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Evaluation of Malaria Surveillance Based on Attribute in Health Office of East Sumba District

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ABSTRACT

Malaria is infectious disease caused by malaria mosquitoes. East Sumba District in 2017, API is 30.9/1000 population and SPR is 17.95%. One of the important factors that influence the high of malaria cases is the performance of malaria surveillance because it has a role to preventing disease, it is necessary to evaluate malaria based on approach system and evaluation surveillance attribute. This study was qualitative research with an evaluation study design. Identification of problems in the input, namely there are no analyst staff, laboratory facilities are lacking limited funds. The process of data entering from the PHC to the district is not timely, namely 68.18% and incomplete at 77.27%. At the output, information dissemination has been carried out at regular meetings. The result of evaluation attributes where simplicity are not simple. Flexibility is inflexibility. Data quality, acceptability, sensitivity, representative, timeliness are low, PPV and stability is high. The alternative solution is to increase the capacity of malaria surveillance managers and health analysts.

Keywords: API, Surveillance Attribute, e-SISMAL, Malaria

Introduction

Malaria is an infectious disease caused by plasmodium parasites which are transmitted by malaria mosquitoes, can cause death especially babies, toddlers, pregnant women⁽¹⁾. It is realized that the spread of malaria knows no administrative boundaries, therefore malaria control efforts require national, regional, and even international commitments⁽²⁾. Diagnostic malaria will be examined using RDT or giemsa blood test to confirm the presence of parasites in the blood⁽³⁾. World data shows that since 2000 deaths from malaria globally have fallen by around 60%, of which 65% occur in children under five. Around 3.2 billion people live in areas at risk malaria. In 2015, an estimated 214 million cases of malaria, of which 400 thousand cases of them died⁽⁴⁾.

This disease is still endemic in Indonesia⁽⁵⁾. Economic losses due to malaria for one year in Indonesia reached

Rp 366,576,403,496⁽⁶⁾. In Indonesian, 247 districts have received malaria elimination certificates. Profile Health East Nusa Tenggara Province illustrate that API in 2017 is 3.77/1000 population⁽⁷⁾.

Distribution of malaria cases according to the report on Prevention of Communicable Disease of the East Sumba District Health Office⁽⁸⁾.

Table 1: Malaria Distribution in East Sumba

Description	Target	Year		
		2015	2016	2017
Diagnosis:				
Microscopic		12.132	19.093	28.709
RDT		1281	3.871	13.754
Clinical		266	54	2
Positive Malaria		2.177	3.964	7.625
API	< 1/1000	9,39	16,16	30,9
SPR	< 5%	16.23	17.00	17.95
ABER	>10%	5.56	10.88	17.24

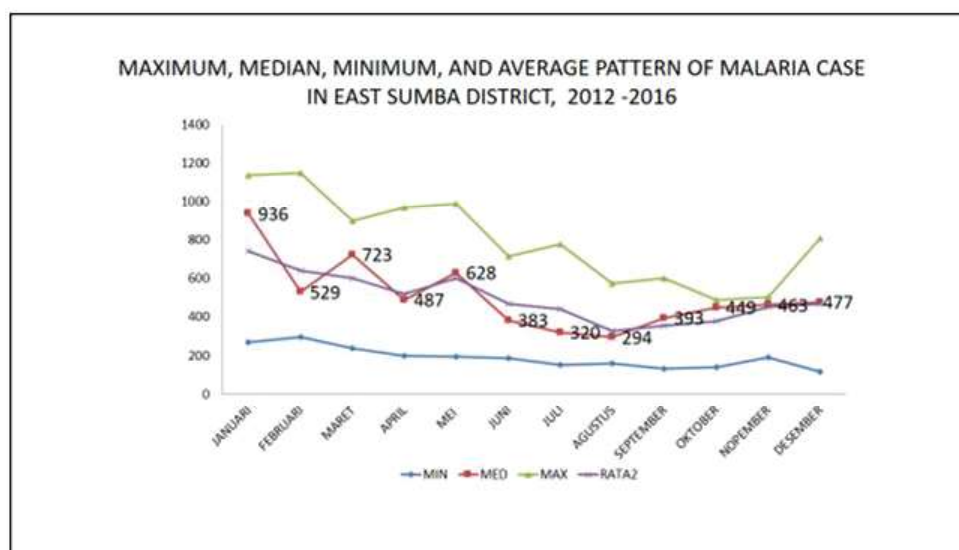
Source: East Sumba District Health Office, 2017

