



TESSy - The European Surveillance System

HIV/AIDS Reporting Protocol

and Analysis Plan 2019

Surveillance data for 2018

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Introduction

This Reporting Protocol is for the 2019 data call for HIV/AIDS diagnoses made in 2018. This Reporting Protocol is a joint ECDC/WHO protocol as European level HIV/AIDS surveillance covers the full WHO European Region, i.e. the 31 European Union/European Economic Area (EU/EEA) countries and 23 countries outside the EU/EEA.

Reporting Protocols are data collection guidelines for reporting countries' data managers, and the new Reporting Protocol design is intended to improve user-friendliness by:

- Introducing a uniform structure to make it easier for data managers to find data collection information across different subjects.
- Removing information not relevant to data managers.

The TESSy website contains additional generic technical information for each data collection in the general technical annex and surveillance protocol. Additional information on the HIV and AIDS data collection is available in [Annex 2 HIV/AIDS specific material](#).

How to use this document

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

- [Reporting to TESSy](#) – contains guidelines on how to prepare data for submission to TESSy, deadlines for data submission, subject-specific information (e.g. new changes to metadata), and links to further information.
- [Annex 1 HIV/AIDS metadata](#) – contains:
 - The metadata set for the subject(s) covered by this Reporting Protocol.
 - A history of metadata changes for the subject(s) covered by this Reporting Protocol.
 - Dataset descriptions for record types HIV/AIDS, HIV case-based, AIDS case-based, HIV aggregated, AIDS aggregated, and HIV tests aggregated.
- [Annex 2 HIV/AIDS specific material](#) – contains subject-specific material relevant for distribution with the Reporting Protocol, for example:
 - Case definitions.
 - Analysis plan.

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 Technical Annex on the TESSy website, 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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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 is:

1. *Familiarise yourself with the data collection deadlines.*
2. *Prepare (export and transform) your data.*
3. *Check that your data comply with the metadata.*
4. *Check that your data source profile is up-to-date.*
5. *Submit your file(s) to TESSy.*
6. *Finalise and approve your submission.*

Checking the data collection schedule

 An updated link to the current data collections schedule is provided in the Technical Annex.


The 2016 HIV/AIDS surveillance data collection opens in March 2019 and closes **31 May 2019**. **Please inform us as soon as possible if you are unable to meet the 31st May deadline** and on a case-by-case basis we will determine whether countries reporting later can be included in the 2018 data report planned to be published in November 2019.

Table 1: Timeframe for 2019 HIV/AIDS data collection

Description of process	Date
Data call for submission of HIV/AIDS data	Open from March 2019
Data submission for HIV/AIDS closes	31 May 2019
Validation of data tables	Within two-three weeks of country data upload
Data analysis and report drafting	July-October 2019
Validation of draft report by countries	October-November 2019
Publication of the surveillance report	End November 2019

Preparing data

After you have exported the data from your national database, you need to ensure that the data are in a format that TESSy can accept. This applies both to the type of file submitted to TESSy (only CSV and XML files can be submitted) and to the format of the data in certain fields.

 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.

Annex 1 HIV/AIDS metadata describes the HIV/AIDS variables for reporting to TESSy, including a detailed *description of HIV/AIDS variables in the TESSy metadataset*.

The preferred format of data is case-based and data should be submitted for the entire reporting period, if available. If case-based data are not available then aggregate data may be reported¹. It is important to only submit either case-based or aggregated data for non-overlapping periods of time.

Historical HIV/AIDS data

It is recommended that historical data are updated every time that data are submitted to TESSy. Updating historical case-based data provides essential outcome information on parameters such as treatment, AIDS diagnoses, and death.

Checking metadata

The TESSy metadata define the fields and data formats that are valid as input to TESSy for a given subject. The metadataset is the set of standard variables that is applied for reporting to TESSy across all diseases under EU surveillance and hence defines all details of each variable and its coding. New versions reflect changes in one or more disease areas.

As requirements to the data to be shared among TESSy users change, the data changes needed to support the new requirements are identified and agreed upon by nominated surveillance contact points in countries and are then implemented as changes to the TESSy metadata.

In order to ensure that your data can be saved correctly in TESSy, you therefore need to check that your 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 HIV/AIDS metadata](#) – changes since the last Reporting Protocol.

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.

The metadata file contains all the definitions and rules you need to comply with to format your data correctly for every subject (usually a disease). 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 Technical Annex 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 file(s), please review the profile for your data source(s) in TESSy (go to **Data Sources**), and update the information, if necessary.



¹ For details with regard to aggregate reporting for HIV and AIDS refer to Annex 1.

Complete and up-to-date data source information for each subject is important for improving interpretation of data - each surveillance system has different features that need to be taken into account when comparing data at an international level.

Since 2015, users must have added the new subject **HIVAIDS** to the relevant data source in TESSy to be able to upload HIV/AIDS data using the new combined record type.


If your data source information is out-of-date and you do not have access rights to update it, please request 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**).



 The *Technical Annex* provides an overview of how you submit files to TESSy, and the TESSy user documentation provides 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 conclusion of the check in the **Validation details** webpage. 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 for the approval of other uploads.

HIV/AIDS verification reports are available online to check if data in TESSy are the same as the user has submitted. The data are presented by either date of statistics or date of diagnosis. Information on the "data source" is displayed as well for countries to keep information on their national surveillance systems updated.

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

TESSy HelpDesk

Email: 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 current metadata

Changes to the HIVAIDS record type:

- Addition of optional variable SiteOfTest
- Updated variable RecordTypeVersion from 2 to 3

Changes to the HIV record type

- Addition of optional variable SiteOfTest
- Updated variable RecordTypeVersion from 6 to 7

There are no changes to the AIDS record type, to the aggregate HIV or AIDS record types or to the HIVTESTS record type.

The previous metadata changes are described in [Annex 1 HIV/AIDS metadata](#).



Information on changes to the metadata for other subjects is available on the TESSy documentation website.

Annex 1 HIV/AIDS metadata

This section describes:

- [The HIV/AIDS metadata set](#)
- [Changes to the HIV/AIDS metadata](#)
- [Dataset structure: HIVAIDS case-based record type](#)
- [Dataset structure: HIV case-based record type](#)
- [Dataset structure: AIDS case-based record type](#)
- [Dataset structure: HIV aggregated record type](#)
- [Dataset structure: AIDS aggregated record type](#)
- [Dataset structure: HIVTESTS record type](#)

The HIV/AIDS metadata set

Available record types

Different record types are available for European level reporting of HIV/AIDS surveillance data. In 2015 a new combined HIVAIDS record type was introduced to simplify reporting by merging HIV and AIDS into one dataset and to improve reporting on migrants, transmission, deaths and enable HIV care by introducing new variables. The new combined HIVAIDS record type is the preferred format for reporting. However, the previous separate HIV and AIDS case-based record types remain available for countries whose surveillance systems do not support combined HIVAIDS reporting. Further, aggregated record types for HIV and AIDS are available for countries that are not able to provide case-based data. HIV testing data is reported in aggregate in the HIVTESTS record type.

In summary the following record types are available:

- HIVAIDS (case-based)
- HIV (case-based)
- AIDS (case-based)
- HIVAGGR (aggregated)
- AIDSAGGR (aggregated)
- HIVTESTS (aggregated)

The dataset structure for each of the above record types is provided in this section.

Current record type versions

Table 2 shows the record type versions available for reporting 2017 HIV/AIDS surveillance data to TESSy.

Table 2: HIV/AIDS record version types for 2018 data

Subject	Case-based record type version	Aggregated record type version
HIVAIDS	HIVAIDS 3	
AIDS	AIDS 4	AIDSAGGR 1
HIV	HIV 7	HIVAGGR 1
HIVTESTS		HIVTESTS 1

Changes to HIV/AIDS metadata sets

Metadata changes for the current year are described below and also in [Changes to current metadata](#). Metadata changes prior to 2019 can also be found on the TESSy documents website.

Table 3: Summary of metadata changes for HIV/AIDS 2008-2019

Year	Subject	Description
2019	HIVAIDS HIV	Added optional variable: SiteOfTest
	HIVAIDS	Updated variable RecordTypeVersion from 2 to 3
	HIV	Updated variable RecordTypeVersion from 6 to 7
2018	HIVAIDS	Update description of the variables: DateOfDiagnosis, ART, ARTDate– to clarify instructions for the users
	HIV	Added mandatory variable: DeathCause to harmonise variables with HIVAIDS recordtype
	HIV	Added optional variables: AgeMonth, AcuteInfection, YearOfArrival, LastAttendanceDate, ART, ARTDate, VLLatest, VLLatestDate to harmonise variables with HIVAIDS recordtype
	HIV	Dropped variables ClinicalCriteria, LaboratoryResult, EpiLinked, PlaceOfNotification, PlaceOfResidence, DateOfOnset, Outcome
	HIV	Updated variable RecordTypeVersion from 5 to 6
2017	HIVAIDS	Added optional variable ARTDate
	HIVAIDS	Added optional variable AgeMonth
	HIVAIDS	Updated variable RecordTypeVersion from 1 to 2
	HIVAIDS	Updated coded value list for AcuteInfection: add RECTEST — evidence from recency testing
2016	HIVAIDS	Update coded value list for AcuteInfection: remove NOEVINF
	HIVAIDS	Update description of the variables: AcuteInfection, AIDSIndicatorDisease, VLLatest – to clarify instructions for the users
	HIVAIDS	Reduce validation rules – to reduce the number of warnings and the time of the validation process in TESSy
2015	HIVAIDS	Add new record type HIVAIDS
2008	HIV	New variables: DateOfStatistics, CountryOfBirth, CountryOfNationality, ProbableCountryOfInfection

Dataset structure: HIVAIDS case-based record type

The dataset for case-based combined HIVAIDS surveillance consists of a set of 36 variables, 17 of which are mandatory and the remaining 19, optional (Table 4). The mandatory variables represent a minimum standard designed to provide an overview of the HIV epidemic and to improve data completeness and accuracy across Europe. The optional variables are aimed at countries that are able to complete them. They are also aspirational, with the aim that over the medium term, increasing numbers of countries will be able to use this dataset to design and enhance national surveillance systems.

Each variable is described in detail in [Description of HIVAIDS variables in the TESSy metadataset](#)

Table 4: Overview of the revised set of variables for case-based HIV/AIDS surveillance

Variable	Report Type
TESSy System Related Variables	
1. RecordID	Mandatory
2. RecordType	Mandatory
3. RecordTypeVersion	Optional
4. Subject	Mandatory
5. Status	Optional
6. DataSource	Mandatory
7. ReportingCountry	Mandatory
8. DateUsedForStatistics	Mandatory
Diagnosis Information	
9. DateOfDiagnosis	Mandatory
10. DateOfNotification	Mandatory
11. HIVType	Mandatory
12. HIVStatus	Optional
13. Transmission	Mandatory
14. TransmissionPartner	Optional
15. ProbableCountryOfInfection	Optional
16. FirstCD4Count	Mandatory
17. FirstCD4Date	Mandatory
18. AcuteInfection	Optional
Demographics	
19. Age	Mandatory
20. AgeMonth	Optional
21. Gender	Mandatory
22. CountryOfBirth	Mandatory
23. RegionOfOrigin	Optional
24. YearOfArrival	Optional
25. SiteOfTest	Optional
Clinical Information	
26. LastAttendanceDate	Optional
27. ART	Optional
28. ARTDate	Optional
29. CD4Latest	Optional
30. CD4LatestDate	Optional
31. VLLatest	Optional

Variable	Report Type
32. VLLatestDate	Optional
33. DateOfAIDSDiagnosis	Optional
34. AIDSIndicatorDisease	Optional
Death	
35. DateOfDeath	Mandatory
36. DeathCause	Mandatory

Description of HIVAIDS variables in the TESSy metadataset

There are 36 variables for HIV case-based reporting, which are divided into system-related variables, diagnosis information, demographics, clinical information, and variables on death.

In the text the following conventions are used:

VariableName Literal name of a variable. Does not contain spaces. Case is only used to improve readability.

Coding Code as accepted by the system

'Description of code' Description of the meaning of a possible value for a specific variable.

Example: The gender of a case is described in the variable **Gender**, that can have the possible values **M** for 'Male', **F** for 'Female', **O** for 'Other' and **UNK** for 'Unknown'

Validation rules aim to reduce errors in coding of variables. If validation rules are violated in the data submission, the system will produce an error report, classifying each violation as a major or minor error. Major errors will result in the data submission being blocked, while a submission containing minor errors will be accepted.

The variables are described in detail in the following sections:

- [System related variables](#)
- [Diagnosis Variables](#)
- [Demographic Variables](#)
- [Clinical Information](#)
- [Death](#)

System related variables

1. RecordId (mandatory)

The identifier should be provided by the Member State (MS). It should be unique (within and across the national surveillance system) and anonymous for each record.

