

EXERCISE EXERCISE EXERCISE

ECDC Simulation Exercise

Background information

According to EuroMeteo, '2015 was the warmest year on record, with mean temperatures above the long-term average'. The El Nino was also particularly active in late 2015, early 2016. The winter of 2015/6 was very mild and the summer of 2016 starts early with a particularly hot but wet April. A particularly intense period of warm wet weather is predicted for the coming months around the Mediterranean and Black Sea countries.

Whilst the limited mosquito data collected in some Mediterranean and Black Sea countries during early spring 2016 has not indicated the distribution of *Aedes aegypti* and *Aedes albopictus* increasing significantly beyond known areas of colonisation, there appear to be significantly greater numbers than is usual for this time of year.

Each table should nominate a note taker to complete the group green answer sheet and a spokes person to feedback when required.

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ECDC Simulation Exercise

INJECT

Scenario Date:	19 May
Inject No:	001
Inject Title:	Outbreak in a neighbour country
Inject sent to:	All participating MSs

A suspected outbreak of dengue fever has been reported in one of your neighbour countries in an area with known presence of competent vector. The outbreak was first reported in the local media and then was quickly followed up by a statement from the Health Ministry containing the following information:

“Today we can confirm we are following up an alert of a suspected outbreak of dengue in a small town 100km from the border. There are a total of 5 probable cases with a further 100 suspected cases. Patients are showing symptoms of acute febrile illness, such as headache, fever, abdominal pain, body aches, diarrhea and vomiting; some with a rash. The 5 probable cases have been identified based on symptoms and serology only and further confirmation is awaited”.

Each participant country to consider the questions below and then discuss key issues with other countries at their tables. After 45 minutes there will be a feedback session per table on 3 key points. Please make sure you complete the green inject response sheet with the table key issues. Please note these will be collected after the session.

- **What are the key issues/actions for your country at this stage?**

The points below should be considered as a guide but there might be further issues you want to consider

- *More information from who, how?*
- *What other key related sectors would collaborate?*
- *Risk assessment?*
- *Measures?*
- *Is there an alerting mechanism?*

- *Communication: what and to who?*
- **If you wanted more information on the outbreak how would you get it?**
 - *Bilaterals*
 - *Role of international agencies?*

Supporting information

1. *WHO Fact sheet: available at <http://www.who.int/mediacentre/factsheets/fs117/en/>*
2. *Vector control: available at http://www.who.int/denguecontrol/control_strategies/en/*
3. *ECDC Dengue fact sheet, for health professionals*
4. *Mosquito vector maps*
5. *Case definition*

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Supporting information for the purpose of this exercise

Confirmed case is defined as any person meeting the laboratory criteria for a confirmed case:

- Sero-conversion (IgM – IgG) in paired serum samples;
- Four-fold IgG titre increase in paired serum samples;
- Detection of dengue virus nucleic acid in a clinical specimen;
- Isolation of dengue virus in a clinical specimen.

Probable case must meet both the clinical criteria and the laboratory criteria for a probable case.

- Clinical criteria: acute onset of fever and at least one of the following symptoms or signs: headache, retro-orbital pain, myalgia, abdominal pain, rash, haemorrhagic manifestations or leucopenia.
- Laboratory criteria: Presence of dengue virus specific IgM antibodies in a single blood sample.

Suspected case must meet both the clinical and epidemiological criteria.

- Clinical criteria: acute onset of fever and at least one of the following symptoms or signs: headache, retro-orbital pain, myalgia, abdominal pain, rash, haemorrhagic manifestations or leucopenia.
- Epidemiological criteria: resident in or visit to a dengue-affected area during the 15 days prior to onset of symptoms.

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ECDC Simulation Exercise Vector

INJECT

Inject No:	1.2
Inject Title:	Questions for WHO, ECDC and European Commission

Please consider the following questions with every following inject:

What would you be doing? And how would you disseminate information?

Who would coordinate at this stage?

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Portal Home > English > HealthTopics > Dengue fever > Factsheet for health professionals

DENGUE FEVER

Dengue is a mosquito-borne viral disease widely spread in tropical and subtropical regions. The disease is transmitted by *Aedes* mosquitoes which breed in the peridomestic environment. While most of the clinical cases present a febrile illness, severe forms including hemorrhagic fevers and shock with fatalities are reported. As dengue is a "viral hemorrhagic fever", the disease is under European surveillance. It is by far the most important mosquito-borne viral disease affecting humans worldwide; tens of millions of cases occur each year resulting in approximately 20,000-25,000 deaths mainly in children. There are four serologically distinct dengue viruses so people living in a dengue-endemic area can have several dengue infections in their lifetime. There is currently no vaccine available for dengue. Dengue is endemic in most of the European Overseas Countries, Territories and Departments located in tropical areas. In continental Europe limited outbreaks may occur in areas infested by *Aedes albopictus*, an invasive mosquito species that spread over the past twenty years.

THE PATHOGEN

- Dengue is caused by a virus of the Flaviviridae family, *Flavivirus* genus which includes viruses such as yellow fever, West Nile and tick-borne encephalitis.
- There are four distinct dengue viruses without cross immunity. People can have up to four dengue infections in their lifetime. It is fairly widely accepted that all four viruses are of Asian origin.

