

Introduction

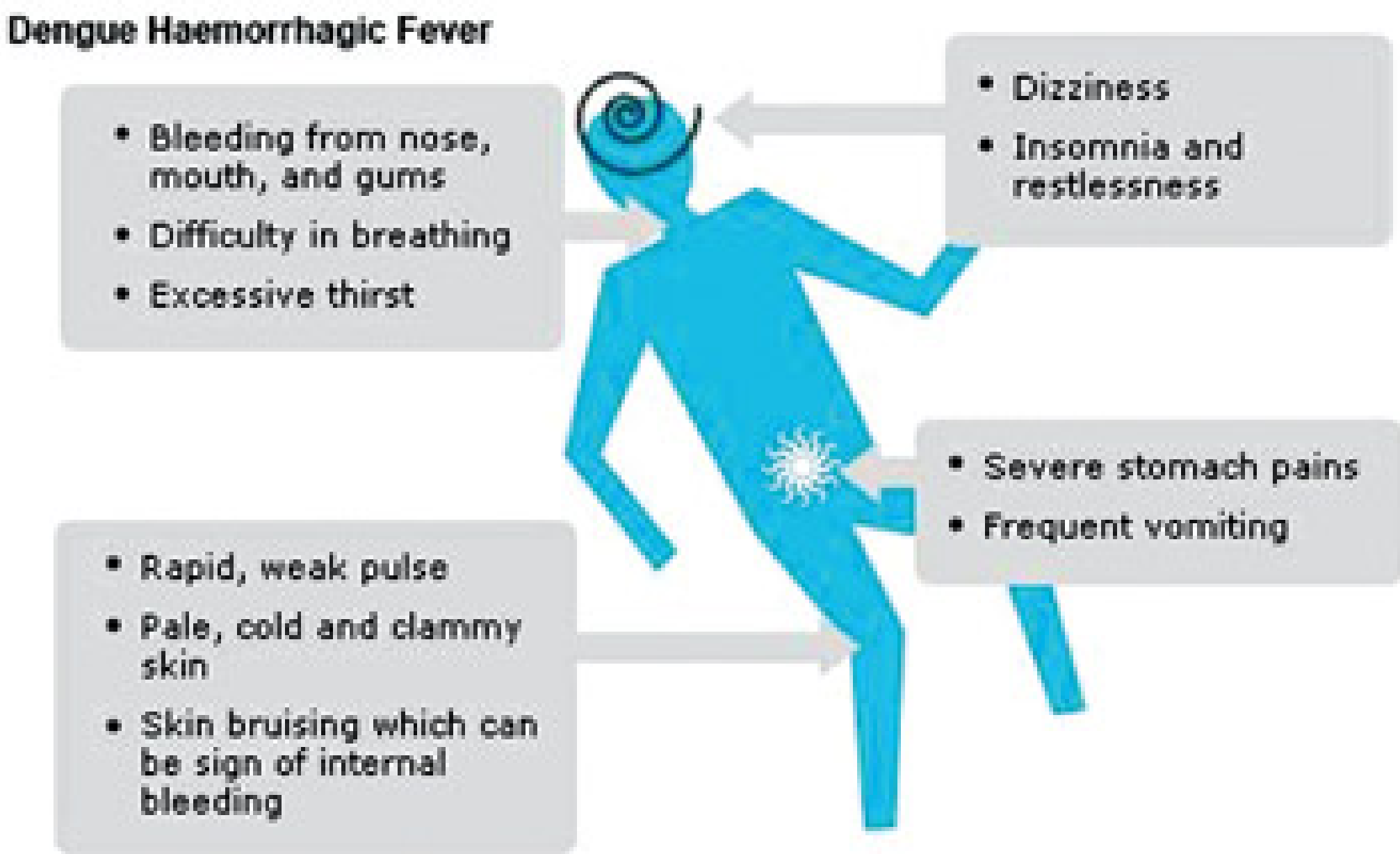


Infected Aedes mosquitoes[1]

Dengue fever is a viral infection where it transported through Aedes mosquitoes carrying dengue virus to human. It is a tropical mosquito viral illness spread through in Southeast Asia, especially in Malaysia. Dengue fever can progress into a more severe condition which is known as dengue hemorrhagic fever.

Malaysia has a high number of dengue cases that fluctuate markedly from one year to year. In 2013, there is a total of 43,436 dengue cases occurred in the country. In the following two years (2014 and 2015), the number tremendously increased to 108,698 and 120,836, respectively. [2] In fact, dengue infection is a major health concern in Malaysia.