Coding: Text (max 80 characters)

Please note that ID must be unique for all historical cases, if they are derived from the same national reporting system; records with the same ID will be overwritten.

2. RecordType (mandatory)

The record type defines the structure and the format of the data reported. The record types are defined by ECDC. It specifies what data values TESSy expects to receive. The record type is related to the subject. Only valid combinations of record type, subject and datasource are accepted. For the new format of combined HIV/AIDS case-based reporting, record type is **HIVAIDS**.

3. RecordTypeVersion (optional)

The version of the record type defines the current structure of the data reported. If the original dataset for any particular disease is changed, the versioning will change according to increasing numbering. All record types started at version 1 with the launch of TESSy. This variable can be omitted if a valid Metadataset is provided.

Coding for the revised HIVAIDS RecordTypeVersion = 2

4. **Subject (mandatory)**

The subject describes the disease associated to the reported case(s); this is **HIVAIDS** for all cases.

5. **Status (optional)**

The status is used for adding new cases (with new RecordIds) or updating historical data already in TESSy; the default is **New/Update**. By choosing **Delete**, the selected record (indicated by the **RecordId**) will be marked as inactive, but will remain in TESSy to reconstruct the data for a given date in the past.

Coding: *NEW/UPDATE*

Delete

6. **DataSource (mandatory)**

The data source specifies the surveillance system from which the data on this particular disease originates. The list of available Surveillance Systems per country is an integral part of TESSy and will be generated and revised/updated in bilateral collaboration with the nominated contact points for surveillance in each MS.

Coding: *See list of surveillance systems*

TESSy currently contains a list of surveillance systems which has been provided by each MS (variable 'DataSource'). The descriptions of the surveillance systems submitted to TESSy should be kept up-to-date and will be used to assist with data interpretation. If a MS decides to submit a combined dataset, this should be specified in the 'DataSource' field.

7. **ReportingCountry (mandatory)**

This variable identifies the country that reports the case. The list of countries is provided according to ISO codes. This variable should be included by the MS by default.

Coding: *Country = ISO 3166-1 alpha-2, (two-letter code).*

8. **DateUsedForStatistics (mandatory)**

This is the date used by the national surveillance institute or organisation in the national HIV/AIDS case reports and other official statistics. The date used for statistics varies from country to country and could be either the date of diagnosis or the date of notification or any other date applicable. This date should be provided as exact date or incomplete date. This is a technical compulsory variable. (E.g. Coding as 'Unknown' is not allowed)

Coding: *Date = YYYY-MM-DD*

Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

Diagnosis Information

9. DateOfDiagnosis (mandatory)

The date of first HIV diagnosis; laboratory diagnosis. The exact date is preferred and should be provided if available; incomplete dates (e.g. quarter, month, year) are allowed if exact date is not available.

Coding: *Date* YYYY-MM-DD (preferred)
 Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

Validation rules:

9.1. (Error) Date of diagnosis (DateOfDiagnosis) must be after 1970.

10. DateOfNotification (mandatory)

This is the date on which the HIV diagnosis was notified for the first time to the surveillance system in the reporting country. Date should be provided as exact date, incomplete date or coded as Unknown. The exact date is preferred and should be provided if available; incomplete dates (e.g. quarter, month, year) are allowed as well.

Coding: *Date* YYYY-MM-DD
 Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)
 UNK Unknown (default value)

Note on dates:

- Date of diagnosis is used for presentation of HIV/AIDS data
- For HIV, the date of diagnosis may not be reported at a national level or may differ from the date of notification to the surveillance system. Therefore, date of notification to the surveillance system should be included and reported if available.

11. HIVType (mandatory)

This variable specifies the type of HIV infection.

Coding: *HIV1* *HIV1 only*
 HIV12 *HIV1 and HIV2 (co-infection)*
 HIV2 *HIV2 only*
 UNK *Unknown*

12. HIVStatus (optional)

This variable provides information on previous positive test results, prior to the current episode of reporting. This variable allows cases that are "newly diagnosed" to be distinguished from cases who had a positive HIV test in the past but are tested and/or reported for the first time in the country (ie transfer of care).

Coding: *NEG* *Not known to be previously tested positive*
 PREVPOS *Previously tested HIV positive*
 UNK *Unknown (i.e. no previous confirmed test result on record)*

13. Transmission (mandatory)

Describes the most probable route of transmission of HIV. It is classified according to sexual transmission: sex between men or heterosexual contact. The other categories refer to those ever injected drugs, mother-to-child transmission, transfusion recipient, nosocomial. Nosocomial infection

includes patients infected in health care settings. Case of occupational exposure should be classified as exposure unknown or undetermined. Cases which are not fully documented should also be coded as unknown or undetermined.

Coding:

<i>HAEMO</i>	<i>haemophiliac patient</i>
<i>HETERO</i>	<i>heterosexual contact</i>
<i>IDU</i>	<i>ever injected drugs</i>
<i>MSM</i>	<i>MSM/homo or bisexual male</i>
<i>MTCT</i>	<i>mother-to-child-transmission</i>
<i>NOSO</i>	<i>nosocomial</i>
<i>TRANSFU</i>	<i>transfusion recipient</i>
<i>UNK</i>	<i>unknown or undetermined</i>

Validation rules:

- 13.1. (error) If reported transmission category is men who have sex with men (Transmission=MSM, then Gender should not be female (F)
- 13.2. (remark) If transmission category is reported as transfusion of blood or its component due to haemophilia (Transmission=HAEMO), then Gender is not very often female (F).
- 13.3. (warning) If the person is younger than 13 years old, transmission is often mother to child (Transmission = MTCT).

14. TransmissionPartner (optional)

Describes the most probable route of HIV transmission of the partner in cases where a primary sexual partner is identified. Does not relate to MTCT or other types of partners.

Coding:

<i>PMSM</i>	<i>Partner MSM</i>
<i>PHETEPI</i>	<i>Partner heterosexual from generalised epidemic country</i>
<i>PHETNEPI</i>	<i>Partner heterosexual from non-generalised epidemic country</i>
<i>PIDU</i>	<i>Partner injecting drug user</i>
<i>PIVER</i>	<i>Partner infected through mother-to-child transmission</i>
<i>PINOSO</i>	<i>Partner infected nosocomially</i>
<i>PHAEMO</i>	<i>Partner haemophiliac</i>
<i>PIBLOOD</i>	<i>Partner infected through blood products</i>
<i>UNK</i>	<i>Partner undetermined or unknown</i>

Countries with generalised HIV epidemics are listed in Annex II.

15. ProbableCountryOfInfection (optional – repeatable field)

The country(ies) where infection of the patient is likely to have occurred.

Coding:

<i>Country ISO 3166-1 alpha 2</i>
<i>UNK Unknown</i>

16. FirstCD4Count (mandatory)

The first CD4 cell count recorded following HIV diagnosis. The variable specifies the CD4 cells count at first measurement. Dates during the year following the reporting year are acceptable (i.e., CD4 cell count in January 2016 for a person diagnosed in November 2015).

Coding: *Numeric value (0-6000)*

UNK Unknown

Validation rules:

- 16.1. (remark) Usually CD4 cell count varies in a range from 0 to 1,500 and due to rare extremely high values upper limit is set to 6,000 per cubic millimetre.

17. FirstCD4Date (mandatory)

Date of first available CD4 cell count. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: *Date YYYY-MM-DD*

Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

UNK Unknown

NA Not applicable

18. AcuteInfection (optional – repeatable field)

Evidence of recent infection, aside from the recent infection assay result. An infection can be considered to be recent if a patient presents with seroconversion illness, has a negative HIV test within 6 months of diagnosis or has evidence from p24 antigen or Western Blot assays. Up to four options can be entered should more than one apply. For repeatable fields, all empty fields should be filled with "N/A".

Coding: *SEROILL Seroconversion illness*

NEGTEST Last negative test within 6 months of HIV diagnosis

EV24ANT Evidence from p24 antigen

EVWBLOT Evidence from Western Blot

RECTEST Evidence from recency testing

UNK Unknown

NA Not applicable (not acute infection)

Demographic Variables**19. Age (mandatory)**

This is the age at diagnosis of the person in years as reported in the national system of the MS. If not available, age can be calculated from the date of birth and the date of diagnosis:

Coding: *Num (0-120)*

UNK Unknown (default value)

Validation rules:

- 19.1. (warning) If the person is younger than 13 years old, transmission is often mother to child (Transmission = MTCT).

19.2 (remark) It is unlikely that the age is more than 80.

20. AgeMonth (optional)

Age of case in months at diagnosis as reported in the national system for cases with transmission classified as mother-to-child transmission who are < 2 years of age at the time of diagnosis.

Coding: Num (0-23)
 UNK Unknown (default value)

- 20.1. (Error) If Age is greater than 1 and AgeMonth is reported
- 20.2. (Error) If Age is '0' and AgeMonth is greater than 11
- 20.3. (Error) If Age is '1' and AgeMonth is less than 12
- 20.4. (Remark) If Age is greater than 80
- 20.5. (Warning) If Age is less than 2 and AgeMonth is not reported
- 20.6. (Warning) If Age is less than 13 and Transmission is not 'MTCT'

21. Gender (mandatory)

Gender of the infected person. Transsexual persons should be coded as **O** 'Other'.

Coding: M Male
 F Female
 O Other (e.g., transsexual)
 UNK Unknown (default value)

Validation rules:

- 21.1. (Error) If reported transmission category is men who have sex with men (Transmission=MSM), then Gender should not be female (F).
- 21.2. (Warning or Remark) If transmission category is reported as transfusion of blood or its component due to haemophilia (Transmission=HAEMO), then Gender is not very often female (F).

22. CountryOfBirth (mandatory)

Country of birth of patient. Defines the country of birth as country level, the ISO list of countries is provided.

Coding: Country ISO 3166-1 alpha 2
 UNK Unknown

23. RegionOfOrigin (optional)

Region from which the case originates. If the case is from the reporting country, it should be coded as REPCOUNTRY. CountryOfBirth is the preferred variable. If this is not available, then submit RegionOfOrigin. If both are submitted, CountryOfBirth should match RegionOfOrigin.

Coding: ABROAD Abroad but specific region unknown
 AUSTNZ Australia and New Zealand
 CAR Caribbean
 CENTEUR Central Europe
 EASTASIAPAC East Asia and Pacific
 EASTEUR East Europe
 EUROPE If a case cannot be classified as West, Central or

	<i>Eastern Europe, report as Europe, sub-region unknown</i>
<i>LATAM</i>	<i>Latin America</i>
<i>NORTHAFRIDEAST</i>	<i>North Africa and Middle East</i>
<i>NORTHAM</i>	<i>North America</i>
<i>REPCOUNTRY</i>	<i>Same as country of report</i>
<i>SOUTHASIA</i>	<i>South and South East Asia</i>
<i>SUBAFR</i>	<i>Sub Sahara Africa</i>
<i>UNK</i>	<i>Unknown</i>
<i>WESTEUR</i>	<i>West Europe</i>

24. **YearOfArrival (optional)**

Year patient arrived in the reporting country.

<i>Coding:</i>	<i>Date</i>	<i>YYYY</i>
	<i>NA</i>	<i>Not Applicable</i>
	<i>UNK</i>	<i>Unknown</i>

25. **SiteOfTest (optional)**

Describes the site of the first HIV reactive test for persons newly diagnosed with HIV, including screening tests prior to confirmatory testing performed outside of healthcare settings.

<i>Coding:</i>	<i>CBT = Community-based testing programme</i>
	<i>INFDIS = Infectious disease clinic</i>
	<i>SEXHEAL = Sexual health or STI clinic</i>
	<i>EMERG= Accident and emergency department</i>
	<i>ANS = Antenatal screening</i>
	<i>PHC = Primary health care</i>
	<i>OTHHOSP = Other hospital setting</i>
	<i>BLOOD = Blood donation screening</i>
	<i>SELFTEST = Self-testing</i>
	<i>SELSAMP=Self-sampling</i>
	<i>PHARM=pharmacy</i>
	<i>PWID = Harm reduction site/drug services</i>
	<i>PRIS = Prison or remand services</i>
	<i>ABROAD=tested abroad prior to arrival to reporting country</i>
	<i>OTHER=other setting</i>
	<i>UNK = Undetermined or unknown</i>

Clinical Information

26. LastAttendanceDate (optional)

Date the patient was last seen for HIV-related care (can be a date prior to the reporting year). The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD
 Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)
 UNK Unknown

Validation rules:

25.1. (Remark) If ART is **Y** (Yes), last attendance date should be reported.

27. ART (optional)

Whether person was on ART at the time of the last attendance date.?

Coding: Y Yes
 N No
 UNK Unknown

Validation rule:

26.1. (Remark) If ART is **Y** (Yes), last attendance date should be reported.