CLINICAL FEATURES

- Up to 40-80% of all dengue infections are asymptomatic.
- Commonly reported clinical symptoms include sudden onset of high fever, severe headache and retro-orbital pain, myalgia, arthralgia, a maculo-papular rash and minor haemorrhage. Fever and other symptoms often follow a 'saddleback' sequence, with a brief remission after the third day. Illness rarely lasts for more than ten days, but convalescence can be prolonged and debilitating.
- A portion of cases usually < 5%, can be severe and a fraction of these may be fatal. Most severe cases and fatalities occur among children and adolescents. Severe dengue - commonly referred to as 'Dengue hemorrhagic fever/ Dengue shock syndrome (DHF/DSS)' to distinguish it from 'classic dengue fever (DF) - is characterised by an increase of vascular permeability that can lead to life-threatening hypovolemic shock.
- The causes of this severe dengue condition have been debated for decades but remain unresolved. A hotly contested hypothesis is that after a 'primary' infection with one serotype, 'secondary' infections by one or more of the other serotypes can precipitate 'antibody dependent enhancement' (ADE). Resolution of this issue is hampered by the absence of a reliable animal model. In addition, controversy remains with regards to the validity of a graded set of criteria to categorise severity. Both issues are of prime importance for the management and treatment of patients, and to future acceptance of dengue vaccines.

TRANSMISSION

- The incubation period ranges from 3 to 14 days, with an average of 4-7 days.
- Viraemia reaches high titres on the day before onset of symptoms and is generally high enough to infect mosquitoes for the next four days.
- Immunity to any of the four serotypes is probably life-long but this does not confer protective immunity to the other three serotypes.
- Humans are the main amplifying host of the virus. In tropical and sub-tropical urban areas, the viruses are maintained in a human/mosquito cycle.
- Bites from infected mosquitoes are the only mode of transmission.
- Mosquitoes acquire the virus when they feed on a viraemic host, after which (in a susceptible species) the virus infects many tissues, including the salivary glands. While it can be a matter of weeks (and many blood meals) to become infective, the mosquitoes are infected for life. New infections in humans can occur when saliva that contains virus is injected into a non-immune host during subsequent blood meals. The 'extrinsic incubation period', the time required for the mosquito to become infective, is about ten days at 27° C.
- There is some evidence that forest monkeys are involved in a 'jungle cycle' with forest mosquitoes serving as vector in south-eastern Asia and western Africa. However, there is no evidence that these viruses are responsible for large epidemics.
- The virus circulates between humans in village and urban areas. Dengue is essentially a village and urban disease because its principal vector, *Aedes aegypti* is abundant in the peridomestic environment. The species is a highly effective vector: it feeds almost exclusively on humans, breeds in small man-made articles that contain water, rests inside buildings and is rarely found more than 50 meters from human habitation. Its biting habits tend to be diurnal.
- A second species, the Asian tiger mosquito, *Aedes albopictus*, can be common in the peridomestic environment, particularly in urban areas with abundant vegetation. It is widely regarded however, as a 'secondary' vector because it is not host-specific blood-meals are taken from animals that are not susceptible to the dengue virus and therefore do not participate in the transmission cycle. Nevertheless epidemics have occurred in places where this mosquito was the only vector species present.
- Aedes aegypti* was once present in Europe and responsible for large epidemics of yellow fever and dengue. Its disappearance after World War II has never been explained. Currently it is present in Madeira and it is conceivable that it could become re-established and widespread in Europe.
- The *Aedes albopictus* mosquito present in southern Europe is well adapted to winter temperatures, and is likely to extend its range northwards. It is already a major nuisance in several Mediterranean countries and was responsible for autochthonous cases of dengue in France and Croatia in 2010.

DIAGNOSTICS

- Dengue viral genome can be detected by RT-PCR in blood specimens up to day five of illness.
- Another approach is the detection of the non-structural (NSI) dengue antigen up to day four post-onset. However sensitivity of the assay is depending on the serotype.
- Determination of the dengue serotype and genotype is important for epidemiological studies; co-circulation of different dengue serotypes during an outbreak is not uncommon.
- Viral isolation is done for research purposes.
- Serological diagnosis can be performed by detection of dengue IgM antibodies in serum specimen from day 5-6 of illness or detection of a four-fold rise of specific IgG antibody titre on a pair of sera (acute and convalescent specimens).
- In a secondary dengue infection, dengue IgM antibodies usually appear earlier from day 2-3 post onset and with a shorter duration. An increase of dengue IgG titre has to be measured.
- Serological cross-reactions between dengue viruses and closely related flaviviruses are reported.

CASE MANAGEMENT AND TREATMENT

- Supportive therapy is the only option, with strict avoidance of aspirin and other anticoagulants.

EPIDEMIOLOGY

- Dengue is endemic in more than 100 countries in Africa, the Americas, South-East Asia, the Western Pacific and the eastern Mediterranean.
- Dengue viruses are highly mobile transported by infected travellers; all four serotypes now co-circulate in many cities around the world. The number of dengue cases has been increasing dramatically in the past few decades and large outbreaks have been reported.

