Knowledge, attitudes and practices related to dengue in Ribeirão Preto, Brazil

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Background: Despite considerable information on the environmental conditions that promote transmission of dengue viruses, an estimated 50 million dengue cases still occur annually throughout the world. Exposure to Aedes aegypti mosquitoes is related to disease risk, and dependent upon conditions involving climate, housing, urbanization, personal behaviors, and more. Thus, dengue risk is considered to be both socially and environmentally defined, but variation in local, community-level, environmental and socio-behavioral drivers has rarely been carefully investigated. In particular, the importance of people’s knowledge, attitudes and practices (KAP) concerning disease prevention in these local contexts is poorly understood. Accordingly, we studied the KAP of people regarding health-related decisions and behaviors intended to reduce dengue disease in urban Ribeirão Preto, Brazil.

Methods: A KAP questionnaire was administered by Vector Control Agents of the Secretariat of Health of Ribeirão Preto. A total of 48 homes in the Western district were chosen by neighborhood sampling. One adult resident from 42 (88%) of the households participated and was asked 58 questions involving basic socio-demographic variables, knowledge of virus transmission, vector ecology, and disease symptoms.

Results: Most participants (67%) were female. Overall, 19% reported to have had laboratory-diagnosed dengue. The mean self-reported knowledge of dengue on a 0–10 scale was 6.7 (range 0–10), yet 12% of participants believed that a working vaccine against dengue was already being used. Among other highlights, it was found that 58% of respondents believed it to be the responsibility of individual city residents to prevent dengue, 6% believed it was only the government’s responsibility, and 19% believed it was both (remainder did not respond or responded “other”). Interestingly, 71% indicated that the prevention of dengue at the household level should be enforced by legal means.

Conclusion: Results of our study suggest that the extent of knowledge regarding dengue in Ribeirão Preto is inadequate. Furthermore, many of those surveyed were in favor of mandatory prevention efforts by private citizens. Finally, this is the first known KAPs dengue study done Ribeirão Preto and points to the importance of expanded education aimed at improved understanding of and prevention efforts to reduce dengue virus transmission and disease.

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Chagas prevalence in Bolivian children. Results from BOLKID study, 2010

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Background: Bolivian migration is increasing to Europe, mainly to Spain, and Chagas disease is of concern. However Chagas treatment is mainly effective in childhood so we undertook a study to assess seroprevalence of Chagas disease in 5 to 16 years old Bolivian children from the Cochabamba region.

Methods: A population-based cross-sectional survey (n = 441) was undertaken in 2010. A parental-administered questionnaire about socio-demographic information was gathered and a blood sample obtained from each participant with parental informed consent. Chagas disease prevalence was estimated as well as their 95% confidence intervals. A descriptive and bivariate analysis using Student T test or Mann-Whitney U test to according to normality distribution and Chi-squared test or Fisher exact test when needed, were performed.

Results: The global prevalence of Chagas disease was 3.63% (CI95% 1.88-5.38) being statistically higher in male (p = 0.031), lower socioeconomic status studied by mother’s education (p=0.030) and children living in adobe houses (p=0.014), without differences by living area (urban or rural), neither presence of farmyard or according to ethnic groups (p>0.05).

Conclusion: This study identifies a lower prevalence of Chagas than previously estimated and reported. However Chagas disease is still a public health concern, so some preventive measures in a short period of time should be taken in young Bolivian population were treatment could be cost-effective.

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The effective reproduction number of Pandemic 2009 H1N1 influenza in Thailand: a spatiotemporal analysis

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Background: Circulation of the influenza A/H1N1pdm virus was confirmed in many countries during 2009. Developing a quantitative understanding of the pandemic dynamics is important...