28. ARTDate (optional)

Date that ART was initiated. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD
 Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)
 UNK Unknown

29. CD4Latest (optional)

Numeric value of last known CD4 count. If latest CD4 is not available, enter UNK.

Coding: Numeric value (0-6000)
 UNK Unknown

Validation rules:

- 28.1. (remark) Usually CD4 cell count varies in a range from 0 to 1,500 and due to rare extremely high values upper limit is set to 6,000 per cubic millimetre.
 28.2. (Remark) if CD4Latest is known then CD4LatestDate should be reported.

30. CD4LatestDate (optional)

Date of last CD4 count assessment. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD
 Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

NA Not applicable

UNK Unknown

31. **VLLatest (optional)**

Last known viral load. Enter the numeric value of the last viral load. If viral load is 'undetectable' (ie no numeric value is provided by the test) please code as '0'. If the latest viral load is unknown code as 'UNK'.

Coding: Numeric value (up to 7 digits)

0 Low or Undetectable

UNK Unknown

32. **VLLatestDate (optional)**

Date of last known viral load assessment (date of blood test where available). The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD

Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq);

NA Not applicable

UNK Unknown

33. **DateOfAIDSDiagnosis (optional)**

The date of first AIDS diagnosis; clinical or laboratory diagnosis. Date should be provided as exact date, incomplete date. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD

Incomplete: YYYY-MM, YYYY, YYYY-Www, YYYY-Qq;

NA Not applicable (no AIDS diagnosis)

UNK Unknown

Validation rules:

32.1. (error) Date of AIDS diagnosis (DateOfAIDSDiagnosis) must be after 1970.

32.2. (remark) If death due to AIDS is reported (DeathCause=DAIDS), patient should also have a DateOfAIDSDiagnosis.

34. **AIDSIndicatorDisease (optional –repeatable field)**

AIDS indicator disease at the time of AIDS diagnosis occurring within two consecutive months from the date of AIDS diagnosis. The list of AIDS Indicator Diseases is provided (see Table 7: AIDS indicator disease codes). This is a repeatable field for up to 4 diagnoses. In case the indicator disease is not known, the code 30 **Opportunistic infection(s), not specified** should be used. For repeatable fields, all empty fields should be filled with "N/A".

Coding: Numeric value (1-31)

Validation rule:

34.1. (warning) If AIDS indicator disease (AIDSIndicatorDisease) is reported, DateOfAIDSDiagnosis should be reported.

Death

35. DateOfDeath (mandatory)

Date of death due to any cause. The exact date is preferred to obtain more accurate information and to allow better comparison and grouping. Incomplete dates (quarter, month, year) are permissible. All cases that are still alive or where the outcome (i.e., whether the case is alive or dead) is unknown are to be coded as 'NA'.

Coding:

<i>Date</i>	<i>YYYY-MM-DD (preferred)</i>
	<i>Incomplete date = YYYY-MM, YYYY, YYYY-Www, YYYY-Qq</i>
<i>NA</i>	<i>Not applicable (Alive or unknown status)</i>
<i>UNK</i>	<i>Unknown date of death</i>

Validation rules:

- 34.1. (warning) If it is known that a person died, it is usually expected that the DateOfDeath is reported.

36. DeathCause (mandatory)

Information on whether the case is alive or deceased (due to AIDS-related and non-AIDS related causes).

Coding:

<i>DAIDS</i>	<i>Death due to AIDS (or an AIDS defining-illness)</i>
<i>DNOAIDS</i>	<i>Non AIDS-related death</i>
<i>DUNK</i>	<i>Died of unknown cause</i>
<i>A</i>	<i>Alive</i>
<i>UNK</i>	<i>Unknown status</i>

Validation rules:

- 35.1. (remark) If death due to AIDS is reported (DeathCause=DAIDS), patient should also have a DateOfAIDSDiagnosis.
- 35.2. (warning) If it is known that a person died, it is usually expected that the DateOfDeath is reported.
- 35.3. (warning) If DateOfDeath is known, DeathCause should be coded as DAIDS or DNOAIDS or DUNK.

Structure of older HIV and AIDS record types for surveillance

This section describes the variables that are included in the case-based and aggregated record types for separate HIV and AIDS reporting. Datasets for HIV/AIDS surveillance consist of two sets of variables: the common set of system related variables and the disease-specific set of epidemiological variables. The common set applies to all diseases under EU surveillance. For HIV and AIDS case-based reporting, the common set consists of 20 variables with an additional 14 (HIV) and 13 (AIDS) which are disease-specific. The aggregated format for HIV reporting consists of 10 common variables and two which are disease-specific (see Table 5). The mandatory variables for all datasets represent a minimum standard designed to improve data completeness and accuracy across Europe. If it is not possible to provide information for all variables using the aggregate format, the hierarchy for aggregate reporting is as follows: 1) transmission; 2) age class 3) gender.

Table 5: Overview of the enhanced set of variables for case-based HIV/AIDS surveillance, aggregated HIV/AIDS surveillance and for HIV tests

HIV CASE BASED	AIDS CASE BASED	HIV AGGREGATE	AIDS AGGREGATE	HIVTESTS (aggregate)
Common set of system-related variables				
1. RecordID*	1. RecordId*	1. RecordType*	1. RecordType*	1. RecordType*
2. RecordType*	2. RecordType*	2. RecordTypeVersion	2. RecordTypeVersion	2. RecordTypeVersion
3. RecordTypeVersion	3. RecordTypeVersion	3. Subject *	3. Subject *	3. Subject *
4. Subject*	4. Subject*	4. DataSource*	4. DataSource*	4. DataSource*
5. Status	5. Status	5. AgeClass*	5. AgeClass*	5. DateUsedForStatistics*
6. DataSource*	6. DataSource*	6. Gender*	6. Gender*	6. ReportingCountry*
7. ReportingCountry*	7. ReportingCountry*	7. ReportingCountry*	7. ReportingCountry*	7. NumberOfTests*
8. DateUsedForStatistics*	8. DateUsedForStatistics*	8. DateUsedForStatistics*	8. DateUsedForStatistics*	
9. Age*	9. Age*	9. Classification*	10. NumberOfCases*	
10. AgeMonth	10. Gender*	10. NumberOfCases*		
11. Gender*	11. DeathCause*			
	12. DateOfOnset			
12. DateOfDiagnosis*	13. DateOfDiagnosis*			
13. DateOfNotification	14. DateOfNotification			

14. Classification*	15. Classification*			
	16. ClinicalCriteria*			
	17. LaboratoryResult			
	18. EpiLinked			
	19. PlaceOfNotification			
	20. PlaceOfResidence			
<i>Disease-specific epidemiological variables</i>				
15. HIVType*	21. HIVType*	11. Transmission*		
16. Stage	-	12. DateSpecified*		
17 AcuteInfection	22. ARTTreatment*			
18. Transmission*	23. Transmission*			
19. TransmissionHetero	24. TransmissionHetero			
20. TransmissionMTCT	25. TransmissionMTCT			
21. HIVStatus	-			
22. DateOfAIDSDiagnosis	-			
23. DateOfDeath	26. DateOfHIVDiagnosis			
24. DeathCause	27. DateOfDeath*			
25 YearOfArrival	28. DateOfReportDeath			
26. CountryOfBirth	29. CountryOfBirth			
27. CountryOfNationality	30. CountryOfNationality			
28. RegionOfOrigin*	31. RegionOfOrigin*			
29. CD4Cells	-			
30. FirstCD4Date*	32. AIDSIndicatorDisease*			
31. ProbableCountryOfInfection	33. AgeClass			
32. LastAttendance				

33. ART				
34. ARTDate				
35. VLLatest				
36. VLLatestDate				
37. SiteOfTest				

*Mandatory variables: If not uploaded some mandatory variables prompt a warning, but data can be uploaded anyway

Description of dataset: HIV case-based record type

There are 37 variables for case-based reporting using the older HIV record type. These are divided in a common set of variables and disease specific variables.

In the text the following conventions are used:

VariableName Literal name of a variable. Does not contain spaces. Case is only used to improve readability.

Coding Code as accepted by the system

'Description of code' Description of the meaning of a possible value for a specific variable.

Example: The gender of a case is described in the variable **Gender**, that can have the possible values **M** for 'Male', **F** for 'Female', **O** for 'Other' and **Unk** for 'Unknown'

System related variables (mandatory unless otherwise indicated)

1 RecordId (mandatory)

The identifier should be provided by the MS. It should be unique (within and across the national surveillance system) and anonymous for each record.

Coding: Text (max 80 characters)

Please note that ID must be unique across the HIV and AIDS, if they are derived from the same national reporting system; records with the same ID will be overwritten.

2. RecordType (mandatory)

The record type defines the structure and the format of the data reported. The record types are defined by ECDC. It specifies what data values TESSy expects to receive. The record type is related to the subject. Only valid combinations of record type, subject and data source are accepted. For HIV case based reporting, record type is "HIV".

3. RecordTypeVersion (not mandatory)

The version of the record type defines the current structure of the data reported. If the original dataset for any particular disease is changed, the versioning will change according to increasing numbering. All record types started at version 1 with the launch of TESSy. This variable can be omitted if a valid Metadataset is provided.

Coding for HIV value = 6

4 Subject

The subject describes the disease associated to the reported case(s); this is **HIV**.

5. Status

The status is used for updating data; the default is **New/Update**. By choosing **Delete**, the selected record (indicated by the **RecordId**) will be marked as inactive, but will remain in TESSy to reconstruct the data for a given date in the past.

Coding: NEW/UPDATE

Delete

6. DataSource (mandatory)

The data source specifies the surveillance system from which the data on this particular disease originates. The list of available Surveillance Systems per country is an integral part of TESSy and will be generated and revised/updated in bilateral collaboration with the nominated contact points for surveillance in each MS.

Coding: See list of surveillance systems

TESSy currently contains a list of surveillance systems which has been provided by each MS (variable 'DataSource'). The descriptions of the surveillance systems submitted to TESSy should be kept up to date and will be used to assist with data interpretation. If a MS decides to submit a combined dataset, this should be specified in the 'DataSource' field.

7. ReportingCountry (mandatory)

This variable identifies the country that reports the case. The list of countries is provided according to ISO codes. This variable should be included by the MS by default.

Coding: Country = ISO 3166-1 alpha-2, (two-letter code).

8. DateUsedForStatistics

This is the date used by the national surveillance institute or organisation in the national HIV/AIDS case-reports and other official statistics. The date used for statistics varies from country to country and could be either the date of diagnosis or the date of notification or any other date applicable. This date should be provided as exact date or incomplete date. This is a technical compulsory variable. (e.g. Coding as 'Unknown' is not allowed)

Coding: Date = YYYY-MM-DD or incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq).

Epidemiological variables

9. Age (mandatory)

This is the age of the person in years as reported in the national system of the MS. For HIV, if not available, age can be calculated from the date of birth and the date of diagnosis:

<i>Coding:</i>	<i>Age</i>	<i>Num (0-120)</i>
	<i>UNK</i>	<i>Unknown (default value)</i>

Validation rule: a warning will be sent for a person older than 80 years.

If the person is younger than 13 years old, transmission should be mother to child (Transmission = MTCT).

If transmission subcategory mother to child transmission (TransmissionMTCT) is reported, then age is usually less than 13 years.

10. AgeMonth

Age of case in months at diagnosis as reported in the national system for cases with transmission classified as mother-to-child transmission who are < 2 years of age at the time of diagnosis.

Coding: Num (0-23)

UNK Unknown (default value)

- 20.1. (Error) If Age is greater than 1 and AgeMonth is reported
- 20.2. (Error) If Age is '0' and AgeMonth is greater than 11
- 20.3. (Error) If Age is '1' and AgeMonth is less than 12
- 20.4. (Remark) If Age is greater than 80
- 20.5. (Warning) If Age is less than 2 and AgeMonth is not reported
- 20.6. (Warning) If Age is less than 13 and Transmission is not 'MTCT'

11. Gender (mandatory)

Gender of the infected person. Transgender persons should be coded as **O** 'Other'.

Coding:

F Female
M Male
O Other (e.g., transgender)
UNK Unknown (default value)

Validation rules:

If reported transmission category is men who have sex with men (Transmission=MSM), then Gender should not be female (F).

If transmission category is reported as transfusion of blood or its component due to haemophilia (Transmission=HAEMO), then Gender is not very often female (F).

If transmission subcategory TransmissionHetero is reported as sex with a bisexual male (TransmissionHetero=SEXBI), then gender should not be reported as male (Gender=M).

12. DateOfDiagnosis (mandatory)

The date of first HIV diagnosis; lab diagnosis. The exact date is preferred and should be provided if available; incomplete dates (e.g. quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD or YYYY-MM, YYYY, YYYY-Www, YYYY-Qq

Validation rules:

DateOfDiagnosis of HIV should not be later than DateOfDeath.

