

European Travelling donors' risk assessment – USER MANUAL

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This manual is intended for users of the European Travelling donors' risk assessment tool. This tool allows estimation of the risk of transmission of arboviruses by donors who have travelled to affected areas within Europe. With this tool the risk of an individual outbreak but also that of multiple outbreaks in different areas can be assessed.

The tool provides the option to assess the risk using two different models: (1) The “Maximum Risk” model, and (2) the “EUFRAF” model. For more information regarding the model, modelling assumptions, formulas to calculate the outputs from the maximum risk model please refer to the scientific paper that will be foreseen later this year. For more information regarding the EUFRAT model please refer to Document TTA20151215EUM, which is available at: https://euftrattool.ecdc.europa.eu/docs/EUFRAT_User_Manual.pdf

The risk estimation requires following a number of steps, including but not limited to: entry of data regarding the disease considered, outbreak information and the region or country to be assessed by the user (see Figure 1).

This user manual provides a step-by-step overview of the tool, the definition of the inputs required and outputs generated by the tool. Throughout this document screenshots of the tool are shown with text boxes explaining their respective functions. Note that the specific numbers might differ slightly from the actual output of the model due to updates of the underlying (travel and donor/donation) data.

If you have any questions or suggestions concerning the tool, please contact Mart Janssen at m.janssen@sanguin.nl

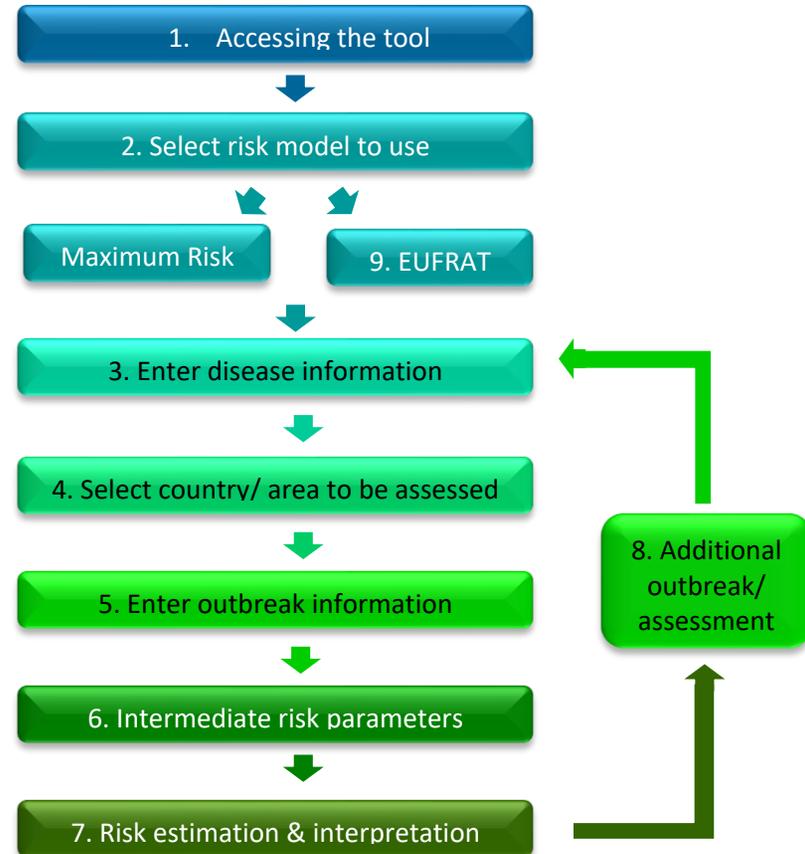


Figure 1 Flowchart of the risk assessment process

GENERAL STEPS FOR BLOOD TRANSFUSION RISK ASSESSMENT

1. Accessing the tool

1.1 Open the excel file “EBA European Travelling Donors' Risk Assessment Tool V2.4.xlsm” and make sure you enable *making changes to the contents and allow running of macros.*

1.2 Once you open the file you should see the following:

European Travelling donors' risk assessment tool (V2.4)

Grey cells are input fields

Virus assessed

Select virus to assess (or select other)

Country assessed

Select country or region at risk to evaluate

Disease characteristics

Duration of latent period of acute infection (days)

Duration of infectious period during the acute phase of the disease (days)

Outbreak characteristics

European country of outbreak

Number of observed infections

Proportion of unobserved/ asymptomatic infections

Risk parameters

Country specific travelling donors' risk factor (per day)

Visitors per inhabitant per year

Disease specific travelling donors' risk factor (days squared)

Country specific local transmission risk factor (per day)

