



## MINISTRY OF HEALTH

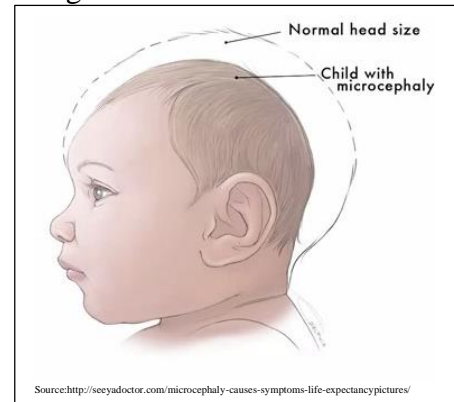
□ RKA BUILDING, 10-16 GRENADA WAY □ 45-47 BARBADOS AVENUE □ 24-26 GRENADA CRESCENT □ 10<sup>A</sup> CHELSEA AVENUE  
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### Brief on Microcephaly Jamaica, 12 October, 2016

Microcephaly is defined as a condition in which the head circumference is small for age and sex. Microcephaly is not a specific disease condition, but is a descriptive term determined on physical examination, similar to weight and height.

A. The causes of microcephaly are multifactorial, broadly categorized as environmental or genetic, and may include congenital infections, prematurity and intrauterine exposure to teratogens. Some of the infections that cause microcephaly include:

1. Toxoplasmosis
2. Rubella
3. Cytomegalovirus
4. Herpes Simplex Virus and HIV
5. Syphilis
6. Zika virus



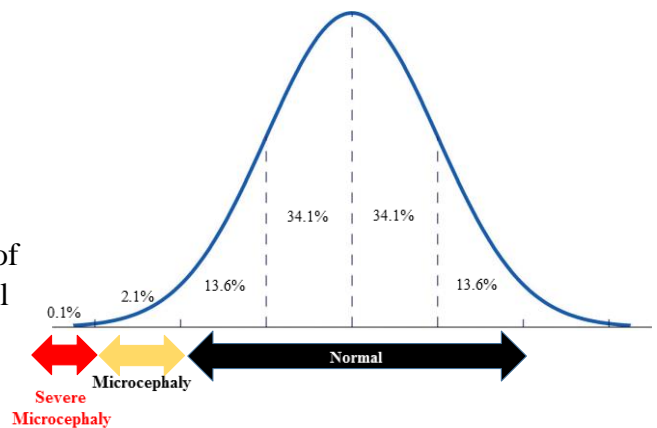
The child with microcephaly may present with a number of symptoms which include seizure, developmental delays and intellectual disabilities. The child with microcephaly may have no symptoms or may have severe symptoms. The smaller the head size is the greater the likelihood that the child will have these symptoms and the more severe.

### B. The Classification of Microcephaly

Microcephaly is classified as:

1. Microcephaly
2. Severe microcephaly

Within populations it is expected that about 2.1% of babies born will have microcephaly and 0.1% will have severe microcephaly if measurements alone are used.



### C. Jamaica Data on Microcephaly and Estimates

Based on the normal distribution of head circumference and the annual live births of approximately 37,000, it is estimated that approximately 777 babies will be born with measurements in keeping with microcephaly and 37 with severe microcephaly.

Estimate for Microcephaly	
Total	814
Microcephaly	77
Severe Microcephaly	37

Number of live birth for Jamaica  $\approx$  37,000

The data available for Jamaica represent babies who have been admitted into hospital and this gives an estimate of severe microcephaly in Jamaica. However this is an underestimation of the severe microcephaly as it represents only cases that require hospital admission and does not include patients seen in ambulatory care. The data for 2009 to 2014 was reviewed and the estimated prevalence is 0.019% to 0.035%. That is, about 8 to 16 babies born per year with severe microcephaly will require hospital admission.

### D. Baseline Data for Jamaica

The Ministry of Health conducted a study with funding from the Pan American Health Organization to determine baseline data for microcephaly. The study involved babies born during August-December 2013 in six public hospitals in Jamaica. The field work has been completed and preliminary results should be available by 21 October 2017. In addition, the Ministry of Health is collaborating with the University of the West Indies in obtaining information from two large birth cohort studies commencing in 1986 and 2011 for validation and triangulation of the data and to obtain the best estimate for Jamaica.

### D. Classification of Microcephaly Possibly Related to Zika

Microcephaly related to Zika became possible in addition to other infectious causes on the introduction of Zika virus infection to Jamaica in 2016. The likelihood that microcephaly is related to Zika virus infection and is as follows:

- **Suspected case** of microcephaly associated with Zika virus infection: baby born in 2016 with microcephaly.
- **Probable case** of microcephaly associated with Zika virus infection: baby born in 2016 with microcephaly whose mother had a rash in pregnancy or for whom all known causes of microcephaly has been ruled out.
- **Confirmed case** of microcephaly associated with Zika virus infection: baby with microcephaly with laboratory confirmation Zika virus infection.

Microcephaly Data for 2016 12 October 2016	
• Microcephaly Cases: <b>3</b>	
○ Microcephaly: <b>3</b>	
○ Severe Microcephaly: <b>0</b>	
• Probable Zika related microcephaly: <b>0</b>	
• Confirmed Zika Virus Infection: <b>0</b>	

As at 12 October, 2016, there have been three (3) cases of microcephaly in children in 2016 reported to the Ministry of Health and none was defined as severe microcephaly. All three (3) were defined as suspected cases of microcephaly. None was defined as probable or confirmed.

#### **E. Ministry of Health: Strategies and Activities**

The Ministry of Health has instituted the following actions to identify, investigate and follow-up cases of microcephaly.

1. Zika virus was classified as a class 1 notifiable disease in July 2015. This designation requires that cases of suspected Zika be notified immediately on suspicion. In December 2015, the Ministry of Health defined mothers and babies as suspected case of Zika virus infection if the babies have microcephaly. On identification the following actions are taken:
  - a. History from mother to ascertain if she had a rash or any viral illness suggestive of Zika virus infection.
  - b. A detailed physical examination of the baby.
  - c. Diagnostic tests for the possible cause(s) of microcephaly as indicated by the history and physical examination. This include Toxoplasmosis, rubella, cytomegalovirus, herpes simplex virus, HIV, syphilis and Zika virus. Genetic testing is done based on features of the physical examination.
2. The Ministry of Health redesigned the Delivery Books to capture head circumference and to indicate the presence or absence of microcephaly at birth as well as other congenital anomalies. These books have been distributed (August 2016) throughout the public hospitals which account for 92-93% of the annual deliveries.
3. Guidelines for the clinical management of mother and child including the psychosocial component have been developed and implemented. There has been training among private and public practitioners on these guidelines.
4. The Expert Group on Zika Virus Infection has been constituted and is giving expert advice for intervention in the following areas: Neurodevelopmental, Psychosocial, Education/Intervention, Diagnostics, Obstetrics and Research.
5. The Fund for services to families with children born with congenital anomalies possibly related to Zika virus infection was implemented.

Individuals who wish to obtain more information may call the Ministry of Health or the nearest health centre. Persons may also visit our website at [moh.gov.jm](http://moh.gov.jm) and like and follow us on [www.facebook.com/themohgovjm](https://www.facebook.com/themohgovjm); <https://twitter.com/themohgovjm>; <https://instagram.com/themohgovjm>.

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