Date of diagnosis (DateOfDiagnosis) must be after 1970.

If DateOfOnset is reported, then DateOfDiagnosis should also be reported.

If Stage is reported as acute infection (Stage=ACUTE), then DateOfDiagnosis should be reported.

If Stage is not reported as AIDS, then DateOfDiagnosis should not be later than DateOfAIDSDiagnosis.

13. DateOfNotification

The date when the HIV case is notified for the first time to the place of notification. Date should be provided as exact date, incomplete date or coded as 'Unknown'. The exact date is preferred and should be provided if available; incomplete dates (e.g. quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD or Incomplete date (YYYY-MM-DD, YYYY-MM, YYYY, YYYY-Www, YYYY-Qq),
UNK Unknown (default value)

Validation rules:

If DateOfOnset is reported, then DateOfNotification should also be reported.

DateOfNotification should not be later than DateOfAIDSDiagnosis.

Note on dates:

- Date of diagnosis is used for presentation of HIV/AIDS data. From the 2011 data collection, Date of Diagnosis has become a mandatory variable.
- Not all dates are reported at the national level. For HIV, the date of diagnosis may not be reported at a national level. Therefore, all dates available should be included and reported.

14. Classification

This variable indicates the case classification according to the EU case definition. For HIV, only 'Confirmed' cases **CONF** are reportable at European level. The only exception is in the case when MTCT cases <18 month are not confirmed, they should be reported as probable "**PROB**".

<i>Coding:</i>	CONF	<i>Confirmed</i>
	PROB	<i>Probable</i>
	UNK	<i>Unknown(default value)</i>
	POSS	<i>Possible</i>

Disease specific set of variables for HIV (all mandatory unless otherwise specified)

15. HIVType (mandatory)

This variable specifies the type of HIV infection.

<i>Coding:</i>	HIV1	<i>HIV1 only</i>
	HIV12	<i>HIV1 and HIV2 (co-infection)</i>
	HIV2	<i>HIV2 only</i>
	UNK	<i>Unknown</i>

16. Stage

This variable specifies the clinical stage at the time of HIV diagnosis. In case of acute infection (**Stage=ACUTE**) the **DateOfOnset** should be provided.

<i>Coding:</i>	ACUTE	<i>Acute HIV infection</i>
	AIDS	<i>AIDS</i>
	ASYMP	<i>Asymptomatic</i>
	NONAIDS	<i>Non-AIDS, not further specified</i>
	SYMPNONAIDS	<i>Symptomatic non-AIDS</i>
	UNK	<i>Unknown (default value)</i>

Validation rules:

If stage of disease is reported as AIDS (Stage=AIDS), then DateOfAIDSDiagnosis should be reported.

Remark, if Stage is not reported

If Stage is reported as acute infection (Stage=ACUTE), then DateOfOnset should be reported.

If Stage is reported as acute infection (Stage=ACUTE), then DateOfDiagnosis should be reported.

If Stage is reported as AIDS (Stage=AIDS), then DateOfAIDSDiagnosis should be reported.

If Stage is not reported as AIDS, then DateOfDiagnosis should not be later than DateOfAIDSDiagnosis.

If transmission category is reported as MTCT (Transmission=MTCT), stage cannot be acute HIV infection (Stage=ACUTE).

If transmission subcategory TransmissionMTCT is reported, then reported stage should not be ACUTE (Stage= ACUTE).

Note on clinical stage:

- Cases with a previous (unreported) AIDS diagnosis should be classified as AIDS, even if they no longer have clinical signs of AIDS.
- In countries with both laboratory and clinician reports, the latter may be delayed and the clinical stage may evolve in the meantime. In such cases, the clinical stage should be that one provided by the clinician.
- Note on "acute": For cases with acute HIV infection, the date of infection is probably close to the date of HIV diagnosis.

17. AcuteInfection (optional – repeatable field)

Evidence of recent infection, aside from the recent infection assay result. An infection can be considered to be recent if a patient presents with seroconversion illness, has a negative HIV test within 6 months of diagnosis or has evidence from p24 antigen or Western Blot assays. Up to four options can be entered should more than one apply. For repeatable fields, all empty fields should be filled with "N/A".

<i>Coding:</i>	<i>SEROILL</i>	<i>Seroconversion illness</i>
	<i>NEGTEST</i>	<i>Last negative test within 6 months of HIV diagnosis</i>
	<i>EV24ANT</i>	<i>Evidence from p24 antigen</i>
	<i>EVWBLOT</i>	<i>Evidence from Western Blot</i>
	<i>RECTEST</i>	<i>Evidence from recency testing</i>
	<i>UNK</i>	<i>Unknown</i>
	<i>NA</i>	<i>Not applicable (not acute infection)</i>

18. Transmission (mandatory)

Describes the most probable route of transmission of HIV. It is classified according to sexual transmission, **MSM** 'MSM/homo or bisexual male' and **HETERO** 'heterosexual contact'. 'Heterosexual contact' is used for cases for which heterosexual transmission is highly probable, and do not fit into another category. The other categories refer to **IDU** 'ever injected drugs', **MTCT** 'mother-to-child transmission', **HAEMO** 'haemophiliac patient or patient with coagulation', **TRANSFU** 'transfusion recipient', **NOSO** 'nosocomial'. Nosocomial infection includes patients infected in health care settings. Case of occupational exposure should be classified as **UNK** 'Unknown or undetermined'. Cases which are not fully documented should be coded as **UNK**.

<i>Coding:</i>	<i>HAEMO</i>	<i>haemophiliac patient</i>
	<i>HETERO</i>	<i>heterosexual contact</i>
	<i>IDU</i>	<i>ever injected drugs</i>
	<i>MSM</i>	<i>MSM/homo or bisexual male</i>
	<i>MTCT</i>	<i>mother-to-child transmission</i>

<i>NOSO</i>	<i>Nosocomial</i>
<i>TRANSFU</i>	<i>transfusion recipient</i>
<i>UNK</i>	<i>Unknown or undetermined (default value)</i>

Validation rules:

If a person comes from Sub Saharan Africa (RegionOfOrigin=SUBAFR), then transmission category should not be unknown (Transmission=Unk).

If reported transmission category is men who have sex with men (Transmission=MSM), then Gender should not be female (F).

If transmission category is reported as transfusion of blood or its component due to haemophilia (Transmission=HAEMO), then Gender is not very often female (F).

If the person is younger than 13 years old, transmission should be mother to child (Transmission = MTCT).

If transmission category is reported as MTCT (Transmission=MTCT), stage cannot be acute HIV infection (Stage=ACUTE).

Transmission subcategory TransmissionHetero should be reported if transmission category is HETERO (Transmission=HETERO).

Transmission subcategory TransmissionHetero cannot be reported as not applicable (TransmissionHetero=NA) if transmission category is reported as HETERO (Transmission = HETERO).

If transmission category is not reported as HETERO (Transmission=HETERO), then transmission subcategory TransmissionHetero should be coded not applicable (NA).

If transmission category is reported as mother-to-child (Transmission=MTCT), then transmission subcategory TransmissionMTCT should be also reported(as other than not applicable).

19. TransmissionHetero

This allows to specify the heterosexual route of transmission and this should be provided if Transmission=**HETERO**; in other cases the variable is coded as default **NA** 'not applicable'. Heterosexual contact refers to a person for who risk factors for HIV infection other than heterosexual contact have not been identified and who either originates from a country with generalized epidemic (HIV prevalence in pregnant women >1%) or has had sex with: bisexual male, IDU, haemophiliac - recipient, a person from a country with generalized epidemic, a person known to be HIV positive and not known to belong to one of the above mentioned or is strongly believed to have been infected through sexual transmission, information on risk factors and HIV status of partner(s) not available.

<i>Coding:</i>	<i>NA</i>	<i>not applicable</i>
	<i>ORIGINHP</i>	<i>Originating from a country with generalized epidemic</i>
	<i>SEXBI</i>	<i>Sex with a bisexual male</i>
	<i>SEXHAEMO</i>	<i>Sex with a haemophiliac</i>
	<i>SEXHIVPOS</i>	<i>Sex with a person known to be infected and not know to belong to any of categories above</i>
	<i>SEXHP</i>	<i>Sex with a person originating or living in a country with a generalized epidemic</i>
	<i>SEXIDU</i>	<i>Sex with an injecting drug user</i>
	<i>SEXUNK</i>	<i>Strongly believed to have been infected through heterosexual contact, information on risk factor and partner not available</i>

Validation rules:

Transmission subcategory TransmissionHetero should be reported if transmission category is HETERO (Transmission=HETERO).

Transmission subcategory TransmissionHetero cannot be reported as not applicable (TransmissionHetero=NA) if transmission category is reported as HETERO (Transmission = HETERO).

If transmission category is not reported as HETERO (Transmission=HETERO), then transmission subcategory TransmissionHetero should be coded not applicable (NA).

If transmission subcategory TransmissionHetero is reported as sex with a bisexual male (TransmissionHetero=SEXBI), then gender should not be reported as male (Gender=M).

If transmission subcategory TransmissionHetero is reported as heterosexual transmission from country with generalised epidemic (TransmissionHetero=ORIGINHP), then it is highly probable that region of origin of the person is Sub Saharan Africa (RegionOfOrigin=SUBAFR).

Note on TransmissionHetero:

The sub-variable heterosexual transmission includes not only information on the reported case itself but also on the origin as well as risk exposure. The sub-variable ORIGINHP should match variable RegionOfOrigin, if country of nationality or country of birth is not reported.

20. TransmissionMTCT

This allows to specify the transmission categories for mother to child cases and this should be provided if Transmission=MTCT (variable 21); in other cases the variable is coded as default **NA** 'not applicable'.

Coding:

<i>MOTHHET</i>	<i>Infected through heterosexual contact and not known to belong to category above</i>
<i>MOTHHP</i>	<i>Originating from a country with generalized epidemic</i>
<i>MOTHIDU</i>	<i>Injecting drug use</i>
<i>MOTHTRANSFU</i>	<i>Transfusion recipient</i>
<i>NA</i>	<i>not applicable</i>
<i>UNK</i>	<i>Other/undetermined</i>

Validation rules:

If transmission category is reported as mother-to-child (Transmission=MTCT), then transmission subcategory TransmissionMTCT should be also reported.

If transmission subcategory mother to child transmission (TransmissionMTCT) is reported, then age is usually less than 13 years.

If transmission category is reported as mother-to-child (Transmission=MTCT), then transmission subcategory TransmissionMTCT should also be reported (as other than not applicable).

If transmission category is not equal to mother to child (Transmission is other than MTCT), then transmission subcategory TransmissionMTCT should be coded NA.

If transmission subcategory TransmissionMTCT is reported, then reported stage should not be ACUTE (Stage= ACUTE).

21. HIVStatus

This variable provides information on previous positive test results, prior to the first time of reporting. This variable allows cases "newly diagnosed" to be distinguished from case who had positive HIV test in the past but are reported for the first time in the country.

Codes:

<i>NEG</i>	<i>Negative</i>
<i>PREVPOS</i>	<i>previous HIV positive</i>
<i>UNK</i>	<i>Unknown (default value)</i>

22. DateOfAIDSDiagnosis

For HIV cases initially reported at a pre-AIDS stage, the date of AIDS diagnosis is 'follow-up' information, which necessitates updating of the record. The exact date is preferred to obtain more accurate information and to allow better comparison and grouping. Incomplete dates (quarter, month, year) are allowed as well.

Coding:

<i>Date = YYYY-MM-DD (preferred), incomplete date = YYYY-Qq, YYYY-MM, YYYY</i>	
<i>Unk</i>	<i>Unknown</i>
<i>NA</i>	<i>not applicable</i>

Validation rules:

If stage of disease is reported as AIDS (Stage=AIDS), then DateOfAIDSDiagnosis should be reported.

If Stage is reported as AIDS (Stage=AIDS), then DateOfAIDSDiagnosis should be reported.

If Stage is not reported as AIDS, then DateOfDiagnosis should not be later than DateOfAIDSDiagnosis.

DateOfNotification should not be later than DateOfAIDSDiagnosis.

23 DateOfDeath

Date of death due to any cause. The exact date is preferred to obtain more accurate information and to allow better comparison and grouping. Incomplete dates (quarter, month, year) are permissible. All cases that are still alive or where the outcome (i.e., whether the case is alive or dead) is unknown are to be coded as 'NA'.

<i>Coding:</i>	<i>Date</i>	<i>YYYY-MM-DD (preferred)</i>
		<i>Incomplete date = YYYY-MM, YYYY, YYYY-Www, YYYY-Qq</i>
	<i>NA</i>	<i>Not applicable (Alive or unknown status)</i>
	<i>UNK</i>	<i>Unknown date of death</i>

Validation rules:

(warning) If it is known that a person died, it is usually expected that the DateOfDeath is reported.

