EVALUATION OF ANTHRAX INTEGRATED SURVEILLANCE PROGRAM IN MAROS REGENCY, SOUTH SULAWESI PROVINCE

(Study in the Human and Animal Health Sectors)

THESIS

To fulfill the requirements to achieve a Master's Degree

in Epidemiology

NUR AZIZAH AZZAHRA

SIN 30000220410010

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RATIFICATION PAGE

THESIS
EVALUATION OF ANTHRAX INTEGRATED SURVEILLANCE PROGRAM IN MAROS REGENCY, SOUTH SULAWESI PROVINCE
(Study in the Human and Animal Health Sectors)

By:

Nur Azizah Azzahra

SIN 30000220410010

This Thesis was tested and declared to have passed the thesis examination on December 31, 2022, by the examiner team of the Epidemiology Master Study Program, Graduate School, Diponegoro University

Semarang, 7 February 2023

Examiner I

Dr. Dra. Ayun Sriatmi, M.Kes.
EIN 196705021991032002

Examiner II

Dr. Ir. Martini, M.Kes
EIN 196503171993032001

Advisor I

Dr. drh. Dwi Sutiningsih, M.Kes.
EIN 197203081998022001

Advisor II

dr. Mateus Sakundarno Adi, M.Sc. Ph.D.
EIN 196401101990011001

Dean of
Graduate School

Dr. R.B. Sularto, S.H., M.Hum.
EIN 196701011991031005

Head of
Epidemiology Master Study Program

Dr. drh. Dwi Sutiningsih, M.Kes.
EIN 197203081998022001

DECLARATION OF ORIGINALITY

The one who is
undersigned below:

Name : Nur Azizah Azzahra

SIN : 30000220410010

Hereby declare that :

a. My Thesis is original and has never been submitted for an academic degree (Master's degree), either at Diponegoro University or at any other tertiary institution.
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Semarang, 8 November 2022

Nur Azizah Azzahra

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Dedicate to the My Father (Firman) and My Mother (Nurleili Fattah), My sisters (Uni, Nining, Ulfa), and My Brother (Amri) and myself, who have struggled to achieve this accomplishment.

"If you are on the path towards Allah, then run. If it is hard for you, then jog. If you get tired, then walk. And if you cannot, then crawl, but never go back or stop."

– Imam Shafi'i –

CURRICULUM VITAE

Name : Nur Azizah Azzahra

Place and date of birth : Makassar / 14 July 1997

Religion : Islam

Formal Education History :

1. SDN Daya 1 (2006-2009)
2. SMP 12 Makassar (2009-2012)
3. SMAN 2 Pangkajene (2012-2014)
4. Hasanuddin University (2014-2019)

Organization History

1. Ava Laboratory Volunteer, Faculty of Public Health, Hasanuddin University (2017)
2. Member of the Health Promotion and Behavioral Sciences Student Forum, Faculty of Public Health, Hasanuddin University (2016 – 2018)
3. Volunteer Lentera Negeri as one of the Social Communities in Makassar (2016 – present)

ABSTRAK

Latar Belakang: Evaluasi surveilans di Kabupaten Maros belum dilakukan secara bersamaan dan terpadu melibatkan sektor kesehatan manusia dan hewan.
Tujuan: Penelitian ini bertujuan untuk mengevaluasi program surveilans terpadu Antraks di Kabupaten Maros.
Metode Penelitian: Penelitian deskriptif menggunakan pendekatan kuantitatif dan kualitatif melibatkan tujuh informan kunci dan 52 informan tambahan. Data kuantitatif dianalisis secara univariat, dan data kualitatif dianalisis menggunakan qualitative content analysis.
Hasil Penelitian: Aspek input menunjukkan instansi dengan SDM memenuhi standar, yaitu 8/9 (pelatihan <75%). TGC tersedia di puskesmas dan Dinas Kesehatan. Instansi dengan manajemen data, komunikasi, transportasi, APD, dan pendanaan memadai, yaitu 3/9,0/9,5/9,8/9, dan 7/9. Laboratorium konfirmasi yaitu BBLK dan BBVet Maros. Perbandingan pedoman, dan formulir memadai, yaitu 4/9, dan 8/9. Adanya legislasi, koordinasi dengan pemerintah dan peternak, jejaring, dan kontingensi. Aspek aktivitas menunjukkan perbandingan pengumpulan, dan validasi data, yaitu 9/9; dan 8/9. Instansi memiliki kapasitas pengiriman memadai, dengan kultur, PCMB, dan PCR. Perbandingan analisis data, yaitu 7/9. Kajian epidemiologi, peringatan, peningkatan kewaspadaan, verifikasi, investigasi, feedback (100%), dan berbagi informasi terlaksana optimal, sedangkan yang belum yaitu pelaporan, respons, diseminasi, kolaborasi, dan pertemuan. Aspek output menunjukkan kelengkapan pelaporan, pelaporan kasus, dan ketepatan waktu pelaporan, yaitu >90%.
Kesimpulan: Komponen input dan proses yang belum optimal, yaitu SDM, pelatihan, manajemen data, komunikasi, transportasi, APD, pendanaan, pedoman, formulir, legislasi, koordinasi, jejaring, validasi, analisis data, pelaporan, respons, diseminasi informasi, pertemuan lintas-batas, dan kolaborasi.