The Report Profil Health East Sumba District in 2017 illustrates that from 158 villages with low API

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were identified as many as 18 villages (11.39%), moderate as many as 35 villages (22.15%), and high as many as 105 villages (66.46%)⁽⁹⁾. The pattern minimum maximum pattern serves to determine the peak period of transmission and the right time to carry out malaria control activities⁽¹⁰⁾, looking at the lowest and highest cases then graphed and compare with the malaria pattern in the following year⁽¹¹⁾.



Picture 1: Pattern of Malaria Transmission in East Sumba District

Source: East Sumba District Health Office, 2017

The above conditions illustrate that the peak of malaria cases occurred in December and March and decreased in July and August.

One of the important factors that influence the high incidence of malaria is the performance of malaria surveillance⁽¹²⁾, because surveillance is a series of continuous observation processes in the collection of data, analysis, and interpretation of data to detecting trends in disease⁽¹³⁾.

The purpose of this study is to describe the implementation of malaria surveillance based on a system approach and evaluate surveillance attributes, identify solutions for consideration in determining the policy for making malaria control, prevention and eradication programs.

Material and Method

Evaluation of the malaria surveillance system was carried out in the East Sumba District Health Office from July-August 2018. The design of this research is qualitative research with an evaluation study design. The subjects in this study were evaluation components of the malaria surveillance and attributes surveillance. Research informants were managers Malaria program in

the Health Office and program managers in 22 Public Health Centers (PHC).

Primary data collection techniques through interviews with respondents using questionnaires and observation. While secondary data collection was obtained through the study documents of malaria surveillance data in the East Sumba District Health Office and PHC. Data analysis was carried out descriptively with technical instructions related to malaria published by the Indonesian Ministry of Health and Guideliness for Evaluating Surveillance Systems from CDC and Prevention in 2001⁽¹⁴⁾.

Findings

A. Surveillance System

1. Input

a. Man: The human resources in the malaria program are doctors/midwives in the Public Health Sub-Center (PHsC), the analytical staff, the pharmacist, malaria program manager and Head of PHC. From 22 PHC that only 6 analyst (27.27%) of PHC while other that work are employees who are trained and do not have competence in the laboratory.

- b. Machine:** The implementation of surveillance system has been supported by adequate media such forms, computer, and transportation (100%). e-SISMAL application at the national level which facilitated the recording and reporting system⁽¹⁵⁾, but this application had not been tested in East Sumba.
 - c. Money:** Funding for surveillance comes from Center Fund and District Government. East Sumba District has received assistance and grants from the Global Fund (GF) but has now been stopped, while the allocation from Government has not been sufficient for the program activities.
 - d. Method:** Surveillance system was supported by malaria prevention guidebook, including Regulation of the Health Minister Number: 042/Menkes/SK/I/2007⁽¹⁶⁾, Decree of Director General of P2P Number: HK.02.02/IV/1813/2017⁽¹⁷⁾, Technical Guidelines for Investigating Epidemiological Malaria⁽¹⁸⁾, and several other guidebooks.
 - e. Market:** Disseminated information through periodic reports to the district level to the central level, was also conveyed at a meeting forum involving cross-sectors. The Regional Governments is still lacking supports Malaria program where absence of a Regional Regulation.
- 2. Process:** Malaria data is the results of malaria program services, entered to the malaria register and recapitulated by PHsC, collecting reports to PHC and sent to District Health Office at the latest every 5 months. Data that entered was not on time, namely only 15 PHC (68.18%) and completed report only 18 PHC (77.27%). Records in the malaria are the processed and presented in the form of tables, graphs. Data validation will be conducted once every 3 months. Descriptive data analysis using indicators API, SPR and ABER. Data interpretation is giving a description on a results so that the data becomes meaningful and produces epidemiological information.
 - 3. Output:** The achievement of the Malaria program performance to be disseminated in the form of report from District to a higher level and feedback to the PHC. The result of

the scope of indicators are also disseminated at program evaluation meetings but not yet made in the form of bulletins, scientific publication or writing on the website.