Symptoms of DHF

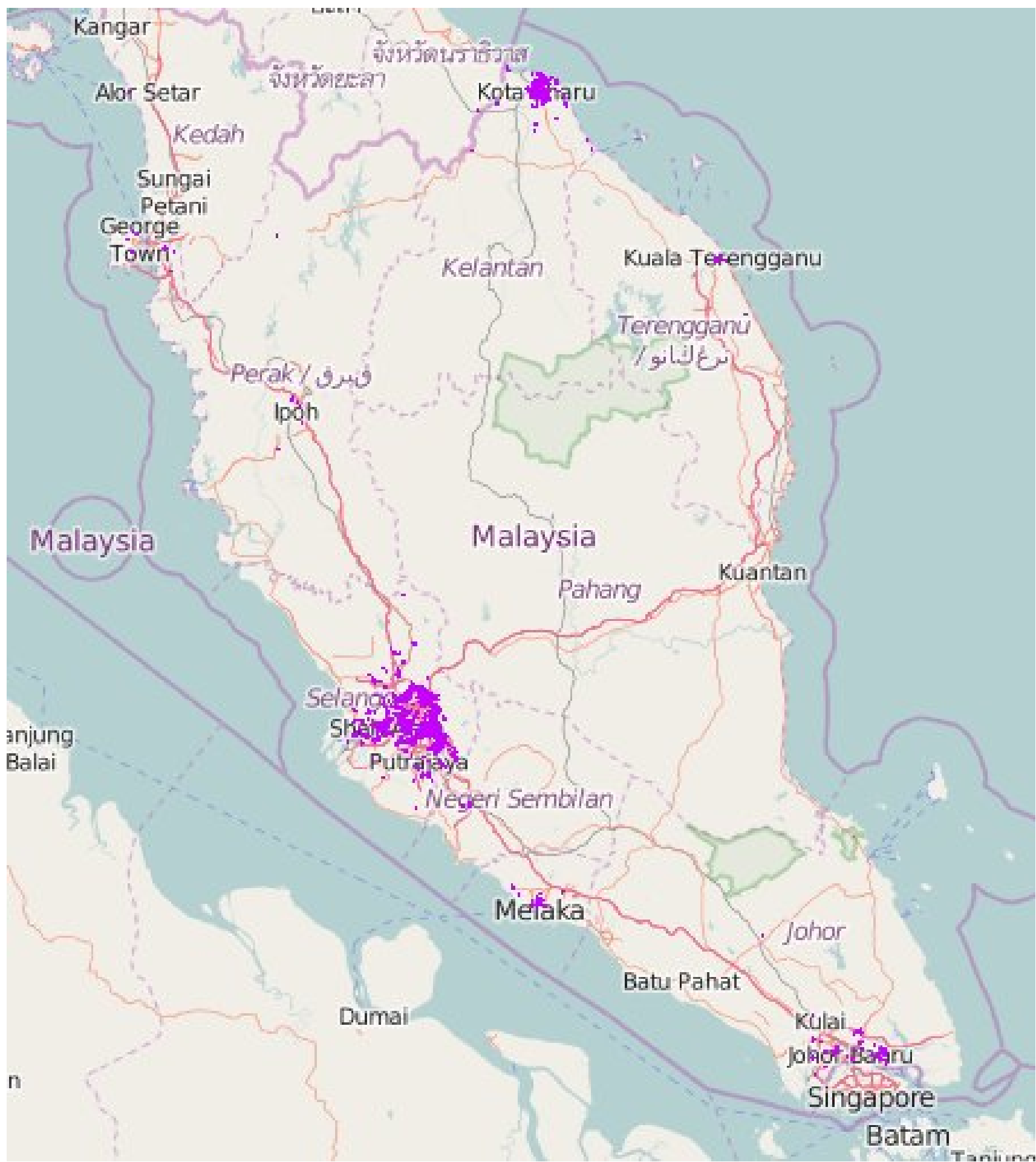


Dengue Hemorrhagic Fever Symptoms [5]

Research Goals

The goal of our research is to identify the age group and state which has the highest number of dengue hemorrhagic fever(DHF) cases based on the 2010-2017 disease datasets from the Malaysian Open Data Portal. Although researchers are working on dengue fever vaccines, the best dengue fever prevention is to control the transmission of dengue virus by identifying and reducing mosquito breeding areas where the disease is prevalent. The project results will be helpful to the Malaysian government/citizens to prioritize and get an early dengue disease warning on the highly dengue infected age groups and states.

