

## **Different domains of dengue research in the Philippines: A systematic review and meta- analysis of questionnaire-based studies**

### **ABSTRACT**

Dengue is the most rapidly spreading mosquito-borne viral disease of humans worldwide, including southeast Asia region. This review provides a comprehensive overview of questionnaire-related dengue studies conducted in the Philippines and evaluates their reliability and validity in these surveys. A review protocol constructed by a panel of experienced academic reviewers was used to formulate the methodology, research design, search strategy and selection criteria. An extensive literature search was conducted between March–June 2020 in various major electronic biomedical databases including PubMed, EMBASE, MEDLINE and ScienceDirect. A systematic review and meta-analysis (PRISMA) were selected as the preferred item reporting method. Out of a total of 34 peer-reviewed dengue-related KAP studies that were identified, 15 published from 2000 to April 2020 met the inclusion criteria. Based on the meta-analysis, a poor mean score was obtained for each of knowledge (68.89), attitude (49.86) and preventive practice (64.69). Most respondents were equipped with a good knowledge of the major clinical signs of dengue. Worryingly, 95% of respondents showed several negative attitudes towards dengue prevention, claiming that this was not possible and that enacting preventive practices was not their responsibility. Interestingly, television or radio was claimed as the main source of gaining dengue information (range 50–95%). Lastly, only five articles (33.3%) piloted or pretested their questionnaire before surveying, of which three reported Cronbach's alpha coefficient (range 0.70 to 0.90). This review indicates that to combat the growing public health threat of dengue to the Philippines, we need the active participation of resident communities, full engagement of healthcare personnel, promotion of awareness campaigns, and access to safe complementary and alternative medicines. Importantly, the psychometric properties of each questionnaire should be assessed rigorously.