file from the TESSy documents website.

By filtering the fields in the file by subject, you can see the fields required for your subject and the rules applying to these fields.

 The [Tessy User Guide](#) provides an overview of how you work with the metadata file, and the TESSy user documentation provides in-depth details on metadata.

## Checking your data source profile

Before submitting your data, please review the profile for your data source(s) in TESSy (go to **Data Sources**), and update the information, if necessary.



Complete and up-to-date data source information for each subject facilitates surveillance data interpretation - each surveillance system has different features that need to be considered when comparing data at international level.


If your data source information is outdated and you do not have access rights to update it, please ask your National Focal Point for Surveillance or National Coordinator to do so.

 In-depth information on the data source variables is available in the TESSy user documentation.

## Submitting your data

Data are submitted through the TESSy web interface (go to **Upload**). Previously reported data can be found through the review tab (see below).



 The [Tessy User Guide](#) provides an overview of how you submit files to TESSy and in-depth descriptions of all the upload methods.


## Finalising your submission

The compliance of your data with the validation rules in the metadata is checked automatically during the data upload process.

The result of your upload – i.e. rejected or validated – is displayed immediately after the check in the **Validation details** webpage has completed. Please review the result carefully:

- If your file has been rejected, there will be a message explaining each instance of non-compliance with the metadata that you need to correct.
- If your file has been validated, there might be warnings and remarks relating to possible data quality issues or to potential overwriting of existing records that you should consider.

When your file has been validated and you are satisfied that all corrections have been made, please ensure prompt approval – unapproved uploads can block the approval of other uploads.

 The TESSy user documentation provides information on reviewing validation results and adjusting reporting periods to avoid overwriting existing records.

 General training and guidance on reporting is available on the [TESSy website](#).

## TESSy HelpDesk

Email: [TESSy@ecdc.europa.eu](mailto:TESSy@ecdc.europa.eu)

Telephone number: **+46-(0)8-5860 1601**

Availability: 9:00 – 16:00 Stockholm time, Monday to Friday (except ECDC Holidays)

# Changes to monkeypox (MPX) metadata

**RecordType: MPX: RecordType Version 3: Review 2022-09-08**

Updated coded value list of CaseDefinition variable with category WHO\_Aug2022 to collect information on the new case definition by WHO from 25 August 2022.

Revised validation rules.



# Annex 1 – Monkeypox metadata

## Revisions of MPX metadata set

The MPX metadata have been developed in collaboration with WHO. The most recent metadata set is available from the TESSy website under technical guidelines and tools tab (as shown below).



## Current record type versions

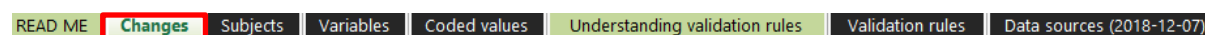
Table 1 shows the record type versions to be used when reporting monkeypox (Record type: MPX) data to TESSy.

Table 1: MPX record type versions

Record	Type of data	Record type version
MPX	Case-based	3

## MPX metadata change history

When you open a metadata set, the Excel file has a tab 'Changes', recording historical changes.



## MPX metadata recordtype version 3

### Common TESSy variables

#### Record Identifier (mandatory)

Field: RecordId

Coding: Text (max 80 characters)

The record identifier is provided by the Member State. It must be:

- unique within the national MPX reporting system (records with the same ID will be overwritten)
- anonymous.

#### Record type (mandatory)

Field: RecordType

Coding: MPX

The record type defines the structure and the format of the data reported. The record types are defined by ECDC and are related to the subject. Only valid combinations of subject, record type and data source are accepted.

### **Record type version**

Field: RecordTypeVersion

Coding: 3

The version of the record type defines the current structure of the data reported. The current version of the MPX record type is 3.

This variable is not mandatory as TESSy concludes the record type version from the metadataset indicated by default. However, the variable RecordTypeVersion can override this default.

### **Subject (mandatory)**

Field: Subject

Coding: MPX

The subject describes the disease to be reported.