Dengue Fever in Malaysia



Dengue Hotspots (communities) in Malaysia based on Website IDengue [3]

- In Malaysia, the majority of the dengue affected population are the people who aged between 13 to 35 years old. [4].
- Among all states in Malaysia, Selangor reported the highest number of dengue cases.
- In fact, Selangor has a high population density in Malaysia compared to other states.

References and acknowledgements

¹ Jesse Alaniz “Most common types of mosquitoes in north america,” 2019. www.thebugmaster.com/most-common-types-of-mosquitoes/

² Malaysia Ministry of Health (MMOH), “Hotspot locality list,” 2017. <http://idengue.remotesensing.gov.my/idengue/page2.php?kandungan=content/statistik.pdf>

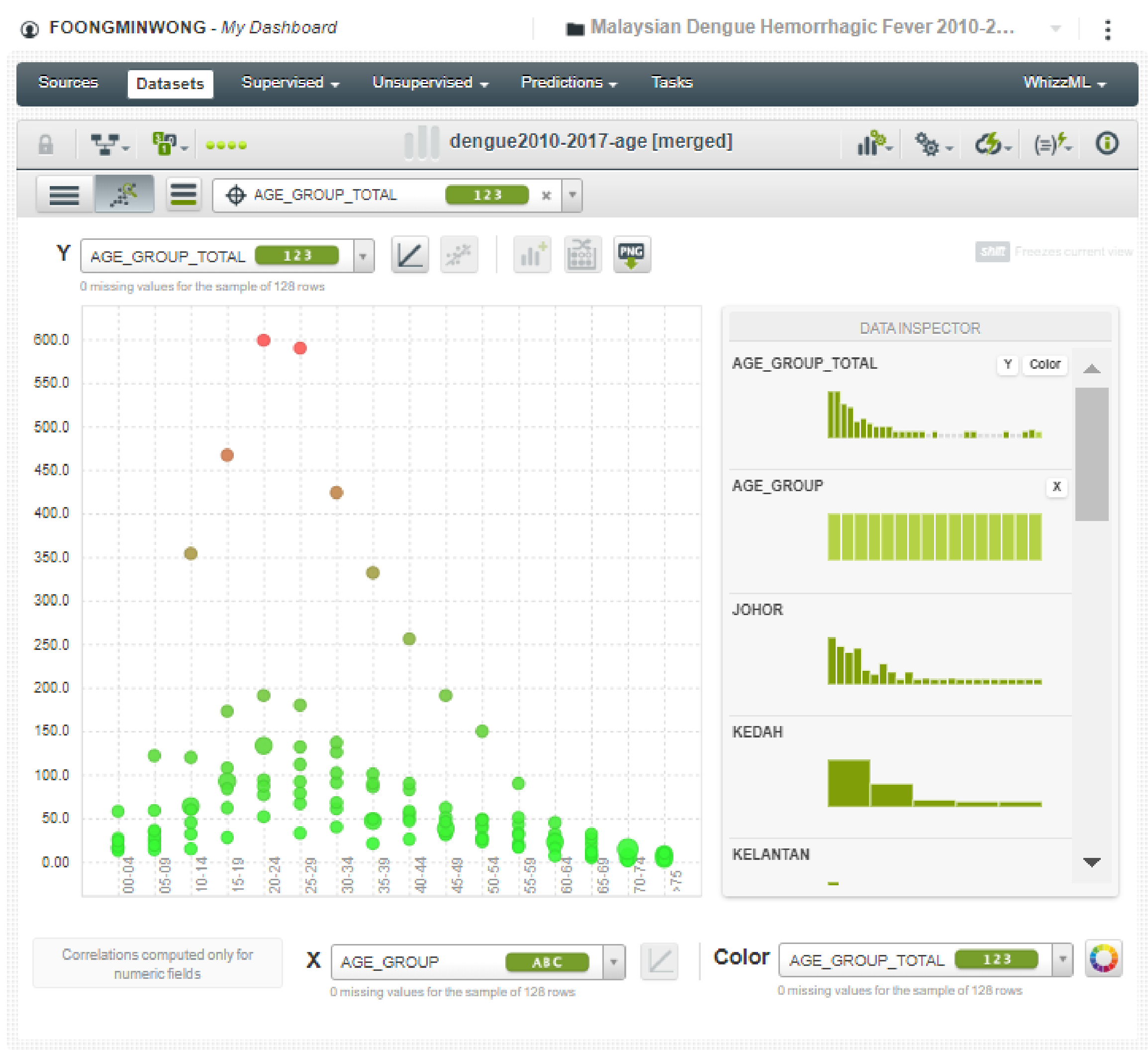
³ Malaysian Government Data Portal., “Dengue Hotspots in Malaysia,” 2019. www.data.gov.my

