



ZIKAction

ZIKA-VT Mother-to-child transmission of Chikungunya, Dengue and Zika Virus Infection: a prospective observational cohort study of pregnant women and their infants

By the ZIKA-VT protocol working group

We are excited to begin enrollment in the prospective cohort study of mother-to-child transmission of Zika (ZIKV), Dengue (DENV) and Chikungunya (CHIKV) virus infection, having received ethics approval from the Ministry of Health and University of the West Indies in Jamaica this month.

This study is the core activity of the ZIKA-VT work package within the ZIKAction project and is designed to address many remaining gaps in evidence regarding arbovirus infection during pregnancy, with the overarching goal of providing the high quality data needed to inform clinical and public health strategies to prevent and mitigate negative impacts of infection with these viruses during pregnancy.

In this cohort study we plan to estimate mother-to-child transmission rates and to identify associated risk factors for CHIKV, DENV and ZIKV by enrolling and following pregnant women at risk of infection until the end of pregnancy to identify those with markers of recent arbovirus infection (with or without symptoms). We will also estimate seroprevalence, incidence and risk factors for acquisition of ZIKV, DENV and CHIKV in pregnancy and describe the clinical spectrum of infection in pregnant and postpartum women. Prospective follow-up of all infants born to women with recent infection will take place, in order to describe the full spectrum of congenital infection, including later sequelae. We will also follow-up a control group of children born to women without markers of arbovirus infection during pregnancy. Infant follow-up to 24 months of age is included in the ZIKA-VT protocol, with longer term follow-up taking place in ZIKA-PED studies.

Our ZIKA-VT study is joining a group of ongoing prospective cohort studies including the Zika in Infants and Pregnancy (ZIP) study conducted by the US National Institutes of Health in multiple sites in South America and the Caribbean and the cohort studies being conducted by the other EU funded ZIKV consortia, ZIKAlliance and ZikaPLAN. We have harmonized our protocol and data collection tools to facilitate shared data analysis between studies, maintaining distinct approaches which complement one another and add to overall robustness in the context of many uncertainties regarding diagnostics and epidemiology of ZIKV, CHIKV and DENV, especially in the setting of endemic circulation of various arboviruses.

We very much look forward to opening this study soon in ZIKAction sites in Costa Rica, Haiti and Brazil and to updating you all on our progress!



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