

Surveillance of Influenza 2009/2010

Reporting protocol for Influenza data submission to TESSy (2009-08-28)

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1. Background information

The purpose, content and outputs of the influenza surveillance for the 2009/2010 season are described in the document **Overview of surveillance of influenza 2009/2010 in the EU/EEA**, circulated to national surveillance contact points in August 2009. It is available for download in the TESSy Help menu.

This reporting protocol describes the technical implementation of the data collection in TESSy, and available support resources to the Member States (MS) during the data collection. Details of the interaction with TESSy, technical variables, and file formats are described in the TESSy Transfer Protocol, available in the TESSy Help menu.

2. Overview of the data collection and report publication

The ILI/ARI sentinel surveillance and virological surveillance should be continued as they have been reported through the summer 2009. In addition, the new components of surveillance (aggregated reporting of A(H1N1) 2009 cases and SARI and fatal cases) should first start between Monday 7 September and Thursday 10 September reporting the data collected for week 36. Qualitative indicators should only be submitted if sentinel data is not available due to the strain on the resources caused by the pandemic.

Influenza-related data (related to both seasonal and pandemic) should be uploaded to TESSy once every week using the online data entry wizard or the file upload option. To enable

appropriate data submission and analysis, data source profiles for influenza surveillance must be valid and updated in the TESSy system. Ideally, each week's data should be submitted and approved at the latest on Thursday of the following week at 12:00 to ensure that it will be included into the weekly influenza report. Influenza contacts for the MS which have not submitted their weekly data by Wednesday afternoon at 18:00, will receive automated reminders from TESSy Helpdesk to kindly do so by the next morning.

Cumulative numbers will be made available in TESSy online reports and in bulletins/situation reports based on the weekly data in TESSy.

In addition to submission of weekly data, it is important that MS take due care in creation and editing the profile for the data source that they are using to submit their influenza data. The country's total population (denominator) should be recorded in the data source profile, i.e. that country's surveillance system characteristics.

Support for data upload and other questions can be directed to the TESSy Helpdesk at tessy@ecdc.europa.eu, or +46 8 5860 1601, available Mon-Fri 9:00 to 16:00 Stockholm time, excluding ECDC holidays.

3. What data should be reported?

Each record type definition can be found in the TESSy metadata report, or in a downloadable Excel file, containing detailed technical settings for each of the datasets collected.

The components of the influenza surveillance and their related TESSy implementation information are shown on the following page.

It is hoped that each component of this surveillance should continue to be reported by the Member States for as long as their resources allow. Please note, however, that the qualitative monitoring indicators should be reported only if the data from the sentinel system can no longer be made available. This means that the ILI/ARI dataset should be reported for as long as possible, and when no longer available, then Qualitative Indicator dataset (4 indicators) should be reported instead.

3.1. Data not reported to TESSy – EuroMOMO

Monitoring of all-cause mortality and excess mortality is being coordinated by the EuroMOMO project based in Copenhagen. The EuroMOMO project will provide information on the spread and the impact of the influenza pandemic. This project is currently in the test implementation phase in Belgium, Denmark, France, Ireland, Israel and Spain. In response to the current A(H1N1) influenza pandemic, EuroMOMO is accelerating its pilot phase aiming to shortly provide an "emergency" mortality monitoring system that uses a simple algorithm to measure excess deaths and provide standardised indicators for comparison across Europe. (<http://www.euromomo.eu/>)

3.2. What if you miss a week in reporting?

If you do not meet the deadline for reporting, the data from your country will not show up in the weekly report. If you send the data after the deadline, it will still be included in the historical overviews, so we encourage you to send the data even if you missed the deadline for

a specific week. Data sent after the deadline will not be updated retrospectively in the already published surveillance reports.

3.3. Changes to record types for virological surveillance

In the launch of the additional influenza surveillance components, the virological data collection specification is slightly modified. This is due to scientific knowledge gained from genetic and antigenic characterisations. California/7 will be added to the characterisation tables and will be presented together with the up till now collected California/4 in the bulletin and situation reports as "A/California/7/2009(H1N1) – like".

