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Guidance for the surveillance of invasive mosquitoes in Europe

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The recent notifications of autochthonous cases of dengue and chikungunya prove that Europe is vulnerable for these diseases in areas where a vector (e.g. *Aedes albopictus*) is present. Strengthening surveillance of invasive container-breeding mosquito species such as *Aedes albopictus*, *Aedes aegypti*, *Aedes atropalpus*, *Aedes japonicus*, *Aedes koreicus* and *Aedes triseriatus* is therefore required. In June 2011, ECDC has launched a tender to produce guidance for surveillance of invasive mosquitoes with the aim to assist the European countries to implement surveillance, improve coverage and harmonize data collection. The general objective of this guidance is to provide technical support for public health policy makers and professionals involved in implementing mosquito surveillance and/or control but target audience also include non specialists in this field.

For the development of the guidance document, the AGREE II instrument for development of clinical guidelines was used, after slight adaptation of the criteria to the specific topic. The draft document, delivered in November 2011, was reviewed by entomologists, public health experts and end users from most of the European countries during an ad-hoc meeting organised by ECDC in Stockholm. According to the outputs of the meeting, the guidance has been updated, and is published on ECDC website since July 2012. To fulfil its development, the guidance will be tested in the field in Belgium during the summer 2012, to evaluate its usefulness. Then the guidance and its performance in the field will be presented to the European countries during a meeting in November 2012.

This guidance describes all procedures to be applied to the surveillance of invasive mosquito species. The first part addresses strategic issues and options to be taken by the stakeholders for the decision-making process, depending on the aim and scope of surveillance, its organisation and management and the surveillance strategy to be developed according to the local situation (three likely scenarios identified). The second part addresses all operational issues and options to be implemented by professionals involved in the applied process, i.e. key procedures for field surveillance of IMS, methods of identification of IMS, key and optional procedures for field collection of population parameters, pathogen screening, and environmental parameters. This part also recommends methods for data management and analysis, as well as strategies for data dissemination and mapping. Finally, the third part provides guidance on cost estimates for the planned programmes and the evaluation of the applied surveillance process.