

# Lassa Fever Outbreak Investigation in Weija-Gbawe municipality, Greater Accra Region, Ghana, 2023



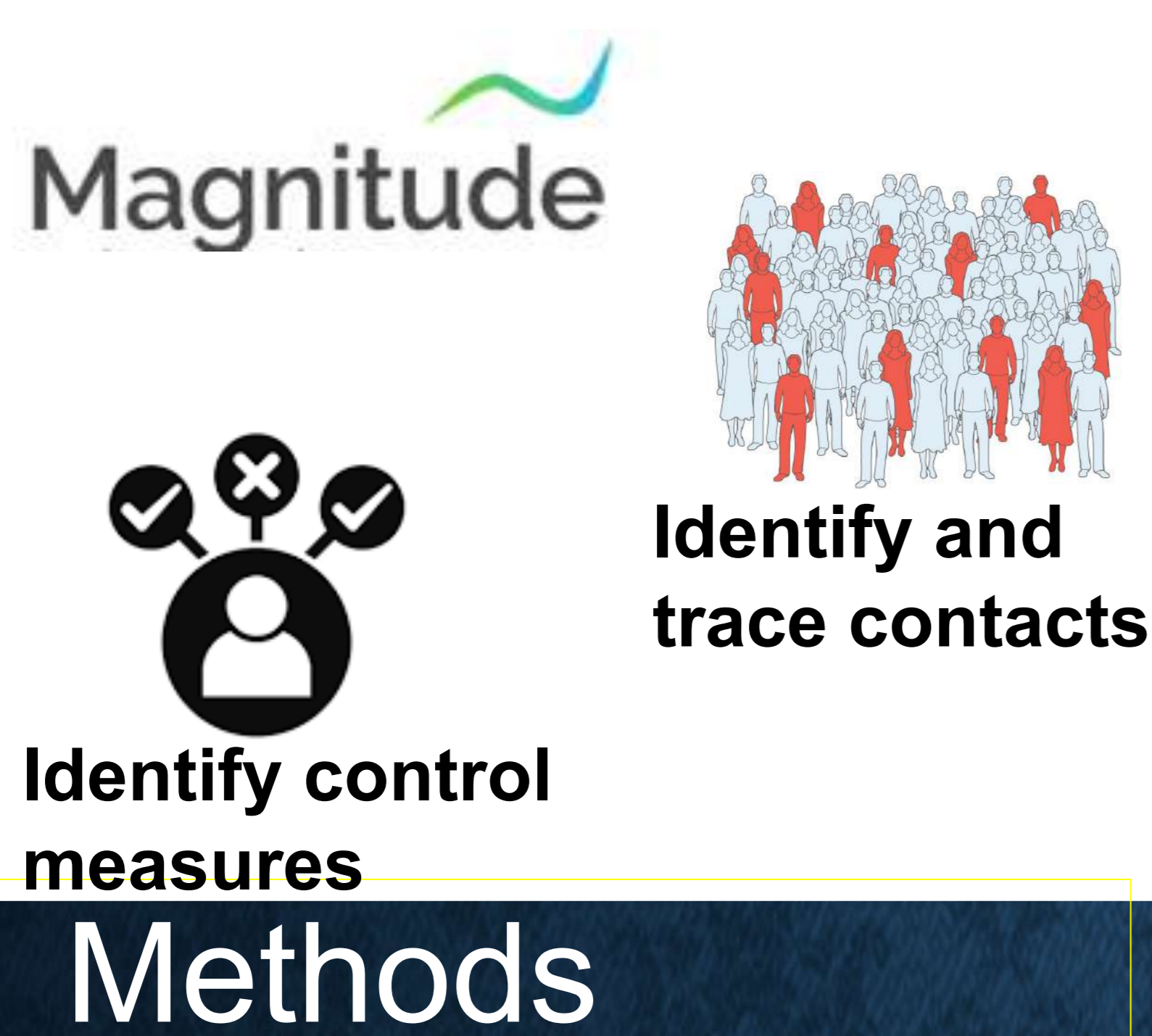
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## Introduction

- Lassa fever causes morbidity and mortality in Africa
- Accounts for 10%–16% of hospital admissions in Liberia and Sierra Leone annually
- An estimated 100,000 to 300,000 cases of Lassa virus infection and 5,000 fatalities occur in West Africa annually
- On 13th February 2023, a patient was seen at Weija-Gbawe Municipal Hospital (WGMH) with an inability to talk, associated with a two-month history of joint pains
- The sample was confirmed positive for Lassa fever on 24th February 2023
- The Ghana Field Epidemiology and Laboratory Training Programme was thus invited to support the district