### **Data source (mandatory)**

Field: DataSource

Coding: To be assigned by each country to an existing data source, or to a newly created one.

The data source specifies the surveillance system from which the data originates and is generated and revised/updated by the national focal point in each Member State. The descriptions of the surveillance systems submitted to TESSy ([section Data Sources](#)) will be used to assist with data interpretation. Make sure that the subject "MPX" is associated with this data source.

### **Reporting country (mandatory)**

Field: ReportingCountry

Coding: International organization for standardization (ISO) 3166-1-alpha-2, (two-letter code)

This variable identifies the country reporting the case.

### **Date used for statistics (mandatory)**

Field: DateUsedForStatistics

Coding: yyyy-mm-dd

Date when the case report is notified the first time to the place of notification.

### **Status (mandatory)**

Field: Status

Coding: NEW/UPDATE  
DELETE

The field 'Status' is used for updating data; the default is 'New/Update'. By choosing 'Delete' the selected record (or batch of data) will remain in TESSy but be marked as inactive; this data can be used to reconstruct data for a given date in the past.

## **Epidemiological variables**

*In alphabetic order by field.*

### **Accession number**

Field: AccessionNumber

Coding: TEXT

Sequence identifier for whole genome or whole or partial gene sequence, based on which the sequence read data can be retrieved from external database such as GenBank, ENA or other database.

### **Age (mandatory)**

Field: Age

Coding: Numerical (0-120)  
UNK = Unknown

Age of patient in years at the time of disease onset.

### **Age in months**

Field: AgeMonth

Coding: Numerical (0-23)  
NA = Not applicable  
UNK = Unknown

Age of patient in months at diagnosis for cases <2 years of age at the time of diagnosis.

### **Animal contact**

Field: AnimalContact

Coding: N = No  
PET = Household pets excluding rodents  
PETRODENTS = Rodent pets  
UNK = UNK  
WILD = Wild animals excluding rodents  
WILDRODENTS = Wild rodents

Animal contact in the 21 days before symptom onset or date of diagnosis.

### **Antiviral treatment**

Field: AntiviralTreatment

Coding: TEC = tecovirimat  
BRI = brincidofovir  
CID = cidofovir  
UNK = Unknown  
YUNK = Yes, but name of antiviral treatment not known  
N = No antiviral treatment

Information if case has received treatment with antivirals. Note this is a repeatable field.

### **Brand name of first dose of smallpox/monkeypox vaccination**

Field: VaccPoxBrand1

Coding: SmallpoxVaccine:  
ACAM2000 = ACAM2000  
APSV = Aventis Pasteur smallpox vaccine)  
Imvanex = Imvanex  
Imvamune = Imvamune  
Jynneos = Jynneos  
LC16m8 = LC16m8  
O = Other  
UNK = Unknown

Brand name of first dose of smallpox/monkeypox vaccine related to the current monkeypox event/outbreak.

## **Brand name of second dose of smallpox/monkeypox vaccination**

Field: VaccPoxBrand2

Coding: SmallpoxVaccine:  
ACAM2000 = ACAM2000  
APSV = Aventis Pasteur smallpox vaccine)  
Imvanex = Imvanex  
Imvamune = Imvamune  
Jynneos =Jynneos  
LC16m8 = LC16m8  
O = Other  
UNK = Unknown

Brand name of second dose of smallpox/monkeypox vaccine related to the current monkeypox event/outbreak.

## **Case definition used**

Field: CaseDefinition

Coding: ECDC = ECDC case definition (prior to 25 August 2022)  
NAT = National case definition  
UNK = Unknown  
WHO = WHO case definition (prior to Interim Guidance from 25 August 2022)  
WHO\_Aug2022 = WHO case definition (Interim Guidance from 25 August 2022)

Case definition used for classification of the case (see Annex 2 for the current WHO case definitions). Please refer to [Surveillance, case investigation and contact tracing for Monkeypox: Interim guidance \(25 August 2022\)](#) for more details on the current WHO monkeypox case definition.

