

has been affected with over 500,000 cases of Chikungunya – which is more than half of the overall outbreak and 5% of the country's population. While Dengue hasn't spiked since 2007, the virus remains endemic affecting 6,035 people in 2014 on the island. While infections with these viruses are rarely fatal, the most concerning issue to the Dominican Republic is the economic and health services burden, especially since 20–30% of cases can have long-term sequelae.

Objective: The purpose of the current study is to assess the knowledge, attitudes, risk factors and prevention practices for Chikungunya and Dengue viruses in the communities of Paraiso and Los Mina in the Dominican Republic.

Methods: Of 289 eligible patients seen in clinic, 75 agreed to participate in this survey (26%). In June 2015, Participants were recruited from a school-based clinic in Paraiso, a marginal urban barrio on the Northwest edge of Santo Domingo, and from a local nonprofit health center in Los Mina, a densely populated urban barrio in the eastern part of the city. All participants gave verbal informed consent before participation. A 48 question survey was administered to patients during a medical outreach clinic in a community school or non-profit clinic. Pregnant women and people under the age of 18 were excluded. Quantitative analyses were performed using Microsoft Excel (Version 14.4.7, 2011). This research study was approved by the VCU IRB under protocol HM20004706.

Findings: Eighty-four percent of participants (63/75) identified Dengue as a mosquito borne illness while 65.3% (49/75) identified Chikungunya as such. Fever was the most commonly identified symptom associated with both diseases. Ninety-five percent of participants engage in practices to prevent mosquito bites at home. Among prevention techniques for both viruses, 77% used a bed net and 72% sprayed repellent around the home and 92% prevent standing water around the home. Almost 30% stated they could not afford bug spray to use on their own body and clothes. The government has attempted to take an active role in prevention as 75% of houses have been sprayed.

Interpretation:

1. Despite both viruses being prevalent locally, people were less knowledgeable about Chikungunya
2. People who were knowledgeable about Dengue were more likely to deploy mosquito prevention precautions than those who were knowledgeable about Chikungunya
3. Bed nets are the most frequently used method of mosquito prevention but are still infrequently utilized by a majority of individuals
4. These findings will inform future dengue and chikungunya prevention efforts in the studied communities

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Abstract #: 2.014_PLA

Assessment of blood lead levels and associated risk factors among children in Ulaanbaatar, Mongolia

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Background: Despite dramatic declines of children's blood lead levels (BLLs) worldwide, significant exposure remains, particularly in developing countries due to their rapid environmental changes. The objectives of this study were to determine blood lead levels of children living in Ulaanbaatar, Mongolia and to identify potential risk factors influencing their BLLs with a lifestyle and residential environment questionnaire.

Methods: Four (School #16, 23, 43, or 79) were selected based on their geographical location within Ulaanbaatar so that different regions of the city could be assessed. A total of 153 school children aged 6–8 years old were tested in February and March of 2014. For BLL measurement, capillary blood was tested using the LeadCare II, and the children's parents were requested to fill out a structured questionnaire to identify demographical, socio-economical, environmental and behavioral risk factors for lead exposure.

Findings: The geometric mean BLL was 5.3 µg/dL (95% CI: 4.9 – 5.7 µg/dL) and 54.5% of the children had blood lead levels >5 µg/dL (the U.S. Center for Disease Control's current safety reference level). Factors that were significant ($p < 0.05$) predictors of BLL in a multiple linear regression model were sex, age, father's education level, and father's job type.

Interpretation: The BLL from this study in 2014 shows a 60% decrease since a prior 2005 study, likely due to the ban on leaded gasoline in the country. However, academic performance was significantly influenced by BLL, indicating that actions still need to be taken to reduce lead exposure in Ulaanbaatar.

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Development of a sustainable academic and clinical medical mission: Honduras

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Background: Medical mission activity has become an active part of the Global Health Programs at many academic institutions. Commonly these programs involve annual trips to indigenous locations within the United States and around the world. Each one of these medical missions requires extensive resources and staffing and come at a high monetary and time cost. Medical missions by nature are brief and ensuring long term health and educational benefit to the community served can be difficult. The University