Estimated number of transmissions by blood products

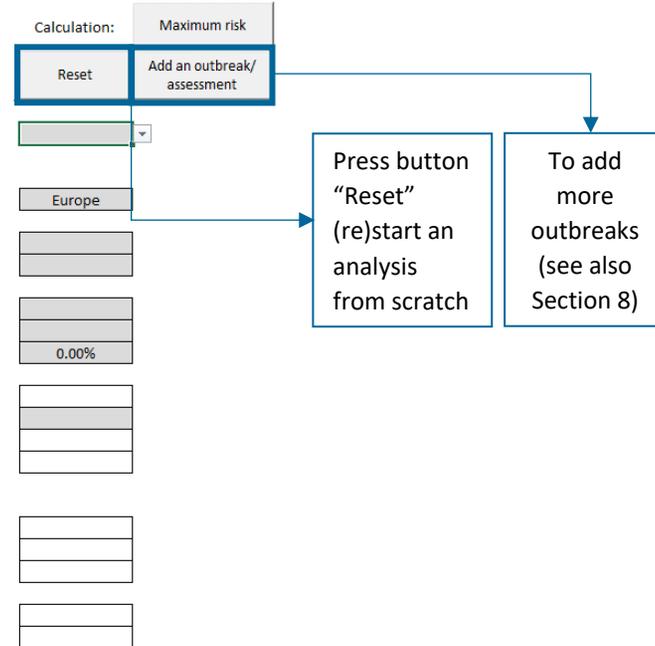
In the country at risk (or for all of Europe if selected), per observed infection

In the country of the outbreak (or for all of Europe if selected), per observed infection

Ratio of transmissions from local outbreak and transmissions by travelling donors

Total number of transmissions in the country at risk (or all of Europe if selected)

Total number of transmissions in the country of the outbreak

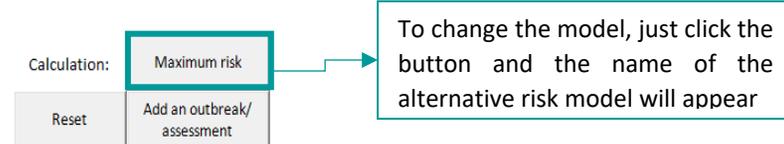


2. Select risk model to use

2.1 Please select the desired risk model to use for the assessment: the “Maximum Risk” model or the “EUFRA^T” model (See description of the EUFRAT model in Section 9).

European Travelling donors' risk assessment

(Grey cells are input fields)



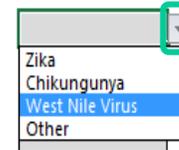
Note: Please consider that the EUFRAT risk model requires the average time that people stay at their travel destination, the Maximum risk model does not, and assumes a length of stay is equal to the sum of D_a and D_{ia} . Therefore, the analyses should be limited to infections with D_a and D_{ia} less than 15 days to prevent too conservative risk estimates.

3. Enter disease information

3.1 Please select the virus to assess from the pick list.

Virus assessed

Select virus to assess (or select other)



Click the right arrow to display the viruses available

Country assessed

Select country or region at risk to evaluate

Note: Once the virus to assess is selected, values of the “Duration of latent period of acute infection (D_{ia})” and the “Duration of infectious period during the acute phase of the disease (D_a)” for the disease appear automatically. However, these values can be changed by the user if considered necessary. Please note that the *EUFROT* risk model requires that the average time that people stay in the country of destination is available from the database included in the tool, the Maximum risk model does not require these data, but the sum of D_a and D_{ia} needs to be less than 15 days.

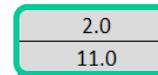
Virus assessed

Select virus to assess (or select other)



Disease characteristics

Duration of latent period of acute infection (days)



Duration of infectious period during the acute phase of the disease (days)

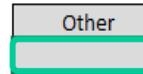


Enter the numbers to change to alternative values

3.2 If the virus to include is not in the pick list, please select the option “Other”. A new cell will appear where the name of the virus can be entered.

Virus assessed

Select virus to assess (or select other)



If other please write the name of an alternative virus to be assessed

Enter the disease to assess

Disease characteristics

Duration of latent period of acute infection (D_{ia})



Duration of infectious period during the acute phase of the disease (D_a)

Enter in the appropriate values

Note: The disease characteristics for the virus must be entered manually if an alternative virus is used in the assessment.

4. Select country / area to be assessed

4.1 Please select the country at risk for infection transmission by blood transfusion from the pick list.

Country assessed

Select country or region at risk to evaluate

Disease characteristics

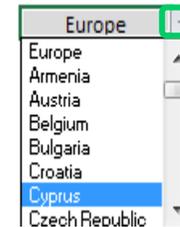
Duration of latent period of acute infection (Dia)

Duration of infectious period during the acute phase of the disease (Da)

Outbreak characteristics

European country of outbreak

Number of observed infections



Click the right arrow to display the list of available countries. The name of the country can also be entered manually.