## Objectives



## Outbreak Setting:

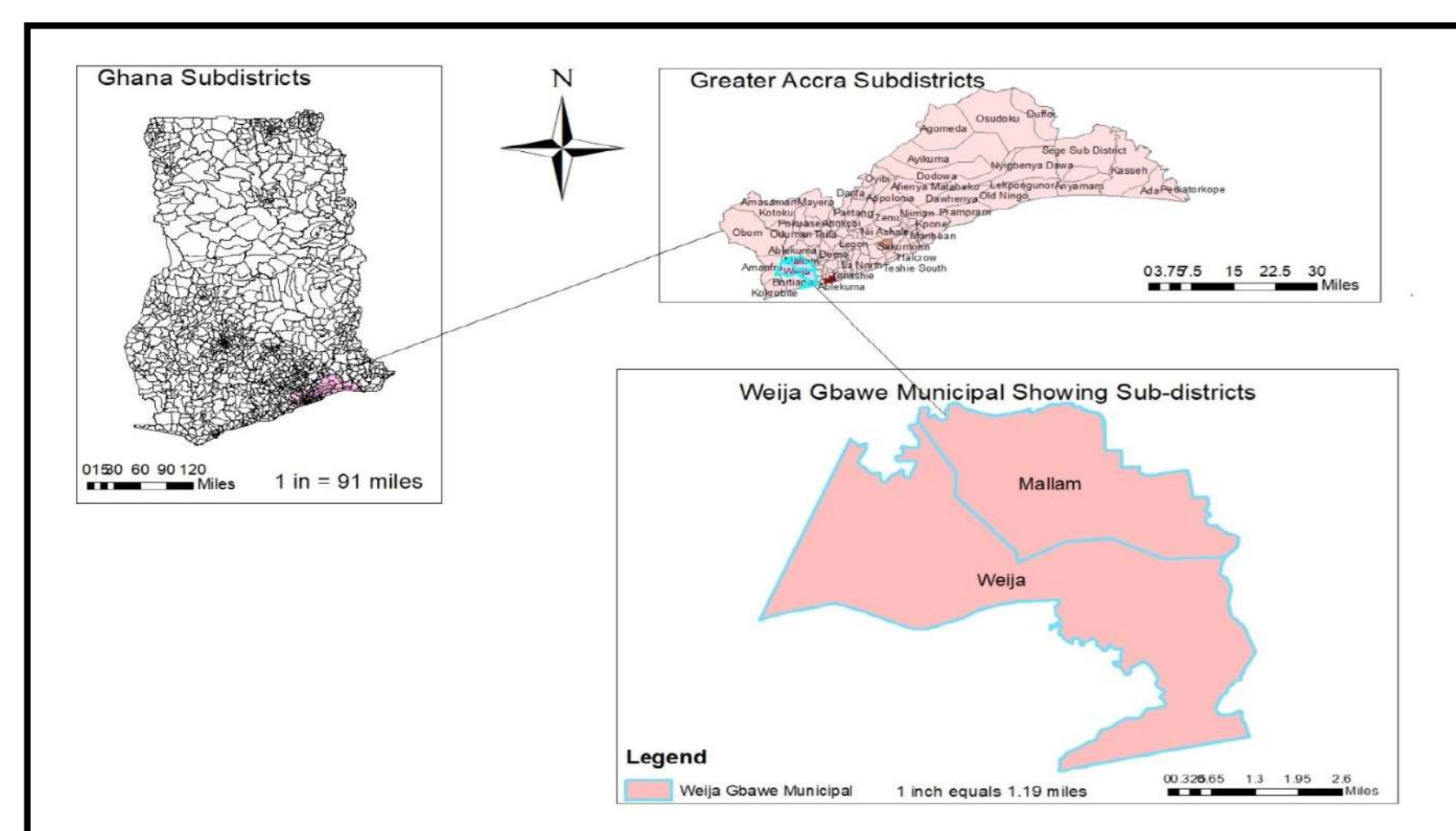


Figure 1: Map of outbreak location

## Suakoko Health District

- One of 29 districts in the Greater Accra Region of Ghana.
- Has three sub-districts; Weija, Mallam and Gbawe.
- A population of 222,743 inhabitants is involved in various occupations.
- The population has access to both private and public health facilities known for rodents that transmit Lassa fever

## Data Collection

- Constructed case definition
- Filled case forms and collected samples
- Reviewed case medical records
- Interviewed medical staff and contacts
- Followed up with contacts for 21 days using a checklist and tested suspected cases

