

## Conference Paper

# Factors That Influence the Performance of Jumantik Cadres

Anung Putri Illahika\*, Gita Sekar P, Vici A., M. Irsyadul, Enggar Y.H, Armiesha C.Y, Elok Y.M, Hafif Fitra A.S

Faculty of Medicine, University of Muhammadiyah Malang, Indonesia

**ORCID**

Anung Putri Illahika: <https://orcid.org/0000-0002-4385-8619>

**Abstract.**

Roughly 50-100 million people are infected with dengue every year. This disease has threatened public health related to morbidity and mortality. Case fatality rates in untreated dengue hemorrhagic fever patients have been reported to reach 20%. This study aimed to examine factors that affect the performance of jumantik cadres in the X Public Health Center, including relating to attitudes, learning, motivation, facilities, employment, leadership, reward, age, gender, knowledge, recent education, length of time and marital status. This study used a cross-sectional design. 253 cadres were included. Cadres filled out questionnaires with 61 questions about performance and influencing factors. The data were analyzed by univariate test, bivariate test with Chi-square and multivariate test using logistic regression. The multivariate test results showed that five independent variables had a significant effect on the performance of jumantik cadres, namely knowledge ( $p < 0.001$ , OR: 11.990, 95% CI: 5.122-28.067), motivation ( $p = 0.005$ , OR: 3.396, 95% CI: 1.455-7.929), attitude ( $p < 0.001$ , OR: 4.899, 95% CI: 2.124-11.299), facilities ( $p < 0.001$ , OR: 65.296, 95% CI: 17.051-250.054), and leadership ( $p = 0.002$ , OR: 3.812, 95% CI: 1.644-8.841). The results indicated the need for program implementation that focuses on jumantik. Continuous training is needed to increase cadre knowledge. Improvement of financial and non-financial incentives might help to increase cadre motivation. Support from the Public Health Center is also needed to coordinate, monitor and evaluate the performance of jumantik cadres for anticipation of dengue cases.

**Keywords:** jumantik cadres, DHF, performance, attitude, motivation, facilities, leadership, knowledge

## 1. Introduction

Dengue fever has affected more than 100 tropical and subtropical countries. It is estimated by WHO that 50-100 million dengue infections occur every year, even from 500,000 cases, 22,000 die, with the largest population of children [1].

Today, dengue virus (DENV) is a major threat to global public health, and around the world population is at risk of dengue infection where socioeconomic status is relatively low, high population density, mosquito vector distribution, environmental and water

Corresponding Author: Anung Putri Illahika; email: [putri@umm.ac.id](mailto:putri@umm.ac.id)

Published 15 September 2022

Publishing services provided by Knowledge E

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Selection and Peer-review under the responsibility of the ICMEDH Conference Committee.

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management technologies ideal for mosquito breeding in developing countries it can also facilitate the transmission of DEN Virus [1], [2].

WHO data shows that the number of dengue fever cases in Indonesia continues to increase, so WHO has determined Indonesia as one of the hyperendemic countries with a number of provinces that have dengue fever cases[3]. Since the first dengue fever outbreak was reported in 1779 in Jakarta, Indonesia, this disease has become a public health threat related to morbidity and mortality [1].

World Health Organization (WHO) from 1968-2009 noted that Indonesia was one of the countries with the highest DHF cases in Southeast Asia. In 1968, DHF patients in Indonesia numbered 58 cases. In 2014, dengue cases in 34 provinces in Indonesia reached 100,346 people with 907 people died. In 2015 it increased to 126,675 people with 1,229 people died [4].

The magnitude of the DHF problem is also seen from the number of cases found in the City of Y. Of the 284,003 population in Y, 2017 dengue cases in Y amounted to 153 cases, of which 5.62% were found in Mrican, 23.08% in Campurejo, 21.30% in Sukorame, 8.28% in the Northern Territory City, 13.02% in Southern Cities, 8.87% in Balowerti, 2.37% in Ngletih, 8.28% in Pesantren I, and 9.18% in X.

