TESSy - The European Surveillance System

Coronavirus disease 2019 (COVID-19) data

Reporting Protocol

Version 6.2, 13 December 2022

Contents

Summary of changes

13 December 2022

Updated coded value list for the variable VirusVariant for reporting of XBB (Pango lineage XBB and sub-lineages).

27 October 2022

Updated coded value list for the variable VirusVariant for reporting of BQ.1 (Pango lineage BQ.1 and sub-lineages).

30 September 2022

- Introduction of two new datasets for reporting: RESPISEVERE and RESPISURV. Detailed reporting protocols are available separately on the ECDC website.
- All countries are required to report NCOVAGGR data. Variables Hospitalised, Ventilated and ICUPatientsCOVID will be removed at the end of the transition period. ICU and hospital indicators should be age-disaggregated and reported to RESPISEVERE.
- Deactivation of NCOV for case reporting. Records for select number of samples should be reported to RESPISURV instead.
- Updates to coded value list for the variable VirusVariant in NCOVVARIANT.NumberRepresentative variable has been removed and data should be reported to newly added variables NumberRepresentativeSentinel and NumberRepresentativeNonSentinel instead. NumberTargetedImported and Number TargetedLocal have been removed. All Targeted sequences should continue to be reported into NumberTarget without further subdivision.

18 July 2022

Updated coded value list for the variable VirusVariant (for both NCOV and NCOVVARIANT recordtypes) for reporting of BA.2.75 (Omicron BA.2 sub-lineage with mutations D339H, G446S, N460K, and R493Q in the RBD, and mutations K147E, W152R, F157L, I210V, and G257S in the N-terminal domain of the Spike protein)

10 June 2022

Updated coded value list for the variable VirusVariant (for both NCOV and NCOVVARIANT recordtypes) for reporting of BA.2+L452X (Omicron BA.2 and any of its sub-lineages with mutations at position 452 of the Spike protein)

13 May 2022

Removed variant "B.1.1.529" (Omicron) from the coded value list for variable VirusVariant (Omicron cases should be assigned to a specific sublineage)

07 April 2022

Added Omicron sublineages BA.4 and BA.5 to coded value list for variable VirusVariant in both NCOV and NCOVVARIANT recordtypes

18 February

- New variables in NCOV: VaccDose4, and BrandDose4
- Updated coded value list for variable NCOV VaccStatus to report fourth dose (4DOSE)
- Updated list of vaccine products to the coded value list for variables BrandDose1, BrandDose2, and BrandDose3: "Chumakov - Covi-Vac", "Novavax - Covovax", "Novavax - Nuvaxovid" and "Gamaleya - Sputnik-Light

27 January

Updated coded value list for the variable VirusVariant (for both NCOV and NCOVVARIANT recordtypes) for reporting of sublineages of B.1.1.529 (BA.1, BA.2, BA.3)

01 December

- Updated reporting instructions for sequenced cases.

- Updated list of mutations for B.1.1.529.
- New variables in NCOVVARIANT: NumberTargetedImported, NumberTargetedLocal

How to use this document

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

- *Reporting to TESSy* – contains guidelines on how to prepare data for submission to TESSy, deadlines for reporting, subject-specific information (e.g., new changes to metadata), and links to further information.

- *Annex* – contains:

  o A history of metadata changes for the subject(s) covered by this Reporting Protocol.

  o The metadata set for the subject(s) covered by this Reporting Protocol.

Finding further information

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

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

- Metadata sets and history.

- Tutorials for data transformation using respectively Excel and Access.

- TESSy user documentation.

- *CSV* and *XML* transport protocols.

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Introduction

This Reporting Protocol describes surveillance of COVID-19 in the EU/EEA and wider WHO European region. This reporting protocol includes three record-types:

1. **Aggregated reporting** of all probable and confirmed cases (recordtype: NCOVAGGR)
2. **Aggregated reporting** of SARS-CoV-2 tests performed by method, age-group and subnational region (recordtype: NCOVTEST)
3. **Aggregated reporting** of SARS-CoV-2 variants of interest and of concern (recordtype: NCOVVARIANT)

For COVID-19 cases tested Monday to Sunday the previous week, data **should be reported every Tuesday by 23:59 and updated retrospectively**.

