



Zika vector control measures in the EU 8th of July 2016, 10.00 – 16:30 (CET)

Flash report

1. Introduction

The Chair welcomed the EU Member States (AT, BE, BG, DE, DK, EE, EL, ES, FR, HU, IT, LV, LT, MT, NL, PL RO, PT, SE, SL, UK), NO, and the representatives from DG SANTE, ECDC and WHO. The Agenda of the meeting was approved.

The Chair outlined the current situation as regards the Zika virus. There is currently no reported autochthonous transmission in continental Europe. The European Centre for Disease Prevention and Control (ECDC) has reports of 929 imported cases, of which 40 pregnant women. The Health Security Committee (HSC) has held several meetings to discuss the topic and an ad-hoc working group on the Zika virus outbreak has been set up. Furthermore, on 20-21 June the Commission had three separate meetings with the transport, tourism and health professionals sectors to enhance EU preparedness in case of Zika virus introduction in Europe. Against this background and in view of the summer season, vector control has become a concern which necessitates looking at good practices and different experience from Member States (MS). The purpose of the meeting is to exchange views and build a network on vector control schemes need to be implemented in a Member State.

2. Zika virus: state of the epidemic, risk for Europe, overview of vectors and their control

ECDC presented the outbreak – the history of the virus, clinical features, routes of transmission and the current status, including Congenital Zika syndrome and Guillain-Barré syndrome (GBS). The outbreak continues to evolve, WHO does not see a decrease in the transmission rate. As the spread of the virus in the Americas is likely to continue, the likelihood of travel related cases in the EU is increasing. Local transmission is possible as the competent mosquito vector is present. For effective vector control measures, it is necessary to know the biting behaviour, larval habitats, seasonality, daytime/night time activity, resistance to insecticides among other things. It should be noted that apart from vector control, public health measures such as travel advice are essential.

WHO intervened to welcome the meeting, and added that a recent discussion concluded that established vector control measures are to be used while intensifying the existing tools.

3. Mosquito control – overview of methods, good practice and scientific developments

Professor Frederic Baldacchino outlined the methods and challenges of achieving efficient, cost-effective, ecological and sustainable vector control. Among the most established methods are: source reduction, microbial and chemical larvicides, larval predators, chemical adulticides, traps, sterile insect technique (SIT), Wolbachia cytoplasmic incompatibility, genetically modified mosquitoes (GMM), attractive toxic

sugar baits (ATSB), auto-dissemination, and “hot spot” approach. The speaker concluded that no one method is sufficiently effective by itself, but a combination of methods is needed.

4. Insecticides – availability, efficiency and regulatory aspects

The Commission (DG SANTE) outlined the principles and consequences of *Regulation (EU) No 528/2012* of 22 May 2012 concerning the making available on the market and use of biocidal products. It regulates the approval of a substance required before a product can be authorised, the authorisation required before a product can be placed on the market, the approval of biocidal active substances at EU level, the authorisation of products at national or EU level, and the transitional measures for 'old substances and products'. As a consequence some products are placed on the market in accordance with the provisions of the Regulation, some products are placed on the market in accordance with national rules, and not all products are available in all Member States.

At the moment not all substances have been assessed at EU level and not all products are available in all Member States. Three products are under evaluation for aircrafts disinsection whose efficacy and safety has to be confirmed. It was clearly pointed out that it is important to coordinate the use of insecticides at national level between the public health authorities and the authorities responsible for licencing procedures.

5. Vector control methods in the field

Portugal presented mosquito control measures in Madeira where *Aedes aegypti* is present. Awareness raising and educational campaigns on TV/radio and at airports, and seaports has proven effective. Schools run their own surveillance programmes. On the other hand keeping dry flower pot dishes which are found in almost every home on the island has proven to be a challenge.

The speaker emphasised the key role of high community involvement and inter-sectorial collaboration enabled by the size of the island, particularly after the dengue outbreak in 2012-2013. They have managed to keep the mosquito population below the epidemiological levels to trigger an outbreak. However, some complacency has been observed.