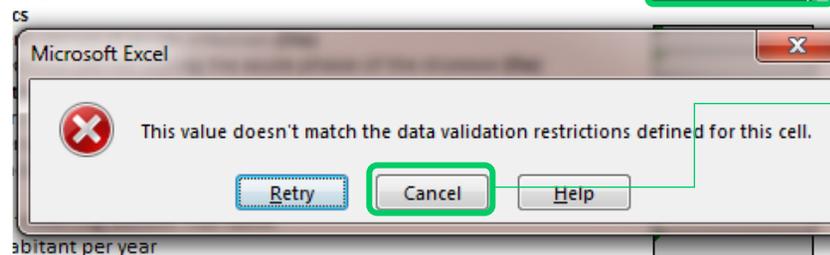
Note: It is possible to assess “Europe” as a whole region of exposure. The risk provided for this specific case is the sum of risk of all individual countries.

4.2 If the user enters the name of a country that is not in the list, the following error message will appear.

Country assessed

Select country or region at risk to evaluate

colombia



Click the option “Cancel” and select a name from the pick list

5. Enter outbreak information

5.1 Select the country of the outbreak considered from the pick list.

Outbreak characteristics

European country of outbreak

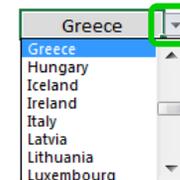
Number of observed infections

Proportion of unobserved/ asymptomatic infections

Risk parameters

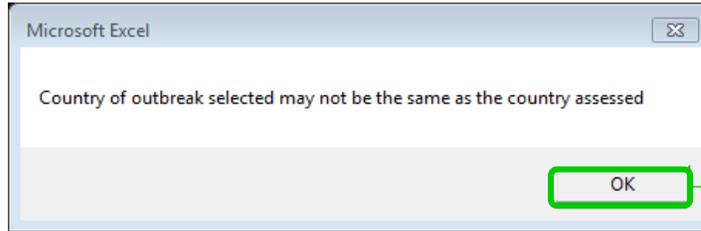
Country specific travelling donors' risk factor (per day)

Visitors per inhabitant per year



Click the right arrow to display the list of available countries

Note: The country of the outbreak cannot be the same as the country at risk. The risk of local transmission due to the outbreak is provided automatically as a separate output. In case the same country is selected, the following message will appear:



Click the button "OK" and select a different country of outbreak from the picklist

5.2 Entering the number of infections detected during the outbreak

Outbreak characteristics

European country of outbreak
 Number of observed infections
 Proportion of unobserved/ asymptomatic infections

Greece
0.00%

Enter the number or cases reported during the outbreak in this cell

5.3 Entering the proportion of unobserved and/or asymptomatic cases.

Outbreak characteristics

European country of outbreak
 Number of observed infections
 Proportion of unobserved/ asymptomatic infections

Greece
216
99.60%

Enter the proportion of unobserved and/or asymptomatic cases of infection as a percentage (in this case the formula was '=1-1/250')

6. Intermediate risk parameters

The final risk estimate is derived from four risks parameters calculated and provided by the tool. The parameters are displayed automatically once the user has entered all the values for Sections 3 to 5. Note that the estimate for the number of visitors per inhabitant per year provided by the tool can be changed by the user if so required.

6.1 Country specific travelling donor's risk factors

Risk parameters

Country specific travelling donors' risk factor (per day)
 Visitors per inhabitant per year
 Disease specific travelling donors' risk factor (days squared)
 Country specific local transmission risk factor (per day)

1.67E-04
1.5663
20,625
2.1E-04

Risk factor associated with characteristics of the local blood supply. It considers the number of products distributed in the country of origin and the proportion of donors.

6.2 Visitors per inhabitant per year

Risk parameters

Country specific travelling donors' risk factor (per day)
Visitors per inhabitant per year
Disease specific travelling donors' risk factor (days squared)
Country specific local transmission risk factor (per day)

1.67E-04
1.5663
20,625
2.1E-04

This value shows the number of visitors from the country of origin to the outbreak area per number of inhabitants in the outbreak area per year

Note: The user can change this ratio if necessary, so in case a more appropriate estimate is available for the outbreak region considered. Also, this information may not be available from the sources used for collecting travel data.

Risk parameters

Country specific travelling donors' risk factor
Visitors per inhabitant per year
Disease specific travelling donors' risk factor
Country specific local transmission risk factor

1.69E-04
20,625
3.5E-05

Specific travel information is unavailable

Enter the missing data in this space. A value is required for estimation the risk

6.3 Disease-specific travelling donors' risk factor

Risk parameters

Country specific travelling donors' risk factor (per day)
Visitors per inhabitant per year
Disease specific travelling donors' risk factor (days squared)
Country specific local transmission risk factor (per day)

1.67E-04
1.5663
20,625
2.1E-04

This factor indicates the virus specific contribution to the risk of transmission. It considers the duration of the incubation and infectious periods.