In addition, this reporting protocol outlines all relevant record types for COVID-19 reporting and links to the relevant reporting protocols:

1. **Integrated respiratory virus surveillance reporting protocol (RESPISURV and RESPISEVERE)** which outlines reporting of case-based reporting of a select number of cases (RESPISURV) and age-disaggregated reporting of hospital and ICU indicators (RESPISEVERE). Full reporting protocol can be found on the ECDC website.
2. **Severe Acute Respiratory Infections (SARI) protocol** which outlines reporting of SARI case-based and aggregate data with denominator data into SARISURV, INFLSARIAGGR and SARISURVDENOM. Further details outlined in the *SARI reporting protocol*.
3. **Influenza reporting protocol** which outlines integrated aggregate sentinel data collection (INFLVIRWAGGR). Further details outlined on the *ECDC website*.

Please note that:

1. All data collected are shared with the World Health Organisation – Regional Office for Europe (WHO/Europe) on a daily basis to fulfil Member States reporting requirements to WHO. Duplicate reporting is therefore not required.
2. If data have not been uploaded in TESSy and approved on time it will not be possible to include the data in weekly reports. If you are unable to meet this deadline, please contact the ECDC Influenza and other respiratory viruses surveillance team (*influenza@ecdc.europa.eu*, *covid.surveillance@ecdc.europa.eu*, and copy *tessy@ecdc.europa.eu*).

Definitions

Case definition: Cases should be reported according to the current *EU case definition*. Data on probable and possible cases are not collected.

Definition of a hospitalised case: A patient who has tested positive for COVID-19 (within 14 days prior to admission or during the current admission) presenting with severe symptoms/complications from COVID-19 that require admission to a hospital or ICU/HDU facility. Patients admitted to hospital for isolation purposes and not because of clinical need should not be counted as hospitalised cases where it is possible to make a distinction.

Definition of a case admitted to an intensive care unit (ICU) or a high dependency unit (HDU)[1]: A patient who has tested positive for COVID-19 (within 14 days prior to admission or during the current admission) presenting with severe symptoms/complications from COVID-19 that require admission to an ICU/HDU facility. For the purposes of reporting ICU occupancy data, COVID-19 cases in ICU/HDU should continue to be counted even after they test negative provided the current ICU/HDU stay is a consequence of the COVID-19 infection.

Number of tests: Total number of individuals tested during each epidemiological week. For individuals with multiple tests only the first test should be retained for that week.

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[1] *High dependency unit: a unit with capabilities for more intensive observation, treatment and nursing care than can be provided on a regular ward*

Aim

To support the timely and complete reporting of key information on COVID-19 epidemiology in the EU/EEA.

Objectives

1. Monitor the intensity, geographical spread, and temporal patterns of COVID-19 to inform mitigation measures.

2. Monitor severity, risk factors for severe disease, and assess the impact on healthcare systems of COVID-19 to inform mitigation measures.

3. Monitor changes and characteristics of circulating and emerging respiratory viruses, particularly virological changes of SARS-CoV-2, and other respiratory viruses to inform treatment, drug, and vaccine development.

4. Describe the burden of disease associated COVID-19 and other respiratory virus infections.

When, what and how to report

Deadline for reporting:

Tuesday 23:59 for NCOVAGGR, NCOVVARIANT, NCOVTEST, RESPISEVERE, and RESPISURV.

Thursday 10:00 for INFLVIRWAGGR and all SARI recordtypes.

There is no requirement for daily reporting.

All countries should report the following record types for COVID-19:

- **NCOVAGGR**: Age-disaggregated cases and deaths

    o All variables should be reported. ICU and hospital indicators should be reported to RESPISEVERE and will be discontinued in NCOVAGGR. Data should be aggregated by week of sampling for cases and week of death for deaths. If this is not possible (e.g., data are by week of notification) please inform ECDC.

- **NCOVVARIANT**: variant data

    o All variables should be reported if possible. Data should be aggregated by the week samples were taken. If this is not possible (e.g., data are by week of notification) please inform ECDC.

- **NCOVTEST:** testing data

    o For the reporting of the number of tests by method, age, and region.

- **RESPISEVERE**: Age-disaggregated hospital and ICU indicator

    o AgeUNK can be used for data that cannot be age disaggregated. See Integrated respiratory virus surveillance (RESPISEVERE and RESPISURV data sets) reporting protocol

- **INFLVIRWAGGR**: Aggregated sentinel data

    o Reporting of the number of specimens tested and positive for SARS-CoV-2 from sentinel surveillance systems**.** See Influenza reporting protocol.

- **SARISURV, SARIAGGR, SARIDENOM:** Severe Acute Respiratory Infections (SARI) data

    o Further details outlined in the *SARI reporting protocol*.