- Imported cases of dengue fever are frequently reported by travellers returning to the EU from endemic areas and may generate a local transmission in areas where the

- Not detected through enhanced surveillance.
- The last dengue epidemics in the European continent dated from 1927- 28 in Greece, with high mortality and *Aedes aegypti* as mosquito vector.
- Through entomological surveillance, distribution maps of potential dengue vectors in Europe are regularly updated (see the VBORNET maps). The presence of *Aedes aegypti* in Madeira is a main concern.
- The risk of transmission of dengue through blood donations is under investigation
- Dengue illness in the Americas was estimated to cost \$2.1 billion US dollars (1.55 billion Euros) per year on average from 2000 to 2007 (in 2010 US\$). The cost did not include the vector control activities.
- Enhanced surveillance of dengue in areas where potential vectors are present during the mosquito season is crucial for an early detection and appropriate vector and disease control measures.
- Early detection of infectious dengue patients is important to prevent local transmission in areas where the vector is present and active. As dengue is a "viral hemorrhagic fever", it is a notifiable disease in the EU and information is collected through the TESSy system.
- There is no specific case definition for dengue. The EU case definition for "viral hemorrhagic fevers" (VHF) - Commission decision of 28 April 2008 - is used:
- Clinical Criteria : Any person with at least one of the following two:

- Fever
- Haemorrhagic manifestations in various forms that may lead to multi-organ failure
 - **Laboratory Criteria** : At least one of the following two:
 - Isolation of specific virus from a clinical specimen
 - Detection of specific virus nucleic acid in a clinical specimen and genotyping
 - **Epidemiological Criteria** : At least one of the following:
 - Travel in the last 21 days to a region where VHF cases are known or believed to have occurred
 - Exposure within the last 21 days to a probable or confirmed case of VHF whose onset of illness was within the last 6 months
 - Case classification

- A. Possible case ; NA
- B. Probable case : Any person meeting the clinical criteria and with an epidemiological link
- C. Confirmed case : Any person meeting the clinical and the laboratory criteria

PUBLIC HEALTH CONTROL MEASURES

- No vaccine or prophylactic drug is available.
- Integrated vector management program aiming to reduce mosquito vector density in a sustainable manner is of primary importance. Intersectoral collaboration and efficient public communication strategy to ensure community participation are required for sustainable vector control program.
- Activities supporting the reduction of mosquito breeding sites in outdoor indoor areas by draining or discarding sources of standing water at the community level include:
 - removal of all open containers with stagnant water in and surrounding houses on a regular basis (flower plates and pots, used tyres, tree-holes and rock pools), or, if that is not possible, treatment with larvicides,
 - tight coverage of water containers, barrels, wells and water storage tanks
 - wide use of window/door screens by the population.
- Measures aiming to control larvae and adult mosquito vector population can be applied in an outbreak situation.
- In affected outbreak areas, elimination of adult mosquitoes through aerial spraying with insecticides can be considered.
- More information on mosquitoes can be found here: [Aedes albopictus](#) and [Aedes aegypti](#).

INFECTION CONTROL, PERSONAL PROTECTION AND PREVENTION

- Prevention is also based on protection against mosquito bites. *Aedes* mosquitoes have diurnal biting activities in both indoor and outdoor environments. Therefore personal protection measures should be applied all day long and especially during the hours of highest mosquito activity (mid-morning, late afternoon to twilight).
- Personal protection measures to avoid mosquito bites should be applied when staying in risk areas by:
 - using repellents and wearing long-sleeved shirts and long pants especially during the hours of highest mosquito activity,
 - using long-lasting insecticidal treated mosquito bed nets which are essential in providing protection from mosquito bites if the accommodations are not adequately screened or air conditioned
 - removing mosquito breeding sites in close outdoor / indoor premises
- Repellent use must be strictly done in accordance with the instructions indicated on the product label. For newborn children under three months of age, repellents are not recommended.
- Travellers especially children, pregnant women and people with immune disorders or severe chronic illnesses should consult their doctor or seek advice from a travel clinic to receive personalised recommendations on use of repellents and protection before travelling;
- Similar protective measures apply to a symptomatic patient in order to prevent transmitting the disease to non-infected mosquitoes
- More information on mosquitoes can be found here: [Aedes albopictus](#) and [Aedes aegypti](#).

ADVICE TO TRAVELLERS

- Dengue is one of the most common vector-borne diseases contracted by travellers in tropical and sub-tropical countries.
- The use of repellents is recommended as well as the use of bed nets during siesta (these mosquitoes bite during the day).
- No specific risk for pregnant women

REFERENCES

- Gubler D. Dengue and dengue hemorrhagic fever: its history and resurgence as a global public health problem. In: Gubler D, Kunc G. Dengue and dengue hemorrhagic fever. Wallingford: Oxon, UK; New York: CAB International; 1997. p. 478.
- La Roche-Guyon J et al. First two autochthonous dengue virus infections in metropolitan France, September 2010. Euro Surveill. 2010;15(39):pii=19676
- Reiter P. Oviposition, dispersal and survival in *Aedes aegypti*; implications for the efficacy of control strategies. Vector Borne Zoonotic Dis 2007; Summer; 7(2): 261-73
- Reiter P, Gubler DJ. Surveillance and control of urban dengue vectors. In: Gubler D, Kunc G. Dengue and dengue hemorrhagic fever. New York: CAB International 1997; P 425-462.
- Reiter P. Yellow fever and dengue: a threat to Europe?. Euro Surveill. 2010;15(10):pii=19509
- Schmidt-Chanasit J et al (2010). « Dengue virus infection in a traveller returning from Croatia to Germany ». Euro Surveill 2010; 15(40):pii=19677.
- Shepard DS, Coudeville L, Halasa YA, Zambrano B, and Dayan GH. Economic impact of Dengue Illness in the Americas. *Am. J. Trop. Med. Hyg.* 84(2), 2011, pp. 200- 207
- Wilder-Smith A, Ooi EE, Vasudevan SG, Gubler DJ. Update on dengue epidemiology, virus evolution, antiviral drugs, and vaccine development. *Curr Infect Dis Rep.* 2010 May; 12(3): 157-64

Dengue control

Control strategies

Vector control

Preventing or reducing dengue virus transmission depends entirely in controlling the mosquito vectors or interruption of human–vector contact. WHO promotes the strategic approach known as Integrated Vector Management (IVM) to control mosquito vectors, including those of dengue.

