

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

1. In the input aspect, the components that met the indicators in the human health sector were the completeness of personal protective equipment (PPE), the existence of laboratories, the completeness of forms, the relationship between implementers and local government, and documented plans. In contrast, the components that did not meet the indicators or need to be improved were HR availability, training, rapid response team, availability of funding, sources of funds, data management components, communication components, means of transportation, completeness of surveillance manuals, and networks and their roles. Meanwhile, the components that met the indicators in the animal health sector, namely the availability of human resources, the data management component, the existence of a laboratory, and a documented plan, while the components that did not meet the indicators or need to be improved, namely training, rapid response teams, communication components, means of transportation, completeness of personal protective equipment (PPE), availability of funding, sources of funds, completeness of surveillance manuals, completeness of forms, legislative support, relations between the implementer and local government, relations between implementer and breeders, and networks and roles.

2. In the aspect of the activity, components that met the indicators in the human health sector, namely laboratory confirmation capacity, data collection, epidemiological studies of outbreak threats, outbreak early warnings, increased awareness and preparedness for outbreaks, verification of suspected outbreaks, epidemiological investigations, outbreak response, dissemination information, feedback, and information/data sharing. In contrast, the components needed to meet the indicators or to be improved were data validation, data analysis and interpretation, reporting, planned cross-border meetings, and cross-sectoral collaboration. Meanwhile, the following indicators in the animal health sector were data collection, data validation, capacity to refer samples, laboratory confirmation capacity, epidemiological studies of outbreak threats, early outbreak warnings, increased alertness and preparedness for outbreaks, verification of suspected outbreaks, and epidemiological investigations. Information dissemination, feedback, and information/data sharing, while the components still need to meet the indicators or need to be improved, were data analysis and interpretation, reporting, outbreak response, and cross-sectoral collaboration.
3. In the output aspect, all components follow good indicators in the human health sector, including completeness of reports, cases, and timely submission of reports. In addition, the completeness of the reports and the timely submission of reports have met the indicators in the animal health sector.

B. Suggestion

1. For the Maros Regency Government (Maros Regent)
 - a. A need for adequate funding support for surveillance, including cementing /casting at the case's location.
 - b. There is a need for car transportation support for animal health workers and motorbike transportation for surveillance officers at the community health center level.
 - c. The need for regulatory support related to compensation, traffic control (checkpoint procurement), and government slaughterhouses procurement.
 - d. The need for decree support to form a District Zoonoses Team.
 - e. The need to increase the number of Animal Health Center.
2. For the subdistrict government, urban village government, and village government in the Maros Regency
 - a. Supervise and immediately report to the relevant officers if livestock and people with symptoms of suspected anthrax are found.
 - b. Participate in outreach to farmers regarding the obligation to report to Maros Animal Health Center officers if there is suspected anthrax.
 - c. Utilizing village funds for cementing the location of the case history.
 - d. Include points in joint commitments regarding the use of village funds and the role of the village in closing areas (casting/ cementing).
3. For the Maros Regency Health Office
 - a. The need for additional resources for doctors in charge of surveillance at the Health Service.

- b. It is necessary to renew training and provide general surveillance training, zoonotic surveillance, and anthrax surveillance.
 - c. The need to support the procurement of guidebooks in community health centers.
 - d. The need for data processing and analysis of anthrax cases in graphical form and maps, which are then distributed to all health community centers.
 - e. Collaboration is needed in making a disease map that combines anthrax cases in animals and humans by involving data from the Health Office, Community Health Centers, Animal Health Center, and BBVET Maros.
 - f. Increase collaboration with the animal health sector, including in joint investigations and counseling.
4. For the Community health center in Maros Regency
- a. Optimizing the role of networks in report collection.
 - b. Conduct counseling and outreach related to anthrax.
 - c. Increase collaboration with the animal health sector, including in joint investigations and counseling.
5. For the South Sulawesi Provincial Health Office
- a. It is necessary to renew training and provide general surveillance training, zoonotic surveillance, and anthrax surveillance.
 - b. The need to support the procurement of surveillance manuals.
6. For Maros Animal Health Center, Department of Agriculture and Food Security Maros
- a. The need to complete the surveillance manual.

- b. The need to improve coordination with the subdistrict government.
 - c. The need to improve livestock traffic control and improve coordination through the village government and subdistrict government
 - d. The need to expand the range of communication to breeders.
 - e. Ensuring the affixing of stickers related to types of services and telephone numbers.
 - f. The need to optimize reporting to *iSIKHNAS*
 - g. Optimizing vaccination, especially ring vaccination
 - h. Increase collaboration with the animal health sector, including in joint investigations and counseling.
 - i. Add networks and networks to improve reporting of suspected cases
7. For the Department of Agriculture and Food Security in Maros Regency
- a. Facilitate outreach related to livestock insurance.
 - b. It is necessary to provide general surveillance training, zoonotic surveillance, and anthrax surveillance.
 - c. The need to add Maros Animal Health Center officers so that they are adequate with the wide coverage of the work area.
8. For the Department of Animal Husbandry and Animal Health of South Sulawesi Province
- a. It is necessary to provide general surveillance training, zoonotic surveillance, and anthrax surveillance.
 - b. The need for funding support for Maros Animal Health Center.

9. For Officers in charge of Animal Husbandry and Health in areas bordering Maros Regency
 - a. Improve livestock surveillance at checkpoint borders.
 - b. Improving coordination with Maros Animal Health Center.

10. For further research

It is necessary to carry out further research regarding the evaluation of anthrax surveillance in Maros Regency by adding the number of community health centers, the government, involving the community health center network, Village Leadership NCO (*Bintara Pembina Desa*, or *Babinsa*), Village Leadership NCO for Social Security and Order (*Bintara Pembina Kamtibmas*, or *Babinkamtibmas*), Public Order Enforcers Police (*Satuan Polisi Pamong Praja* or *Satpol PP*), Indonesian Ulema Council (*Majelis Ulama Indonesia*, or *MUI*), BBLK Makassar, Health Office Province of South Sulawesi, the Department of Animal Husbandry and Animal Health of South Sulawesi Province to produce more in-depth information. In addition, further research can also be carried out by expanding the research area besides Maros Regency in South Sulawesi Province, which also has a history of anthrax cases such as Pinrang, Gowa, and Soppeng Regency.

C. Recommendation

Surveillance implementation in Maros Regency uses coordination and collaboration that align with the *One Health* approach, which can increase the level of detection of anthrax disease and response to anthrax prevention. This recommendation is for other regions to adopt a surveillance system for zoonotic

diseases using the *One Health* Approach, especially anthrax. However, it is necessary to optimize the role of data sources (breeders in the animal health sector and networks in the human health sector) to run the function of surveillance effectively in detecting disease early.