Countries with case-based surveillance data should report to:

- **RESPISURV.** Case-based data by pathogen (e.g., SARS-CoV-2) for cases that meet one of the following inclusion criteria:

  - Positive cases presenting to primary care sentinel surveillance systems (where data are available in case-based format)

  - Cases that have been sequenced or genotyped (SARS-CoV-2) or (sub)typed/lineage determined (influenza) irrespective of disease severity

  - Data on severe cases (hospitalised, requiring respiratory support, ICU admission or fatal) that are not covered by existing SARI surveillance systems (and therefore reported into SARISURV), irrespective of whether variant/type/lineage is available

- A detailed description is available in the separate Integrated respiratory virus surveillance (RESPISEVERE and RESPISURV data sets) reporting protocol.

- Please report on as many variables as possible.

  - To allow for severity and vaccine breakthrough infection analysis, please report the following variables:

    - VirusVariantCOVID, SequencingCategory, Age, Gender, Preconditions

    - *One of:* Hospitalisation, DateOfHospitalisation, DateOfDischarge

    - *One of:* IntensiveCare, DateOfICUHDU, RespiratorySupport

    - *One of:* Outcome, DateOfDeath

    - NumberOfCovid19VaccDose, DateLastVaccDose and BrandLastCOVID19Dose

- **Report in a timely manner** even if outcome information is not known; outcome can be updated when information becomes available.

Preparing data

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

Checking metadata

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

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

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

- *Changes to current metadata* – changes since the last Reporting Protocol.
- *Annex Metadata change history* – all preceding changes.

It is especially important to focus on:

- **Field formats**

  Many fields require that data are formatted in a specific way. For example, dates must be in the **YYYY-MM-DD** format; dates in the DD/MM/YYYY format will be rejected.

- **Coded values**

  Some fields only permit the use of specific values (coded values). For example, **M**, **F**, **UNK**, or **Other** are the coded values for *Gender* and any other value in a *Gender* field will be rejected.

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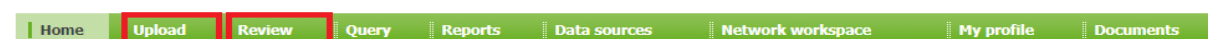
By filtering the fields in the file by subject, you can see the fields required for your subject and the rules applying to these fields.

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

Submitting your data

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

| Home | **Upload** | **Review** | Query | Reports | Data sources | Network workspace | My profile | Documents |

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

Finalising your submission

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

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

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

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

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

- General training and guidance on reporting is available on the *TESSy website*. A training video on reporting COVID-19 data is available in the *ECDC virtual academy*.

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 COVID-19 disease metadata

Record Type: NCOV: Record Type Version 5: Update 2022-10-21

Please note that this dataset will be inactive in November. All reporting should be redirected to NCOVAGGR, RESPISEVERE, RESPISURV

Record Type: NCOVAGGR: Record Type Version 5: Update 2022-10-21

- Removed sequencing related variables

- Record types Hospitalised, Ventilated and ICUPatientsCOVID will be removed in November

See *NCOVAGGR metadata* for variable descriptions.

New Record Type: NCOVVARIANT: Record Type Version 2: Update 2022-09-30

- Updates coded value list for the variable VirusVariant.
- Removal of variable NumberRepresentative, NumberTargetedImported and Number TargetedLocal
- Addition of variable NumberRepresentativeSentinel and NumberRepresentativeNonSentinel

See *NCOVAGGR metadata* for variable descriptions.

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

Annex - Coronavirus disease 2019 (COVID-19) metadata

Revisions of COVID-19 disease metadata set

The COVID-19 metadata have been developed based on WHO case reporting form[2]. The most recent metadata set is available from the TESSy website under technical guidelines and tools tab (as shown below).

Current record type versions

Table 1 shows the record type versions to be used when reporting COVID-19 (Record type: NCOV) data to TESSy.

Table 1: COVID-19 record type versions

Record	Type of data	Record type version
NCOV	Case-based	5 (inactivated in Nov 2022)
NCOV	Case-based	4 (inactivated)
NCOV	Case-based	3 (inactivated)
NCOV	Case-based	2 (inactivated from 2020-12-02)
NCOVTEST	Case-based[3]	2
NCOVTEST	Case-based[3]	1 (inactivated from 2020-10-31)
NCOVAGGR	Aggregated	5
NCOVAGGR	Aggregated	4 (inactivated in Nov 2022)
NCOVAGGR	Aggregated	3 (inactivated from 2021-06-11)
NCOVAGGR	Aggregated	2 (inactivated from 2020-10-31)
NCOVCLASSIFICATION	Case-based	1 (inactivated from 2021-07-26)
NCOVVARIANT	Case-based[3]	2

[2] World Health Organization, 2020: Interim case reporting form for 2019 Novel Coronavirus (2019-nCoV) of confirmed and probable cases, available at: https://www.who.int/docs/default-source/coronaviruse/20200121-2019-ncov-reporting-form.pdf?sfvrsn=96eff954_4

[3] Note NCOVTEST and NCOVVARIANT are "case-based" record type as they allow multiple rows for the same week. However, the number of tests/variants are reported in an aggregated way.