24. DeathCause (mandatory)

Information on whether the case is alive or deceased (due to AIDS-related and non-AIDS related causes).

<i>Coding:</i>	<i>DAIDS</i>	<i>Death due to AIDS (or an AIDS defining-illness)</i>
	<i>DNOAIDS</i>	<i>Non AIDS-related death</i>
	<i>DUNK</i>	<i>Died of unknown cause</i>
	<i>A</i>	<i>Alive</i>

UNK Unknown status

Validation rules:

(remark) If death due to AIDS is reported (DeathCause=DAIDS), patient should also have a DateOfAIDSDiagnosis.

(warning) If it is known that a person died, it is usually expected that the DateOfDeath is reported.

(warning) If DateOfDeath is known, DeathCause should be coded as DAIDS or DNOAIDS or DUNK.

25. YearOfArrival

Year patient arrived in the reporting country.

Coding:

<i>Date</i>	<i>YYYY</i>
<i>NA</i>	<i>Not Applicable</i>
<i>UNK</i>	<i>Unknown</i>

26. CountryOfBirth

Country of birth of patient. Defines the country of birth as country level, the ISO list of countries is provided in the metadataset.

Coding:Country ISO 3166-1 alpha 2

<i>UNK</i>	<i>Unknown</i>
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Validation rules:

Either country of birth (CountryOfBirth) or country of nationality (CountryOfNationality) must be reported.

27. CountryOfNationality

Country of nationality of person defines the country of nationality as country level, the ISO list of countries is provided in the metadataset.

Coding:

<i>Country ISO 3166-1 alpha 2</i>
<i>UNK Unknown</i>

Validation rule:

Either country of birth (CountryOfBirth) or country of nationality (CountryOfNationality) must be reported.

28. RegionOfOrigin (mandatory)

This variable describes region of origin of patient. It is preferred to use country of birth or country of nationality. It is recommended to derive this information from nationality or country of birth. If both nationality and country of birth are available, it is recommended to use country of birth.

Coding:

ABROAD	Abroad but sub-continent unknown
AUSTNZ	Australia and New Zealand
CAR	Caribbean
CENTEUR	Central Europe

EASTASIAPAC	East Asia and Pacific
EASTEUR	East Europe
EUROPE	If a case cannot be reported in West, central or Eastern Europe, than Europe (sub-continent unknown) should be reported.
LATAM	Latin America
NORTHAFRMEAST	North Africa and Middle East
NORTHAM	North America
REPCOUNTRY	Same as country of report
SOUTHASIA	South and South East Asia
SUBAFR	Sub Sahara Africa
WESTEUR	West Europe
UNK	Unknown (default value)

For list of countries see ANNEX I.

Validation rules:

If a person comes from Sub Saharan Africa (RegionOfOrigin=SUBAFR), than transmission category should not be unknown (Transmission=Unk).

If transmission subcategory TransmissionHetero is reported as heterosexual transmission from country with generalised epidemic (TransmissionHetero=ORIGINHP), than it is highly probable that region of origin of the person is Sub Saharan Africa (RegionOfOrigin=SUBAFR).

Note on geographical information:

- In the process of improving the comparability of reporting and harmonising the variables and coding of variables, the country (from ISO list) is the preferred format for geographical information if it is available. Information at country level (rather than region or continent) provides more accurate information and allows better comparison and grouping across diseases.

For HIV/AIDS, country of birth and country of nationality are preferred above the less accurate 'region of origin'.

29. CD4cells (mandatory)

CD4 cell count at time of diagnosis. The variable specifies the CD4 cells count at the time of HIV diagnosis.

<i>Coding:</i>	<i>Numeric value (0-6000)</i>	
	<i>NA</i>	<i>Not applicable</i>
	<i>UNK</i>	<i>Unknown</i>

Validation rule:

Usually CD4 cell count varies in a range from 0 to 1,500 and due to rare extremely high values upper limit is set to 6,000 per cubic millimetre.

30. FirstCD4Date (mandatory)

Date of first available CD4 cell count at time of diagnosis. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

<i>Coding:</i>	<i>Date YYYY-MM-DD</i>	
	<i>Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)</i>	
	<i>UNK</i>	<i>Unknown</i>

NA Not applicable

31. ProbableCountryOfInfection

The country(ies) where infection of the patient is likely to have occurred.

Coding: Country ISO 3166-1 alpha 2

UNK Unknown

32. LastAttendanceDate (optional)

Date the patient was last seen for HIV-related care (can be a date prior to the reporting year). The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD

Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

UNK Unknown

Validation rules:

(Remark) If ART is **Y** (Yes), last attendance date should be reported.

33. ART

Whether person was on ART at the time of the last attendance date.?

Coding: Y Yes

N No

UNK Unknown

Validation rule:

(Remark) If ART is **Y** (Yes), last attendance date should be reported.

34. ARTDate

Date that ART was initiated. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: Date YYYY-MM-DD

Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

UNK Unknown

35. VLLatest (optional)

Last known viral load. Enter the numeric value of the last viral load. If viral load is 'undetectable' (ie no numeric value is provided by the test) please code as '0'. If the latest viral load is unknown code as 'UNK'.

Coding: Numeric value (up to 7 digits)

0 Low or Undetectable

UNK Unknown

36. VLLatestDate (optional)

Date of last known viral load assessment (date of blood test where available). The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Coding: *Date YYYY-MM-DD*
 Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq);
 NA Not applicable
 UNK Unknown

37. SiteOfTest (optional)

Describes the site of the first HIV reactive test for persons newly diagnosed with HIV, including screening tests prior to confirmatory testing performed outside of healthcare settings.

Coding: *CBT = Community-based testing programme*
 INFDIS = Infectious disease clinic
 SEXHEAL = Sexual health or STI clinic
 EMERG= Accident and emergency department
 ANS = Antenatal screening
 PHC = Primary health care
 OTHHOSP = Other hospital setting
 BLOOD = Blood donation screening
 SELFTEST = Self-testing
 SELSAMP=Self-sampling
 PHARM=pharmacy
 PWID = Harm reduction site/drug services
 PRIS = Prison or remand services
 ABROAD=tested abroad prior to arrival to reporting country
 OTHER=other setting
 UNK = Undetermined or unknown

Description of dataset: AIDS case-base record type

There are 33 variables for AIDS case based reporting: which are divided in common set of variables and disease specific variables.

System related variables (all mandatory)

1. RecordId

The identifier should be provided by the MS. It should be unique (within and across the national surveillance system) and anonymous for each record.

2. RecordType

The record type defines the structure and the format of the data reported. The record types are defined by ECDC. It specifies what data values TESSy expects to receive. The record type is related with the

'subject'. Only valid combinations of record type, subject and datasource will be accepted. For AIDS, record type is **AIDS**.

3. RecordTypeVersion (not mandatory)

The version of the record type defines the current structure of the data reported. If the original dataset for any particular disease is changed, the versioning will change according to increasing numbering. All record types started at version 1 with the launch of TESSy. This variable can be omitted if a valid Metadataset is provided.

Coding for AIDS value = 4

4. Subject

The subject describes the disease associated to the reported case; this is **AIDS**.

5. Status (not mandatory)

The status is used for updating data; the default is **New/Update**. By choosing **Delete**, the selected record (indicated by the **RecordId**) will be marked as inactive, but will remain in TESSy to reconstruct the data for a given date in the past.

Coding: NEW/UPDATE

Delete

6. DataSource

The data source specifies the surveillance system from which the data on this particular disease originates. The list of available Surveillance Systems per country is an integral part of TESSy and will be generated and revised/updated in bilateral collaboration with the nominated contact points for surveillance in each MS.

Coding: See list of surveillance systems

TESSy currently contains a list of surveillance systems which has been provided by each MS (variable 'DataSource'). The descriptions of the surveillance systems submitted to TESSy should be kept up to date and will be used to assist with data interpretation. If a MS decides to submit a combined dataset, this should be specified in the 'DataSource' field.

7. ReportingCountry

This variable identifies the country that reports the case. The list of countries is provided according to ISO codes. This variable should be included by the MS by default.

Coding: Country = ISO 3166-1 alpha-2, (two-letter code).

8. DateUsedForStatistics

This is the date used by the national surveillance institute/organisation in the national case-reports and other official statistics. The date used for statistics varies from country to country and could be either the date of diagnosis or the date of notification or any other date applicable. This date should be provided as exact date or incomplete date. This is a technical compulsory variable. (e.g. Coding as 'Unknown' is not allowed).

Coding: Date = YYYY-MM-DD or

Incomplete date (YYYY-MM, YYYY, YYYY-Www, YYYY-Qq)

Epidemiological variables

9. Age

This is the age of the person in years as reported in the national system of the MS. For AIDS, if not available, age can be calculated from date of birth at time of AIDS diagnosis.

Coding: Num (0-120) Age

UNK *Unknown (default value)*

Validation rules:

- 9.1. *If the age is not reported, then age class should be provided.*
- 9.2. *If the person is younger than 13 years old, transmission should be mother to child (Transmission = MTCT).*
- 9.3. *If transmission subcategory mother to child transmission (TransmissionMTCT) is reported, then age is usually less than 13 years.*

10. Gender

Gender of the infected person. Transgender persons should be coded as *O* 'Other'.

Coding:

<i>F</i>	<i>Female</i>
<i>M</i>	<i>Male</i>
<i>O</i>	<i>Other (e.g., transgender)</i>
<i>Unk</i>	<i>Unknown (default value)</i>

Validation rules:

- 10.1. *If transmission mode (Transmission) is selected as men who have sex with men (MSM), then the gender should not be female (F).*
- 10.2. *If transmission mode (Transmission) selected is transfusion of blood or its component due to haemophilia (HAEMO), then it is very rare that the gender is Female (F).*
- 10.3. *If transmission subcategory (TransmissionHetero) equals sex with a bisexual male (SEXBI) then gender should not be Male (M).*

11. DeathCause (mandatory)

Information on whether the case is alive or deceased (due to AIDS-related and non-AIDS related causes). This variable was called "Outcome" in previous metadata and has been changed to harmonise across record types. Values are slightly different.

Coding:

<i>DAIDS</i>	<i>Death due to AIDS (or an AIDS defining-illness)</i>
<i>DNOAIDS</i>	<i>Non AIDS-related death</i>
<i>DUNK</i>	<i>Died of unknown cause</i>
<i>A</i>	<i>Alive</i>
<i>UNK</i>	<i>Unknown status</i>

Validation rules:

- 11.1. (Warning) If DateOfDeath is 'UNK' and DeathCause is not 'A' and DeathCause is not 'UNK' and DeathCause is reported
- 11.2. (Warning) If DateOfDeath is not 'UNK' and DateOfDeath is reported and DeathCause is not 'DAIDS' and DeathCause is not 'DNOAIDS' and DeathCause is not 'DUNK'
- 11.3. (Warning) If DateOfDeath is not reported and DeathCause is not 'A' and DeathCause is not 'UNK' and DeathCause is reported
- 11.4. (Warning) If DateOfReportDeath is not reported and DeathCause is not 'A' and DeathCause is not 'UNK' and DeathCause is reported

The date of onset of disease is the day that first symptoms appeared. For AIDS, this should be coded as **Unk** 'Unknown' except for acute primo-infection or proven seroconversion by laboratory confirmation.

Validation rules:

- 12.1. *DateOfDeath should be after DateOfOnset and DateOfDiagnosis.*
- 12.2. *Usually DateOfOnset should not be later than DateOfNotification or DateOfDiagnosis.*
- 12.3. *If DateOfOnset is known then DateOfDiagnosis should also be known.*
- 12.4. *If DateOfOnset is known then DateOfNotification should also be known.*
- 12.5. *DateOfOnset cannot be later than DateOfDiagnosis; DateOfOnset will be set to [Default value].*

The date of first AIDS diagnosis; clinical or lab diagnosis. Date should be provided as exact date, incomplete date . The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Validation rule:

- 13.1. Date of diagnosis (DateOfDiagnosis) must be after 1970.
- 13.2. If DateOfOnset is known then DateOfDiagnosis should also be known.

The date when the AIDS case is notified for the first time to the place of notification. Date should be provided as exact date, incomplete date or coded as Unknown. The exact date is preferred and should be provided if available; incomplete dates (e.g. week, quarter, month, year) are allowed as well.

Validation rules:

- Note on dates:**

- Not all dates are reported at the national level. Therefore, all dates available should be included and reported.
- In the process of improving the comparability of reporting and harmonising the variables and coding of variables, the exact dates (YYYY-MM-DD) are the preferred format for dates. Exact dates provide more accurate information and allow better comparison and grouping across diseases. Incomplete dates are allowed as well (quarters, months, years) in case the exact date is not available.

