ABSTRACT

Plague disease remains a public health problem in the world. According to International Health Regulations (IHR), the plague is an infectious disease that has the potential to cause outbreaks. The purpose of this study is to analyze the significant correlation between the behavior of people and the environment with the density number of rats in the focus, threatened, and plague-safe area in the district of Tutur, Pasuruan Regency in 2016.

This research was an observational analytic cross sectional correlation study in which the research variables; were the behavior of the population, the environment, and the density number of rats were observed once at the same time.

The results showed that there wasno significant correlation between the behavior (knowledge, attitude, and practice) of the population with the density number of rats in the plague focus area of Surorowo hamlet, in the plague threatened area of Ngaro hamlet, as well as in the plague-safe area of Andong Utara hamlet in the District of Tutur. Meanwhile there was a significant correlation between environmental conditions with the density number of rats in plague focus area of Surorowo hamlet (p : 0.047 or $p < 0.05$); threatened area of Ngaro hamlet(p : 0.036 or $p < 0.05$), and in a plague-safe area of Andong Utara hamlet (p: 0.047 or $p < 0.05$).

In conclusion, the environmental conditions were associated with the density number of rats either in the plague focus, threatened, or safe area. That it is necessary to control the environmental risk factors to reduce the density number of rats.

Keywords: plague, the density of rats, the environmental conditions