NCOVVARIANT	Case-based[3]	1 (inactivated from 2022-09-30)

NCOVAGGR metadata

The NCOVAGGR metadata, **record type version 4** is used for reporting of aggregated data on cases and deaths. Aggregated data should be reported by week. Note that sequencing related variables have been removed. Data on variants of interest and of concern should be reported using NCOVVARIANT.

Common TESSy variables

Record type (mandatory)

Field: RecordType

Coding: NCOVAGGR

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

Record type version

Field: RecordTypeVersion

Coding: 5

The version of the record type defines the current structure of the data reported. If the dataset is changed, the version changes to the next higher integer. The current version of the NCOVAGGR record type is 4.

This variable is not mandatory as TESSy concludes the record type version from the metadataset indicated. The variable RecordTypeVersion allows to override this default.

Subject (mandatory)

Field: Subject

Coding: NCOV

The subject describes the disease to be reported.

Data source (mandatory)

Field: DataSource

Coding: Pre-assigned as CountryCode-NCOVAGGR to each country; can be modified by National Coordinator

The data source specifies the surveillance system from which the data originates and is generated and revised/updated by the national contact point for surveillance in each Member State. The descriptions of the surveillance systems submitted to TESSy should be kept up to date and will be used to assist with data interpretation.

Reporting country (mandatory)

Field: ReportingCountry

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

This variable identifies the country reporting the case.

Date used for statistics (mandatory)

Field: DateUsedForStatistics

Coding: yyyy-Www

The week for which the reported data refer.

Epidemiological variables

Age 00-04 Males

Field: Age00-04M

Coding: Numeric

Number of confirmed cases among males in age group 0-4 years, newly reported for week of reporting.

Age 05-09 Males

Field: Age05-09M

Coding: Numeric

Number of confirmed cases among males in age group 5-9 years, newly reported for week of reporting.

Age 10-14 Males

Field: Age10-14M

Coding: Numeric

Number of confirmed cases among males in age group 10-14 years, newly reported for week of reporting.

Age 15-19 Males

Field: Age15-19M

Coding: Numeric

Number of confirmed cases among males in age group 15-19 years, newly reported for week of reporting.

Age 20-24 Males

Field: Age20-24M

Coding: Numeric

Number of confirmed cases among males in age group 20-24 years, newly reported for week of reporting.

Age 25-29 Males

Field: Age25-29M

Coding: Numeric

Number of confirmed cases among males in age group 25-29 years, newly reported for week of reporting.

Age 30-39 Males

Field: Age30-39M

Coding: Numeric

Number of confirmed cases among males in age group 30-39 years, newly reported for week of reporting.

Age 40-49 Males

Field: Age40-49M

Coding: Numeric

Number of confirmed cases among males in age group 40-49 years, newly reported for week of reporting.

Age 50-59 Males

Field: Age50-59M

Coding: Numeric

Number of confirmed cases among males in age group 50-59 years, newly reported for week of reporting.

Age 60-64 Males

Field: Age60-64M

Coding: Numeric

Number of confirmed cases among males in age group 60-64 years, newly reported for week of reporting.

Age 65-69 Males

Field: Age65-69M

Coding: Numeric

Number of confirmed cases among males in age group 65-69 years, newly reported for week of reporting.

Age 70-74 Males

Field: Age70-74M

Coding: Numeric

Number of confirmed cases among males in age group 70-74 years, newly reported for week of reporting.

Age 75-79 Males

Field: Age75-79M

Coding: Numeric

Number of confirmed cases among males in age group 75-79 years, newly reported for week of reporting.

Age 80+ Males

Field: Age80+M

Coding: Numeric

Number of confirmed cases among males in age group 80+ years, newly reported for week of reporting.

AgeUNKM

Field: AgeUNKM

Coding: Numeric

Number of confirmed cases among males with unknown age, newly reported for week of reporting.

Age 00-04 Females

Field: Age00-04F

Coding: Numeric

Number of confirmed cases among females in age group 0-4 years, newly reported for week of reporting.

Age 05-09 Females

Field: Age05-09F

Coding: Numeric

Number of confirmed cases among females in age group 5-9 years, newly reported for week of reporting.