## **CD4 cell count**

Field: CD4Cells

Coding: Numerical (0-6000)  
NA = Not applicable  
UNK = Unknown

CD4 count at time of diagnosis of monkeypox.

## **Clade of monkeypox virus**

Field: Clade

Coding: WA = West African clade  
CB = Congo Basin clade  
UNK = Unknown

Clade of the genomically characterised monkeypox virus.

## **Classification (mandatory)**

Field: Classification

Coding: CONF = Confirmed  
PROB = Probable  
UNK = Unknown

Case classification according to case definition used.

## **Clinical symptoms of the case (mandatory)**

Field: ClinicalSymptoms

Coding: ASY = Asymptomatic  
RASH = Skin/mucosal lesions excluding oral or anogenital areas

GENITAL = Anogenital dermatological skin/mucosal lesions  
 GENITEDEM = Genital soft-tissue oedema/swelling  
 RASHLOCUNK = Skin/mucosal lesions where the location is not known  
 ORAL = Oral dermatological skin/mucosal lesions  
 FEVER = Fever  
 MUSC = Muscle pain (myalgia)  
 SORETHR = Sore throat  
 FATIGUE = Fatigue  
 CHILLS = Chills or sweats  
 HEAD = Headache  
 CONJ = Conjunctivitis  
 VOMIT = Vomiting/nausea  
 DIARR = Diarrhoea  
 COUGH = Cough/respiratory symptoms  
 LYMPH = Generalised lymphadenopathy  
 LOCALLYMPH = Localised lymphadenopathy  
 LYMPHLOCUNK = Lymphadenopathy where the location is not known  
 PROCT = Anogenital pain and /or bleeding  
 O = Other symptoms (specify in ClinicalSymptomsOther)  
 UNK = Unknown

Clinical symptoms including rash/fever/lymphadenopathy at any point during the illness. Note this is a repeatable field.

### **Clinical symptoms other specified**

Field: ClinicalSymptomsOther

Coding: TEXT

Clinical symptoms not captured in the coded values for ClinicalSymptoms variable as indicated by O response for ClinicalSymptoms variable.

### **Complications**

Field: Complications

Coding: NONE = None

ARDS = Acute respiratory distress syndrome

LRTI = Lower respiratory tract infection (e.g. pneumonia)

ENCEPH = Encephalitis

MENINGENCEPH = Meningoencephalitis

MYOCARD = Myocarditis

KERATITIS = Corneal infection

RETROPHARYNXABSC = Retropharyngeal abscess

SEPSIS = Sepsis

STILLBIRTH = Still birth as pregnancy outcome in a case

SSTI = Skin and/or soft-tissue infection due to secondary bacterial infection

OTHBAC = Other secondary bacterial infection

O = Other (please specify separately)

UNK = Unknown

Complications related to the current monkeypox event. Note this is a repeatable field and more than one option can be chosen.

### **Complications (Other)**

Field: ComplicationsMPXOther

Coding: TEXT

Complications not captured in the coded values for Complications variable as indicated by O response for Complications variable.

### **Concurrent STI**

Field: ConcurrentSTI

Coding: CHLAM = Chlamydia  
HERP = Genital herpes  
LGV = LGV  
MYCO = Mycoplasma genitalium  
N = No concurrent STI  
SYPH = Infectious syphilis  
TRICH = Trichomonas vaginalis  
WARTS = Genital warts  
GONO = Gonorrhoea  
UNK = Unknown

Concurrent STI at time of diagnosis. Note this is a repeatable field.

### **Date of death**

Field: DateOfDeath

Coding: *yyyy-mm-dd*  
UNK = Unknown

Date for date of death. If not applicable, please use 'UNK'.

### **Date of diagnosis**

Field: DateOfDiagnosis

Coding: *yyyy-mm-dd*  
UNK = Unknown

First date of clinical or laboratory diagnosis. In case the DateofOnset is missing this timestamp is used.