6.4 Country specific local transmission risk factor

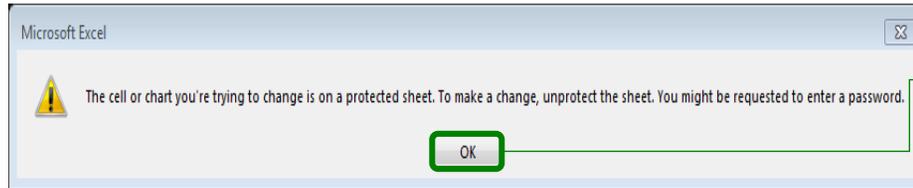
Risk parameters

Country specific travelling donors' risk factor (per day)
Visitors per inhabitant per year
Disease specific travelling donors' risk factor (days squared)
Country specific local transmission risk factor (per day)

1.67E-04
1.5663
20,625
2.1E-04

This factor is associated with the risk of transmission by donors living in the outbreak area. It considers the number of products distributed in the country and the proportion of donors.

Note: Only the values displayed in grey cells can be modified by the user. If the user tries to change any of the other cells the following error box will appear:



Click the "OK" button to close the message box. To change values in the databases used in the tool please refer to section 10 of this user manual.

7. Risk estimation & interpretation

The estimated number of transmissions by blood products are displayed for both the country at risk and the country of the outbreak once the user has entered all the values required as described above. The risk can be estimated in two ways, namely for the country at risk and for the country of the outbreak.

7.1 Risk for the country assessed per observed infection in an outbreak area

Estimated number of transmissions by blood products

- In the country at risk (or for all of Europe if selected), per observed infection
- In the country of the outbreak (or for all of Europe if selected), per observed infection
- Ratio of transmissions from local outbreak and transmissions by travelling donors

1.47E-02
5.7E-01
38.4

Estimated number of transmissions by blood products in the selected country assessed, per observed human case of infection in the outbreak area.

Note: Based on this number it is possible to calculate the number of observed infections required to obtain one infected blood product in the country/region of assessment.

68 observed infections required for one infected blood product in Europe
 2 observed infections required for one infected blood product in Greece

7.2 Risk for the country of outbreak per observed infection in the region

Estimated number of transmissions by blood products

- In the country at risk (or for all of Europe if selected), per observed infection
- In the country of the outbreak (or for all of Europe if selected), per observed infection
- Ratio of transmissions from local outbreak and transmissions by travelling donors

1.47E-02
5.7E-01
38.4

Estimated number of transmissions by blood products in the selected country of the outbreak, per observed human case of infection in the same region.

Note: Based on this number it is possible to calculate the number of observed infections required to obtain one infected blood product in the country/region of the outbreak.

68 observed infections required for one infected blood product in Europe

2 observed infections required for one infected blood product in Greece

7.3 Ratio between local and travellers' risk

Estimated number of transmissions by blood products

In the country at risk (or all of Europe if selected) per observed infection

1.47E-02

In the country of the outbreak (or all of Europe if selected), per observed infection

5.7E-01

Transmissions from local outbreak divided by transmissions by travelling donors

38.4

This value is the ratio between the risk of transmission by the local blood supply and the risk of transmission by travelling donors who visited the outbreak area.

7.4 Risk for the country assessed, considering all cases during the outbreak

Total number of transmissions in the country at risk (or all of Europe if selected)

3.2E+00

Total number of transmissions in the country of the outbreak

1.2E+02

Estimated number of transmissions by blood products in the selected country assessed, considering the total number of cases reported during the outbreak

Note: Based on this risk estimate it is possible to calculate the number of outbreaks required (with the same number of cases as the outbreak described) to obtain one infected blood product in the country/region assessed.

1 outbreak required for multiple infected blood products in Europe

1 outbreak required for multiple infected blood products in Greece

Total number of transmissions in the country at risk (or all of Europe if selected)
Total number of transmissions in the country of the outbreak

3.2E+00

1.2E+02

Estimated number of transmissions by blood products in the selected country of the outbreak, as a result of the total number of cases reported during the outbreak

7.5 Risk for the country of outbreak, considering all cases reported

Note: Based on this risk estimate is possible to calculate the number of outbreaks required (with the same number of cases as the outbreak described) to obtain one infected blood product in the country/region of the outbreak.

1 outbreak required for multiple infected blood products in Europe

1 outbreak required for multiple infected blood products in Greece

7.6 Additionally, for a proper interpretation of the results the tool also provides a list of countries with missing data on blood products distributed and on missing data regarding travellers going to the outbreak area (if applicable).