IVM is defined as a 'rational decision-making process for the optimal use of resources for vector control.' The aims are to improve efficacy, cost effectiveness, ecological soundness and sustainability ([further information on IVM](#)).

Transmission control activities should target *Ae. aegypti* (or any of the other vectors depending on the evidence of transmission) in its immature (egg, larva, and pupa) and adult stages in the household and immediate vicinity. This includes other settings where human–vector contact occurs, such as schools, hospitals and workplaces.

- [More about vector control](#)

Methods of vector control

Ae. aegypti uses a wide range of confined larval habitats, both man-made and natural.

Some man-made container habitats produce large numbers of adult mosquitoes, whereas others are less productive. Consequently, control efforts should target the habitats that are most productive and hence epidemiologically more important rather than all types of container, especially when there are major resource constraints.

Vector transmission is reduced through the use or combination of these three methods:

- [Environmental management](#)
- [Chemical control](#)
- [Biological control](#)

Individual and household protection

Self-initiative for source reduction in homes and community. See "[Environmental management](#)"

Clothing that minimizes skin exposure during daylight hours when mosquitoes are most active affords some protection from the bites of dengue vectors and is encouraged particularly during outbreaks.

Repellents may be applied to exposed skin or to clothing. The use of repellents must be in strict accordance with label instructions.

Insecticide-treated mosquito nets afford good protection for those who sleep during the day (e.g. infants, the bedridden and night-shift workers).

Where indoor biting occurs, household insecticide aerosol products, mosquito coils or other insecticide vaporizers may also reduce biting activity.

Household fixtures such as window and door screens and air-conditioning can also reduce biting.

Safe use of insecticides

All pesticides are toxic to some degree. Safety precautions for their use – including care in the handling of pesticides, safe work practices for those who apply them, and appropriate field application – should be followed.

[WHO Pesticide Evaluation Scheme \(WHOPES\)](#) has published specific guidelines on use of insecticides, safety procedures, quality control and guidelines for testing