15. Classification

This variable indicates the case classification according to the EU case definition. For AIDS, only 'Confirmed' cases **CONF** are reportable at European level.

Coding: *CONF* *Confirmed*
 PROB
 POSS
 UNK *Unknown (default value)*

16. ClinicalCriteria

The criteria for the clinical picture of the disease are met according to the EU case definition. For AIDS, only cases meeting the clinical criteria should be reported to the European level.

Coding: *N* *No*
 NA *Not applicable*
 Unk *Unknown (default value)*
 Y *Yes*

17. LaboratoryResult (not mandatory)

The criteria for the laboratory diagnosis of the disease are met according to the EU case definition. According to the European AIDS case definition 2008, only lab confirmed cases are reportable at European level. Confirmed cases are coded as **CONF**. For historical data, case definition of appropriate period should be used.

Coding: **CONF** *Confirmed*
 PROB *Probable*
 NA *Not applicable*
 UNK *Unknown(default value)*

18. EpiLinked (not mandatory)

The criteria for the epidemiological link of the disease (e.g. human-to-human transmission, exposure to common source, environmental exposure) are met according to the EU case definition. For AIDS, this is not applicable and should be coded as 'Not Applicable' **NA**.

Coding: **NA** not applicable
 Y *Yes*
 N *No*
 UNK *Unknown (default value)*

19. PlaceOfNotification (not mandatory)

Place of the first notification of the case to a regional authority. Select the most detailed NUTS level.

Coding: *NUTS*
 UNK *Unknown*

20. PlaceOfResidence (not mandatory)

Place of residence of patient at the time of disease onset. Select the most detailed NUTS level possible.

Coding: *NUTS*
 UNK *Unknown*

Disease-specific set of variables for AIDS (all mandatory unless indicated)

21. HIVType

This variable specifies the type of HIV infection. It should be coded as **HIV1** (only infected with HIV type 1) or **HIV2** (only infected with HIV type 2) or **HIV12** (infected with both types 1 and 2). Coding as 'Undetermined/unknown' is not allowed.

Coding: *HIV1* *HIV1 only*
 HIV12 *HIV1 and HIV2 (co-infection)*
 HIV2 *HIV2 only*
 UNK *Unknown*

22. ARTTreatment

This variable indicates if the patient receives any kind of antiretroviral treatment at any time prior to AIDS diagnosis. There is no minimum duration and no restriction on timing.

Coding *Y* *Yes*
 N *No*
 UNK *Unknown (default value)*

23. Transmission

Describes the most probable route of transmission of HIV. It is classified according to sexual transmission, **MSM** 'MSM/homo or bisexual male' and **HETERO** 'heterosexual contact'. 'Heterosexual contact' is used for cases for which heterosexual transmission is highly probable, and do not fit into another category. The other categories refer to **IDU** 'ever injected drugs', **MTCT** 'mother-to-child transmission', **HAEMO** 'haemophiliac patient or patient with coagulation', **TRANSFU** 'transfusion recipient', **NOSO** 'nosocomial'. Nosocomial infection includes patients infected in health care settings. Case of occupational exposure should be classified as **UNK** 'Unknown or undetermined'. Cases which are not fully documented should be coded as **UNK**.

Coding: *HAEMO* *haemophiliac patient*
 HETERO *heterosexual contact*
 IDU *ever injected drugs*
 MSM *MSM/homo or bisexual male*
 MTCT *mother-to-child-transmission*
 NOSO *Nosocomial*
 TRANSFU *transfusion recipient*
 UNK *Unknown or undetermined (default value)*

Validation rules:

- 23.1. If transmission mode (Transmission) is selected as men who have sex with men (MSM), then the gender should not be female (F).
- 23.2. If transmission mode (Transmission) selected is transfusion of blood or its component due to haemophilia (HAEMO), then it is very rare that the gender is Female (F).

- 23.3. If the person is younger than 13 years old, transmission should be mother to child (Transmission = MTCT).
- 23.4. If transmission category HETERO is selected (Transmission=HETERO), then any transmission subcategory other than NA can be reported.
- 23.5. If transmission category does not equal hetero (Transmission is other than HETERO), then transmission subcategory TransmisisonHetero should be coded NA.
- 23.6. If transmission subcategory Mother to child transmission (TransmissionMTCT) is not reported, then transmission category of Mother to Child (Transmission=MTCT) should not be selected.
- 23.7. If transmission subcategory Mother to child transmission is non applicable (TransmissionMTCT=NA), then transmission category should not be equal to mother to child transmission (Transmission should not be MTCT).
- 23.8. If transmission category is not equal to mother to child (Transmission is other than MTCT), then transmission subcategory TransmisisonMTCT should be coded NA.

24. TransmissionHetero

This allows to specify the heterosexual route of transmission and this should be provided if Transmission= **HETERO** (variable 23); in other cases the variable is coded as default **NA** 'not applicable'. Heterosexual contact refers to a person for whom risk factors for HIV infection other than heterosexual contact have not been identified and who either originates from a country with generalized epidemic (HIV prevalence in pregnant women >1%, see list of countries in the Annex 3) or has had sex with: bisexual male, IDU, haemophiliac - recipient, a person from a country with generalized epidemic, a person known to be HIV positive and not known to belong to one of the above mentioned or is strongly believed to have been infected through sexual transmission, information on risk factors and HIV status of partner(s) not available.

<i>Coding:</i>	NA	not applicable
	ORIGINHP	Originating from a country with generalized epidemic
	SEXBI	Sex with a bisexual male
	SEXHAEMO	Sex with a haemophiliac
	SEXHIVPOS	Sex with a person known to be infected and not know to belong to any of categories above
	SEXHP	Sex with a person originating or living in a country with a generalized epidemic
	SEXIDU	Sex with an injecting drug user
	SEXUNK	Strongly believed to have been infected through heterosexual contact, information on risk factor and partner not available

Validation rules:

- 24.1. Transmission subcategory TransmissionHetero is mandatory if transmission category is reported as HETERO (Transmission = HETERO).
- 24.2. If transmission category HETERO is selected (Transmission=HETERO), then any transmission subcategory other than NA can be reported.
- 24.3. If transmission category does not equal hetero (Transmission is other than HETERO), then transmission subcategory TransmisisonHetero should be coded NA.
- 24.4. If transmission subcategory (TransmissionHetero) equals sex with a bisexual male (SEXBI) than gender should not be Male (M).
- 24.5. If heterosexually infected person comes from a country or a region with generalised HIV epidemic (TransmissionHetero=ORIGINHP), then there is high probability that region of origin is Sub Saharan Africa (RegionOfOrigin=SUBAFR).

25. TransmissionMTCT (not mandatory)

This allows to specify the transmission categories for mother to child cases and this should be provided if Transmission=MTCT (variable 21); in other cases the variable is coded as default **NA** 'not applicable'.

<i>Coding:</i>	<i>MOTHET</i>	<i>Infected through heterosexual contact and not known to belong to category above</i>
	<i>MOTHHP</i>	<i>Originating from a country with generalized epidemic</i>
	<i>MOTHIDU</i>	<i>Injecting drug use</i>
	<i>MOTHTRANSFU</i>	<i>Transfusion recipient</i>
	<i>NA</i>	<i>not applicable</i>
	<i>UNK</i>	<i>Other/undetermined</i>

Validation rules:

- 25.1. If transmission subcategory Mother to child transmission (TransmissionMTCT) is not reported, then transmission category of Mother to Child (Transmission=MTCT) should not be selected.
- 25.2. If transmission subcategory mother to child transmission (TransmissionMTCT) is reported, then age is usually less than 13 years.
- 25.3. If transmission subcategory Mother to child transmission is non applicable (TransmissionMTCT=NA), then transmission category should not be equal to mother to child transmission (Transmission should not be MTCT).
- 25.4. If transmission category is not equal to mother to child (Transmission is other than MTCT), then transmission subcategory TransmisisonMTCT should be coded NA.

26. DateOfHIVDiagnosis (not mandatory)

Date of first HIV positive HIV test.

<i>Coding:</i>	<i>Date</i>	<i>YYYY-MM-DD or</i>
		<i>Incomplete date: YYYY-MM, YYYY, YYYY-Qq</i>
	<i>UNK</i>	<i>Unknown (default value)</i>

Validation rule:

- 26.1. A patient should usually have HIV diagnosed preceding AIDS.

27. DateOfDeath (mandatory)

Date of death due to any cause. The exact date is preferred to obtain more accurate information and to allow better comparison and grouping. Incomplete dates (quarter, month, year) are permissible. All cases that are still alive or where the outcome (i.e., whether the case is alive or dead) is unknown are to be coded as 'NA'. The exact date is preferred to obtain more accurate information and to allow better comparison and grouping.

<i>Coding:</i>	<i>Date</i>	<i>YYYY-MM-DD or</i>
		<i>Incomplete date: YYYY-MM, YYYY, , YYYY-Qq</i>
	<i>NA</i>	<i>Not applicable</i>
	<i>UNK</i>	<i>Unknown (default value)</i>

Validation rules:

- 27.1. (Warning) If DateOfDeath is 'UNK' and DeathCause is not 'A' and DeathCause is not 'UNK' and DeathCause is reported
- 27.2. (Warning) If DateOfDeath is before DateOfDiagnosis or DateOfDeath is before DateOfOnset
- 27.3. (Warning) If DateOfDeath is not 'UNK' and DateOfDeath is reported and DeathCause is not 'DAIDS' and DeathCause is not 'DNOAIDS' and DeathCause is not 'DUNK'
- 27.4. (Warning) If DateOfDeath is not reported and DeathCause is not 'A' and DeathCause is not 'UNK' and DeathCause is reported

28. DateOfReportDeath (not mandatory)

Date of death report to national HIV/AIDS surveillance. The exact date is preferred to obtain more accurate information and to allow better comparison and grouping. Incomplete dates (quarter, month, year) are allowed as well. Previously only quarter or year was provided.

Coding: Date YYYY-MM-DD or
 Incomplete date: YYYY-MM, YYYY, YYYY-Qq
 NA Not applicable
 UNK Unknown (default value)

Validation rules

- 28.1. The DateOfReportDeath should not precede the DateOfDeath.
- 28.2. If it is known that a person has died, then DateOfReportDeath should be known.

29. CountryOfBirth (not mandatory)

Country of birth of patient. Defines the country of birth at country level, the ISO list of countries is provided.

Coding: Country ISO 3166-1 alpha 2
 UNK Unknown

Validation rules

- 28.1. CountryOfBirth is mandatory if CountryOfNationality is not reported - otherwise CountryOfBirth will be set to [Default value]

30. CountryOfNationality (not mandatory)

Country of nationality of patient. Defines the country of nationality at country level, the ISO list of countries is provided.

Coding: Country ISO 3166-1 alpha 2
 UNK Unknown

31. RegionOfOrigin

Region of origin of patient. It is recommended to derive this information from nationality or country of birth. If both nationality and country of birth are available, it is recommended to use nationality.

Coding

ABROAD	Abroad but sub-continent unknown
AUSTNZ	Australia and New Zealand
CAR	Caribbean

CENTEUR	Central Europe
EASTASIAPAC	East Asia and Pacific
EASTEUR	East Europe
EUROPE	If a case cannot be reported in West, central or Eastern Europe, he/she should be reported in Europe (sub-continent unknown).
LATAM	Latin America
NORTHAFRMIIDEAST	North Africa and Middle East
NORTHAM	North America
REPCOUNTRY	Same as country of report
SOUTHASIA	South and South East Asia
SUBAFR	Sub Sahara Africa
WESTEUR	West Europe
UNK	Unknown (default value)

For list of countries see ANNEX I

Validation rule:

- 31.1. *If heterosexually infected person comes from a country or a region with generalised HIV epidemic (TransmissionHetero=ORIGINHP), then there is high probability that region of origin is Sub Saharan Africa (RegionOfOrigin=SUBAFR).*

32. AIDSIndicatorDisease

AIDS indicator disease at the time of AIDS diagnosis occurring within two consecutive months from the date of AIDS diagnosis. The list of AIDS Indicator Diseases is provided (see Table 7, Annex II). In case the indicator disease is not known, the code 30 **Opportunistic infection(s), not specified** should be used. This is a repeatable field for up to 4 diagnoses. For repeatable fields, all empty fields should be filled with "N/A".

Coding: 28,30,31

Validation rule:

- 32.1 *The clinical criteria (ClinicalCriteria) must be yes if an indicator disease is given (AIDSIndicatorDisease).*

33. AgeClass (not mandatory)

This is the age of the person in years as reported in the national system of the MS. Age can be calculated from date of birth and the date of AIDS diagnosis. The preferred age grouping is the following: <4; 5-14, 15-19, 20-24, 25-29, 30-39, 40-49, 50-59, 60+. For AIDS case based reporting, the exact age is preferred (variable 9) but aggregate age classes are allowed. The previously used age grouping is provided in the list of age groups.