B. Surveillance Attribute

- 1. Simplicity:** According to respondents the current flow of malaria surveillance reporting is simple (72.73%) but the rest (27.27%) states difficulties because the diagnosis of malaria through a laboratory examination. RDT supplies are insufficient. From 22 PHC that only 6 analyst (27.27%). It can be concluded that the program are not simple because laboratory tests is needed for diagnosis.
- 2. Flexibility:** Malaria surveillance which is region with high endemicity, namely early discovery, appropriate treatment and complications, expansions of services with survey, active and passive case detection. It can be concluded that surveillance is inflexible because laboratory examination are not equipped with adequate equipment.
- 3. Data Quality:** Almost all PHC filled out incomplete 77.27% in malaria program reports. PHC rarely conducts data validation with PHsC officers. It can be said that the quality of data is low.
- 4. Acceptability:** The local government had not optimally contributed to malaria prevention and the accuracy of the PHC reports was still 68.18%. It can be concluded that the acceptability is still low.
- 5. Sensitivity:** Almost all respondents stated that the malaria surveillance system was able to analyze malaria events (90.91%), was able to analyze the API, SPR and ABER trends every year (86.36%), but because the collected data was invalid, it could be concluded that sensitivity was not sensitive.
- 6. Positive Predictive Value (PPV):** From slide shipments from January to June 2018 from 9 existing PHC, there were 482 positive slides examined from total of 1226 slides. And people who are found to be positive malaria (100%) are truly experiencing malaria.
- 7. Representativeness:** Case analysis based on the variables of person, place and time

(90.91%), and the presentation was carried out during the quarterly mini workshop and presented on the wall data but if validity of the data 72.73% it can be concluded that system were not representative.

8. **Timeliness:** Respondents stated that 68.18% of PHC had not sent reports to the Health Office on time, so it could be concluded that the timeline were not timely.
9. **Stability:** Respondents had used computers and report files to do processing and storage (86.36%). For the nature of equipment, respondents stated that it was easy to obtain and operate computers as much as 95.45% and operate a computer properly so it could be concluded that the stability was high.

Discussion

The discovery of malaria as indicated by the API in 2017 was 30.9/1000 population and placing as a malaria endemic area with the aim of reducing malaria transmission with findings and management patient, prevention of risk factors, epidemiological surveillance, improving human resources⁽¹⁹⁾.

Enforcement of malaria diagnoses still a problem because use clinical diagnosis, 266 people in 2015, 54 people in 2016 and 2 people in 2017. Determination of the diagnosis of malaria by microscopic examination to improve the validity of the diagnosis, so that it can reduce the incidence of anti-malarial drug resistance and prevent transmission⁽²⁰⁾.

SPR was 17.95%, shows the magnitude of infection rates in population. Calculation of SPR should be done every month, not only at the end of the year because it can help identify local transmission of malaria compared to the number of cases of raw malaria⁽²¹⁾.

Maximum and minimum patterns of an illness describe the pattern of disease over a period of time. In chart 2, it is known that peak malaria cases occur in the rainy season, so that the peak of mosquito density can be predicted around November and February and decreases at during the dry season. This is due to high rainfall and a breeding ground for mosquitoes in stagnant pools and ponds. Joseph *et,al* (2014) said that the maximum and minimum patterns, it can be seen that the effective time for malaria vector control activities can be carried out in October and January.