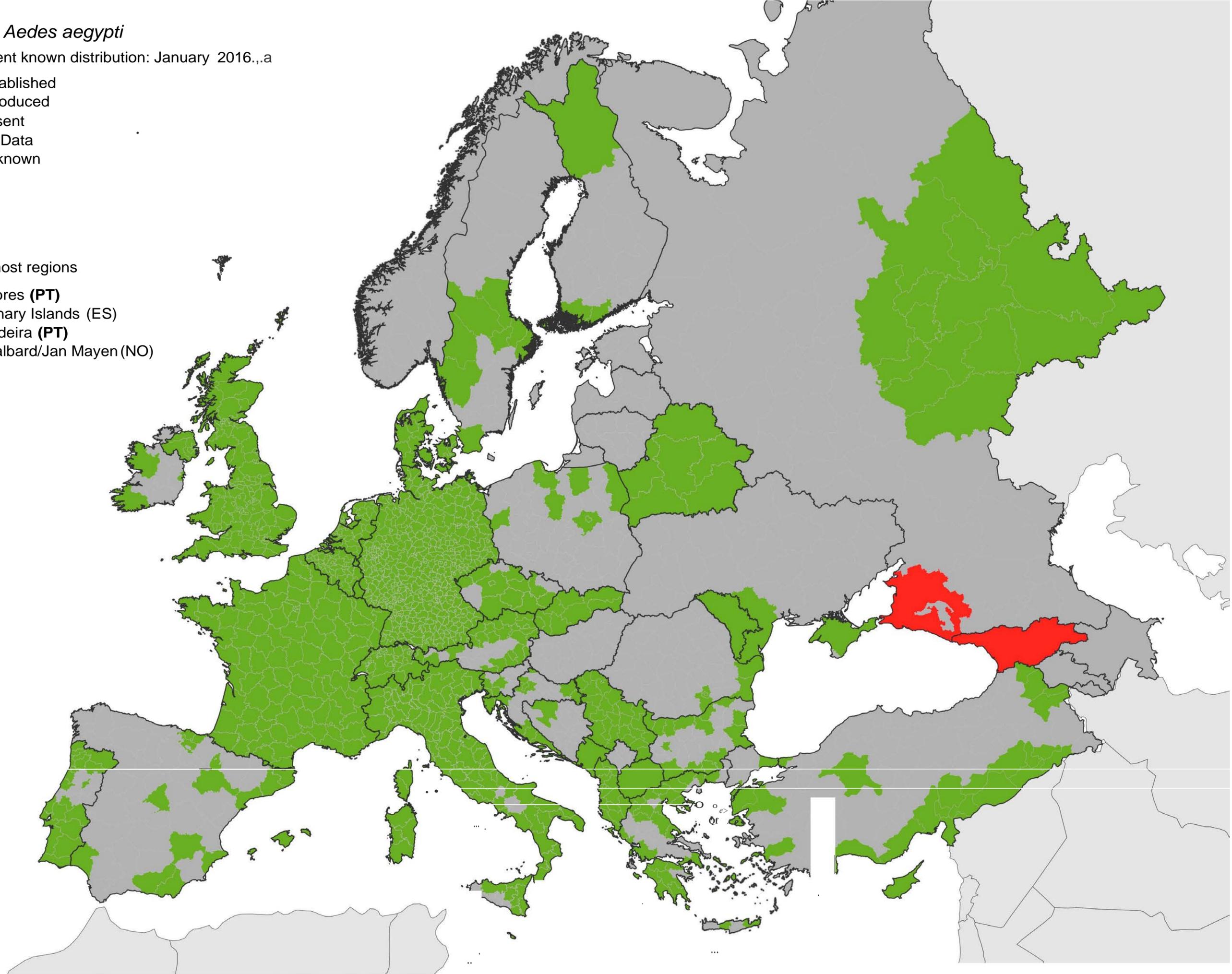
Aedes aegypti

Current known distribution: January 2016.,.a

- Established
- Introduced
- Absent
- No Data
- Unknown

Outermost regions

- Azores (PT)
- Canary Islands (ES)
- Madeira (PT)
- Svalbard/Jan Mayen (NO)



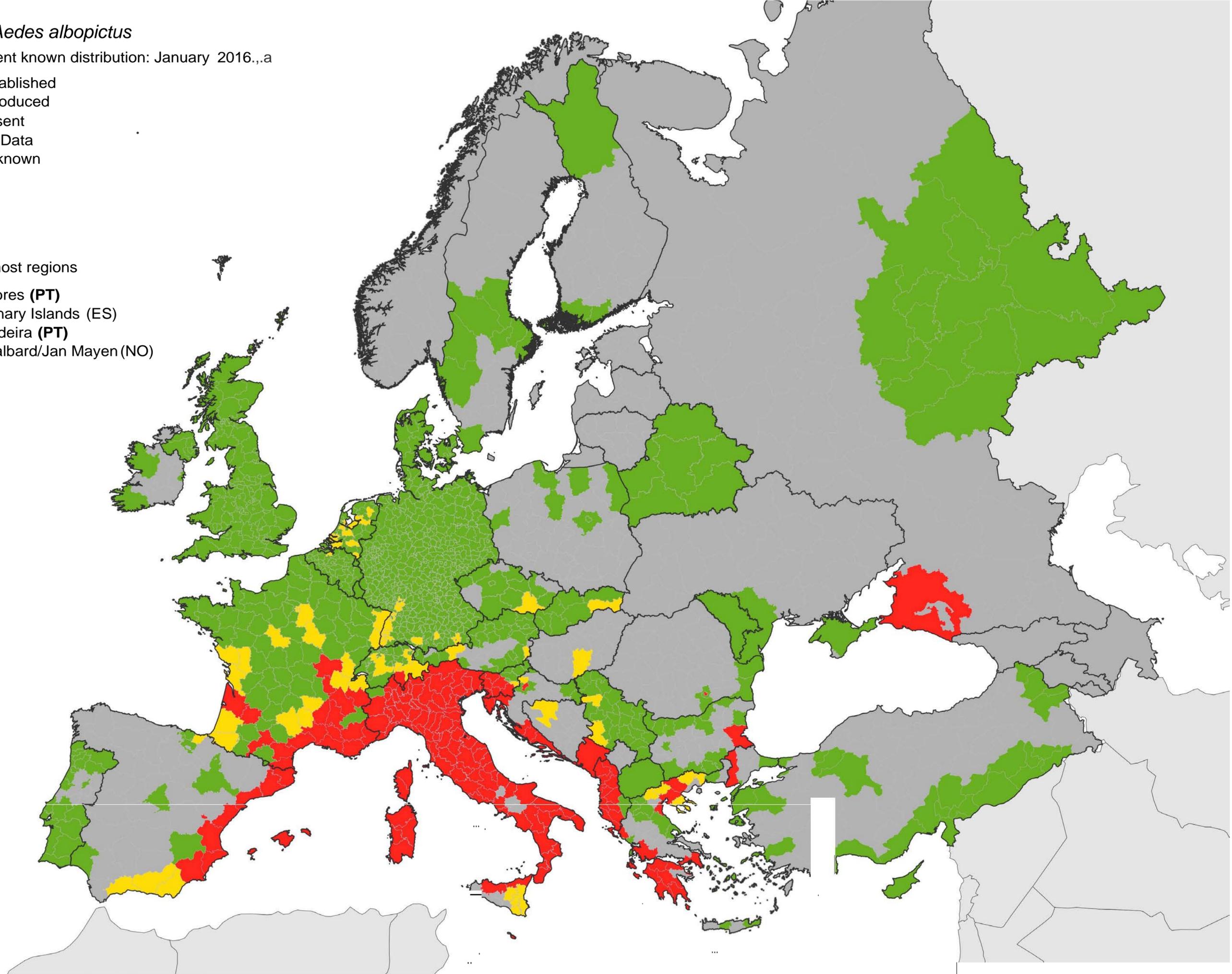
Aedes albopictus

Current known distribution: January 2016.,.a

- Established
- Introduced
- Absent
- No Data
- Unknown

Outermost regions

- Azores (PT)
- Canary Islands (ES)
- Madeira (PT)
- Svalbard/Jan Mayen (NO)



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ECDC Simulation Exercise Vector

INJECT

Scenario Date:	Date 23 May
Inject No:	2
Inject Title:	Confirmed outbreak in neighbour country

It is four days later

The outbreak of dengue fever in your neighbour country has now been confirmed. As of today there are a total of 57 confirmed cases with a further 490 suspected cases. The confirmation is based on further serological analysis, and/or molecular assays (RT-PCR). According to reports in the media, the outbreak has spread to neighbor towns with cases confirmed in areas just 10km from your border.