### **Date of onset of symptoms (mandatory)**

Field: DateOfOnset

Coding: *yyyy-mm-dd*  
UNK = Unknown

Date of onset of symptoms. Not applicable in asymptomatic cases. If not applicable, please use 'UNK'.

### **Date of first dose smallpox/monkeypox vaccination**

Field: VaccPoxDate1

Coding: *yyyy-mm-dd*  
*yyyy-Www*  
UNK= Unknown

Date of first smallpox/monkeypox vaccination dose related to current monkeypox event/outbreak.

### **Date of second dose smallpox/monkeypox vaccination**

Field: VaccPoxDate2

Coding: *yyyy-mm-dd*  
*yyyy-Www*  
UNK= Unknown

Date of second smallpox/monkeypox vaccination dose related to current monkeypox event/outbreak.

### **Date of previous smallpox vaccination**

Field: VaccPoxPrevDate

Coding:        *yyyy-mm-dd*  
                 *yyyy-Www*  
                 *yyyy-mm*  
                 *yyyy*  
                 UNK= Unknown

Date of last vaccination for smallpox vaccine unrelated to the current monkeypox event/outbreak.

### **Epidemiological link**

Field: EpiLinked

Coding:        N = No  
                 UNK = Unknown  
                 Y = Yes

Epidemiological link to a confirmed or probable case.

### **Exposure setting**

Field: ExposureSetting

Coding:        HOUSE = Household  
                 WORK = Workplace  
                 SCHOOL = School/nursery  
                 HEALTH = Healthcare (including laboratory exposure)  
                 PARTY = Sexual contact at night club/private party/sauna or similar setting  
                 BAR = Bar/restaurant or other small event where there was no sexual contact  
                 LARGE = Large event with no sexual contact (e.g., festival or sports event)  
                 LARGECONTACT = Large event with sexual contact  
                 O = Other location (specify in ExposureSettingDetails)  
                 UNK= Unknown

Location of exposure in the 21 days before symptom onset or date of diagnosis. Note this is a repeatable field.

### **Exposure setting details**

Field: ExposureSettingDetails

Coding:        TEXT

Details on place of exposure if ExposureSetting "O" or any organised event.

### **Gender (mandatory)**

Field: Gender

Coding:        F = Female  
                 M = Male  
                 O = Other  
                 UNK = Unknown/Missing

Gender of the reported case.

### **Gender (Other)**

Field: OtherGender

Coding:        TEXT

Gender not captured in the coded values for Gender variable as indicated by O (Other) response (e.g transgender man, or transgender woman).

### **Genomic characterisation**

Field: GenomicCharacterisation

Coding: N = No  
UNK = Unknown  
Y = Yes

Information if genomic characterisation has been carried out.

### **Health care worker**

Field: HealthCareWorker

Coding: N = No  
UNK = Unknown  
Y = Yes

Information on whether the case is a healthcare worker.

### **HIV status**

Field: HIVStatus

Coding: POS = Positive  
NEG = Negative  
UNK = Unknown

HIV status of the case.

### **Hospitalisation**

Field: Hospitalisation

Coding: N = No  
UNK = Unknown  
YISOL = yes for isolation purposes  
YTREAT = yes due to clinical need  
YUNK = yes for unknown reason

Information if case was admitted to hospital.

### **Immunocompromised**

Field: ImmunoCompromised

Coding: N = No  
UNK = Unknown  
YD = Yes, due to disease  
YM = Yes, due to medication  
YRU = Yes, reason unknown

Information if a case is immunocompromised (if there is immunocompromise related to HIV infection, it should be coded as yes due to disease).

### **Intensive care**

Field: IntensiveCare

Coding: N = No  
UNK = Unknown  
Y = Yes

Information if case was admitted to an intensive care unit or high dependency unit (unit with capabilities for more intensive observation, treatment and nursing care than can be provided on a regular ward).