Age 10-14 Females

Field: Age10-14F

Coding: Numeric

Number of confirmed cases among females in age group 10-14 years, newly reported for week of reporting.

Age 15-19 Females

Field: Age15-19F

Coding: Numeric

Number of confirmed cases among females in age group 15-19 years, newly reported for week of reporting.

Age 20-24 Females

Field: Age20-24F

Coding: Numeric

Number of confirmed cases among females in age group 20-24 years, newly reported for week of reporting.

Age 25-29 Females

Field: Age25-29F

Coding: Numeric

Number of confirmed cases among females in age group 25-29 years, newly reported for week of reporting.

Age 30-39 Females

Field: Age30-39F

Coding: Numeric

Number of confirmed cases among females in age group 30-39 years, newly reported for week of reporting.

Age 40-49 Females

Field: Age40-49F

Coding: Numeric

Number of confirmed cases among females in age group 40-49 years, newly reported for week of reporting.

Age 50-59 Females

Field: Age50-59F

Coding: Numeric

Number of confirmed cases among females in age group 50-59 years, newly reported for week of reporting.

Age 60-64 Females

Field: Age60-64F

Coding: Numeric

Number of confirmed cases among females in age group 60-64 years, newly reported for week of reporting.

Age 65-69 Females

Field: Age65-69F

Coding: Numeric

Number of confirmed cases among females in age group 65-69 years, newly reported for week of reporting.

Age 70-74 Females

Field: Age70-74F

Coding: Numeric

Number of confirmed cases among females in age group 70-74 years, newly reported for week of reporting.

Age 75-79 Females

Field: Age75-79F

Coding: Numeric

Number of confirmed cases among females in age group 75-79 years, newly reported for week of reporting.

Age 80+ Females

Field: Age80+F

Coding: Numeric

Number of confirmed cases among females in age group 80+ years, newly reported for week of reporting.

AgeUNKF

Field: AgeUNKF

Coding: Numeric

Number of confirmed cases among females with unknown age, newly reported for week of reporting.

Age Gender Unknown

Field: AgeGenderUnk

Coding: Numeric

Number of confirmed cases with unknown age and gender, newly reported for week of reporting.

Deaths 00-04 Males

Field: Deaths00-04M

Coding: Numeric

Number of deaths among confirmed cases in males aged 0-4 years, newly reported for week of reporting.

Deaths 05-09 Males

Field: Deaths05-09M

Coding: Numeric

Number of deaths among confirmed cases in males aged 5-9 years, newly reported for week of reporting.

Deaths 10-14 Males

Field: Deaths10-14M

Coding: Numeric

Number of deaths among confirmed cases in males aged 10-14 years, newly reported for week of reporting.

Deaths 15-19 Males

Field: Deaths15-19M

Coding: Numeric

Number of deaths among confirmed cases in males aged 15-19 years, newly reported for week of reporting.

Deaths 20-24 Males

Field: Deaths20-24M

Coding: Numeric

Number of deaths among confirmed cases in males aged 20-24 years, newly reported for week of reporting.

Deaths 25-29 Males

Field: Deaths25-29M

Coding: Numeric

Number of deaths among confirmed cases in males aged 25-29 years, newly reported for week of reporting.

Deaths 30-39 Males

Field: Deaths30-39M

Coding: Numeric

Number of deaths among confirmed cases in males aged 30-39 years, newly reported for week of reporting.

Deaths 40-49 Males

Field: Deaths40-49M

Coding: Numeric

Number of deaths among confirmed cases in males aged 40-49 years, newly reported for week of reporting.

Deaths 50-59 Males

Field: Deaths50-59M

Coding: Numeric

Number of deaths among confirmed cases in males aged 50-59 years, newly reported for week of reporting.

Deaths 60-64 Males

Field: Deaths60-64M

Coding: Numeric

Number of deaths among confirmed cases in males aged 60-64 years, newly reported for week of reporting.

Deaths 65-69 Males

Field: Deaths65-69M

Coding: Numeric

Number of deaths among confirmed cases in males aged 65-69 years, newly reported for week of reporting.

Deaths 70-74 Males

Field: Deaths70-74M

Coding: Numeric

Number of deaths among confirmed cases in males aged 70-74 years, newly reported for week of reporting.

Deaths 75-79 Males

Field: Deaths75-79M

Coding: Numeric

Number of deaths among confirmed cases in males aged 75-79 years, newly reported for week of reporting.

Deaths 80+ Males

Field: Deaths80+M

Coding: Numeric

Number of deaths among confirmed cases in males aged 80+ years, newly reported for week of reporting.

