

JOINT MEDIA RELEASE

UNITEDENGUE CROSS-BORDER DATA SHARING PROVIDES COUNTRIES WITH TIMELY RISK ALERTS

Network enables greater cross-border sharing of dengue surveillance information and control knowledge

Singapore, 13 September 2014 – Over 40 per cent of all people globally are now at risk of being infected with dengue, which has become the fastest spreading mosquito-borne disease in the world¹. The dengue situation in Singapore and Malaysia mirrors that of the global situation, with both countries facing increasing challenges in the fight on dengue. In 2013, Malaysia recorded over 43,000 cases with 92 deaths, whilst Singapore reported over 22,000 cases with seven deaths. This year, the number of cases in Malaysia has surpassed historical records while Singapore continues to see high case numbers, and both countries remain in the peak dengue season.

About UNITEDengue

2 In a joint effort to fight dengue, Singapore and Malaysia launched the UNITEDengue (UNited In Tackling Epidemic Dengue) network in 2012, to enable greater cross-border sharing of dengue surveillance information and dengue control knowledge. UNITEDengue was set up to allow timely sensing of the dengue situation in the region, and to provide alerts of risk in order to improve preparedness and enable early intervention. The UNITEDengue network has received the support and concurrence of the ASEAN Health Sector as the platform for sharing of dengue data in the region. The network is expected to strengthen with the inclusion of more countries.

Switch in Predominant Virus Serotypes

3 Virus serotype surveillance under the UNITEDengue collaboration has shown that the 2013 outbreaks in Malaysia and Singapore were associated with a switch in the predominant virus serotypes. In Singapore, the predominantly circulating virus serotype switched from DENV-2 to DENV-1 at the beginning of 2013. Malaysia however saw an increase in the dominance of DENV-2 in its dengue cases.

4 Dominance of DENV-2 in Malaysia is most evident in the southern states of Johor and Malacca, where the proportion of DENV-2 among circulating viruses rose to 70 to 90 per cent since August 2013. Incidentally, the fatality rates of 0.5 per cent in these two states were higher compared to the whole of Malaysia and Selangor (0.19 per cent and 0.09 per cent respectively). While the association of the DENV-2 dominance with higher reported

¹ <http://www.who.int/mediacentre/factsheets/fs117/en/>

fatality is of concern, the reasons behind the association remain unclear. It could be inherent in the strain, or due to secondary infections following previous infections by DENV-1 or DENV-3. Such increased severity has been previously observed in dengue epidemics in other countries, such as Cuba and Brazil.

5 In Singapore, close monitoring of virus serotypes by the authorities has shown that while DENV-1 remains the predominant virus, there has been an increasing number of DENV-2 cases since July 2014. Singapore is watching this development closely, as the spread of the DENV-2 virus may result in a serotype switch, which could potentially lead to a new wave of infections. Clusters with mixed virus strains are more challenging to control, as immunity to one serotype does not mean immunity to the other serotypes.

6 Malaysia is also monitoring the presence of the DENV-1 virus that caused the Singapore outbreak in 2013 and 2014, which is not common in Malaysia, though it has been periodically found there.

7 Regardless of the circulating virus strain, all stakeholders must play their part to help stem dengue transmission in the environment by checking their premises daily for potential mosquito breeding habitats and removing them. Those infected with dengue should protect themselves from mosquito bites by applying repellent as regularly as possible, and those showing symptoms suggestive of dengue, should see their GPs early to be diagnosed.

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About National Environment Agency:

Formed on 1 July 2002, the National Environment Agency (NEA) is the leading public organisation responsible for improving and sustaining a clean and green environment in Singapore. The NEA develops and spearheads environmental initiatives and programmes through its partnership with the People, Public and Private sectors. It is committed to motivating every individual to take up environmental ownership and to care for the environment as a way of life.

By protecting Singapore's resources from pollution, maintaining a high level of public health and providing timely meteorological information, the NEA endeavours to ensure sustainable development and a quality living environment for present and future generations.

About Environmental Health Institute:

EHI is a public health laboratory at the National Environment Agency (NEA), dedicated to research, surveillance and evidence-based risk assessment on infectious diseases of environmental concern. The key thrust of the centre is to acquire knowledge and to develop advanced and cost-effective tools and strategies to support public health operations and policies. EHI has been designated as a WHO Collaborating Centre for Reference and Research of Arbovirus and their Associated Vectors. The Institute contributes to WHO's efforts in strengthening the capacity and capability for the surveillance and control of arboviral diseases in the region.

About Ministry of Health Malaysia:

The Ministry of Health Malaysia, the custodian for the nation's health, has been entrusted with the continued improvement of the population's health status. It undertakes this mandate through the continued planning, implementing, monitoring, evaluating and regulating of the country's policies and resources on healthcare services.

A key programme under the Ministry of Health's Malaysia includes Public Health Programme. The activities under the Ministry of Health's Public Health Programme are broad and comprehensive in order to ensure that the individuals, families and society in general maintain good health. The main objective of the Public Health Programme is to reduce the occurrence of diseases and deaths due to communicable and non-communicable diseases as well as occupational environmental related diseases so that they will no longer pose a threat to the public's health. Specific programs were also carried out by four Divisions under the Programme, namely; Disease Control Division, Family Health Development Division, Health Promotion Division and Nutrition Division.