### **Laboratory method**

Field: LabMethod

Coding: MPXPCR = Positive monkeypoxvirus-specific PCR



ORTHOPOXPCR = Positive orthopoxvirus PCR  
SEQ = Sequencing  
ISOV = Isolation of virus  
EM = Virus detection by electron microscopy  
SERO = Serology  
UNK = Unknown

Laboratory method used to diagnose the case. Note this is a repeatable field.

### **Number of sexual partners**

Field: NumberSexPartners

Coding: 0 = No active sexual partner  
1 = One sexual partner  
2 = Two to four sexual partners  
5 = Five to nine sexual partners  
10 = Ten or more sexual partners  
UNK = Unknown

Information on the number of sexual partners (sequential or concurrent) of a case in the past 3 months from the diagnosis of monkeypox.

### **Outcome of the case (mandatory)**

Field: Outcome

Coding: A = Alive  
D = Died  
UNK = Unknown

Information on whether the case is alive (still ill, recovered, cured) or deceased. The death should be due to the reported disease.

### **Place of notification**

Field: PlaceOfNotification

Coding: NUTS\_GAUL  
UNK = Unknown

The place of notification should be provided by regions (up to NUTS3 level). Select the most detailed NUTS level possible. If the place of notification is not an EU/EEA country, then use GAUL nomenclature.

### **Pregnant**

Field: Pregnant

Coding: PREG = Pregnancy, trimester is unknown  
PREG1 = Pregnancy, 1st trim, the 1st trim is from week 1 to the end of week 12  
PREG2 = Pregnancy, 2nd trim, the 2nd trim is from week 13 to the end of week 26  
PREG3 = Pregnancy, 3rd trim, the 3rd trim is from week 27 to the end of the pregnancy  
PREGPOST = Post-partum (<6 weeks)  
N = No  
UNK = Unknown  
NA = Not applicable

Information if case is pregnant.

### **Pre-exposure prophylaxis for HIV**

Field: PrEPHIV

Coding: N = No  
UNK = Unknown

Y = Yes

Information if the case used pre-exposure prophylaxis for HIV any time in the past year from diagnosis of monkeypox.

### **Previous smallpox vaccination**

Field: VaccPoxPrev

Coding: N = No  
UNK = Unknown  
Y = Yes

Information if case has been previously vaccinated with a smallpox vaccine unrelated to the current monkeypox event/outbreak.

### **Purpose for first dose smallpox/monkeypox vaccination**

Field: VaccPoxPurpose1

Coding: PREEXP = Vaccinated for pre-exposure prophylaxis for current event  
POSTEXP = Vaccinated for post-exposure prophylaxis for current event  
O = Other  
UNK = Unknown

Information on the strategy context for vaccination with first smallpox/monkeypox vaccination dose related to current monkeypox event/outbreak.

### **Purpose for second dose smallpox/monkeypox vaccination**

Field: VaccPoxPurpose 2

Coding: PREEXP = Vaccinated for pre-exposure prophylaxis for current event  
POSTEXP = Vaccinated for post-exposure prophylaxis for current event  
O = Other  
UNK = Unknown

Information on the strategy context for vaccination with second smallpox/monkeypox vaccination dose related to current monkeypox event/outbreak.

### **Sexual orientation of the case**

Field: SexualOrientation

Coding: HETERO = Heterosexual contact  
MSM = MSM/homosexual or bisexual male  
LESBIAN = Women who have sex with women  
BISEXUAL = Bisexual  
O = Other  
UNK = Unknown or undetermined

Information on sexual orientation of the case.

### **SexWorker**

Field: SexWorker

Coding: N = No  
UNK = Unknown  
Y = Yes

Information if case is a sex worker (defined as exchanged sex for money or goods) in the past 3 months from diagnosis of monkeypox.

## **Specimen type**

Field: SpecimenMPX

Coding: CRUST = lesion crust  
CSF = Cerebrospinal fluid  
SWAB = lesion swab  
OROPH = Oropharyngeal swab  
SER = Serum  
SEM = Semen  
URINE = Urine  
RECTAL = Rectal swab  
GENITAL = Genital swab  
O = Other specimen (specify in SpecimenOther)  
UNK = Unknown

Type of specimen used for diagnosis. Note this is a repeatable field.