Spain shared their experience with the control of *Aedes albopictus*, which is an invasive species with serious associated health risks. Municipalities have the responsibility for pest control. Most of them are in the need of routine vector control but lack the capacity and often have to outsource. This leads to lack of uniformity, task replication, economic loss, increased risks and no pesticide resistance management.

An integrated mosquito control should include inspection, diagnosis, intervention, monitoring and research. Furthermore, coordination is necessary as well as capacity building, information exchange, providing expert advice and issuing guidelines, either at the member states level or at the EU level.

Greece spoke about the diseases transmitted by *Aedes albopictus* and the vector control methods used in the field. There is moderate likelihood of local Zika virus transmission in Greece according to WHO. Vector control methods include the regular application of larvicides during mosquito period; and residual spraying and ULV spraying of adulticides if needed. The management of *Aedes albopictus* has presented challenges in the following areas: resources, assignment of responsibilities, timeliness of response, risk communication, community involvement. On the other hand, good practices have been identified: already established procedures acquired through the management of other vector-borne diseases, multi-sectorial collaboration at national level through a National

Committee and Working Groups, networks at national and local level facilitating direct communication, data sharing and information circulation.

Italy spoke about the epidemiological situation and public health response to the Zika virus. There is a National Plan for the surveillance and management of emergencies related to infectious diseases during the Jubilee 2015-2016 as more than 30 million pilgrims are expected in Rome. The Annual national plan of surveillance and response to arbovirus (Chikungunya, Dengue and Zika) 2016 includes surveillance and early detection of human cases; entomological surveillance and vector control; and public awareness. To prevent the import/export of allochthonous mosquito species all aircrafts landing at Italian airports, regardless of their origin, must present a residual disinfection certification in accordance with Annex 9 of the Convention of the ICAO.

France outlined the vector control process in mainland France and in the French Overseas Departments in the Americas, emphasising the major issue of insecticide resistance. There is a focus on the surveillance of points of entry and the import of used tyres.

All suspected or confirmed cases of dengue/Chikungunya/Zika are notified to the health surveillance agency by physicians or labs which trigger an epidemiological investigation. The vector control operator is alerted and an entomological investigation, and treatments are carried out followed by an assessment of the efficacy.

6. Vector control at ports of entry

The Joint Action ShipSan made a presentation about vector control at points of entry. The Joint Action has produced interim guidance on maritime transport and Zika virus disease which covers routine measures, emergency measures and legal issues for health measures related to the Zika virus outbreak.

General disinsection is not recommended for ships coming from the affected areas because the risk of introducing infected mosquitoes is low. Specific measures should, however, be applied to specific types of imported goods, i.e. used tyres and ornamental plants (e.g. lucky bamboo) due to the risk of introducing invasive mosquito species including the *Aedes albopictus* and *Aedes aegypti* in Europe. As these are considered high-risk goods they have to be imported with a certificate of disinsection and further monitored after unloading. At ports vector surveillance and control need to be implemented 400m around port facilities used for operations involving cargo, travellers and ships.

The AirSan project informed that a communication platform has been set up to gather information from partners regarding the measures implemented at airports and airlines. The main risk is travellers importing the disease, while the risk of importing the vector is much lower. Good evidence as well as consideration for economic and trade consequences is needed before making recommendations. In international environment common understanding is essential.

7. Tour de table

There was a roundtable discussion which revealed awareness of the presence of *Aedes albopictus* and surveillance activities in a number of Member States. The Mediterranean Member States, the EU OTC/OMR and the Autonomous Region of Madeira have vector control measures in place.

Concerns were expressed about the availability of biocides in some Member States.

8. Conclusions

The Chair concluded that vector control is an issue which would stay on the public health agenda at EU level due to its cross-border nature. The link between public health and other relevant sectors, i.e. trade, transportation and tourism, is important. The availability of biocides is a recurring issue. Good practices should to be shared and streamlined where appropriate and with the technical support of ECDC.