

# Breastfeeding in the context of Zika virus

## Interim guidance

25 February 2016

WHO/ZIKV/MOC/16.5



## 1. Introduction

### 1.1 Background

The main mode of Zika virus transmission is through infected *Aedes* mosquitoes. However, current widespread transmission of the virus has raised questions as to whether transmission can also occur during breastfeeding, a practice essential to infant and young child survival and development.

The purpose of this document is to provide interim recommendations to guide breastfeeding practices in the context of Zika virus. A systematic review of evidence will be conducted in March 2016 to revise and update these recommendations.

### 1.2 Target audience

This document is intended to be used by governments, ministries of health, policy makers, and health care workers to provide guidance on breastfeeding in the context of Zika virus. It may also be used to inform communication to the general public.

## 2. Interim recommendations

### 2.1 Interim recommendations

The World Health Organization (WHO) recommends that infants start breastfeeding within one hour of birth, are exclusively breastfed for six months, with timely introduction of adequate, safe and properly fed complementary foods while continuing breastfeeding for up to two years of age or beyond [1].

- Current WHO breastfeeding recommendations remain valid in the current context of Zika virus transmission.
- Mothers with suspected, probable or confirmed Zika virus infection, during pregnancy or postnatally, should receive skilled support from health care workers to initiate and sustain breastfeeding, like all other mothers. Likewise, mothers and families of infants with suspected, probable or confirmed Zika virus infection should receive skilled support to adequately breastfeed their infants.
- Mothers and families of infants born with congenital anomalies (e.g. microcephaly) should be supported to breastfeed their infants in line with WHO recommendations. Feeding support by skilled breastfeeding counsellors should be provided, if required [2].

### 2.2 Rationale

- Breastfeeding has significant benefits for mothers and children, in low- and middle-income countries as well as high-income countries. Breastfeeding contributes towards sustainable development goals related to maternal and child health, nutrition, education, poverty reduction and economic growth [3].
- Zika virus RNA has been detected in breast milk from two mothers with confirmed Zika virus infection, but no replicative virus was identified in cell culture [4]. The breast milk samples where Zika virus RNA was found were collected at a time when the mothers were RT-PCR positive for Zika virus in serum samples and had clinical disease.
- There are currently no documented reports of Zika virus being transmitted to infants through breastfeeding.
- The frequency of virus detection, virus kinetics and size of viral load of Zika virus in breast milk is unknown.
- In countries with ongoing transmission of Zika virus, no adverse neurologic outcomes or severe diseases have been reported to date from infants with postnatally acquired Zika infection. Any change to this situation should be carefully monitored.
- In light of available evidence, the benefits of breastfeeding for the infant and mother outweigh any potential risk of Zika virus transmission through breast milk.

### 2.3 Research gaps

Discussions between the members of the expert group convened to develop this guidance highlighted the limited evidence available in this area. Further research is merited in the following areas:

- frequency and persistence of Zika virus in breast milk after symptomatic and asymptomatic infection among lactating women;
- transmissibility of Zika virus through breast milk;
- incidence of symptomatic and asymptomatic Zika virus infection in newborns from infected mothers;
- clinical presentation of Zika virus infection in breastfed and non-breastfed infants and young children;
- clinical presentation of Zika virus infection among lactating women and whether this affects ability to breastfeed; and
- protective antibodies in the breast milk of women previously infected with Zika virus.

### 3. Guidance development

#### 3.1 Acknowledgements

This interim guidance has been jointly developed by the Departments of Nutrition for Health and Development (Pura Rayco-Solon and Zita Weise Prinzo), Ebola Response (Lisa Thomas), Maternal, Newborn, Child and Adolescent Health (Nigel Rollins), Pandemic and Epidemic Diseases (Constanza Vallenias) and Reproductive Health and Research (Mercedes Bonet), WHO Geneva, and the Department of Noncommunicable Diseases and Mental Health (Chessa Lutter), WHO Regional Office for the Americas.

An expert group was convened to provide their inputs to the guidance, and was comprised of: Maaïke Arts, United Nations Children's Fund (UNICEF); Niklas Danielsson, European Centre for Disease Prevention and Control (ECDC); Josephine Ippe, Global Nutrition Cluster (UNICEF); Laurent Kaiser, Hôpitaux Universitaires Genève; Marie McGrath, ENN; Jennifer M Nelson, United States Centers for Disease Control and Prevention (US CDC); Titilope Oduyebo, US CDC; Heather Papowitz, UNICEF; Sonja A. Rasmussen, US CDC.

#### 3.2 Guidance development methods

A draft of this interim guidance was developed by an internal steering group of WHO staff and circulated for feedback to the expert group. The group was composed of experts with experience in the areas of infant feeding, nutrition surveillance, nutrition in emergencies, paediatrics and infectious diseases (virology and risk assessment). The recommendations contained in this document were agreed

on through discussion and unanimous consensus by the expert group, who met via teleconference on 19 February 2016.

#### 3.3 Declaration of interests

Declarations of interest were collected from all external contributors to this guidance. No conflicts of interests were declared.

#### 3.4 Review date

This interim guidance has been produced under emergency procedures and will remain valid until August 2016, or until recommendations informed by a systematic review of evidence are produced (expected in March 2016). The Department of Nutrition for Health and Development, WHO Geneva, will be responsible for reviewing this guideline at that time, and updating it as appropriate.

### 4. References

1. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003.
2. Breastfeeding counselling: a training course. Geneva: World Health Organization; 1993.
3. Victora CG, Bahl R, Barros AJD, Franca GVA, Horton S, Krusevec J, Murch S, Sankar MJ, Walker M, Rollings NC for The Lancet Breastfeeding Series Group. Breastfeeding in the 21<sup>st</sup> century: epidemiology, mechanisms, and lifelong effect. *Lancet* 2016;387(10017):475-490.
4. Besnard M, Lastère S, Teissier A, Cao-Lormeau VM, Musso D. Evidence of perinatal transmission of Zika virus, French Polynesia, December 2013 and February 2014. *Euro Surveill* 2014;19(13):20751.

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