ABSTRACT

Objective: To analyse the cumulative incidence of febrile seizures, to evaluate the accuracy of our screening questionnaire and to describe clinical characteristics of children with febrile seizure in an urban population in
Tanzania.

Methods: A large random cluster sampled population was screened for a febrile seizure history as part of a larger epilepsy study using a standardized questionnaire in a two-stage door-to-door survey in Tanzania. A subset of screen positive participants was further examined for confirmation of diagnosis and evaluation of clinical characteristics.

Results: Overall, 49,697 people were screened for a febrile seizure history of whom 184 (0.4%) screened positive. Women more commonly screened positive than men (112 [0.4%] versus 72 [0.3%]). There was no marked difference between age groups or education. The positive predictive value of the screening tool was 37% (95%CI 24–51%) but its accuracy varied with the age of interviewed individuals. Cumulative incidence rates were estimated between 1.1 and 2.0% after adjusting for the inaccuracy of the screening tool. Most febrile seizures occurred before the age oftwo (65%) and most children had more than one episode (80%). A large proportion of children had complex febrile seizure (65%), often caused by malaria or respiratory infections.

Conclusions: The community-based cumulative incidence of a febrile seizure history in an urban Tanzanian population was similar to rates reported from other rural populations after adjusting for the inaccuracy of our screening tool. Based on the integrated nature of the febrile seizure questionnaire, screening positivity rates may