Kata Kunci: Antraks, Surveilans, SDM, Logistik, Pedoman, Formulir, Pendanaan, Laboratorium, Jejaring, Legislatif, Hubungan dengan Stakeholder, Pengumpulan, Validasi, Analisis Data, Konfirmasi, Pelaporan, Kesiapsiagaan, Respon, Diseminasi Informasi, Koordinasi, Kelengkapan, Ketepatan Waktu

ABSTRACT

Background: Integrated surveillance evaluation in Maros had not conducted simultaneously involving human and animal health sectors.
Objective: This study aims to evaluate anthrax integrated surveillance program in Maros.
Research Method: This descriptive study used quantitative and qualitative approaches involving seven key informants and 52 additional informants. Quantitative data were analyzed univariately, and qualitative data were analyzed using qualitative content analysis.
Research Results: Input aspect shows agencies with human resources met the standards, namely 8/9 (training<75%). TGC are available at CHCs and Health Office. Agencies with adequate data management, communication, transportation, PPE, and funding, namely 3/9.0/9.5/9.8/9, and 7/9. Confirmation laboratories are BBLK and BBVet Maros. Adequate guidelines, and forms comparison, namely 4/9, and 8/9. There is legislation, coordination with government and farmers, networking, and contingencies. Activity aspect shows data collection and validation comparison, namely 9/9; and 8/9. Agency has adequate delivery capacity, with culture, PCMB, and PCR. Data analysis comparison, namely 7/9. Epidemiological studies, warnings, raising awareness, verification, investigation, feedback (100%), and information sharing were conducted optimally, while those that were not were reporting, response, dissemination, collaboration, and meetings. Output aspect shows that completeness of reporting, cases reporting, and timeliness were>90%.
Conclusion: The nonoptimal input and process components, namely human resources, training, data management, communication, transportation, PPE, funding, guidelines, forms, legislation, coordination, networking, validation, data analysis, reporting, response, information dissemination, cross-border meetings, and collaboration.

Keywords: Anthrax, Surveillance, HR, Logistics, Guidelines, Forms, Funding, Laboratories, Networking, Legislation, Relationship with Stakeholders, Data Collection, Validation, Analysis, Confirmation, Reporting, Preparedness, Response, Information Dissemination, Coordination, Completeness, Timeliness

PREFACE

The author praises and thanks to *Allah Subhanahu wa Ta'ala* for all His blessings and gifts so that the author can finish this thesis with the title "Evaluation of the Anthrax Integrated Surveillance Program in Maros Regency, South Sulawesi Province (Studies in the Human Health Sector and Animal Health)." Shalawat and greetings may always be poured out to Rasulullah *shallallahu 'alaihi wa sallam.* Completing this thesis would not have been possible without the help of Allah through the help of many people.

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LIST OF ABBREVIATION

ATR	: Anthrax Toxin Receptors
BSL	: Biosafety levels
cAMP	: cyclic-AMP
CDC	: Centers for Disease Control and Prevention
CFR	: Case Fatality Rate
CHC	: Community Health Center
CIPP	: Context, Input, Product, and Process
DHF	: Dengue Hemoragi Fever
EC	: Ethical Clearance
EF	: Edema Factor
EIDs	: Emerging events infectious diseases
EWARS	: Early Warning, Alert and Response System
HR	: Human Resources
JE	: Japanese encephalitis
LF	: Lethal Factor
LT	: Lethal Toxins
MOU	: Memoranda of Understanding
PA	: Protective Antigen
PCMB	: Polychrome Methylene Blue
PCR	: Polymerase Chain Reaction
PPE	: Personal Protective Equipment
RRT	: Rapid Response Team
SOP	: Standard Operating Procedure
WHO	: World Health Organization