DeathsUNKM

Field: DeathsUNKM

Coding: Numeric

Number of deaths among confirmed cases in males with unknown age, newly reported for week of reporting.

Deaths 00-04 Females

Field: Deaths00-04F

Coding: Numeric

Number of deaths among confirmed cases in females aged 0-4 years, newly reported for week of reporting.

Deaths 05-09 Females

Field: Deaths05-09F

Coding: Numeric

Number of deaths among confirmed cases in females aged 5-9 years, newly reported for week of reporting.

Deaths 10-14 Females

Field: Deaths10-14F

Coding: Numeric

Number of deaths among confirmed cases in females aged 10-14 years, newly reported for week of reporting.

Deaths 15-19 Females

Field: Deaths15-19F

Coding: Numeric

Number of deaths among confirmed cases in females aged 15-19 years, newly reported for week of reporting.

Deaths 20-24 Females

Field: Deaths20-24F

Coding: Numeric

Number of deaths among confirmed cases in females aged 20-24 years, newly reported for week of reporting.

Deaths 25-29 Females

Field: Deaths25-29F

Coding: Numeric

Number of deaths among confirmed cases in females aged 25-29 years, newly reported for week of reporting.

Deaths 30-39 Females

Field: Deaths30-39F

Coding: Numeric

Number of deaths among confirmed cases in females aged 30-39 years, newly reported for week of reporting.

Deaths 40-49 Females

Field: Deaths40-49F

Coding: Numeric

Number of deaths among confirmed cases in females aged 40-49 years, newly reported for week of reporting.

Deaths 50-59 Females

Field: Deaths50-59F

Coding: Numeric

Number of deaths among confirmed cases in females aged 50-59 years, newly reported for week of reporting.

Deaths 60-64 Females

Field: Deaths60-64F

Coding: Numeric

Number of deaths among confirmed cases in females aged 60-64 years, newly reported for week of reporting.

Deaths 65-69 Females

Field: Deaths65-69F

Coding: Numeric

Number of deaths among confirmed cases in females aged 65-69 years, newly reported for week of reporting.

Deaths 70-74 Females

Field: Deaths70-74F

Coding: Numeric

Number of deaths among confirmed cases in females aged 70-74 years, newly reported for week of reporting.

Deaths 75-79 Females

Field: Deaths75-79F

Coding: Numeric

Number of deaths among confirmed cases in females aged 75-79 years, newly reported for week of reporting.

Deaths 80+ Females

Field: Deaths80+F

Coding: Numeric

Number of deaths among confirmed cases in females aged 80+ years, newly reported for week of reporting.

DeathsUNKF

Field: DeathsUNKF

Coding: Numeric

Number of deaths among confirmed cases in females with unknown age, newly reported for week of reporting.

Deaths Age Gender Unknown

Field: DeathsAgeGenderUnk

Coding: Numeric

Number of deaths among confirmed cases with unknown age and gender, newly reported for week of reporting.

Cases Healthcare Workers

Field: CasesHCW

Coding: Numeric

Number of confirmed cases among healthcare workers, newly reported for week of reporting.

Deaths Healthcare Workers

Field: DeathsHCW

Coding: Numeric

Number of deaths among confirmed cases in healthcare workers, newly reported for week of reporting.

Discharged

Field: Discharged

Coding: Numeric

Number of confirmed cases newly discharged from hospital for the week of reporting.

Number of free ICU beds

Field: ICUBedsFree

Coding: Numeric

Number of free adult ICU beds as of Wednesday for the week of reporting. Number of ICU beds as of Wednesday previous week not occupied by either COVID-19 patients or other patients requiring intensive care.

Total number of ICU beds

Field: ICUBedsTotal

Coding: Numeric

Total number of adult ICU and HDU beds (occupied and free beds for any patient requiring intensive care) as of Wednesday for the week of reporting. Use the same definition of ICU/HDU as used for the routine national reporting of COVID-19 patients in the ICU.

Number of cases

Field: NumberOfCases

Coding: Numeric

Number of all confirmed cases for the week of reporting.

Number of deaths

Field: NumberOfDeaths

Coding: Numeric

Number of deaths among confirmed cases for the week of reporting.

Reinfection cases

Field: ReinfectionCases

Coding: Numeric

Total number of suspected reinfection cases according to the *suspected reinfection case definition* for the reporting week.

NCOVTEST metadata

The NCOVTEST metadata, **record type version 2** is used for reporting of aggregated data on the number of tests by method, age-group and region per week.