According to CDC (2001) simplicity means simple and easy to operate structures, but can still reach the goal. The diagnosis malaria with the laboratory, but RDT are insufficient and it can be concluded that are not simple. A system can be said to be simple where the case definition is easily applied⁽²²⁾. Decree of Indonesia Health Minister number 1116/Menkes/SK/VIII/2003, states that epidemiological surveillance resources consist of epidemiologists, functional positions including laboratory⁽²³⁾, but the lack of analysts in PHC made the surveillance not simple.

Flexibility means a system that is able to adapt to changes in information or field conditions with limited time, budget and easily integrated with other systems (CDC, 2001). East Sumba District is a region with high endemicity and find patients with surveys, active and passive case detection but become inflexible because the discovery of patients must go through laboratory tests.

According to CDC (2001) data quality describes the completeness and validity of the data recorded; acceptability can be seen from the desires of organizations to participate, completeness of reports; and timeliness of reporting means the rate of speed to find out trends, and outbreaks. PHC rarely conduct data validation, the report completeness was 77.27% smaller than the target >90% and timeliness reporting was only 68.18% of target 80% in accordance with Regulation of the Minister of Health Number: 1479/Menkes/SK/X/2003. To get good data quality, it is necessary to have periodic malaria money meetings, training in malaria, strengthen the information system with e-SISMAL application. Supported by Research who conducted Nicola (2016) some countries have built electronic-based reporting systems and achieved success such as Sri Lanka, because with electronic-based reporting, shortening time and reducing the level of miscalculations. With high data quality, timely information, can detect disease early and accelerate health service responses⁽²⁴⁾. The need for rewards for PHC with a good surveillance system, because attributes are highly subjective, including the personal willingness of those responsible for implementing system to provide data accurate, complete and timely⁽²⁵⁾.

Sensitivity is ability to capture accurate information data, through level of reporting and the level of ability to detect outbreaks; Representation means being able to describe health incidents according to time and place (CDC, 2001). The interviews revealed that was able to

analyze malaria incidence based on person, place and time variables (90.91%), but because the collected data was incomplete (77.27%) it was concluded that program is insensitive and inrepresentative. According to CDC (2001), PPV is the proportion of people identified as actual cases, relating to the clarity and accuracy of case definitions. No errors were found indicating PPV was high.

Stability is related to the reliability is the ability to collect and provide data precisely without errors and availability is the ability to operate when needed (CDC, 2001). Respondents stated that they had used computers and report files to do processing and storage so it could be concluded that the stability was high.

Conclusion

Malaria is an infectious disease caused by malaria mosquitoes. Surveillance performance affected the high number of malaria cases because have a role to preventing disease, it is necessary to do an evaluation based on the system approach and surveillance attributes. The evaluation surveillance attributes where simplicity are not simple, flexibility is inflexibility, data quality, acceptability, sensitivity, representation, timeliness are low. PPV and stability is high.

Problems in conducting surveillance at the PHC are lack of cross-sector cooperation, lack of labor and laboratory facilities, and alternative solutions that can be carried out are increased cross-sector cooperation, increasing the capacity of malaria surveillance managers.

Suggestion

The need for policies from Central Government to using e-SISMAL applications, legal regulations from the regional government, cooperation with the private sector to find out, treat patients and prevent malaria. There needs to be additional analysis staff, procurement of infrastructure, malaria training and additional operational costs for implementing malaria surveillance at the PHC and East Sumba District Health Office.