You are also hearing reports that there may be cases of dengue fever on your side of the border in the area close to the neighbour country with the Dengue outbreak. As yet these are unconfirmed but require further investigation.

Each participant country to consider the questions below and then discuss key issues with other countries at their tables. After 45 minutes there will be a feedback session per table on 3 key points. Please make sure you complete the green inject response sheet with the table key issues. Please note these will be collected after the session.

- **What are the key issues/actions for your country at this stage?**

The points below should be considered as a guide but there might be further issues you want to consider

- *More information from who, how?*
- *How would you provide confirmation of cases?*
- *Update risk assessment including monitoring the presence of vector in*

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your country

- *Additional measures?*
- *Communication: what, how and to who?*
- *Coordination with*
 - *neighbour country – to do what?*
 - *international agencies – how could they help?*

ECDC Simulation Exercise Vector

INJECT

Scenario Date:	28 May 2016
Inject No:	3
Inject Title:	Dengue in your country

It is five days later

You have deployed resources to the border area and as a result of their investigation they have identified 5 confirmed cases (by serology) and 100s of suspected cases of dengue, in a remote area of your country close to the border. The five confirmed cases have been hospitalised due to the severity of their illness and it is expected that some of the suspected cases will also need to be hospitalised. In addition, this morning you learn of three suspected cases identified in a hospital in a suburb of the capital city. This is based on symptomology only (sudden high fever, severe headaches, pain behind the eyes, severe joint and muscle pain). One of the cases has recently returned from the border region where the outbreak is becoming established. The other two cases have not visited the border region.

Each participant country to consider the questions below and then discuss key issues with other countries at their tables. After 45 minutes there will be a feedback session per table on 3 key points. Please make sure you complete the green inject response sheet with the table key issues. Please note these will be collected after the session.

- **What are the key issues/actions for your country at this stage?**

The points below should be considered as a guide but there might be further issues you want to consider

- *More information from who, how?*
- *Do you have any national action plans and how and when would they*

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be activated?

- *How would health and key related sectors collaborate*
- *Update risk assessment*
- *Additional Measures?*
- *Communication, public information: when, what, how and to who?*
- *How would you monitor public concerns?*
- *How have you prepared for increased media attention?*
- *Coordination with*
 - *international agencies – how could they help?*
- **What would you expect from WHO (IHR), ECDC, the European Commission or other partners at this stage?**
 - *How would you share and agree your strategy with other countries?*

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ECDC Simulation Exercise Vector

INJECT

Inject No:	3.1
Inject Title:	Questions for WHO, ECDC and European Commission

Please consider the following questions with every following inject:

What would you be doing? And how would you disseminate information?

Who would coordinate at this stage?

How would you support vector monitoring and control?

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ECDC Simulation Exercise Vector

INJECT

Scenario Date:	28 May
Inject No:	4
Inject Title:	Key factor when communicating during an outbreak

You have been provided with two news stories and a series of twists (our version of twitter) as examples of media activity. As experts in a crisis you will often be asked to contribute to media strategies, questions & answers, lines to take and support communications officers.

Please discuss the key factors when communicating during an outbreak firstly in your countries and then on your table

You should consider:-

What the key objectives of your communication should be?

When do you start to communicate?

What are the key messages

Risk communication

Who are the main target groups

What are the channels to reach your target groups (and who can support in spreading the messages)

How you might monitor and address issues of public sentiment, debates and misinformation

How you would ensure consistency of messages with other organisations.

As a table group please prepare a press release of a maximum 300 words covering the key messages and providing advice to the public on what steps they can take to protect themselves and what action they can take to minimise further spread.

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THE
SUN SHINE

M1

28 May 2016

CELEBRITY NEWS AND GOSSIP

WORLD EXCLUSIVES

“WHY WEREN’T WE WARNED”

The Esparanso family are demanding the government be held accountable for the lack of information around dengue fever after their elderly parents were hospitalised in the capital.

Above: Alex and Caterina Esparanso in happier times. They are both fighting for their lives in hospital with suspected dengue fever.

This comes on the day that Health Authorities have confirmed five people have dengue fever in this country and hundreds more are being treated for suspected dengue fever.

The majority of people with the disease are in border towns however there are now suspected cases in hospital in the capital city.

“We want to know why we weren’t warned,” said Elspeth Esparanso.

“My elderly parents are in extreme pain and suffering and doctors say that this disease is very dangerous and could lead to a dengue haemorrhagic fever in elderly patients.

“If we had known that our family was at risk we could have taken precautions.”

A government spokesperson said that at the time it was not known how quickly the disease would spread and the extent of the outbreak in the

neighbour country.

However it appears that a large public awareness campaign was underway in mid-May in neighbour countries and they had an infectious disease response plan that was activated when the first home-grown cases of dengue fever were confirmed.

Has someone you know been affected by this new disease?