## **Specimen other specified**

Field: SpecimenMPXOther

Coding: TEXT

Specimen not captured in the coded values for Specimen variable as indicated by O response for Specimen variable.

## **Transmission mode (mandatory)**

Field: TransmissionMPX

Coding: ANIMAL = Animal to human transmission  
HAI = Healthcare-associated  
LAB = Transmission in a laboratory due to occupational exposure  
MTCT = Transmission from mother to child during pregnancy or at birth  
O = Other transmission (specify in TransmissionMPXOther)  
FOMITE = Contact with contaminated material (e.g bedding, clothing, objects)  
PTP = Person-to-person (excluding: mother-to-child, healthcare-associated or sexual transmission)  
SEX = Sexual transmission  
TRANSFU = Transfusion recipient  
UNK = Unknown

Most likely mode of transmission. Note this is a repeatable field.

## **Transmission mode other specified**

Field: TransmissionMPXOther

Coding: TEXT

Transmission mode not captured in the coded values for TransmissionMPX variable as indicated by O (Other) response for TransmissionMPX variable.

## **Travel**

Field: Travel

Coding: N = No travel  
UNK = Unknown  
Y = Yes

Case travelled outside country of residence in the three weeks before onset of symptoms or date of diagnosis.

## **Travel places**

Field: TravelPlaces

Coding: NUTS\_GAUL  
UNK = Unknown

Regions (up to NUTS3 level) visited in the three weeks before onset of symptoms. Select the most detailed NUTS level possible. If the region visited is not in an EU/EEA country, then use GAUL nomenclature. Note this is a repeatable field.

### **Vaccination status relative to current monkeypox event/outbreak**

Field: VaccPoxCurrentStatus

Coding: VaccStatusMpx:  
NOTVACC = 0 dose unvaccinated  
1DOSE = 1 dose  
2DOSE = 2 doses  
3DOSE = 3 doses  
DOSEUNK = Vaccinated with unknown number of doses  
UNK = Unknown vaccination status

Information on whether the case was recently vaccinated against smallpox/monkeypox and number of vaccine doses received, in relation/response to the current monkeypox event/outbreak.

## Annex 2 – Case definitions

As of 3 September 2022, for surveillance purposes, ECDC will follow the monkeypox case definition by WHO, issued on 25 August 2022 in the interim guidance document for surveillance, case investigation and contact tracing for monkeypox. Please refer to [Surveillance, case investigation and contact tracing for Monkeypox: Interim guidance](#) for more details on the current WHO monkeypox case definition.

Note that suspected cases should not be reported in TESSy.

The previously used ECDC interim case definitions for monkeypox are available in the Monkeypox Reporting Protocol versions 1.0 to 3.0.

Patients who fulfil the criteria for suspected or probable cases should be tested with a monkeypox virus specific PCR assay or an orthopoxvirus specific PCR assay which is then confirmed through sequencing. If negative, these records should be removed from TESSy.

### WHO outbreak case definition for monkeypox

As of 25 August 2022

#### **Suspected case:**

i) A person who is a contact<sup>1</sup> of a probable or confirmed monkeypox case in the 21 days before the onset of signs or symptoms, and who presents with any of the following: acute onset of fever (>38.5°C), headache, myalgia (muscle pain/body aches), back pain, profound weakness or fatigue.

OR

ii) A person presenting since 01 January 2022 with an unexplained acute skin rash, mucosal lesions or lymphadenopathy (swollen lymph nodes). The skin rash may include single or multiple lesions in the ano-genital region or elsewhere on the body. Mucosal lesions may include single or multiple oral, conjunctival, urethral, penile, vaginal, or ano-rectal lesions. Ano-rectal lesions can also manifest as ano-rectal inflammation (proctitis), pain and/or bleeding.

