

Name: \_\_\_\_\_ (       ) Date: \_\_\_\_\_  
 Class: \_\_\_\_\_

Read the following passage and answer the questions that follow. (24 marks)

**B1 level**

No. of Words: 733

## **Zika epidemic and its association with baby microcephaly**

25 February 2016

[1] The Centre for Health Protection (CHP) announced on 23 February 2016 two additional imported cases of Zika virus infection in the Mainland. The patients were a father and his son who returned to the Mainland via Hong Kong on 14 February after a trip to Fiji and Samoa.

[2] In the last few weeks, people around the world had been reading news on the Zika virus and seeing photos of babies born with abnormally small heads. Due to the effects of the mosquito-borne disease on babies and its ongoing outbreak across more than 20 nations, many countries have issued travel warnings for countries where Zika was reported. The World Health Organization (WHO) has also declared the birth defect a 'public health emergency of international concern'.

[3] The Zika virus is transmitted mainly through the bite of an infected *Aedes aegypti* mosquito. It can be found in some Central and South American countries and also a number of Pacific island nations. Most cases of microcephaly — with the baby's head unusually smaller than average at birth and the brain probably not developed properly — have been reported in Brazil. Since the outbreak of Zika in October 2015, 5,640 babies have been reported to suffer from microcephaly.

[4] In September 2015, health experts in Brazil started noticing an unusual number of babies born with microcephaly. In 26 of the first 35 cases registered, the mother had developed an illness with symptoms of a Zika infection during her pregnancy. Compared to only about 150 cases of microcephaly among three million births in 2014, it is highly possible that the Zika virus and the birth defect are related.

[5] However, the Zika has not yet been proven to cause microcephaly despite a growing amount of evidence showing the possible link between the two. In fact, scientists have been cautious in interpreting the data as the evidence linking them is circumstantial. Based on the evidence available so far, the WHO concluded that the recent 'cluster of microcephaly cases and other neurological disorders reported in Brazil' constitutes a public health emergency of international concern, and the link between Zika infection during pregnancy and microcephaly is 'strongly suspected'.

[6] In fact, Zika produces very minor symptoms — a mild fever, skin rash, muscle and joint pain and fatigue — which last up to seven days and are found in only 20% of those infected.

30 The outbreak of the mosquito-borne disease itself has not been declared a public health emergency. Leslie Lobel, an Israeli physician based in Ben-Gurion University, believes that it is more important to first confirm whether Zika is responsible for the birth defect, or whether it is caused by other factors.

[7] Brazilian paediatrician Sandra da Silva Mattos and her colleagues have been investigating

35 the relationship between the Zika virus and microcephaly. They examined the information about babies born before the current Zika epidemic in northeast Brazil, where most microcephaly cases were found. At first, they found that the incidence of microcephaly there was significantly higher than expected. However, the figures dropped to 0.02–0.19% — very similar to those reported elsewhere in the world — when they reviewed only extreme cases. The team also

40 found that microcephaly cases fluctuated seasonally, which could reflect the peak activity of the Zika-carrying mosquitoes.

[8] What puzzled scientists is that the fluctuation appeared several years before Zika was discovered in Brazil in 2014, and cases of microcephaly seemed to have peaked before the discovery that year. Scientists not only need to determine whether Zika is the cause of

45 microcephaly, but they also need to find ways to get a more accurate analysis of the condition. Moreover, what appeared to be an outbreak of microcephaly could actually turn out to be an example of the awareness effect — a problem or condition is more likely to be identified when people are made more aware of it.

[9] Determining whether Zika is the cause may require months, if not years, of research. Of all

50 the 5,640 cases of microcephaly reported so far, 583 have been confirmed, but only 67 have been tested positive for the virus; the causal link between the birth defect and the virus is still questionable.

[10] As the connection between the Zika virus and microcephaly is not confirmed at the moment, it is only sensible to take precautionary measures, such as controlling mosquito

55 populations and preventing mosquito bites for pregnant women. Drawing a conclusion too early could hide the true cause behind the microcephaly cases.

