

CARIBBEAN EPIDEMIOLOGY CENTRE (CAREC)



**Pan American
Health
Organization**
Regional Office of the
World Health Organization

***Pan American Sanitary Bureau, Regional Office of the
World Health Organization***
16-18 Jamaica Boulevard, Federation Park, Port of Spain, Trinidad W.I.



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DENGUE FEVER

The agent of dengue fever is the dengue virus, a member of the Flavivirus group. There are four types of dengue viruses designated as types 1, 2, 3 and 4. Thus far, during 2011, dengue virus type 1 has been identified in four CAREC Member Countries and type 4 has been identified in 3 countries. However, the other two virus types have been identified in some countries in Central and South America, such as Venezuela, Brazil, Columbia, Mexico and Costa Rica. Also, during 2010, virus type 2 was one of the predominant circulating types in the Caribbean; and virus type 3 was identified in two CAREC member countries.

The rainy season has begun and some countries have already reported increased numbers of dengue cases. As such CAREC recommends the following prevention and control measures:

- Preparedness regarding clinical case management
- Immediate adulticidal treatments in the vicinity of the residence of confirmed patients, and the place of work etc, as well as in other locations where persons are experiencing dengue-like symptoms.
- Efforts should be made at source reduction activities by householders and communities, spear-headed by public health authorities. Communities and inter-sectoral groups should help with organized clean-ups to reduce sources of mosquito breeding.
- Households with persons experiencing febrile illness should utilize repellents and intra-domiciliary (space) sprays for personal protection against mosquito bites. Individuals and families could benefit from such activity.
- Health promotion and education should be used strategically to encourage communities in this fight against the vector.
- Inter-sectoral collaboration between the Ministry of Health and Public Utilities to ensure the availability of water and acceptable levels of environmental sanitation.

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With respect to the use of dengue rapid tests, please note that these tests identify antibodies, which do not usually appear before 3-5 days after onset of illness. As such, the use of these tests is not recommended prior to this time, as they can yield false negative results during this period.

For CAREC member countries experiencing an increase in suspected dengue cases, CAREC recommends that blood samples be taken preferably within the first three days of onset and that 10-15 samples be taken to confirm the circulating virus type. After the virus type has been confirmed, samples should be taken only from severe cases, hospitalized cases or ones in new areas. Please note that all samples submitted to the CAREC laboratory must be accompanied by laboratory investigation forms with complete information, especially date of onset of symptoms and date of sample collection. Without this information, interpretation of test results is difficult and sometimes impossible. Please contact the CAREC laboratory for questions pertaining to sample submission.

Countries should contact CAREC at carec-epidemiology@carec.paho.org or 868-622-4261/4262 should they have any queries or require assistance with respect to dengue prevention or control.