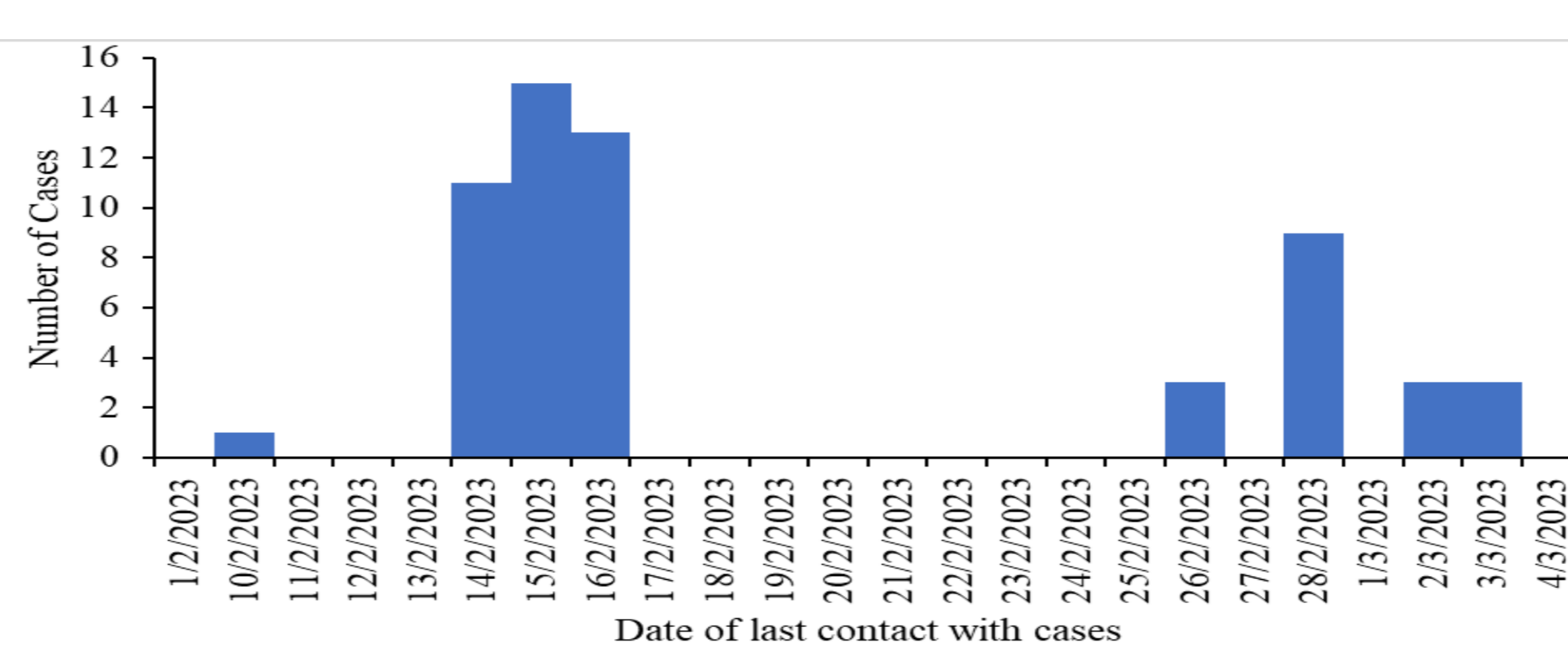
## Data Analysis

- Data were entered, cleaned and analyzed in Microsoft excel 2019

- Results were presented in frequencies, proportions, and median and displayed in tables, graphs, and maps

## Results

- 61 cases (including index case) were listed; 37 through health facility review, 23 through community case search
- Of the 61 cases, 7 (11.5%) were confirmed, with a case-fatality rate of 1.6% (1/61)
- The mean age of cases was 33.9 years ( $\pm$  12.3)
- Majority of cases, 70.5% (43/61) were female



- Figure 2: Timeline of Lassa Fever cases in WGMH

- 38 contacts were listed from the primary case.
- 5 confirmed positive (13.1%)
- 18 secondary contacts were then listed from the 5 confirmed cases and blood samples were taken for investigation

- All secondary contacts tested negative for Lassa Fever There was one trans-in confirmed case