## Comprehension

1. Where did the father and son go before they were infected with the Zika virus?

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2. What is the significance of the following dates? (2 marks)

i) 14 February

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ii) 23 February

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3. Find a word in paragraph 2 that is similar in meaning to 'a sudden occurrence'.

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4. How many countries are affected by the Zika virus?

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5. Use ONE word to complete each blank. (2 marks)

Babies with microcephaly are born with unusually \_\_\_\_\_ heads and brains that may not have developed \_\_\_\_\_.

6. Which country has the most cases of Zika infection?

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7. Based on the information given in paragraphs 1–3, decide whether the following statements are **True**, **False** or the information is **Not Given**. Blacken ONE circle only for each statement. (4 marks)

	<b>T</b>	<b>F</b>	<b>NG</b>
i) There were two imported cases of Zika virus infection in the Mainland in February 2016.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ii) News related to the Zika virus is reported worldwide in 2016.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
iii) Travel warnings have been issued by the WHO since the outbreak of the Zika virus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
iv) The <i>Aedes aegypti</i> mosquito is the major medium in the transmission of the Zika virus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. What does 'birth defect' in line 20 refer to?

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9. According to paragraph 5, which one of the following statements is true?
- A. The WHO strongly believes that the Zika virus is the cause of microcephaly.
- B. The WHO has little evidence on the connection between Zika and microcephaly.
- C. The WHO thinks that the link between Zika and microcephaly is not obvious.
- D. The WHO thinks that countries worldwide should take microcephaly seriously.
- A      B      C      D  
○      ○      ○      ○
10. What does 'the two' in line 22 refer to?
- \_\_\_\_\_
11. What symptoms do most Zika patients have?
- \_\_\_\_\_
12. Find a word in paragraph 6 with the same meaning as 'slight'.
- \_\_\_\_\_
13. Why couldn't Sandra da Silva Mattos and her team conclude that microcephaly is linked to Zika?
- \_\_\_\_\_
14. When can we expect to find out whether Zika is the cause of microcephaly?
- \_\_\_\_\_
15. Why does the writer think that 'the causal link between the birth defect and the virus is still questionable' (lines 51–52)?
- \_\_\_\_\_
16. Match each person with the correct speech bubble. Write the letter of the speech bubble on the line next to the person given. (4 marks)

A. It's more practical to take preventive actions now.

- i) A spokesman at WHO: \_\_\_\_\_
- ii) Leslie Lobel: \_\_\_\_\_
- iii) Sandra da Silva Mattos: \_\_\_\_\_
- iv) The writer: \_\_\_\_\_

B. The figures in Brazil are in fact similar to those in other countries.

C. Zika does not just affect American countries but also the rest of the world.

D. We should first find out the cause of microcephaly.

## **Zika epidemic and its association with baby microcephaly**

### **Answer key**

1. Fiji and Samoa (line 3)
2. (i) When the patients were in Hong Kong (line 3)  
(ii) When the CHP announced the two additional imported cases of Zika virus infection in the Mainland (lines 1–2)
3. outbreak (line 6)
4. More than 20 countries (line 6)
5. small (line 12); properly (line 13)
6. Brazil (line 13)
7. i) NG  
ii) T (line 4)  
iii) F (lines 6–7)  
iv) T (line 10)
8. microcephaly (line 19) // head being unusually smaller than average at birth and the brain not having developed properly (lines 12–13)
9. D (lines 24–26)
10. Zika and microcephaly (line 21)
11. None // No symptoms (line 29)
12. minor (line 28)
13. Microcephaly was reported several years before Zika was discovered in Brazil in 2014. (lines 42–43) // Cases of microcephaly seemed to have peaked before the discovery of Zika in Brazil in 2014. (lines 43–44)
14. Months or years later (line 49) // A long time later
15. Only a very small portion of cases of microcephaly have been tested positive for the Zika virus. (lines 49–51)
16. i) C (lines 7–9, 24–26)  
ii) D (lines 31–33)  
iii) B (lines 38–39)  
iv) A (line 54)