Common TESSy variables

Record Identifier (mandatory)

Field: RecordId

Coding: Text (max 80 characters)

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

- unique within the national COVID-19 disease surveillance system
- anonymous.

Record type (mandatory)

Field: RecordType

Coding: NCOVTEST

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

Record type version

Field: RecordTypeVersion

Coding: 2

The version of the record type defines the current structure of the data reported. If the dataset is changed, the version changes to the next higher integer. The current version of the NCOVTEST record type is 2.

This variable is not mandatory as TESSy concludes the record type version from the metadataset indicated. The variable RecordTypeVersion allows to override this default.

Subject (mandatory)

Field: Subject

Coding: NCOV

The subject describes the disease to be reported.

Data source (mandatory)

Field: DataSource

Coding: Pre-assigned as CountryCode-NCOVTEST to each country; can be modified by National Coordinator

The data source specifies the surveillance system from which the data originates and is generated and revised/updated by the national contact point for surveillance in each Member State. The descriptions of the surveillance systems submitted to TESSy should be kept up to date and will be used to assist with data interpretation.

Reporting country (mandatory)

Field: ReportingCountry

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

This variable identifies the country reporting the case.

Date used for statistics (mandatory)

Field: DateUsedForStatistics

Coding: yyyy-Www

The week for which the reported data refer.

Epidemiological variables

Type of test

Field: LabMethod

Coding: ANTIGEN = Antigen detection

NUC = NAAT by RT-PCR

UNK = Unknown

Type of test.

Region of test (mandatory)

Field: RegionTest

Coding: Country/NUTS1 or 2/GAUL1/Country specific

Region where the tests were performed.

Age 00-04

Field: Age00-04

Coding: Numeric

Number of tests performed among persons aged 0-4 years.

Age 05-09

Field: Age05-09

Coding: Numeric

Number of tests performed among persons aged 5-9 years.

Age 10-14

Field: Age10-14

Coding: Numeric

Number of tests performed among persons aged 10-14 years

Age 15-19

Field: Age15-19

Coding: Numeric

Number of tests performed among persons aged 15-19 years

Age 20-24

Field: Age20-24

Coding: Numeric

Number of tests performed among persons aged 20-24 years

Age 25-29

Field: Age25-29

Coding: Numeric

Number of tests performed among persons aged 25-29 years

Age 30-39

Field: Age30-39

Coding: Numeric

Number of tests performed among persons aged 30-39 years

Age 40-49

Field: Age40-49

Coding: Numeric

Number of tests performed among persons aged 40-49 years

Age 50-59

Field: Age50-59

Coding: Numeric

Number of tests performed among persons aged 50-59 years

Age 60-64

Field: Age60-64

Coding: Numeric

Number of tests performed among persons aged 60-64 years

Age 65-69

Field: Age65-69

Coding: Numeric

Number of tests performed among persons aged 65-69 years

Age 70-74

Field: Age70-74

Coding: Numeric

Number of tests performed among persons aged 70-74 years

Age 75-79

Field: Age75-79

Coding: Numeric

Number of tests performed among persons aged 75-79 years

Age 80+

Field: Age80+

Coding: Numeric

Number of tests performed among persons aged 80+ years

Age UNK

Field: AgeUNK

Coding: Numeric

Number of tests performed among persons where the age was not known

NCOVVARIANT metadata

The NCOVVARIANT metadata, **record type version 2** is used for reporting of aggregated data on variants of interest and of concern per week.

Common TESSy variables

Record Identifier (mandatory)

Field: RecordId

Coding: Text (max 80 characters)

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

- unique within the national COVID-19 disease surveillance system

- anonymous.

Record type (mandatory)

Field: RecordType

Coding: NCOVVARIANT

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

Record type version

Field: RecordTypeVersion

Coding: 1

The version of the record type defines the current structure of the data reported. If the dataset is changed, the version changes to the next higher integer. The current version of the NCOVVARIANT record type is 1.

This variable is not mandatory as TESSy concludes the record type version from the metadataset indicated. The variable RecordTypeVersion allows to override this default.

Subject (mandatory)

Field: Subject

Coding: NCOVVARIANT

The subject describes the disease to be reported.

Data source (mandatory)

Field: DataSource

Coding: Pre-assigned as CountryCode-NCOVVARIANT to each country; can be modified by National Coordinator

The data source specifies the surveillance system from which the data originates and is generated and revised/updated by the national contact point for surveillance in each Member State. The descriptions of the surveillance systems submitted to TESSy should be kept up to date and will be used to assist with data interpretation.

Reporting country (mandatory)

Field: ReportingCountry

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

This variable identifies the country reporting the case.

