BARRIERS SURVEILLANCE SYSTEM COVID 19 AT HEALTH CENTER: GOVERNANCE AND INFORMATION SYSTEMS

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ABSTRACT

The implementation of COVID-19 surveillance at the health center is still inadequate, especially in terms of governance and surveillance information systems assessed based on the surveillance attributes in previous preliminary studies. This study wants to identify obstacles to implementing Covid-19 surveillance, evaluated from management and information systems. This study uses a qualitative research approach with six focus group discussion groups. There are 36 officers and employees who are in the scope of implementing covid surveillance. Obstacles are in governance, especially in the case tracking system caused by a lack of community participation, and the surveillance information system has been carried out through the SISUGI application. However, it is still hampered by HR skills in running applications, and there is an overburden in data processing administration. It is advisable to improve the procedures for epidemiological investigations starting from case identification, identification of risk factors, the title of close contacts, follow-up, specimen collection, and early response. Conducting SBM, population mapping, and increasing volunteer training and allocation of the division of labor needs to be prioritized on activities that require personnel. And special skills in carrying out the functions of the surveillance system at the Puskesmas.

Keywords: Surveillance; Covid-19; Governance; Information Systems; Public health center

I. INTRODUCTION

The spread of COVID-19 has almost reached all provinces in Indonesia, including Southeast Sulawesi, with 9,418 confirmed cases with 178 deaths (CFR 1.88%). In the city of Kendari alone, there were 4,316 confirmed cases reported with 56 deaths (CFR 1.29%), and the Puskesmas areas with the highest confirmed cases were the Lepo-Lepo Health Center (1216 cases), the Perumnas Public Health Center (385 patients) and the Mokoau Public Health Public Health Center (308 points). To overcome these problems, one of the essential policies in handling Covid is monitoring through a surveillance system. Health Surveillance is very important for decision-makers in the health sector to improve the health status of the community as high as possible. Initial studies with the attribute criteria of the surveillance system show that the implementation of Covid-19 surveillance at the Puskesmas is still inadequate or does not meet the attribute criteria. The performance of COVID-19 management at the Lepo-Lepo Health Center is still insufficient, especially in terms of governance and surveillance information systems assessed based on the surveillance attributes in previous preliminary studies. So this study wants to identify barriers of Covid Surveillance implementation, which are reevaluated from governance and information systems.

II. METHOD

This study uses a qualitative research approach with an online Focus Group Discussion method for officers and employees involved in surveillance activities, each one hour long with a maximum of five participants and 2-3 facilitators. Interviews were video and audio recorded, transcribed verbatim, and anonymous. Ground theory, patterns in the data are analyzed and identified through inductive thematic analysis; con- recruiting continued until thematic saturation was reached; Inter-code reliability analysis was performed using the percent agreement between raters. Sampling in this study using purposive sampling. The sample is selected depending on the
purpose of the study without regard to its generalizability. The analysis starts from the stages of data reduction, data presentation and conclusions, and verification.

III. RESULTS

Six FGD groups involved 36 participants (officers involved in surveillance activities). The three main keywords for the governance of the Covid-19 surveillance system are case determination, test fees, and officer burden. As for the information, the system is the operation of the application and software for the outbreak early warning system. A list of themes and keywords can be sawed in Table 1.

**Governance of the Covid-19 surveillance system**

**Case determination.** In probable or confirmed cases that are symptomatic (symptomatic), to find close contacts, the contact period is calculated from 2 days before the case develops symptoms and up to 14 days after the case develops symptoms. In asymptomatic confirmed cases, to find close contacts, the contact period is calculated from 2 days before and 14 days after the date of collection of the confirmed case specimen. Validity in determining the case depends on the results of accurate reports from the community. It is known that the main obstacle in deciding cases is the lack of public participation in reporting early issues so that it can affect early detection efforts and efforts to track the COVID-19 problems.

**Test Fee.** After isolation, another problem faced was the RT-PCR facility with a minimal quantity accompanied by expensive costs. The examination effort still relied on antigens with a lower sensitivity level than Rt-PCR.