Country assessed

Select country or region at risk to evaluate

Europe

Greece

Outbreak characteristics

European country of outbreak

3 countries without country specific donor data:

Slovenia
Turkey
Ukraine

For this combination of countries assessed, in 3 countries no data on the blood supply (proportion of donors or number of products distributed) were available and the European averages were applied for these countries

5 countries without travellers data:

Armenia
FYR Macedonia
Georgia
Montenegro
Serbia

For this combination of countries assessed, for 5 countries data regarding travels to the country of the outbreak were not available
Note: These countries were therefore not included in the calculation of the risk

ADDITIONAL FUNCTIONS OF THE TOOL

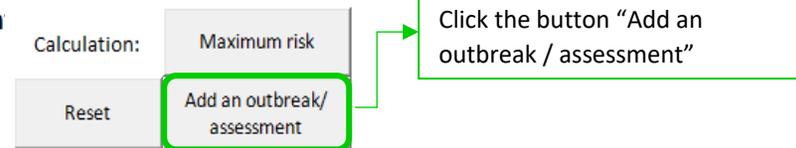
8. Additional outbreak /assessment

Next to the general inputs and functions described above, the tool also allows addition of alternative outbreaks that may contribute to the risk in a particular region.

8.1 Adding an additional outbreak / assessment

European Travelling donors' risk assessment

(Grey cells are input fields)



A new column will be added to the risk assessment requiring the same information as in the assessment of a single outbreak. This allows assessing the impact of additional outbreaks for a particular region, or from a particular region. For the new assessment the values from the first outbreak will be copied which can next be changed.

Virus assessed

Select virus to assess (or select other)

West Nile Virus West Nile Virus

Country assessed

Select country or region at risk to evaluate

Europe Europe

Disease characteristics

Duration of latent period of acute infection (days)

2.0 2.0

Duration of infectious period during the acute phase of the disease (days)

11.0 11.0

Outbreak characteristics

European country of outbreak

Greece Greece

Number of observed infections

216 216

Proportion of unobserved/ asymptomatic infections

99.60% 99.60%

Risk parameters

Country specific travelling donors' risk factor (per day)

1.67E-04 1.67E-04

Visitors per inhabitant per year

1.5663 1.5663

Disease specific travelling donors' risk factor (days squared)

20,625 20,625

Country specific local transmission risk factor (per day)

2.1E-04 2.1E-04

Estimated number of transmissions by blood products

In the country at risk (or for all of Europe if selected), per observed infection

1.47E-02 1.47E-02

In the country of the outbreak (or for all of Europe if selected), per observed infection

5.7E-01 5.7E-01

Ratio of transmissions from local outbreak and transmissions by travelling donors

38.4 38.4

Total number of transmissions in the country at risk (or all of Europe if selected)

3.2E+00 3.2E+00

Total number of transmissions in the country of the outbreak

1.2E+02 1.2E+02

New input fields. Please follow steps from Sections 2 to 6 and enter the appropriate data.

8.2 This option allows the user to assess different situations

8.2.1 Comparison of impact in the same area generated for more than one outbreak

Virus assessed

Select virus to assess (or select other)

West Nile Virus	West Nile Virus
-----------------	-----------------

Risk for one country is assessed

Country assessed

Select country or region at risk to evaluate

Europe	Europe
--------	--------

Different outbreaks during the same time of assessment

Disease characteristics

Duration of latent period of acute infection (days)
Duration of infectious period during the acute phase of the disease (days)

2.0	2.0
11.0	11.0

Outbreak characteristics

European country of outbreak
Number of observed infections
Proportion of unobserved/ asymptomatic infections

Greece	Italy
216	115
99.60%	99.60%

Number of transmissions estimated in each assessment area per observed infection in each individual outbreak area

Risk parameters

Country specific travelling donors' risk factor (per day)
Visitors per inhabitant per year
Disease specific travelling donors' risk factor (days squared)
Country specific local transmission risk factor (per day)

1.67E-04	1.71E-04
1.5663	0.7055
20,625	20,625
2.1E-04	1.6E-04

Estimated number of transmissions by blood products

In the country at risk (or for all of Europe if selected), per observed infection
In the country of the outbreak (or for all of Europe if selected), per observed infection
Ratio of transmissions from local outbreak and transmissions by travelling donors

1.47E-02	6.80E-03
5.7E-01	4.5E-01
38.4	66.0

Number of transmissions estimated in each outbreak area per observed infection

Total number of transmissions in the country at risk (or all of Europe if selected)