⁴ Sam, Sing-Sin and Omar, Sharifah Faridah Syed and Teoh, Boon-Teong and Abd-Jamil, Juraina and AbuBakar, Sazaly, “Review of dengue hemorrhagic fever fatal cases seen among adults: a retrospective study,” 2013. *PLoS neglected tropical diseases*

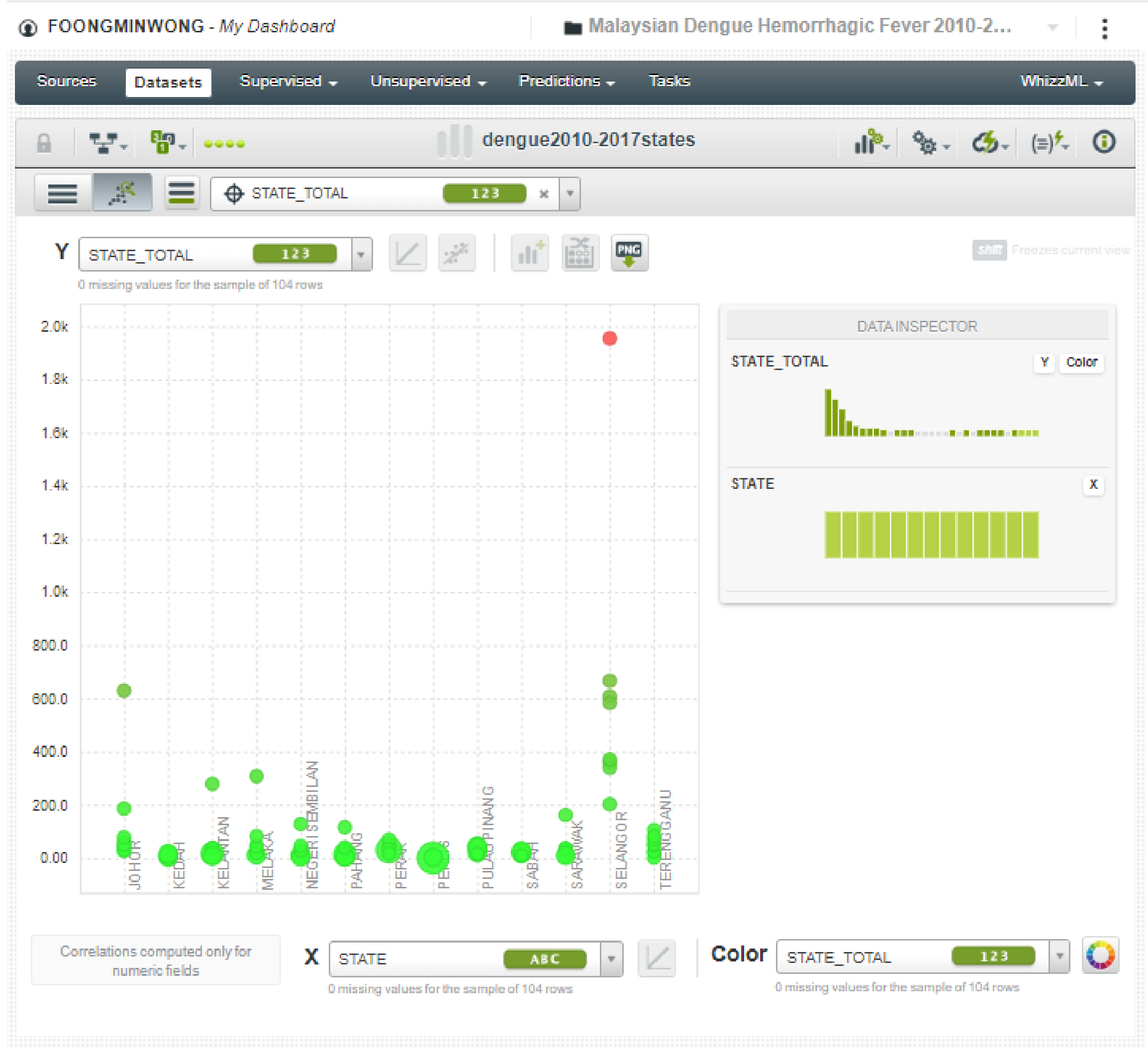
⁵ Symptoms of Dengue Hemorrhagic Fever, 2011. http://archives.dailynews.lk/2011/07/25/z_p19-Extreme-01.jpg

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Results



Dengue Hemorrhagic Fever Cases by Age Groups



Dengue Hemorrhagic Fever Cases by States