From the data at the X Health Center in the City of Y, there were 31 cases of dengue fever in 2016. While in 2017 there were 13 cases of dengue fever in Pesantren Public Health Centers, there was a decline in 2016 to 2017, but dengue cases began to increase in 2018 which amounted to around 21 cases, until the beginning of 2019 in January there were reported around 14 cases of DHF at X Y Health Center.

Optimize DHF control, the government seeks to reduce the spread of dengue by facilitating many programs. Given that the incidence of DHF continues to occur, efforts to reduce it also continue. One of these programs involved larva monitoring cadres. Efforts to control and prevent dengue fever continue to be encouraged and implemented in an organized manner in cities and villages. These efforts include counseling and education about patient management for doctors and paramedics, eradicating mosquito breeding areas with community participation, and strengthening human resource capacity. Therefore, cases of dengue fever are expected to decrease [5].

X public health center there were 253 larvae observers, in the observation of the larva monitoring staff of the Islamic Boarding School II Health Center ABJ in January 2019, the Pakunden village had the lowest ABJ of 91.5%, then Tosaren 92%, Burengan 93.5%, Jamsaren 93.7%, Singonegaran 94% and Tinalan 94.5% with an average ABJ of 93.2%. shows the average ABJ X Public Health Center still does not meet the program target of yaitu 95%. The high prevalence of dengue incidence and low ABJ reflect the success

of dengue prevention and control that is still low so that it requires better performance from jumantik cadres at X public Health Center. According to Gibson there are three factors that influence a person's performance including individual factors, psychological factors and organizational factors. While Sukadana's research on Jumantik Performance and Its Affecting Factors in 2009 states that individual, psychological and organizational factors have a significant influence on jumantik performance and psychological factors have the greatest influence that affects jumantik performance

Based on the background, the author wants to examine factors influence the performance of jumantik cadres in the area of X Public Health Center in Y City.

## 2. RESEARCH & METHOD

The type of research conducted was analytic observational with a cross sectional study design. The research was conducted on February until November, 2019 in the Work Area of X Public Health Center in Y. The sample of this study was 253 jumantik cadres in the X Health Center area of Y. The sampling technique in this study uses total sampling.

Inclusion Criteria: Jumantik cadres at the X Health Center in Y City, Jumantik cadres who are willing to become respondents. Exclusion Criteria: none. Free variables: Age, last education, occupation, duration of assignment, knowledge, gender, marital status, attitude, learning, motivation, resources or facilities, leadership, rewards. Variables depend: Jumantik cadres performance. Primary data is taken from answer the questionnaire which filled out by respondents. In data collection carried out in this study, the instrument used was a questionnaire that would be filled out by respondents. The population of this study were all jumantik cadres in six sub-districts in the work area of X Public Health Center in Y, then the research sample that fulfilled the inclusion criteria was then taken. The cadres were given a questionnaire then the data was processed and analyzed using SPSS version 24 and discussions were then concluded.

In this research using Univariate Tests with descriptive statistics in the form of frequency distributions to be presented in tabulation form, then bivariate tests using chi square ( $X^2$ ) to know correlation about two variables and multivariate using predictive logistic regression analysis to determine the factors that influence Jumantik cadres performance. Then the data is processed using the SPSS for Windows version 24.

## 3. Result

The results concluded that most cadres performed well.

