Measles outbreak investigation in North Bank East and Central River Regions, The Gambia, 2023

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Outline

- Introduction
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Introduction

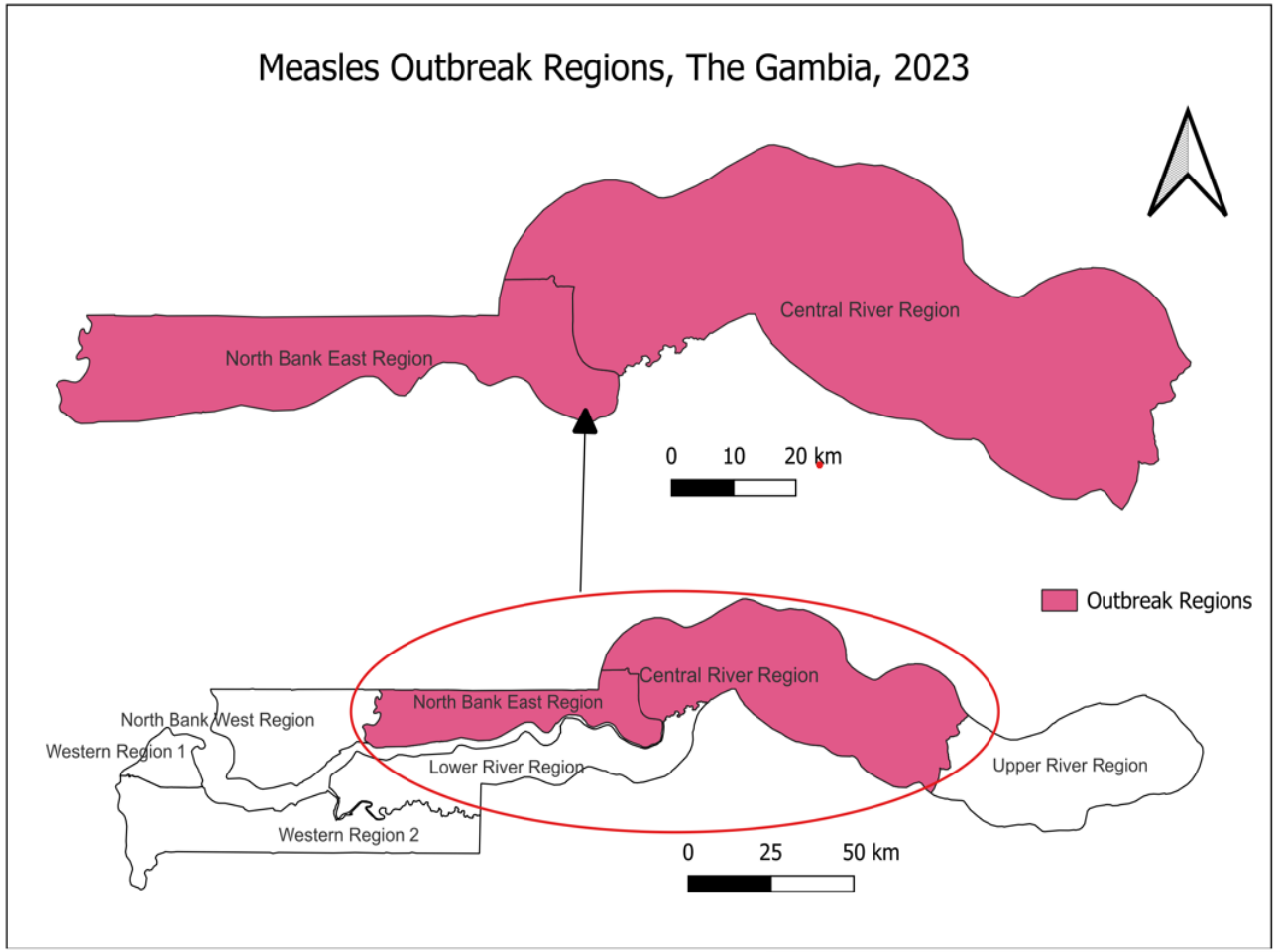
- Measles is one of the most contagious human infections
- Jan 31st, 2023, measles outbreak was declared in NBER & CRR
- Objectives of the investigation