**Officer Burden.** Covid-19 surveillance activities include monitoring trends in COVID-19 transmission, conducting rapid detection in areas without virus transmission and monitoring cases in regions with virus transmission, including vulnerable populations, providing epidemiological information to conduct risk assessments, providing epidemiological information as a reference for preparedness. And response and evaluation of the impact of the pandemic on the health and social service system. The limited number of surveillance personnel with primary skills is an obstacle in implementing Covid-19 surveillance, resulting in a double burden in carrying out tasks.

**Covid-19 Surveillance Information System Application Operation.**

**Application Operation** For COVID-19 surveillance activities, the government has developed an application that makes reporting and epidemiological investigations easier through the health ministry. There are several applications. SILACAK develop in collaboration with the Ministry of Research and Technology. The SISUGI application cooperates with the Association of Indonesian Epidemiologists (PAEI) and the assistance of the CDC. However, officers do not have the skills to serve in operating the application due to a lack of training.

**Early warning system software.** In developing the Disease Epidemiological Surveillance Information System to support the early awareness of outbreaks in Puskesmas, the obstacle experienced was the unavailability of software for epidemics.

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<th>Table 1. Representative Quotes for Identified Themes</th>
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<td><strong>Themes</strong></td>
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<td>Governance</td>
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The community needs to be involved because it is the actual frontline. Still, before that, it is necessary to ensure that volunteers receive sufficient training to be trained and proficient. These activities need developing at the Health Centre through collaboration with the COVID-19 team and district as representatives intervention area. Before this activity, it is necessary to do population mapping. The program trains the community to map vulnerable populations, namely people who, after being infected with COVID-19, experience a drastic decline in health, such as the elderly, pregnant women, and people with comorbidities. In principle, the application of population mapping begins with the identification of vulnerable populations in an area. Then the marker will translate into a map per neighborhood in a room. This map serves to show the district's vulnerability during a pandemic so that volunteers and local health workers can give priority. After doing the mapping, volunteers also need to monitor the symptoms of COVID-19 infection experienced by vulnerable populations before being validated by health workers at the local health center.

Volunteers and task forces are trained to understand the symptoms of suspected COVID-19 to discover these suspects faster and can be handled immediately at the health center. Volunteering is a crucial point in dealing with the COVID-19 pandemic. Implementing strategies through mapping vulnerable areas and training volunteers are some of the prerequisites for ending the pandemic. Health workers are the last guard, while the public is the frontline leader in the fight against the pandemic. Indirectly, volunteers and this training task force can help reduce and facilitate the double burden of tasks on surveillance officers in the field. Meanwhile, governance must allocate to provide hospital facilities, treatment rooms and infrastructure, patient care costs, consumption, patient transport, purchase of personal protective equipment for health workers, patients, and vulnerable communities, medical equipment for collection, diagnostics, and services—transportation for the specimen (Rapid test, RT-PCR), etc.

V. CONCLUSION

Most of the governance and surveillance information systems follow national operational standards for tracking case systems caused by the lack of community participation as the front line in controlling Covid-19. The surveillance information system at the Puskesmas has been carried out through the SISUGI application. However, the skills of human resources still hamper it in running the application, and there is an overburden in data processing administration. And from the analysis of the Kendari City COVID-19 Surveillance data shows that epidemiological investigation efforts have not been carried out properly, with indications of an increasing number of cases and a continuing decline in the trend of suspects. It is necessary to improve the procedures for epidemiological investigations starting from case identification, risk factor identification, identification of close contacts, follow-up, specimen collection, and early response by conducting community, population mapping, and increasing volunteer training. Exceptional skills in carrying out the function of the surveillance system at the
Puskesmas need support, regulation, and shared understanding from the local government so that COVID-19 surveillance efforts in Kendari city can be appropriately realized.

**Limitations and Future Studies**

The limitation of this research is that there is no triangulation of sources with the head informant of the health center as crucial information. For further investigation, it is recommended to triangulate the authority to confirm the data correctly.

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