3.2E+00	7.8E-01	Total	4.0E+00
---------	---------	--------------	---------

Number of transmissions estimated in each individual area at risk per outbreak

Sum of estimated transmissions of all individual areas at risk

Total number of transmissions in the country of the outbreak

1.2E+02	5.2E+01	1.7E+02
---------	---------	---------

Total number of local transmissions estimated in each individual outbreak area

Sum of estimated local transmissions in all outbreak areas listed

8.2.2 Comparison of impact in different areas generated for one unique outbreak

Virus assessed

Select virus to assess (or select other)

West Nile Virus	West Nile Virus
-----------------	-----------------

Country assessed

Select country or region at risk to evaluate

Belgium	Germany
---------	---------

Different countries to be assessed

Disease characteristics

Duration of latent period of acute infection (days)

2.0	2.0
-----	-----

Duration of infectious period during the acute phase of the disease (days)

11.0	11.0
------	------

Outbreak characteristics

European country of outbreak

Greece	Greece
--------	--------

Assessment of one outbreak

Number of observed infections

216	216
-----	-----

Proportion of unobserved/ asymptomatic infections

99.60%	99.60%
--------	--------

Risk parameters

Country specific travelling donors' risk factor (per day)

1.70E-04	2.04E-04
----------	----------

Visitors per inhabitant per year

0.0349	0.2653
--------	--------

Disease specific travelling donors' risk factor (days squared)

20,625	20,625
--------	--------

Country specific local transmission risk factor (per day)

2.1E-04	2.1E-04
---------	---------

Estimated number of transmissions by blood products

In the country at risk (or for all of Europe if selected), per observed infection

3.35E-04	3.05E-03
----------	----------

In the country of the outbreak (or for all of Europe if selected), per observed infection

5.7E-01	5.7E-01
---------	---------

Ratio of transmissions from local outbreak and transmissions by travelling donors

1,693.6	185.7
---------	-------

Total number of transmissions in the country at risk (or all of Europe if selected)

7.2E-02	6.6E-01	Total	7.3E-01
---------	---------	-------	---------

Total number of transmissions in the country of the outbreak

1.2E+02	1.2E+02	2.4E+02
---------	---------	---------

Note: In this case the total value for the risk of infection within the country selected is double-counted and should therefore not be considered. Only when related to *different* outbreaks this value would make sense.

8.2.3 Impact for all Europe generated multiple outbreaks (different or same disease).

Virus assessed

Select virus to assess (or select other)

West Nile Virus	West Nile Virus
-----------------	-----------------

Risk for one region is assessed

Country assessed

Select country or region at risk to evaluate

Europe	Europe
--------	--------

Different outbreaks for assessment

Disease characteristics

Duration of latent period of acute infection (days)
Duration of infectious period during the acute phase of the disease (days)

2.0	2.0
11.0	11.0

Number of transmissions estimated in Europe per observed infection in each individual outbreak region

Outbreak characteristics

European country of outbreak
Number of observed infections
Proportion of unobserved/ asymptomatic infections

Greece	Italy
216	115
99.60%	99.60%

Number of transmissions estimated in each outbreak area per observed infection

Risk parameters

Country specific travelling donors' risk factor (per day)
Visitors per inhabitant per year
Disease specific travelling donors' risk factor (days squared)
Country specific local transmission risk factor (per day)

1.67E-04	1.71E-04
1.5663	0.7055
20,625	20,625
2.1E-04	1.6E-04

Total number of transmissions in Europe estimated per outbreak

Estimated number of transmissions by blood products

In the country at risk (or for all of Europe if selected), per observed infection
In the country of the outbreak (or for all of Europe if selected), per observed infection
Ratio of transmissions from local outbreak and transmissions by travelling donors

1.47E-02	6.80E-03
5.7E-01	4.5E-01
38.4	66.0

Total number of transmissions in all of Europe estimated due to all outbreaks listed

Total number of transmissions in the country at risk (or all of Europe if selected)
Total number of transmissions in the country of the outbreak

		Total
3.2E+00	7.8E-01	4.0E+00
1.2E+02	5.2E+01	1.7E+02

Sum of estimated local transmissions in all outbreak areas listed

Total number of local transmissions estimated in each of the individual outbreak areas

9. Change assessment to EUFRAT model

As was described in Section 2.1, the tool allows the user to choose between two different models to calculate the risk (the “Maximum risk” model, described above and the “EUFRAT” model). Unlike the Maximum risk model, the EUFRAT model uses the average of time that a subject will stay in the outbreak area as a variable in its calculation. This causes the estimates to differ slightly when applying either model. Note that the EUFRAT model will generally provide lower risk estimates, whilst requiring more data (length of stay information) for its calculation.