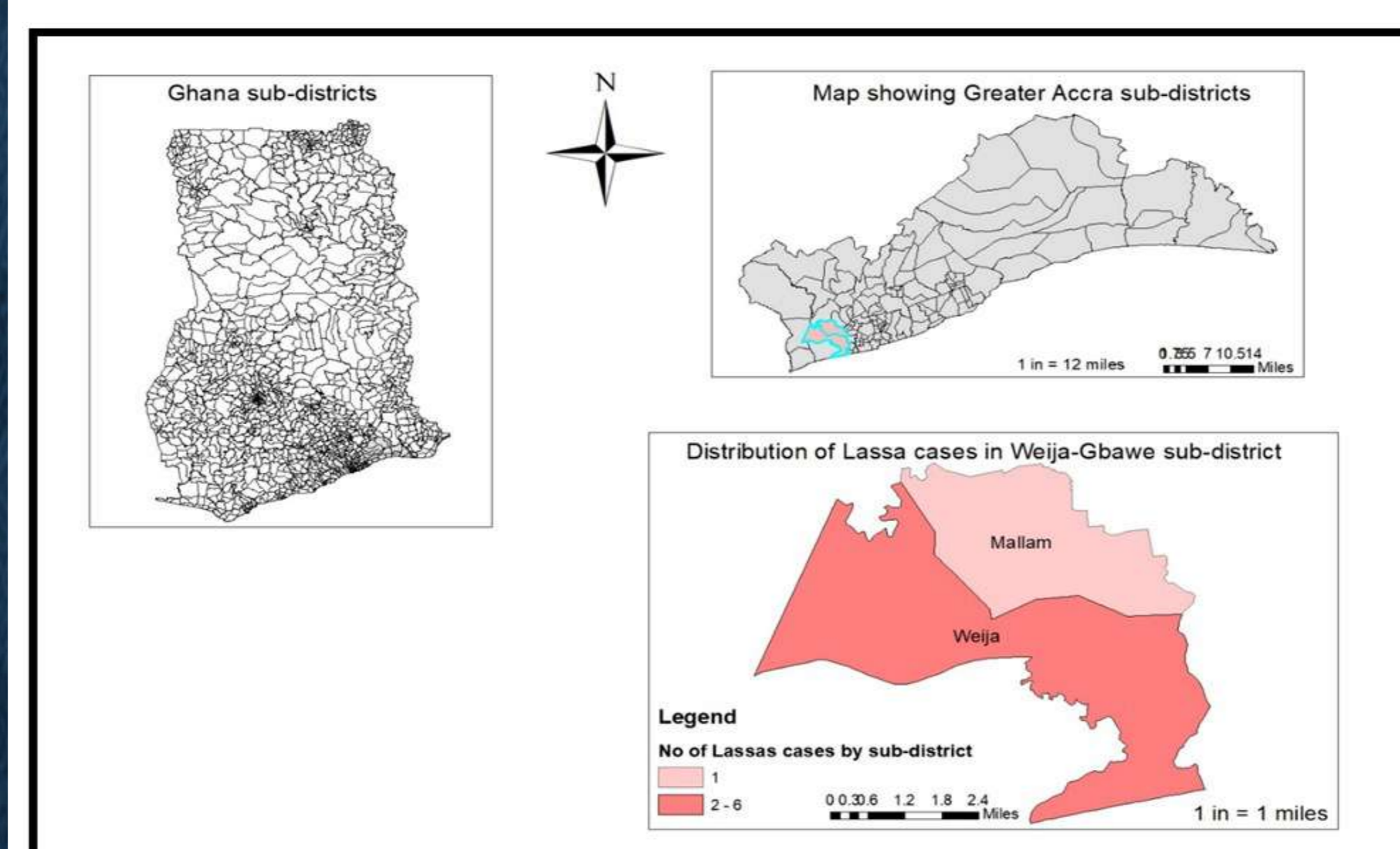


Figure 3: Distribution of cases in Weija-Gbawe Municipality

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## References

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Hallam, H. J., Hallam, S., Rodriguez, S. E., Barrett, A. D. T., Beasley, D. W. C., Chua, A., Ksiazek, T. G., Milligan, G. N., Sathiyamoorthy, V., & Reece, L. M. (2018). Baseline mapping of Lassa fever virology , epidemiology and vaccine research and development. Npj Vaccines, September 2017. <https://doi.org/10.1038/s41541-018-0049-5>

## Results Cont.

Thematic Areas	Findings
Case detection	Health workers had a low index of suspicion for Lassa fever until patient was diagnosed at KBTH after which their level of suspicion was heightened.
Case reporting	Suspected cases were reported. Some cases were extracted from their LHMS, and the rest were from the community through contact listing and tracing.
Emergency preparedness	The 3 health facilities assessed had an emergency preparedness plan to address key areas of the outbreak
Data quality	Data quality was good in terms of accuracy and completeness for the facilities assessed

Table 1; Summary findings from health facility assessment

## Conclusions

- The outbreak was contained with low mortality.
- Only the index case died.
- Both health workers and members of the community were infected with the Lassa virus
- The source of infection in the index case was not determined.
- All confirmed cases had contact with the index case.

## Recommendations

- The Municipal Health Director should ensure health education on Lassa fever is intensified in the community
- The Municipal public health officer should arrange psychological counselling for the cases and their contacts, to allay anxiety

## Public Health Action



Investigative team members taking samples from the rodents

## Acknowledgement

- Department of Epidemiology
- Ga-West Municipal Hospital
- Supervisors
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