AND

for which the following common causes of acute rash or skin lesions do not fully explain the clinical picture: varicella zoster, herpes zoster, measles, herpes simplex, bacterial skin infections, disseminated gonococcus infection, primary or secondary syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale, molluscum contagiosum, allergic reaction (e.g., to plants); and any other locally relevant common causes of papular or vesicular rash.

*N.B. It is not necessary to obtain negative laboratory results for listed common causes of rash illness in order to classify a case as suspected. Further, if suspicion of monkeypox infection is high due to either history and/or clinical presentation or possible exposure to a case, the identification of an alternate pathogen which causes rash illness should not preclude testing for MPXV, as co-infections have been identified.*

#### **Probable case:**

A person presenting with an unexplained acute skin rash, mucosal lesions or lymphadenopathy (swollen lymph nodes). The skin rash may include single or multiple lesions in the ano-genital region or elsewhere on the body. Mucosal lesions may include single or multiple oral, conjunctival, urethral, penile, vaginal, or ano-rectal lesions. Ano-rectal lesions can also manifest as ano-rectal inflammation (proctitis), pain and/or bleeding.

AND

One or more of the following:

- has an epidemiological link<sup>1</sup> to a probable or confirmed case of monkeypox in the 21 days before symptom onset
- Identifies as gay, bisexual or other man who has sex with men
- has had multiple and/or casual sexual partners in the 21 days before symptom onset
- has detectable levels of anti-orthopoxvirus (OPXV) IgM antibody<sup>2</sup> (during the period of 4 to 56 days after rash onset); or a four-fold rise in IgG antibody titre based on acute (up to day 5-7) and convalescent (day 21 onwards) samples; in the absence of a recent smallpox/monkeypox vaccination or other known exposure to OPXV
- has a positive test result for orthopoxviral infection (e.g. OPXV-specific PCR without MPXV-specific PCR or sequencing)<sup>3</sup>

**Confirmed case:**

A person with laboratory confirmed monkeypox virus by detection of unique sequences of viral DNA by real-time polymerase chain reaction (PCR)<sup>3</sup> and/or sequencing.

**Discarded case:**

A suspected or probable case for which laboratory testing of lesion fluid, skin specimens or crusts by PCR and/or sequencing is negative for MPXV<sup>3</sup>.

Conversely, a retrospectively detected probable case for which lesion testing can no longer be adequately performed (i.e., after the crusts fall off) and no other specimen is found PCR-positive, would remain classified as a probable case. A suspected or probable case should not be discarded based on a negative result from an oropharyngeal, anal or rectal swab.

1. The person has been exposed to a probable or confirmed monkeypox case. A contact is defined as a person who has been exposed to an infected person during the infection period i.e the period beginning with the onset of the index case's first symptoms and ending when all scabs have fallen off, and who has one or more of the following exposures with a probable or confirmed case of monkeypox: (a) direct skin-to-skin and skin-to-mucosal physical contact (such as touching, hugging, kissing, intimate or sexual contact); (b) contact with contaminated materials such as clothing or bedding, including material dislodged from bedding or surfaces during handling of laundry or cleaning of contaminated rooms; (c) prolonged face-to-face respiratory exposure in close proximity; (d) respiratory exposure (i.e., possible inhalation of) or eye mucosal exposure to lesion material (e.g., scabs/crusts) from an infected person; (e) the former also apply for health workers potentially exposed in the absence of proper use of appropriate personal protective equipment (PPE).
2. Serology can be used for retrospective case classification for a probable case in specific circumstances such as when diagnostic testing through PCR of skin lesion specimens has not been possible, or in the context of research with standardized data collection. The primary diagnostic test for monkeypox diagnosis is PCR of skin lesion material or other specimen such as an oral or nasopharyngeal swab as appropriate. Serology should not be used as a first line diagnostic test.
3. PCR on a blood specimen may be unreliable and should also not be used alone as a first line diagnostic test. If blood PCR is negative and was the only test done, this is not sufficient to discard a case that otherwise meets the definition of a suspected for probable case. This applies regardless of whether the blood PCR was for OPXV or MPXV specific.