Dengue, 7 deaths and mortality rate of 8.8%. Statistics show that the number of cases may be related to increased circulation of DENV-3. The present results corroborate to the epidemiological data from 2007, where the DENV-3 serotype was prevalent. Our results demonstrate that serotyping showed lower sensitivity than the initial screening of samples positive for DENV. However, to solve this problem, we will perform successive passages of these samples in C6/36 cells to increase viral load and thus allow the typing of these samples by semi-nested PCR. In general, the strategy was effective in the initial screening for DENV positive samples, despite the need to develop a more sensitive strategy for typing samples with low viral load. E-mail: alzira@funed.mg.gov.br

Dengue012- Dengue virus serotype 4: analysis of epidemiological profile in Northern, Brazil, 2010-2011

Carvalho, V.L.1; Silva, E.V.P.1; Lima, C.S.1; Gonçalves, E.1; Vasconcelos, H. B.; Lima, M.F.; Moraes, J.R.S.1; Azevedo, R.S.S.1; Rodrigues, S. G.; Vasconcelos, P.F.C.1
1. Arbovirology and Hemorrhagic Fevers Department, Evandro Chagas Institute, Ananindeua-PA, Brazil.

Introduction: Dengue fever is a mosquito-borne virus infection that in recent decades has become a major international public health concern. Dengue is found in tropical and sub-tropical regions around the world, predominantly in urban and semi-urban areas. The incidence of dengue has grown dramatically around the world in the recent decades. Some 2.5 billion people are now at risk for dengue. World Health Organization currently estimates there may be 50 million dengue infections worldwide every year, mainly in the Americas and Southeast Asia. The spread of dengue is attributed to the expanding of geographic distribution of the four dengue viruses and their mosquito vectors. On the other hand, in last decades, only dengue virus serotypes 1, 2 and 3 circulated in Brazil. Finally, in July 2010, dengue virus serotype 4 (DENV-4) reemerged in Boa Vista, the capital of Roraima State, in Northern Brazil after an absence of 28 years in Brazil. The study aimed to perform the DENV-4 virologic surveillance in Northern, Brazil, between 2010 and 2011 from samples received by the Department of Arbovirology and Hemorrhagic Fevers - Evandro Chagas Institute. Material and Methods: A total of 4585 samples by case between 2010 (1896 samples) and 2011 (2689 samples) years were inoculated into C6/36 cells culture for attempts of virus isolation. The indirect fluorescence assay using monoclonal antibodies was performed to confirm viral infection. Results: A total of 22 were positive to DENV-4 in 2010, distributed as follows [north states (cases%): Amazonas (1/4.5%), Pará (1/4.5%), Roraima (20/91%); in 2011, a total of 159 were positive to DENV-4, distributed as follows: Acre (1/0.7%), Amazonas (98/62%), Pará (50/31%), Roraima (8/5%), Tocantins (2/1.3%). Main conclusions: These results showed an increased incidence of the DENV-4 circulation in Northern, Brazil and its dispersal following the reintroduction in 2010 in the Northern region. E-mail: valeriacarvalho@iec.pa.gov.br

Dengue013- Effects of meteorological variables on the transmission risk of dengue fever: a lag-temporal analysis

R. B. Oliveira1; M. A. P. Horta1; Ker, F.T.O2; A. P. Ferreira1; A. Navarro3; C. M. S. Catita3
1-National School of Public Health / Oswaldo Cruz Foundation, 2-Health Department / Coronel Fabriciano City, 3-Sciences Faculty / University of Lisbon

Introduction: Temperature, relative humidity and rainfall systems directly affect the breeding and abundance of mosquitoes by providing suitable conditions for its survival. Those factors together could influence the risk of DF outbreaks and the influence the transmission dynamics of this disease is relevant to a better understanding and control. This study focuses on the temporal relationship between environmental factors and the occurrence of DF cases. Material and Methods: The study was conducted in Coronel Fabriciano city (19°30‘52,21“S; 42°37‘31,32“W), Minas Gerais State, Brazil. Time series of the mean, minimum and maximum temperature, humidity and precipitation for the years of 2002 to 2009 were obtained from local weather station. We quantified the association between weekly cases of dengue and meteorological variables in the urban area by using two methods. We first tested the correlation between the lags of rainfall, which varied from 0 to 20, with the occurrence of DF cases. The concept of lag can then be used to describe the relationship either forward (from a fixed exposure to future outcomes) or

880