Contact: reporters@sunshine.com

28 May 2016

The International

28 May 2016

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M2

DISMAY AT DENGUE ADVICE

Advice in this country is to close windows when we sleep and sleep under mosquito nets whilst neighbour countries say the mosquito that carries this disease is active from dawn to dusk but not at night. Entomologists say the government public health advice has led to many more people being infected as the high danger time is during the day especially at dawn and at dusk.

Dr Simon Sayers said, "Many people believe that the mosquitoes that spread dengue fever can also affect a nocturnal mosquito. It is again a false notion; Aedes mosquito may bite you anytime in the day, typically when you are indoors or the place is shady, or if the

DAYTIME BITER: The Aedes mosquito that carries dengue fever is said to bite only during the day.

weather is dark and cloudy. But, not at night."

The campaign is also targeted at rural people with many adverts and material depicting farmers which has led city dwellers into a false sense of security.

"Dengue is an urban disease.

It is common in urban areas where it is as prevalent as in rural areas. In fact the mosquito breeds in your backyard and at home," said Dr Sayers.

Are you affected by dengue fever? Contact us with your story: reporters@european.com

Results for 'dengue'

Twists · [Top](#) ▾

Media inject 1

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Chalkie @AliceChalk

My husband is ill don't think it can be #dengue? We use mosquito nets and burner at night, can it go person to person?

28 May 2016 at 10.08am

Forest and Bird @Forest&Bird

This #dengue fever seems to be in the country where there are large bodies of water, we don't worry in the city.

28 May 2016 at 10.06am

Anna Charlott @AnnaCharlott

@AliceChalk Mosquitoes carrying #dengue bite during the day wear insect repellent every day.

28 May 2016 at 10.00am

Miho Clarke @MihoClarke

Awesome mosquitoes in my house, in my car, in my office they're everywhere. #Dengue

28 May 2016 at 9.59am

KRoss @KateRoss

Mosquitoes hate them, hear them all night, shut the windows and suffocate with heat. #Dengue

28 May 2016 at 9.58am

Hardy @BillHardy

Bring on the winter, had enough of the heat, mosquitoes and now #DENGUE. Whats next?

28 May 2016 at 9.57am

Beatrix @BeaRios

Neighbour country said "Get rid of stagnant water as mosquitoes reproduce there and apply repellent to any exposed skin and clothes #Dengue

28 May 2016 at 9.54am

Kitty Little @KittyL

Can cats get Dengue? Rastus is acting weird. #Dengue

28 May 2016 at 9.52am

nrg10 @PaulLockling

Two people off sick work with Dengue? More like Friday fever. #Dengue

28 May 2016 at 9.50am

Sadie Forrow @Sorrow

#Dengue Drink as much water as possible to keep hydrated, which will also help to ease symptoms like headaches and muscle cramps

28 May 2016 at 9.49am

Follow 'dengue' on Twister

Twister delivers instant updates on what's happening around the world.

[Sign up »](#)

Trends

[#ilovemydaveventhough](#)[#somebodytellmewhy](#)[#butdoyougotasstho](#)[Drop Dead Beautiful](#)[Finally Friday](#)[Maria Desamparada](#)

Results for 'Dengue'

Twists · [Top](#) ▾

Media inject 1

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Glady @GladyTurner

First day for two weeks that I feel a little bit better, still tired but think fever gone. Damn you #Dengue

28 May 2016 at 9.45am

Jerry Knox @JNox

There are so many more mosquitoes than last year – my 3 year old is covered in bites from day care, worried about #Dengue

28 May 2016 at 9.40am

Damian @Damian

Ive got a headache and muscle aches I think its dengue . Didn't think it was in this part of the country. WTF #Dengue

28 May 2016 at 9.39am

Izzy @Isabel Bremhl

Where's the vaccine. Other countries using vaccine why not us? #dengue

28 May 2016 at 9.37am

Cayne Tobias @Cayne Tobias

This illness is not getting better, its worse if anything. Dr Google says it might be #dengue.

28 May 2016 at 9.34am

Ceryl Logan @CLogan

Wake up world - all this concern a bit late—just because global warming now affects humans.#dengue

28 May 2016 at 9.32am

Chris Jack @ChrisJack

Bone-break fever is right; pain and exhaustion that dengue brings is dreadful. #dengue

28 May 2016 at 9.31am

Anita Rohemn @ARohemn

I'm ready just bought mosquito nets for the children this summer, #Dengue is likely to make it here.

28 May 2016 at 9.30am

nrg10 @Paul Lockling

I hear if you're ill with Dengue go to your hospital. Don't leave it too late. #dengue

28 May 2016 at 9.29am

Archina Boule @Archina Boule

Is it health or environment dealing with this mosquito/dengue problem? When will they spray these critters. #dengue

28 May 2016 at 9.29am

Follow 'Dengue' on Twister

Twister delivers instant updates on what's happening around the world.

[Sign up »](#)

Trends

[#ilovemydaveventhough](#)
[#somebodytellmewhy](#)
[#butdoyougotasstho](#)
[Drop Dead Beautiful](#)
[Finally Friday](#)
[Maria Desamparada](#)

EXERCISE EXERCISE EXERCISE



ECDC Simulation Exercise Vector

INJECT RESPONSE SHEET

Inject number:	4.4
Table	
<p><i>Please record here your press release</i></p>	

EXERCISE EXERCISE EXERCISE



ECDC Simulation Exercise Vector

INJECT

Scenario Date:	28 May
Inject No:	5
Inject Title:	Country situation report

Situation report – your country has been asked to prepare a briefing in the form of a situation report for your government minister

Please include:

A brief overview of your current situation

What measures are in place

What communication messages have been issued and what tools have you used to communicate internally within your country and across country

What advice has been issued

Who you are coordinating with nationally and internationally

Three key issues that you want your minister to raise with central government that you need support with.

