A cross-sectional analytical study was conducted among Family Health Leaders in Kongkrailat District, Sukhothai Province. The aims of the study were to characterize preventive behaviors against dengue infection (dependent variables), and to assess associations between these behaviors and socio-demographic, predisposing, enabling, and reinforcing factors (independent variables). In March 2006, data were collected by structured questionnaire from 450 respondents, using multi-stage sampling of sub-districts, villages, and households. Associations were assessed in the 412 subjects with complete data for analyzed dependent variables. Techniques used for data analysis were frequency, percentage, mean, standard deviation, chi-square tests, and Pearson's product-moment correlation coefficients. Three aspects of preventive behavior were analyzed: eliminating mosquito breeding places, prevention of mosquito bite, and community-level cooperation against dengue infection. Most respondents (55.6%) had a moderate level of knowledge scores and 42.2% had low scores for controlling breeding places. For prevention of mosquito bite, most subjects (60.4%) did not use mosquito nets in daytime, and most did not use insecticide spray; 31.3% did not cooperate in community-level anti-dengue campaigns.

Chi-square tests and correlation analysis showed that factors associated with elimination of breeding places were marital status (p=0.059), knowledge (p=0.001), sufficiency of water container covers (p=0.017), sufficiency of other resources (p=0.046), frequency of receiving information (r=0.361, p<0.001). For prevention of mosquito bite, gender was associated with daytime net use (p=0.007) and mosquito coil use (p=0.036), education with mosquito coil (p=0.043), income with daytime net use, spray use, and mosquito coil use (p=0.003), family size with daytime net use (p=0.005), knowledge with spray use (p=0.037), attitude with daytime net use (p=0.032), receiving information with mosquito coil use (p=0.024). For community-level cooperation against dengue infection, attitude was associated with campaign (p=0.001), and frequency of information with spray use (p<0.001) and coil use (p=0.022). Attitude score was positively correlated with knowledge score (p<0.001), but attitude, unlike knowledge, was not associated with elimination of breeding places. It is recommended that regular, continuous programs to improve dengue-preventive behaviors be conducted at the community level.