1_00	Less than 1 year	2_00-14	0 to 14	4_00	Less than 1 yr	5_00-04	0 to 4
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1_01-04	1 to 4	2_15-19	15 to 19	4_01-04	1 to 4	5_05-14	5 to 14
1_05-09	5 to 9	2_20-24	20 to 24	4_05-09	5 to 9	5_15-19	15 to 19
1_10-12	10 to 12	2_25-29	25 to 29	4_10-12	10 to 12	5_20-24	20 to 24
1_13-14	13 to 14	2_30-39	30 to 39	4_13-14	13 to 14	5_25-34	25 to 34
1_15-19	15 to 19	2_40-49	40 to 49	4_15-19	15 to 19	5_35-44	35 to 44
1_20-24	20 to 24	2_50+	50 or over	4_20-24	20 to 24	5_45-64	45 to 64
1_25-29	25 to 29	3_00-14	0 to 14	4_25-29	25 to 29	5_65+	65 or over
1_30-34	30 to 34	3_15-19	15 to 19	4_30-34	30 to 34		
1_35-39	35 to 39	3_20-29	20 to 24	4_35-39	35 to 39		
1_40-49	40 to 49	3_30-39	30 to 39	4_40-49	40 to 49		
1_50-59	50 to 59	3_40-49	40 to 49	4_50-59	50 to 59		
1_60+	60 years or over	3_50+	50 or over	4_60-64	60 to 64		
				4_65+	65 or over		

UNK *Unknown*

Validation rule:

32.1. If the age is not reported, then age class should be provided

Description of dataset: HIV aggregated record type

The variables used for reporting data according to aggregated format include age class, gender, case classification, date used for statistics, reporting country and the number of cases. All variables are mandatory unless otherwise specified.

1. RecordType

The record type defines the structure and the format of the data reported. The record types are defined by ECDC. It specifies what data values TESSy expects to receive. The record type is related with the 'subject'. Only valid combinations of record type, subject and datasource will be accepted. For aggregated HIV data, record type is **HIVAGGR**.

2. RecordTypeVersion (not mandatory)

The version of the record type defines the current structure of the data reported. If the original dataset for any particular disease is changed, the versioning will change according to increasing numbering. All record types started at version 1 with the launch of TESSy. This variable can be omitted if a valid Metadataset is provided.

Coding for HIVAGGR value = 1.

3. Subject

The subject describes the disease associated to the aggregate reporting, **HIV**.

4. DataSource

The data source specifies the surveillance system from which the data on this particular disease originates. The list of available Surveillance Systems per country is an integral part of TESSy and will be generated and revised/updated in bilateral collaboration with the nominated contact points for surveillance in each MS.

5. Ageclass

This is the age of the person in years as reported in the national system of the MS. Age can be calculated from date of birth and the date of diagnosis. The preferred age grouping is the following: <4; 5-14, 15-19, 20-24, 25-29, 30-39, 40-49, 50-59, 60+. For aggregate HIV, the previously used age grouping is provided.

Coding:

1_00 Less than 1	2_00-14 0 to 14	4_00 Less than 1year	5_00-04 0 to 4
1_01-04 1 to 4	2_15-19 15 to 19	4_01-04 1 to 4	5_05-14 5 to 14
1_05-09 5 to 9	2_20-24 20 to 24	4_05-09 5 to 9	5_15-19 15 to 19
1_10-12 10 to 12	2_25-29 25 to 29	4_10-12 10 to 12	5_20-24 20 to 24
1_13-14 13 to 14	2_30-39 30 to 39	4_13-14 13 to 14	5_25-34 25 to 34
1_15-19 15 to 19	2_40-49 40 to 49	4_15-19 15 to 19	5_35-44 35 to 44
1_20-24 20 to 24	2_50+ 50 years +	4_20-24 20 to 24	5_45-64 45 to 64
			5_65+ 65 years
			UNK Unknown(default value)
1_25-29 25 to 29		4_25-29 25 to 29	
1_30-34 30 to 34	3_00-14 0 to 14	4_30-34 30 to 34	
1_35-39 35 to 39	3_15-19 15 to 19	4_35-39 35 to 39	
1_40-49 40 to 49	3_20-29 20 to 24	4_40-49 40 to 49	
1_50-59 50 to 59	3_30-39 30 to 39	4_50-59 50 to 59	
1_60+ 60 years >	3_40-49 40 to 49	4_60-64 60 to 64	
	3_50+ 50 years or over	4_65+ 65 years	

6. Gender

Gender of the infected person.

Coding:	<i>F</i>	<i>Female</i>
	<i>M</i>	<i>Male</i>
	<i>O</i>	<i>Other (e.g., transgender)</i>
	<i>Unk</i>	<i>Unknown (default value)</i>

7. ReportingCountry

The country reporting the record.

Coding: Country = ISO 3166-1 alpha-2, (two-letter code).

8. DateUsedForStatistics

This is the date used by the national surveillance institute or organisation in the national case-reports and other official statistics. The date used for statistics varies from country to country and could be either the date of diagnosis or the date of notification. Please specify in DateSpecified which date is actually used.

Coding: Date =
Incomplete date: YYYY-MM, YYYY, YYYY-Qq

9. Classification

This variable indicates the case classification according to the EU case definition. For HIV, only 'Confirmed' cases **CONF** are reportable at European level.

Coding:

CONF	Confirmed
POSS	
PROB	
UNK	Unknown (default value)

10. NumberOfCases

Total number of cases during the reported period for the specified disease.

Coding: Number = Min:0 Max:999999999

11. Transmission

Describes the most probable route of transmission of HIV. It is classified according to sexual transmission, **MSM** 'MSM/homo or bisexual male' and **HETERO** 'heterosexual contact'. 'Heterosexual contact' is used for cases for which heterosexual transmission is highly probable, and do not fit into another category. The other categories refer to **IDU** 'ever injected drugs', **MTCT** 'mother-to-child transmission', **HAEMO** 'haemophiliac patient or patient with coagulation', **TRANSFU** 'transfusion recipient', **NOSO** 'nosocomial'. Nosocomial infection includes patients infected in health care settings. Case of occupational exposure should be classified as **UNK** 'Unknown or undetermined'. Cases which are not fully documented should be coded as **UNK**.

Coding:

HAEMO	haemophiliac patient
HETERO	heterosexual contact
IDU	ever injected drugs
MSM	MSM/homo or bisexual male
MTCT	mother-to-child-transmission
NOSO	Nosocomial
TRANSFU	transfusion recipient
UNK	Unknown or undetermined (default value)

11. DateSpecified

Indicates which date was used in the **DateUsedForStatistics**. In case it was the 'DateOfDiagnosis', indicate **DIAG (PREFERRED)**. In case it was the 'DateOfNotification', indicate **NOTI**.

The reference date used for standard reports that is compared to the reporting period. The date used for statistics can be any date that the reporting country finds applicable, e.g. date of notification, date of diagnosis or any other date.

Coding: *DIAG* *Date of diagnosis*

NOTI *Date of notification*

Description of dataset: AIDS aggregated record type

The variables used for reporting data according to aggregated format include age class, gender, case classification, date used for statistics, reporting country and the number of cases. All variables are mandatory unless otherwise specified.

1. RecordType

The record type defines the structure and the format of the data reported. The record types are defined by ECDC. It specifies what data values TESSy expects to receive. The record type is related with the 'subject'. Only valid combinations of record type, subject and datasource will be accepted. For aggregated HIV data, record type is **AIDSAGGR**.

2. RecordTypeVersion (not mandatory)

The version of the record type defines the current structure of the data reported. If the original dataset for any particular disease is changed, the versioning will change according to increasing numbering. All record types started at version 1 with the launch of TESSy. This variable can be omitted if a valid Metadataset is provided.

Coding for AIDSAGGR value =1.

3. Subject

The subject describes the disease associated to the aggregate reporting, **AIDS**.

4. DataSource

The data source specifies the surveillance system from which the data on this particular disease originates. The list of available Surveillance Systems per country is an integral part of TESSy and will

be generated and revised/updated in bilateral collaboration with the nominated contact points for surveillance in each MS.

5. Ageclass

This is the age of the person in years as reported in the national system of the MS. Age can be calculated from date of birth and the date of diagnosis. The preferred age grouping is the following: <4; 5-14, 15-19, 20-24, 25-29, 30-39, 40-49, 50-59, 60+. For aggregate HIV, the previously used age grouping is provided.

Coding:

1_00 Less than 1	2_00-14 0 to 14	4_00 Less than 1year	5_00-04 0 to 4
1_01-04 1 to 4	2_15-19 15 to 19	4_01-04 1 to 4	5_05-14 5 to 14
1_05-09 5 to 9	2_20-24 20 to 24	4_05-09 5 to 9	5_15-19 15 to 19
1_10-12 10 to 12	2_25-29 25 to 29	4_10-12 10 to 12	5_20-24 20 to 24
1_13-14 13 to 14	2_30-39 30 to 39	4_13-14 13 to 14	5_25-34 25 to 34
1_15-19 15 to 19	2_40-49 40 to 49	4_15-19 15 to 19	5_35-44 35 to 44
1_20-24 20 to 24	2_50+ 50 years +	4_20-24 20 to 24	5_45-64 45 to 64
			5_65+ 65 years
1_25-29 25 to 29		4_25-29 25 to 29	
1_30-34 30 to 34	3_00-14 0 to 14	4_30-34 30 to 34	UNK Unknown(default value)
1_35-39 35 to 39	3_15-19 15 to 19	4_35-39 35 to 39	
1_40-49 40 to 49	3_20-29 20 to 24	4_40-49 40 to 49	
1_50-59 50 to 59	3_30-39 30 to 39	4_50-59 50 to 59	
1_60+ 60 years >	3_40-49 40 to 49	4_60-64 60 to 64	
	3_50+ 50 years or over	4_65+ 65 years	

6. Gender

Gender of the infected person.

<i>Coding:</i>	<i>F</i>	<i>Female</i>
	<i>M</i>	<i>Male</i>
	<i>O</i>	<i>Other (e.g., transgender)</i>
	<i>Unk</i>	<i>Unknown (default value)</i>

7. ReportingCountry

The country reporting the record.

Coding: Country = ISO 3166-1 alpha-2, (two-letter code).

8. DateUsedForStatistics

This is the date used by the national surveillance institute or organisation in the national case-reports and other official statistics. The date used for statistics varies from country to country and could be either the date of diagnosis or the date of notification. Please specify in DateSpecified which date is actually used.

Coding: Date =
 Incomplete date: YYYY-MM, YYYY, YYYY-Qq

9. NumberOfCases

Total number of cases during the reported period for the specified disease.

Coding: Number = Min:0 Max:999999999

10. Transmission

Describes the most probable route of transmission of HIV. It is classified according to sexual transmission, **MSM** 'MSM/homo or bisexual male' and **HETERO** 'heterosexual contact'. 'Heterosexual contact' is used for cases for which heterosexual transmission is highly probable, and do not fit into another category. The other categories refer to **IDU** 'ever injected drugs', **MTCT** 'mother-to-child transmission', **HAEMO** 'haemophiliac patient or patient with coagulation', **TRANSFU** 'transfusion recipient', **NOSO** 'nosocomial'. Nosocomial infection includes patients infected in health care settings. Case of occupational exposure should be classified as **UNK** 'Unknown or undetermined'. Cases which are not fully documented should be coded as **UNK**.

Coding:	HAEMO	haemophiliac patient
	HETERO	heterosexual contact
	IDU	ever injected drugs
	MSM	MSM/homo or bisexual male
	MTCT	mother-to-child-transmission
	NOSO	Nosocomial
	TRANSFU	transfusion recipient
	UNK	Unknown or undetermined (default value)

12. DateSpecified

Indicates which date was used in the **DateUsedForStatistics**. In case it was the 'DateOfDiagnosis', indicate **DIAG (PREFERRED)**. In case it was the 'DateOfNotification', indicate **NOTI**.

The reference date used for standard reports that is compared to the reporting period. The date used for statistics can be any date that the reporting country finds applicable, e.g. date of notification, date of diagnosis or any other date.

Coding: **DIAG** Date of diagnosis
 NOTI Date of notification

Description of dataset: HIVTESTS aggregated record type

The variables used for reporting data according to aggregated format include number of HIV tests performed, excluding tests used for screening of blood donations and for unlinked anonymous tests, date used for statistics, reporting country and the number of cases. The data can be uploaded as file or typed manually. All variables are mandatory unless otherwise specified.

1. RecordType

The record type defines the structure and the format of the data reported. The record types are defined by ECDC. It specifies what data values TESSy expects to receive. The record type is related with the 'subject'. Only valid combinations of record type, subject and datasource will be accepted. For HIV number of test, record type is HIVTESTS.