Please complete your situation report on the green response sheet provided. After 30 minutes be prepared to feedback in plenary.

EXERCISE EXERCISE EXERCISE



ECDC Simulation Exercise Vector

INJECT RESPONSE SHEET

Inject number:	5.1
Country	
<i>Please record here your situation report:</i>	

EXERCISE EXERCISE EXERCISE

ECDC Simulation Exercise Vector

INJECT

Scenario Date:	7 June 2016
Inject No:	6
Inject Title:	International dimension

It is ten days later

Confirmed outbreaks of dengue have now appeared in several countries in all Regions: Member States (MS), Enlargement and European Neighbourhood Policy countries (ENP) and European enlargement countries. Your country is still affected. The media are raising a number of issues on vaccine use and on the use of insecticide. You are also having difficulties acquiring the right PPE and are seeking advice on alternatives.

Each participant country to answer the questions below and then discuss key issues with other countries at their tables. After 30 minutes there will be a feedback session per country. Please make sure you complete the green inject response sheet with the table key issues. Please note these will be collected after the session.

- **Who will you liaise with and communicate with including international authorities?**

- **How would you work collaboratively to address, mitigate and resolve the international emergency? What tools would you need/use? What networks do you have?**

The point below should be considered as a guide but there might be further issues you want to consider

- *Who will you look to help to resolve the issues raised by the media?*
- *How would you coordinate messages with neighbour countries?*

- *What would you expect from WHO (IHR), ECDC, the European Commission or other partners at this stage?*
- *Coordination – who would lead?*

THE EUROPEAN

7 June 2016

THE WORLD'S FAVOURITE NEWSPAPER

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INSECTICIDE SHORTAGE

Photo credit: Catherine Osborn www.Pi.org

STOPPING DENGUE: Access to insecticide is hampering the government's mosquito eradication programme.

Can countries afford to eradicate disease-carrying mosquitoes?

A shortage of fast-acting insecticide to eradicate dengue-carrying mosquitoes may be due to large European countries stockpiling the product.

Dengue has been carried across Europe and Southern Mediterranean countries by the *Aedes* mosquito.

Without this insecticide people in smaller states remain exposed to the disease nicknamed 'break-bone fever,' which attests to the degree of suffering it can inflict.

The product MOSDOWN

is recommended by international health authorities and is said to be the best defence against dengue as well as being environmentally-friendly.

Smaller European Union (EU) countries have asked for support through the EU joint procurement process.

Opposition Health spokesperson Jacquita Bell said, "This is atrocious! Red tape and bureaucracy is directly affecting the health of our population. There are children in hospital that may not have been there if this outbreak had been effectively handled.

"Our neighbour countries are not suffering as we are.

"Why has our government not been proactive in providing insecticide to protect the people?"

Internationally the price of dengue is estimated to cost of \$8.9 billion annually.

According to the Schneider Institutes for Health Policy (SIHP) spending on dengue exceeds the global spend on several other major infectious diseases such as cholera, rotavirus gastroenteritis, canine rabies and Chagas.

Dengue is the world's fastest growing mosquito-borne disease, with an estimated 60-100 million dengue cases every year.

The International

7 June 2016

The World's favourite newspaper

Since 1879

EXERCISE EXERCISE EXERCISE

M4

DENGUE VACCINE DELAY

Hundreds more people are infected with dengue each day while European governments decide whether to order dengue vaccine.

Dengue has spread to many countries in Europe and around the Southern Mediterranean bringing misery to thousands of people while the effectiveness and cost of the dengue vaccine is debated in health ministries and international organisations. Dengue kills about 20,000 people per year worldwide and infects hundreds of millions, and it is becoming much more prevalent and widespread. Spokesperson for the health lobby group Patient People, Eugenie Schwass said, "This is a disastrous, each day we wait at least 100 more people will be infected.

"This vaccine won't just offer immunity in the short term; we understand that this will protect from all four types of dengue which means we will be less likely to contract dengue hemorrhagic fever which is a lot more serious."

The dengue vaccine developed

by Sanofi Pasteur (CYD-TDV) is given as a 3-dose series given at six-month intervals and according to Sanofi reduced all four serotypes of dengue in two-thirds of the vaccines participants and prevented eight out of 10 hospitalizations and up to 93 percent of severe dengue cases.

However in many countries the decision to use the vaccine has yet to be made and it is unclear what the hold-up is.

The World Health Organisation (WHO) Strategic Advisory Group of Experts

(SAGE) on Immunization reviewed Dengvaxia in April 2016 and recommended countries consider introduction of the vaccine only in geographic settings where dengue is endemic. SAGE does not recommend its use before nine-years-old, which it said

Dengue vaccine decision needed as soon as possible to save lives.

was consistent with current labelling.

The vaccine is currently registered in Mexico, Brazil, El Salvador, the Philippines and Paraguay, and Sanofi has is seeking regulatory approval in many more countries, a WHO official said.