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REFERENCES

1. Kemenkes R.I. Current Situation of Development of the Malaria Control Program in Indonesia In 2017. Indonesia. 2017.
2. Kemenkes R.I. Guide to Maintenance of Malaria Elimination. Indonesia. 2017; p. 1–28.
3. Joseph A, Patrick N, Evaluation of Malaria Surveillance System in Ebonyi state, Nigeria 2014, *Annals of Medical and Health Sciences Research*. 2014; 7(1): pp. 101–104. Cited 2018 17 June 21). <https://www.amhsr.org/articles/evaluation-of-malaria-surveillance-system-in-ebonyi-state-nigeria-2014.pdf>.
4. Kemenkes R.I. World Malaria Day Fact Sheet. Indonesia. 2017.
5. Kemenkes R.I. Indonesian Malaria Epidemiology: Data Bulletin and Health Information. Indonesia: 2018 (Cited 2018 7 Dec 27). doi: 10.1128/AAC.02513-17.
6. Purba I. E, Hadi U. K, Hakim L. The Analysis of Malaria Control in NTT Province and the Strategic Plan To Achieve. 2016; Vol. 8(2) pp. 18–26.
7. Dinkes Propinsi NTT. Health Profile of Province Health Office in NTT. Kupang. 2017.
8. Dinkes Kabupaten Sumba Timur. P2M Report on East Sumba District Health Office. Waingapu. 2017
9. Dinkes Kabupaten Sumba Timur. Profile of the East Sumba District Health Office in 2017. Waingapu. 2017
10. Kemenkes R. I. Malaria Surveillance Guidelines. Indonesia: 2007 (Cited 2018 Nov 18) <http://www.pdpersi.co.id/peraturan/kepmenkes/kmk2752007.pdf>.
11. Binti M. Component of the DHF Surveillance System at The Kediri City Health Service. 2015; pp. 95–108.
12. Weraman P. Basic Public Health Surveillance. Jakarta. Gramata Publishing. 2010
13. Depkes R.I. Practical Guide to Epidemiological Surveillance of Diseases. Jakarta. 2003
14. CDC. Updated Guidelines for Evaluating Public Health Surveillance Systems

- Recommendationstions, Morbidity and Mortality Weekly Report, 2001; 50(RR-13).
15. Supriyadi D. Malaria Surveillance Information System (SISMAL V.2). 2017
 16. Depkes R.I. Guidelines for Implementing the Early Awareness System (SKD) and Prevention of Malaria Outbreaks.pdf?. Indonesia: Kemenkes RI. 2007 (Cited 2018 August 28) <http://www.pdpersi.co.id/peraturan/kepmenkes/kmk422007.pdf>.
 17. Kemenkes R.I. Technical Guidelines For Evaluating Elimination.Indonesia. 2007
 18. Kemenkes R I. Technical Guidelines for Investigating Epidemiology of Malaria and Mapping of Focus Areas. Indonesia. 2017.
 19. ISMKI. 2010. Guidelines for Malaria Elimination in Indonesia. 2010
 20. Arsin A. A, Paerunan H, Syatriani S. Confirm Microscopic Examination of Clinical Diagnosis of Malaria. *Kesmas: National Public Health Journal*. 2016;6(6) p. 277. (Cited 2018 Dec 11). doi: 10.21109/kesmas.v6i6.82.
 21. Nicola W, Sonam G, Dukpa S. An Evaluation of the National Malaria Surveillance System of Bhutan, 2006–2012 as It Approaches the Goal of Malaria Elimination’, *Frontiers in Public Health*, 2016;4(8) pp. 1–10 (Cited 2018 Dec 12). doi: 10.3389/fpubh.2016.00167.
 22. Romaguera R, German R. R, Klaucke D. N. *Evaluating Public Health Surveillance*. New York: Oxford University Press. 2000
 23. Kemenkes R I. Decree of the Minister of Health of RI Number 1116/Menkes/SK/VIII/2003 concerning Guidelines for Implementing the Health Epidemiology Surveillance System. Indonesia. 2003. (Cited 2018 Dec 28). doi: 10.16309/j.cnki.issn.1007-1776.2003.03.004.
 24. B.E, Maharani A. H. Assessment of Measles Surveillance Attributes Is Based on Perceptions of Health Center Surveillance Officers In Surabaya. *Berkala Epidemiologi*, 2014; 2(2), pp. 171–183.
 25. Kemenkes R.I. Permenkes Number. 1479/Menkes/SK/X/2003 concerning Guidelines for Implementing Epidemiological Surveillance Systems for Communicable Diseases and Integrated Non-Communicable Diseases. Indonesia. 2003.