Grey cells are input fields

Virus assessed

Select virus to assess (or select other)

Calculation: **EUFRAT method**

Reset Add an outbreak/assessment

West Nile Virus

Country assessed

Select country or region at risk to evaluate

Europe

Disease characteristics

Duration of latent period of acute infection (days)

2.0

Duration of infectious period during the acute phase of the disease (days)

11.0

Outbreak characteristics

European country of outbreak

Greece

Number of observed infections

216

Proportion of unobserved/ asymptomatic infections

99.60%

Risk parameters

Country specific travelling donors' risk factor (per day)

1.08E-04

Visitors per inhabitant per year

1.5663

Disease specific travelling donors' risk factor (days squared)

20,625

Country specific local transmission risk factor (per day)

2.1E-04

Estimated number of transmissions by blood products

In the country at risk (or for all of Europe if selected), per observed infection

9.52E-03

In the country of the outbreak (or for all of Europe if selected), per observed infection

5.7E-01

Ratio of transmissions from local outbreak and transmissions by travelling donors

59.5

105 observed infections required for one infected blood product in Europe
2 observed infections required for one infected blood product in Greece

Total number of transmissions in the country at risk (or all of Europe if selected)

2.1E+00

Total number of transmissions in the country of the outbreak

1.2E+02

1 outbreak required for one infected blood product in Europe
1 outbreak required for multiple infected blood products in Greece

10 countries without length of stay data:

- Croatia
- Iceland
- Latvia
- Lithuania
- The Netherlands
- Poland
- Romania
- Slovakia
- Ukraine
- United Kingdom

In addition to the missing information described in Section 7.6, when applying this model also the total number of countries (and their names) without length of stay data will be shown. Note that for these countries the tool now will automatically apply the maximum risk model. In the latest version of the tool (with updated data) no additional countries will be shown as length of stay information for all countries with travel data are available.

Note: Even when the risk estimates change, the interpretation of the outcomes remains the same

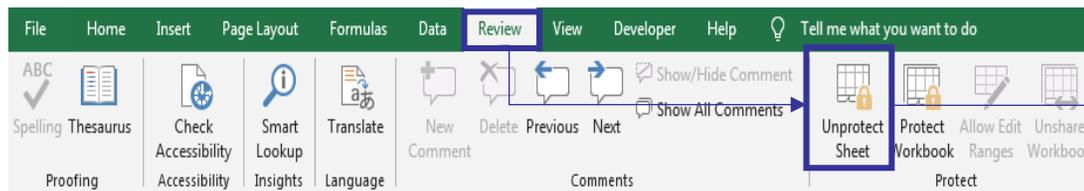
CHANGES AND UPDATES OF VALUES

10. Changes & updates of data

The Risk Assessment spreadsheet contains 11 hidden datasheets: 1. Outbreak assessment (contains the tool and allows the assessment of risk due to outbreaks), 2. Index of changes made (contains track information of the tool versions), 3. Variables used (list of variables considered in the risk model), 4. Donation data, 5. Population_CoE, 6. Donation_CoE (Contain the information regarding use of blood and blood components for transfusion and population data from each country of Europe), 7. Average stay (Dv) (Contains information regarding the average of time that people stay in a country), 8. Arrivals per day (fv), 9. Arrivals per year (Contain the number of arrivals at tourist accommodation to each country of Europe), 10. Nights spend by country (Contains the time spend by tourists in each country of Europe) and 11. EID (Epidemiological characteristics of the Emergent Infectious Diseases). **NOTE: The impact of any changes made to these data are the responsibility of the user.**

10.1 Changes in the Outbreak assessment sheet

10.1.1 As explained above, the values in the grey cells can be changed if considered necessary by the user. To change values from other cells in the “Outbreak assessment” double click over the cell, if the cell is protected an error message will popup.



Click the “unprotect sheet” option. **Note: No password is required to unprotect this sheet**

10.1.2 After closing the error box, you can unprotect the sheet by clicking the “Unprotect sheet” button on the “Review” tab.

Virus assessed
Select virus to assess (or select other)

Country assessed
Select country or region at risk to evaluate

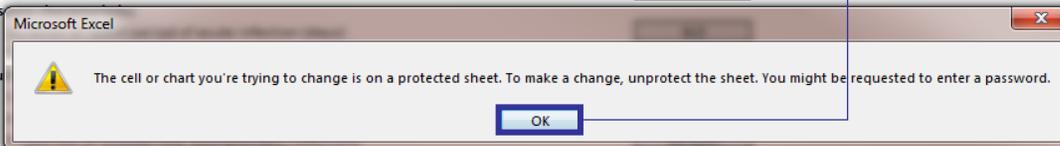
Dis

Out

Risk parameters

Country specific travelling donors' risk factor (per day)	1.54E-04
Visitors per inhabitant per year	1.1442
Disease specific travelling donors' risk factor (days squared)	14,781
Country specific local transmission risk factor (per day)	1.6E-04

