

Strengthening health security by implementing the International Health Regulations (2005)

Zika virus: Aircraft disinsection for mosquito control

22 February 2016

On 1 February 2016, the first meeting of the International Health Regulations (2005) (IHR 2005) Emergency Committee on Zika virus met and observed an increase in neurological disorders and neonatal malformations and subsequently advised the WHO Director General that the recent cluster of microcephaly cases and other neurological disorders reported in Brazil, following a similar cluster in French Polynesia in 2014, constitutes a Public Health Emergency of International Concern (PHEIC). This advice was endorsed by the WHO Director-General.

As a precautionary measure, standard WHO recommendations regarding disinsection of aircraft and airports can be implemented in order to attempt to control the vector (*Aedes* spp. mosquito) that spreads the Zika virus. It should be noted that the decision to implement WHO disinsection recommendations is dependent on individual country risk assessment for vector control. For countries and other entities which, after risk assessment for vector control choose to implement aircraft and airport airplane disinsection, it should be done according to standard WHO recommendations. WHO has provided guidelines on how to do so safely. Specifications for aircraft disinsection products have been established by the [WHO Pesticide Evaluation Scheme \(WHOPES\)](#), including:

- a. [d-Phenothrin technical grade](#)
- b. [1R-trans-phenothrin technical grade](#)
- c. [Permethrin technical grade](#)

"[Guidelines for testing the efficacy of insecticide products used in aircraft](#)' have been published by WHO and can be accessed at http://www.who.int/ihr/publications/aircraft_insecticides/en/.

The guidelines include four recommended techniques for aircraft disinsection:

- 1) Pre-flight;
- 2) Blocks away;
- 3) Top-of-descent; and
- 4) Residual treatment (see [Annex 1](#)).

WHO has also published a risk assessment model which can be used to ensure that products and methods used for disinsection do not give rise

to unacceptable health effects in passengers (including children), aircrew or ground staff (See Part A , section 4 and in particular page 32 -33 and 42-47) of 'Aircraft disinsection Insecticides' at <http://www.who.int/ipcs/publications/ehc/ehc243.pdf>).