According to TESSy metadata management principles, this variable addition to the data collection implies that a new record type version for Record Type INFLANTIVIR will be issued. This change will be automatically taken into account for those data submitters that submit the data via the manual data entry interface. **Those that prepare files and submit the antiviral data via file upload must pay attention to add these additional variables to their file, and to set RecordTypeVersion=2.** For further clarification please contact the TESSy Helpdesk

As described in the document **Overview of surveillance of influenza 2009/2010 in the EU/EEA**, influenza surveillance has the following components. Below you will find related technical details of the implementation in TESSy.

| | In place in TESSy | In place in TESSy | New in TESSy starting September 2009 | New in TESSy starting September 2009 | New in TESSy starting September 2009 | External to TESSy |
|---|--|---|--|---|--|----------------------|
| Component | ILI/ARI sentinel surveillance | Virological surveillance | Case-based reporting of SARI and fatal cases | Aggregate reporting | Qualitative monitoring | EuroMomo |
| Provides information about | Morbidity in population | Circulating types/ subtypes. antiviral resistance | Severe spectrum of disease | Cases and deaths by age categories | Evolution of pandemic in absence of quantitative data | All-cause mortality |
| During monitoring phase | To be kept in place as long as possible | To be kept in place as long as possible | To be kept in place as long as possible | For countries monitoring laboratory confirmed cases | To be used when sentinel system(ILI/ARI) is not working | As soon as available |
| Record types and versions in TESSy | INFLCLINAGGR.1 (Clinical weekly data (ILI / ARI)) INFLCLINBASELINE.1 (Clinical baseline) | INFLANTIVIR.2 (Antiviral susceptibility) INFLANTIVIRTHAGGR.1 (Antiviral susceptibility threshold) INFLVIRAGGR.1 (Virological weekly data) | INFLSARI.1 (SARI and deaths) INFLSARIDENOM.1 (SARI and fatal cases - weekly denominator information) | AH1N1HAGGR.1 (AH1N1 - aggregate numbers of cases and deaths) | INFLQUALIND.1 (qualitative indicator surveillance) | |
| Related subjects (associate Data Source with relevant data source!) | INFLCLIN, INFLCLINBASEILI, INFLCLINBASEARI | INFLANTIVIR, INFLVIR | INFLSARI, INFLSARIDENOM | AH1N1 | INFLCLIN | |
| Related report types (associate Data Source with relevant data source-subject!) | Syndromic | Laboratory | Syndromic | Notification | Syndromic | |
| Can be submitted via Comments | File upload, manual data entry Either INFLCLINAGGR or INFLQUALIND can be reported, but not both at the same time for the same week. | File upload, manual data entry Related data source information is a vital part of the data submission. Edit data source and answer all related questions. Consult TESSy Helpdesk if you intend to manually enter antiviral data. | File upload INFLSARIDENOM should be reported only if the population covered by the participating hospitals in the relevant week has changed since previous report. | File upload, manual data entry | File upload, manual data entry Either INFLCLINAGGR or INFLQUALIND can be reported, but not both at the same time for the same week. | |

4. Updating information about Data Sources

Please review the current information describing your country's data sources used for influenza reporting and update it as necessary. The data source is not only a variable you submit in your data file or reference in manual data entry. It also annotates your dataset with the characteristics of its origin. For ILI/ARI, for example, the nature of the denominator for reported cases is denoted in the data source. This information is used in data analysis, and it is therefore extremely important to keep the correct information in the data source profile.

A summary of the information about data sources can be found in the Data Source menu. Below we describe the most common problems with data source use. If information must be updated, please edit it or contact your national contact for surveillance with a request to do so. The national contact for surveillance can also delegate the data source editing permissions to you – in such a case, please request that they email TESSy Helpdesk with your name and permission designation.

4.1. Common problem in influenza data sources: review and edit data sources you are currently using to submit data to TESSy

Since the start of the influenza reporting to TESSy, many countries have not fully configured their data source information. Moreover, we have also observed some instances of incorrect data sources being used for the weekly data submissions. TESSy Helpdesk will start contacting the Member States to correct such problems in anticipation of the new influenza season surveillance activities. However, each Member State should regularly review and update the data sources used.

To be able to submit data to TESSy, each of the influenza subjects must be associated with at least one data source (with all relevant information filled out in the profile). What subjects must be covered by a data source can be inferred from the **overview table in section 3 on relationships between subjects, report types and record types**.

Example actions to take:

1. The simplest example of a data source configuration would be creation of one data source, which covers all influenza-related subjects (and related report types): **INFLCLIN, INFLCLINBASEILI, INFLCLINBASEARI, INFLANTIVIR, INFLVIR, INFLSARI, INFLSARIDENOM, AH1N1**.
2. Some countries implement different surveillance systems for sentinel and laboratory surveillance, which would then result in creating two data sources, one associated with subjects related to sentinel surveillance, and the second associated with the subjects related to virological surveillance.

4.2. Common problem in influenza data sources: A historical data source is used for influenza data submissions

During the migration of the surveillance activities from the former EISS project to ECDC, TESSy helpdesk transformed a copy of the data stored in the EISS database and uploaded it to the TESSy system on behalf of the Member States. This data was needed for historical comparisons and to ensure uninterrupted work of the network members in the new system.

To transfer the historical influenza data from the legacy EISS system to TESSy, TESSy Helpdesk created data sources which are marked as *XX-Influenza_Historical*, with a note that this data source is a source of historical data from the former EISS network. This data source should now be inactivated and not used for subsequent weekly data submissions.