2. RecordTypeVersion (not mandatory)

The version of the record type defines the current structure of the data reported. If the original dataset for any particular disease is changed, the versioning will change according to increasing numbering. All record types started at version 1 with the launch of TESSy. This variable can be omitted if a valid Metadataset is provided.

Coding for HIVTESTS value = 1.

3. Subject

The subject describes the disease associated to the aggregate reporting HIV test, Subject is HIVTESTS.

4. DataSource

The data source specifies the surveillance system from which the data on this particular disease originates. The list of available Surveillance Systems per country is an integral part of TESSy and will be generated and revised/updated in bilateral collaboration with the nominated contact points for surveillance in each MS.

5. DateUsedForStatistics

This is the date used by the national surveillance institute or organisation in the national and other official statistics to indicate the period for which number of tests is available. The date is expressed as a year and following format is allowed:

Coding: YYYY

6. ReportingCountry

This variable identifies the country that reports the case. The list of countries is provided according to ISO codes. This variable should be included by the MS by default.

Coding: Country = ISO 3166-1 alpha-2, (two-letter code).

7. NumberOfTests

Total number of tests during the reported period for the specified disease. If exact numbers are not available, provide estimates.

Coding: min=0 ; max=99999999

UNK Unknown

Annex 2 HIV/AIDS specific material

Introduction

Robust surveillance data are critical to monitor and inform the public health response to the European HIV epidemic in an accurate and timely fashion. HIV surveillance within Europe has been coordinated jointly by the European Centres for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe since 2008. ECDC and WHO work together to achieve full coverage and high quality HIV and AIDS case surveillance data from the 53 countries of the WHO European Region, which include the 28 countries of the European Union (EU) and the additional three countries² of the European Economic Area (EEA).

HIV/AIDS surveillance data are submitted to a joint database using The European Surveillance System (TESSy); this platform enables countries to upload and test their data and also performs an automated validation to improve data quality.

This document is a practical reference guide for countries reporting HIV and AIDS data to ECDC and WHO for European HIV/AIDS surveillance. It specifies the recommended dataset for HIV/AIDS reporting at the European level, and provides detailed definitions and guidelines for coding for each variable, including their relevant validation rules. It also provides an analysis plan to show how the data will be used.

Starting in reporting year 2015 (for 2014 data), HIV and AIDS data was collected in a new combined **HIVAIDS** record type via TESSy³. This new way of submitting data was piloted in 2013-2014 in 10 countries and was discussed in detail at the European HIV Surveillance Network meeting in Dubrovnik, Croatia on 22nd May 2014. The record type was reviewed at the HIV network meeting in Bratislava, Slovakia on 10-11th March 2016 and was found to be functioning well among countries that could implement it.

If countries are unable to report the mandatory fields using the new format described here, they can submit data using the separate older **HIV** and **AIDS** record types. For countries without the possibility to report case-based data, aggregated HIV and AIDS record types remain available. Countries using either the older record types or the aggregate record types may not be included in some of the analyses included in the European HIV/AIDS Surveillance report.

Each country should examine the contents of the dataset in detail. The dataset is divided into mandatory and optional fields. While we encourage the reporting of the optional fields, the mandatory fields must be completed, even if the information is 'unknown'.

HIV/AIDS case definitions

The implementation of WHO and EU case definitions for HIV/AIDS reporting means that only confirmed cases of HIV/AIDS should be reported at the European level.

The EU case definitions for HIV/AIDS should be followed for EU countries reporting to the European level. It is recognised that the case definitions currently used in a number of countries for HIV/AIDS may differ in the WHO European region.

The latest version of the published EU case definition is available on pages 6 and 7 at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2002D0253:20120927:EN:PDF>

The WHO case definition of HIV surveillance is available at: <http://www.who.int/hiv/pub/vct/hivstaging/en/index.html>

2 Of which Liechtenstein is not included in the 53 WHO European Member States

3 The metadataset is the set of standard variables that is applied for reporting to TESSy across all diseases under EU surveillance and hence defines all details of each variable and its coding. New versions reflect changes in one or more disease areas.

Since 2012, the EU and WHO case definitions have been compatible for surveillance purposes.

TESSy contains a menu named **Data Source** that specifies details of the national HIV and AIDS surveillance system. Each Member State should edit the properties of their Data Source information and indicate which case definition is used for reporting to the European level (page 8 for more details).

Analysis plan

This chapter describes the process through which the national surveillance data reported to TESSy are converted into the datasets that are used to produce European-wide tables, figures and graphs for presentation in the annual surveillance report. It also describes the main principles of data analysis including the recoding of certain variables, preparation of additional datasets, reporting delay adjustment and description of outputs.

Recoding of variables

Preparation of the datasets consists of the following:

- Present the data by age, gender and mode of transmission.
- Present the data by regional grouping of countries

The steps below describe the recoding of submitted variables or the creation of additional variables:

- Convert age into age group: <15, 15-19, 20-24, 25-29, 30-39, 40-49, 50+; if data on age are unavailable, the country will be excluded from the analysis in age specific tables
- Each country will be grouped as EU/EEA or non-EU and as located in the East, Centre or West of WHO European Region.

Dates:

- The 'date used for statistics' is a variable that is included in the TESSy dataset for all communicable diseases under EU surveillance. This date accords with the date that is used for national reports concerning all diseases. In some countries, a subset of cases has missing values for date of HIV diagnosis. In these instances, the date used for statistics is used.
 - If for any date field a country provides an incomplete date the following default values may be assigned for some analyses.
 - Month and year provided: 15/MM/YYYY
 - Year provided: 01/07/YYYY

Principles of analysis

Geographical grouping of countries

Data are presented for the entire WHO European Region and for the European Union (EU) and European Economic area (EEA) countries: the EU consists of 28 Member States and the EEA consists of Norway, Liechtenstein, and Iceland. The rest of the countries are classified as non-EU/EEA countries. For the WHO European Region, data are subdivided into three geographical/epidemiological areas: West (23 countries), Centre (15 countries) and East (15 countries).

Absolute numbers and rates per hundred thousand

Data are presented in absolute numbers and as rates per hundred thousand population (rounded to one decimal place in tables and in the text) where appropriate.

- Data are presented by year and also as a cumulative total per country. The cumulative total includes all data reported by that particular country and does not confine to the selected number of years presented in each table.
- Population estimates are derived from Eurostat for all EU/EEA countries and from the United Nations (UN) Population Division for all non-EU/EEA countries. The Eurostat data are based

on end-year estimates (www.eurostat.europa.eu) while the UN population estimates are as of 1 July of the year indicated.

Reporting delays

Data presented are provisional because of reporting delays, and because previously reported data are subject to regular updates (e.g. detection and deletion of duplicate cases, inclusion of new information about cases already reported).

Reporting delays refer to the time between diagnosis (or death) and formal notification at the national level. Overall, around 50% of AIDS cases and 65% of AIDS deaths are reported within 6 months of the event; around 10% are reported after more than 1 year. Reporting delays vary widely between countries, and thus recent trends in HIV, AIDS incidence and AIDS mortality are best assessed by analysing data by year of diagnosis and by year of death with adjustments for reporting delays rather than by year of report. In the annual surveillance report, presentation of overall trends and trends by transmission mode are adjusted by ECDC for reporting delay⁴.

Creation of derived outputs

Probable country of infection output

Probable country of infection will be as presented as reported. However, a new method of assigning country of infection for those born abroad (not in reporting country) has been published that utilises models of CD4 decline, incorporating data on CD4 count at diagnosis, year of arrival and country of birth⁵. This may be adopted in future analyses once there is a better understanding of migration in Europe.

Late HIV diagnoses

For newly diagnoses cases who have a valid FirstCD4Count and a FirstCD4Date, a late diagnosis is defined as a first CD4 count <350 cells/mm³ within three months of HIV diagnosis.

Data presentation

The analyses describe core epidemiological information on the occurrence of HIV by time, transmission mode, age, gender (including female proportion) and CD4 cell counts as well as specific derived outputs described above. The report will include the tables, figures, maps, annexes outlined in Draft outline of HIV/AIDS surveillance report.

Planning materials

Draft outline of HIV/AIDS surveillance report

Below is an overview of the chapters, tables, maps, figures and annexes plan to be included in the 2018 HIV/AIDS surveillance in Europe report.

Overview of HIV and AIDS in Europe

European Union and European Economic Area

WHO European Region

Conclusions

4 Quinten C., Likatavicius G., van de Laar M. Adjusting HIV surveillance data for reporting delays. 2012. Stockholm, European Centre for Disease Prevention and Control.

5 Rice BD, Elford J, Yin Z, Delpech VC. A new method to assign country of HIV infection among heterosexuals born abroad and diagnosed with HIV. AIDS 2012 Sep 24;26(15):1961-6.

1 HIV and AIDS in the European Union and European Economic Area

1.1 HIV diagnoses

1.2 Trends in HIV diagnoses

1.3 AIDS cases, morbidity and mortality

1.4 Conclusions

2 HIV and AIDS in the WHO European Region

2.1 HIV and AIDS diagnoses in the WHO European Region

2.2 HIV and AIDS diagnoses in the East

2.3 HIV and AIDS diagnoses in the Centre

2.4 HIV and AIDS diagnoses in the West

2.5 Number of HIV tests performed

2.6 Conclusions

List of countries with generalised HIV epidemics

Table 6: countries with generalised HIV epidemics⁶

Country	Country Code
Africa	
Angola	AO
Burundi	BI
Benin	BJ
Botswana	BW
Congo, the Democratic Republic of the	CD
Central African Republic	CF
Chad	TD
Congo	CG
Cote d'Ivoire	CI
Cameroon	CM
Ethiopia	ET
Gabon	GA
Ghana	GH
Gambia	GM
Guinea	GN
Equatorial Guinea	GQ
Liberia	LR
Guinea-Bissau	GW
Kenya	KE
Lesotho	LS
Malawi	MW
Mozambique	MZ
Namibia	NA
Nigeria	NG
Rwanda	RW
Sierra Leone	SL
South Africa	ZA
South Sudan	SS
Swaziland	SZ
Togo	TG
Tanzania, United Republic of	TZ
Uganda	UG

⁶ Updated to list countries with generalised HIV epidemics (HIV prevalence in adult population >1%) as per UNAIDS 2014 (http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf) Removed: Barbados, Burkina Faso, Djibouti, Dominican Republic, Eritrea, Mali, Papua New Guinea, Suriname; Added (since 2012 estimates): South Sudan, Gambia, Thailand, Jamaica, Trinidad and Tobago, Belize, Guyana

Country	Country Code
Zambia	ZM
Zimbabwe	ZW
South and Southeast Asia	
Thailand	TH
Caribbean	
Bahamas	BS
Haiti	HT
Jamaica	JM
Trinidad and Tobago	TT
Latin America	
Belize	BZ
Guyana	GY

3.3 List and codes of AIDS indicator diseases

Table 7: AIDS indicator disease codes

1	Bacterial infections, multiple or recurrent in a child under 13 years of age
2	Candidiasis of bronchi, trachea, or lungs
3	Candidiasis, oesophageal
4	Coccidioidomycosis, disseminated or extrapulmonary
5	Cryptococcosis, extrapulmonary
6	Cryptosporidiosis, intestinal with diarrhoea (>1 months duration)
7	Cytomegalovirus disease (other than liver, spleen, or nodes) in a patient over one month of age
8	Cytomegalovirus retinitis (with loss of vision)
9	Herpes simplex: chronic ulcer(s) (>1 months duration); or bronchitis, pneumonitis, or oesophagitis in a patient over one month of age
10	Histoplasmosis, disseminated or extrapulmonary
11	Isosporiasis, intestinal with diarrhoea (>1 months duration)
12	Mycobacterium avium complex or M. kansasii, disseminated or extrapulmonary
13	Mycobacterium tuberculosis, pulmonary in an adult or an adolescent (aged 13 years or over)
14	Mycobacterium tuberculosis, extrapulmonary
15	Mycobacterium, other species or unidentified species, disseminated or extrapulmonary
16	Pneumocystis carinii pneumonia
17	Pneumonia, recurrent in an adult or an adolescent (aged 13 years or over)
18	Progressive multifocal leukoencephalopathy
19	Salmonella (non-typhoid) septicaemia, recurrent
20	Toxoplasmosis of brain in a patient over one month of age
21	Cervical cancer, invasive in an adult or an adolescent (aged 13 years or over)
22	Encephalopathy, HIV-related
23	Kaposi s sarcoma
24	Lymphoid interstitial pneumonia in a child under 13 years of age
25	Lymphoma, Burkitt s (or equivalent term)
26	Lymphoma, immunoblastic (or equivalent term)
27	Lymphoma, primary, of brain
28	Wasting syndrome due to HIV
30	Opportunistic infection(s), not specified
31	Lymphoma(s), not specified