Date used for statistics (mandatory)

Field: DateUsedForStatistics

Coding: yyyy-Www

The week of sampling.

Epidemiological variables

Virus variant of SARS-CoV-2

Field: VirusVariant

Coding:

P.1 = P.1 variants (L18F, T20N, P26S, D138Y, R190S, K417T, E484K, N501Y, H655Y, T1027I, V1176F)

S_GENE_DELETION = Variant virus with deletion in S-gene (defined by mutation: del 69-70 or by negative S-gene RT-PCR)

VARIANT_OTHER = Variants not included in the coded value list, please specify

B.1.525 = B.1.525 (mutations: E484K, D614G, Q677H)

B.1.427/B.1.429 = B.1.427/B.1.429 (mutations: L452R, D614G)

B.1.617.2 = B.1.617.2 (mutations: L452R, T478K, D614G, P681R); B.1.617.2 and all of its sublineages including AY sublineages

B.1.621 = B.1.621 (mutations: R346K, E484K, N501Y, D614G, P681H)

B.1.351 = B.1.351 (defined by mutations: D80A, D215G, E484K, N501Y, A701V)

B.1.1.7 = B.1.1.7 (mutations: del69-70, del144, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H)

C.37= C.37 (mutations L452Q, F490S, D614G)

BA.1 = BA.1 or B.1.1.529 with mutations del69-70, ins214EPE, S371L, G496S, T547K

BA.2 = BA.2 or B.1.1.529 with mutations V213G, T376A, R408S

BA.2.75 = BA.2 sub-lineage with mutations D339H, G446S, N460K, and R493Q in the RBD, and mutations K147E, W152R, F157L, I210V, and G257S in the N-terminal domain of the Spike protein

BA.2+L452X = BA.2 and any of its sub-lineages with mutations at position 452 of the Spike protein

BA.3 = BA.3 or B.1.1.529 with mutations del69-70, ORF1a:A3657V, ORF3a:T22V

BA.4 = BA.4 or B.1.1.529 with mutations L452R, F486V, del69-70, NSP7b: L11F, N:P151S, ORF1a: Δ141-143

BA.5 = BA.5 or B.1.1.529 with mutations L452R, F486V, del69-70

BQ.1 = Pango lineage BQ.1 and sub-lineages

XBB = Pango lineage XBB and sub-lineages

UNK = Sequence information unknown or not available

COVID-19 case with a variant virus of SARS-CoV-2 according to a mutation pattern of specific concern identified by sequence analysis or by a specific RT-PCR pattern. Each virus should only be reported once, using the most specific variant available, to avoid double reporting. If several apply, choose the most specific variant (highest number of matching mutations). The mapping of sublineages published at *https://www.ecdc.europa.eu/sites/default/files/documents/PathogenVariant_public_mappings.csv* should be used to determine how to assign specific sublineages to items in the coded value list above. Additional information about which specific sublineages have been mapped may optionally be provided in addition in VirusVariantOther. Variants not included in the coded value list and/or which cannot be mapped to variants in the coded value list should be reported using VARIANT_OTHER with more details provided in VirusVariantOther. If typing results are inconclusive, report UNK.

Virus variant type other specified

Field: VirusVariantOther

Coding: TEXT

Specified variant type not captured in the coded values for VirusVariant variable as indicated in VARIANT_OTHER response for VirusVariant variable.

Number of detections from representative surveillance – sentinel

Field: NumberRepresentativeSentinel

Coding: Numeric

Number of the specific variant detected from representative sentinel (primary care or SARI) surveillance.

Refer to *https://www.ecdc.europa.eu/en/publications-data/operational-considerations-respiratory-virus-surveillance-europe* for more details.

Number of detections from representative surveillance – non-sentinel

Field: NumberRepresentativeNonSentinel

Coding: Numeric

Number of the specific variant detected from a carefully selected (representative) subset of non-sentinel specimens where this is needed to increase the volume of representative sequencing or genotyping to the desired detection threshold.

Refer to *https://www.ecdc.europa.eu/en/publications-data/operational-considerations-respiratory-virus-surveillance-europe* for more details.

Number of detections from targeted surveillance

Field: NumberTargeted

Coding: Numeric

Number of the specific variant detected from targeted sequencing or genotyping, such as unusual events or clinical presentations, travel, outbreaks etc.

Refer to *https://www.ecdc.europa.eu/en/publications-data/operational-considerations-respiratory-virus-surveillance-europe* for more details.

Number of detections with unknown reason for sequencing

Field: NumberUNK

Coding: Numeric

Number of the specific variant where the reason for sequencing or genotyping was not known.