Instead, a new data source should be created, with all information filled out and associated with the relevant subjects (see **section 3 for relationships between subjects, report types and record types**). This new data source should then be used in upcoming data submissions to TESSy. The data will be appropriately shown in the influenza bulletin, online reports or additional situation reports.

To correct this:

1. Log in to TESSy
2. Go to Data Source menu (must have data source editing permissions)
3. Inactivate the *XX-Influenza_historical* data source (making it unusable for future submissions), by clicking on "inactivate" in its row in the overview table.
4. Create a new data source
 - i. Enter a name
 - ii. Associate with influenza-related subjects you wish to report from here
 - iii. Answer all general and influenza-specific questions about the data source
 - iv. Associate the subject with the correct report type
 - v. Review the information and save it
5. This data source can now be used for submission of data on configured subjects.

4.3. New influenza-related Record Types in TESSy: edit data sources before you start submitting data to TESSy

If no other revisions to your data sources are necessary, you should still prepare TESSy for submission of the new record types/subjects. To allow for the new components of the influenza data collection and analysis, new Record Types have been introduced into the Influenza data collection protocol. These are: INFLSARI.1, INFLSARIDENOM.1, AH1N1HAGGR.1, INFLQUALIND.1. What subjects they are linked to can be inferred from the **overview table in section 3 on relationships between subjects, report types and record types**.

As in other examples of data upload, it is important that you first configure a data source which will report this data to TESSy:

- i. Either create a new data source/data sources which will represent the sources of information for these particular components of influenza surveillance
 - a. Create new data source (you or national contact point for surveillance)
 - b. Add relevant subjects as subjects covered by this data source
 - c. Associate the subject with appropriate report type
 - d. Answer all relevant questions about this influenza surveillance activity.
 - e. Save.
- ii. Or, add the relevant subjects to your existing influenza data source, which you use to report ILI/ARI and virological data
 - a. Edit data source (you or national contact point for surveillance)
 - b. Add relevant subjects as subjects covered by this data source
 - c. Associate the subject with appropriate report type
 - d. Answer all relevant questions about this influenza surveillance activity.
 - e. Save.

5. How to access TESSy

5.1. TESSy web site

<https://tessy.ecdc.europa.eu>

5.2. Problems with user access

You should have received your username and password in a private email in the past. If you do not remember your password, you can reset your password yourself by going to the TESSy login screen and clicking on "*Forgot your password? Click here to reset it.*" After you enter your username, a new password will be sent to the email address associated with your user account.

If you remember neither your username nor your password, please contact TESSy Helpdesk and we will help you with your access. Please remember that three failed login attempts will lock your user account. The account will automatically be unlocked after 30 minutes. If this does not happen or need additional help, please contact TESSy Helpdesk.

5.3. User permissions on an existing user account

The "My Profile" menu in TESSy shows an overview of what kinds of permissions are linked to your user account. They were set based on instructions from the main surveillance contact point for your country. If you think they are wrong, please contact the TESSy Helpdesk.

5.4. Requesting additional user accounts

A Member State can request any number of user accounts for its experts working on influenza surveillance and reporting. The authorizer of new user accounts for a particular country is the National contact point for Surveillance. If you do not know who this is in your country, TESSy Helpdesk can give you this information.

To request a new user account, submit a properly filled-out form for a "new personal user account request", available for download from the TESSy Help menu. A signature of your National contact point for Surveillance is required. Alternatively, this filled-out form can also be emailed to TESSy Helpdesk by your national contact point for surveillance.

6. User support

Support for data upload and other questions can be directed to the TESSy Helpdesk at tessy@ecdc.europa.eu, or +46 8 5860 1601, available Mon-Fri 9:00 to 16:00 Stockholm time, excluding ECDC holidays.

Additional online training on how to use TESSy, including online video demonstrations of how to report ILI and ARI, can be found free at the address:

http://www.world-television.se/projects/ECDC/2009/TESSy_training_03/.

