The main objective of this quasi-experimental research was to assess the effectiveness of a health education program. Community participation concepts were applied to design the program activities. The studied sample was 208 family health volunteers in two villages in Muang District, Nakhon Si Thammarat Province. One-hundred and nine of the samples were assigned to the experimental group while ninety-nine, were assigned to the comparison group. The experimental group participated in the program of health education activities for 8 weeks while the comparison group did not. The tool for data collection was a structured questionnaire. The structured questionnaire was assessed on DHF knowledge and prevention, perceived susceptibility to DHF, perceived severity of DHF, perceived cost-benefits on controlling the Aedes aegypti larvae, Aedes aegypti larvae control practices and Aedes aegypti larva survey form were used to collect data both before and after the Health Education Program experimentation. Statistical methods included percentage, arithmetic mean, standard deviation, Student’s t-test, paired samples t-test and Z-test were employed to test the research hypotheses.

The results of this study revealed that after the experimentation, the experimental group had gained significantly higher when compared to their pre-test score on knowledge about Dengue Hemorrhagic Fever. They also had a better-perceived susceptibility to and severity of DHF and a better appreciation of the cost-benefits on controlling the Aedes aegypti larvae. In addition, the post-test scores of the experimental group were significantly greater than the comparison group (p < 0.001). It was also found that the House Index, Container Index and Breteau Index of Aedes aegypti larvae decreased after the experimentation, the experimental group were significantly lower than those of the comparison group (p < 0.001). The results of the experimentation suggest that this health education program applying family health volunteer’s participation concepts could be successfully applied to other similar communities.