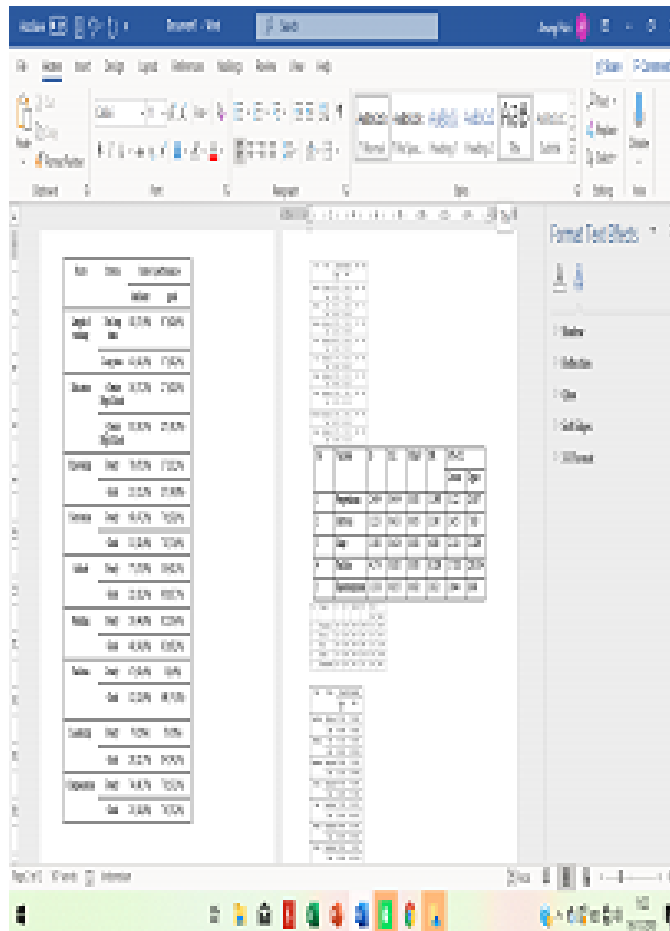


Figure 1: Univariate Analytic Result.

The results concluded that better of cadre factors, the performance is better.

#### 4. Discussion

This study was an analytic observational study using a cross-sectional research design which aimed to determine the factors that influence the performance of jumantik cadres in the area of X health center in the city of Y. The number of research samples used was 253 people who were jumantik cadres in the X health center area. Then analyzed using univariate, bivariate (Chi-Square) and multivariate (logistic regression) tests.

In this study attitudinal, motivational, leadership, resources, rewards, knowledge factors significantly influence the performance of jumantik cadres ( $p < 0.05$ ), while learning factors, age, sex, marital status, and length of work do not significantly influence the performance of jumantik cadres ( $p > 0.05$ ) in the Work Area of X in Y City II.

Based on the table (attitude and performance) from the Chi-Square test results it was found that there was a significant effect of attitudes towards performance. This



research, there was a significant relationship between education and cadre participation in prevention of DHF. Other studies have stated that there is a strengthening of the capacity of cadres and intensive community leaders, the DHF vector control program lasts longer [7]. In line with the research of Kumara et al. (2016) [8] which mentions training improves leadership and influences one's performance.

Jumantik training is needed to increase the level of knowledge of jumantik related to dengue and to improve jumantik skills and skills in carrying out their duties. In conducting jumantik training, jumantik are trained on how to properly carry out larva checks and provide flashlight equipment. The main components of attitudes according to Allport and Notoatmodjo in Indarwati (2016) are three; belief / belief, emotional life and tendency to act, all three components together form total attitudes (total attitudes) in determining the full attitude, knowledge, thought, beliefs and emotions play an important role.

Based on the table (Motivation and performance) from the Chi-Square test results it was found that there was a significant effect of attitudes toward performance. In the results of the study by Murti et al. (2013) states that motivation has a significant relationship with employee employment. Research by Sutrischastini et al. (2015) [9] also stated that there was a significant relationship between motivation and one's performance. Based on the table (resources and performance) from the Chi-Square test results it was found that there was a significant effect of attitudes toward performance. Availability of facilities has a significant relationship with jumantik participation. Jumantik which accepts the availability of good facilities has an active tendency of 3,019 times greater than the jumantik who receive less availability of facilities (10).