Please refer often to the TESSy Help menu as additions to documents and useful information are added regularly. During the season, a section with frequently asked questions will be built, as they reach TESSy Helpdesk. You can access the TESSy Help menu here directly:

<https://tessy.ecdc.europa.eu/TessyHelp/index.html>

TESSy HELPDESKTelephone number: **+46-(0)8-5860 1601**Email: **tessy@ecdc.europa.eu**Availability: 9:00 – 16:00 Stockholm time, Mon-Fri
(except ECDC Holidays)

7. In brief: Steps needed to submit data to ECDC

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|----|---|
| 1. | Prepare datasets to submit; if submitting data in a file, please make sure that the RecordID is different from any previously submitted data to TESSy for this particular subject from the referenced Data Source; records with RecordIDs identical to previously submitted data will be overwritten. |
| 2. | Log in to TESSy |
| 3. | Make sure that you have appropriate DataSource available and that you have updated the DataSource profiles. |
| 4. | If uploading a file: <ol style="list-style-type: none">We recommend: first test your file via "test batch" option in "upload data"Upload data (please carefully choose between REPLACE or ADD/UPDATE options, if in doubt use the REPLACE option) |
| 5. | If submitting data via manual data entry: <ol style="list-style-type: none">Upload data (enter one record manually)Go through all relevant sections of the manual data entry wizardReview any validation messages |
| 6. | Review Uploads: Review the batch (note that you cannot submit another batch for the same subject without first approving or rejecting a validated dataset) |
| 7. | Approve the batch (and send it to TESSy) or reject the batch (and resubmit another file) |
| 8. | Review the data in the overview reports (data for influenza will appear in the reports within 1 hour) |
| 9. | Good luck! |

8. Example: How to submit new weekly influenza data to TESSy

With example of ILI/ARI data

| Step | By uploading a data file (most common for weekly submissions: REPLACE option) | <i>Via manual data entry wizard</i> |
|------|--|---|
| 1 | <p><i>Review data sources in TESSy and make sure that you have a valid data source(s) available for your country for the influenza-related subjects, and that all influenza specific variables are answered in the profile(s).</i></p> <p>Note on using manual data entry for antiviral data: If you wish to enter the antiviral data via manual data entry, please contact TESSy Helpdesk to discuss appropriate data submission procedures.</p> | |
| 2 | <p>Prepare a CSV data file, containing all the data to be submitted for the relevant week. You will prepare one file with ILI/ARI numbers, and optionally two additional files, one with ILI and one with ARI baseline.</p> <p>Use the record types and subjects related to ILI/ARI influenza data – INFLCLINAGGR.1 (for subject INFCLIN) and INFLCLINBASELINE.1. (for two baseline subjects INFCLINBASELINEILI, INFCLINBASELINEARI). Definitions for record types (variables etc) is posted in TESSy <i>Help menu</i> or in the metadata report in <i>Reports menu</i>.</p> <p>Make sure that you are using the newest of the Record Types. For those valid for influenza in September 2009, the valid version numbers are presented in the table overview on page 4.</p> <p>Use ReportingCountry= "relevant country code" and DataSource= "corresponding national data source valid for your MS".</p> | <p><i>Prepare overview information you will need to enter data manually.</i></p> |
| 3 | <p><i>Log in to TESSy with your user account. You must have upload and approve permissions on your account to be able to submit data.</i></p> | |
| 4 | <p>Go to <i>Upload data – Report batch – Replace</i></p> | <p><i>Go to Upload data – Manually report one record</i></p> |
| 5 | <p>---</p> | <p><i>Manual Data Entry Wizard</i></p> <p><i>Select Subject: either INFLCLIN</i></p> <p><i>Select RecordType: corresponding record type will become available after you select subject.</i></p> <p><i>Click on Start data entry wizard.</i></p> |

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|-------------|---|---|
| Step | By uploading a data file (most common for weekly submissions: REPLACE option) | <i>Via manual data entry wizard</i> |
| 6 | <p>Upload File Window</p> <p><i>Browse</i> for the file you prepared to select it for upload.</p> <p>Leave the Metadataset pull-down menu unchanged.</p> <p>Click <i>Finish</i>.</p> | <p><i>Enter the data</i></p> <p>Data entry is arranged through several sections, which you can see referenced in the list on the left. You can click through the sections in this list, or follow the workflow through all sections by clicking <i>Next</i> on bottom right side in each section.</p> <p>After all data is entered, in the last section, click <i>Finish</i> to check the entered data for consistency. If TESSy returns comments, please go back to relevant section and fix the indicated problem. If there is no problem in this validation feedback, submit the data to TESSy.</p> <p>Notes about section <i>General</i>:</p> <p>Data Source: Use the data source set up in TESSy to report the related data.</p> <p>Date period reported: Enter the week number you are submitting data for.</p> |
| 7 | <p><i>Review validation results and approve batch</i></p> <p><i>After the submitted data is validated by TESSy, you can see your submission in the menu Review uploads.</i></p> <p><i>Click on the date/time to view details of the validation feedback – review any messages, and summary overview of what kind of data TESSy will process as you click Accept.</i></p> <p><i>a. If errors were identified, then fix the problems and start with the data submission again.</i></p> <p><i>b. If the batch of data was validated without major errors, then you must approve the data for reporting in TESSy by clicking the Accept button.</i></p> | |
| 8 | <p><i>The approved data can then be viewed in the online influenza-related reports within 1 hour.</i></p> | |