Press “OK” to close the error window



10.1.3 Click in the value to be changed and enter the new value. **Note:** Click “reset to restore original formulas from the cells”

Grey cells are input fields

Virus assessed

Select virus to assess (or select other)

Country assessed

Select country or region at risk to evaluate

Disease characteristics

Duration of latent period of acute infection (days)

Duration of infectious period during the acute phase of the disease (days)

Outbreak characteristics

European country of outbreak

Number of observed infections

Proportion of unobserved/ asymptomatic infections

Risk parameters

Country specific travelling donors' risk factor (per day)

Visitors per inhabitant per year

Disease specific travelling donors' risk factor (days squared)

Country specific local transmission risk factor (per day)

Calculation:	Maximum risk
Reset	Add an outbreak/assessment
West Nile Virus	
Europe	
	8.0
	5.5
Europe	
	150
	99.60%
	1.1442
	14,781
	1.6E-04

Click “Reset” to restore the original formulas. **Note:** the “Reset” action will delete ALL values entered previously.

Click to enter an alternative value

10.2 Changes in or updates of data included in the tool

Some information contained in the sheets 4.1 Population_CoE, 4.2 Donation_CoE, 5.3 Arrivals per year and 5.4 Nights spend by country, can be updated if the user considers it necessary.

10.2.1 To update these values it is necessary to unhide the tab required

Total number of transmissions in the country at risk (or all of Europe if selected)

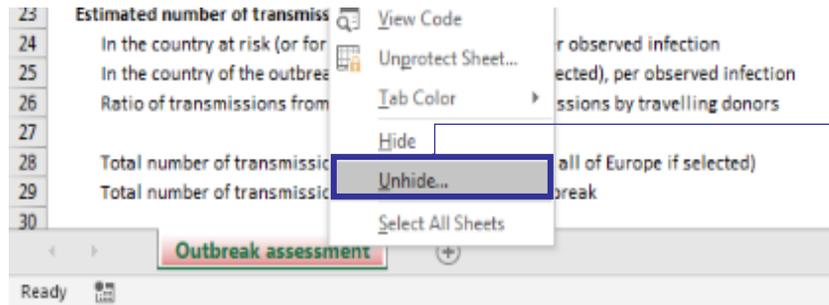
Total number of transmissions in the country of the outbreak

dy

Outbreak assessment

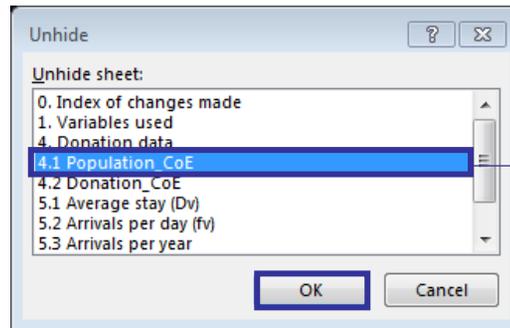
Click with the right button of the mouse in the “Outbreak assessment” tab.

10.2.2 A menu will appear. Select the option “Unhide”



Click in the option unhide.
A list with the name of the sheets available will appear

10.2.3 From the list select the sheet with the data to be updated.



Select the name of the sheet to be updated and press “OK”

Note: all sheets can be revealed all at once by running the macro “UnSetH” and be hidden by running the macro “SetH”.

10.2.4 The selected sheet will be opened. To change a value in the data table, click the appropriate cell and update it.

Georgia	32,725	17,116
Germany	2,174,627	413,085
Greece	305,123	62,138
Hungary	220,656	51,822
Iceland	5,913	
Ireland	71,715	13,795

Outbreak assessment 4.1 Population_CoE

Double click the value to be updated, and enter the new information

The original values can be updated, however if the cell that the user wants to change contains a formula this value can NOT be changed and an error box will pop up.

Formula bar: `=IF((ISNUMBER(H13)),H13*1000,"")`

regular and repeat donors	first time donors	% first time donors	first time donating	first time tested only	total donor x 1,000	inhabitants x 1,000	donors per 1,000 inhabitants	total inhabitants
3,643	7,201	71.3	90	10	10,096	3,011	3.4	3,010,600
219,334	38,369	14.8			258,488	8,633	29.9	8,633,000
228,597	53,868	19.1	100	0	282,465	11,268	25.1	11,267,910
84,218	34,435	29.0	100	0	118,653	7,178	16.5	7,177,991

Microsoft Excel error message: The cell or chart you're trying to change is on a protected sheet. To make a change, unprotect the sheet. You might be requested to enter a password.

OK

Cell with a formula. This value can NOT be changed

Click "OK" to close the error box

Note: Changing protected cells on the spreadsheet requires a password. Please contact the administrator of the tool.

Unprotect Sheet dialog box:

Password:

OK Cancel

Click the option "Cancel" to close this box