Based on the table (leadership and performance) from the Chi-Square test results it was found that there was a significant effect of attitudes towards performance. Arietha et al. (2013) (11) states that leadership factors have an influence on the performance of larva monitoring cadres. Leadership is closely related to motivation. The success of a leader in moving other people in achieving their stated goals is very dependent on authority and also the ability of the leader in creating motivation within each subordinate, colleague and boss's own leadership. The leader is not only in the formal group, even in informal groups the leader has an important role. In informal groups there is also a role hierarchy. Informal leaders are accepted as people who carry out tasks from their positions. How a leader strives for his subordinates to fulfill their duties depends largely on the leadership style used (12). The research conducted by Bunga (2015) revealed that there were 4 types of leadership styles, first namely directives, consultative types, participatory and finally delegative types.

Based on the table (rewards and performance) from the Chi-Square test results it was found that there was a significant effect of attitudes toward performance. This significant influence is similar to the research conducted by Rahayu Y. (2017) (13) which shows consistent results. This is also in accordance with the Health Motivation Theory proposed by Herzberg, namely factors such as policy, company administration and adequate salary in a job will reassure employees. According to Herzberg, if these factors are fulfilled, employee motivation will be good and performance will be good (10). A good incentive is a factor that is able to guarantee satisfaction of its members, maintain and employ people with various attitudes of positive and productive behavior. Another theory suggests that incentives are a human attraction to come and stay in a job. Pemberian incentives also have a positive effect on the performance of cadres who become enthusiastic in carrying out activities.

Based on the table (the latest education and performance) from the Chi-Square test results it was found that there was no significant effect of attitudes towards performance. High formal education does not guarantee that someone will have good health knowledge. Access to knowledge about prevention of dengue fever can come from outside behaviors such as family behavior, neighbors, artisan groups, health workers, fellow jumantik, etc. One's information can be obtained both internally and externally (12). This has in common with Muliawati's 2016 research regarding the relationship between jumantik cadre education and jumantik cadre training with the success of the PSN program.

Based on the table (duration of assignments and performance) from the Chi-Square test results it was found that there was no significant effect of attitudes towards performance. The results of this study are sufficient in accordance with the theoretical scans stated by Gibson (2016) that the length of Skerjac is a variable that has an effect on performance. The length of time being jumantik is not related to Jumantik behavior in the Early DHF Awareness System, because almost all cadres have become  $\geq 1$  year jumantik, and only a small percentage  $< 1$  year cadre, in fact, in the old field of work that is not supported by progress and expertise a person will not making someone improve their quality of work (12). These subjects are not in accordance with research according to which mentions that the number of people in the community is being carried out in the task of becoming a general cadre. The skills of the cadres in carrying out tasks will increase.

Based on the table (knowledge and performance) from the Chi-Square test results it was found that there was a significant effect of attitudes toward performance. According

to Aprianis (2012), knowledge is a very important domain for the formation of one's actions (overt behavior).

## 5. Suggestion

Suggestions for X health center are to increase the motivation of jumantik cadres in the X health center area, conduct regular evaluations of the reporting of the work of jumantik cadres, apply sanctions for unfavorable cadre work, improve training and learning for jumantik cadres. Whereas for the health center is to increase the jumantik cadre incentives in the Y City X Public Health Center area and increase the availability of jumantik cadre equipment. The incentives provided can be in the form of money and non-money. Money incentives include transport money that has been obtained while being a cadre. Non-monetary incentives are types of incentives that are not cash, which have been obtained by cadres, including training, operational assistance, award certificates, uniforms, competitions, health benefits, basic needs, THR, visits from the kelurahan, visits from the chairman RT, visits from health center leaders, and the presence of recreational activities for cadres

Jumantik cadres are expected to increase cadre awareness in the Y City X Public Health Center area regarding the importance of good performance in preventing dengue disease, and increase knowledge to cadres in the X Public Health Center area regarding dengue fever.

Suggestions for the community are by increasing the awareness of people around that the factors that influence the incidence of dengue are not only climate and weather, but environmental hygiene factors also affect the incidence of DHF and increase public knowledge about prevention of dengue.

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