1. To determine the cause of the outbreak
2. To assess the magnitude of the measles outbreak
3. To implement preventive and control measures

Methods 1/2

- Descriptive Cross-Sectional study design
- Developed an outbreak case definition as:

As any person (<=15 yrs) with a fever and maculopapular rash in the NBE & CRR from December 28th, 2022

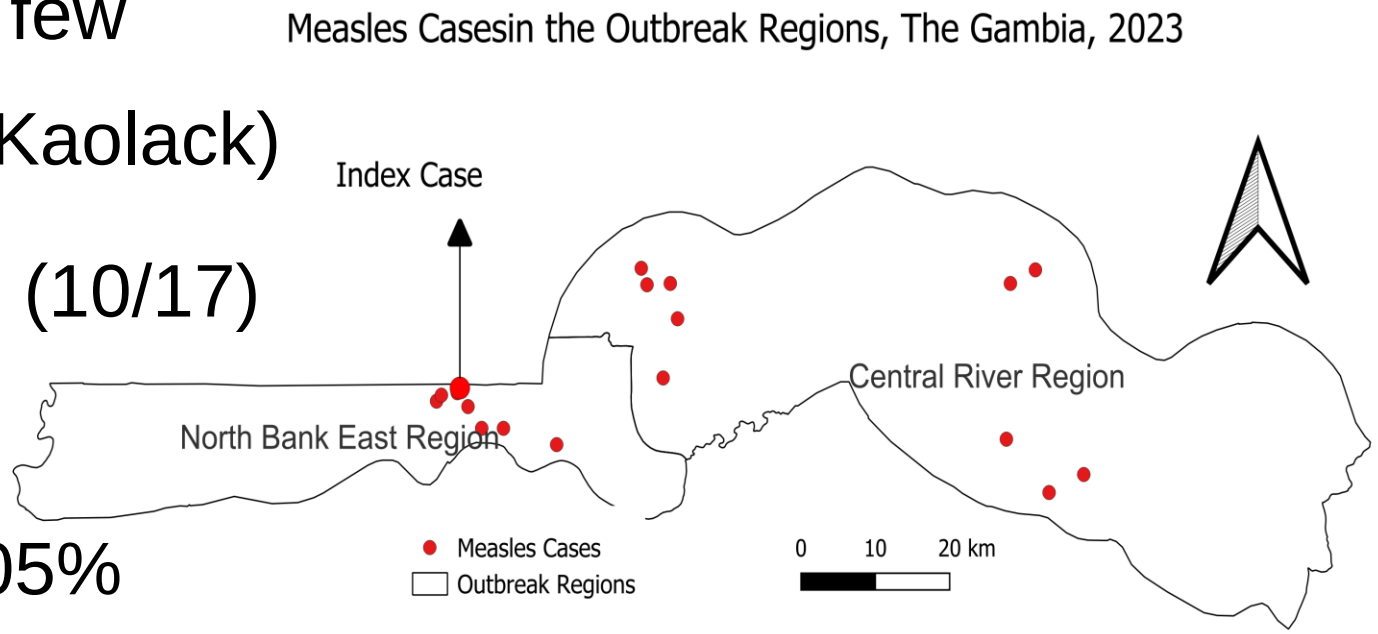


Methods 2/2

- Active Case Search (ACS) & Contact tracing
- Records review
- Environmental assessment
- Specimen collections
- Cases Management
- Vaccination

Results 1/4

- The index case lives a few meters from Senegal (Kaolack)
- More than half 58.82% (10/17) were from CRR
- Positivity rate was 14.05% (17/121)
- Zero case-fatality rate



Results 2/4

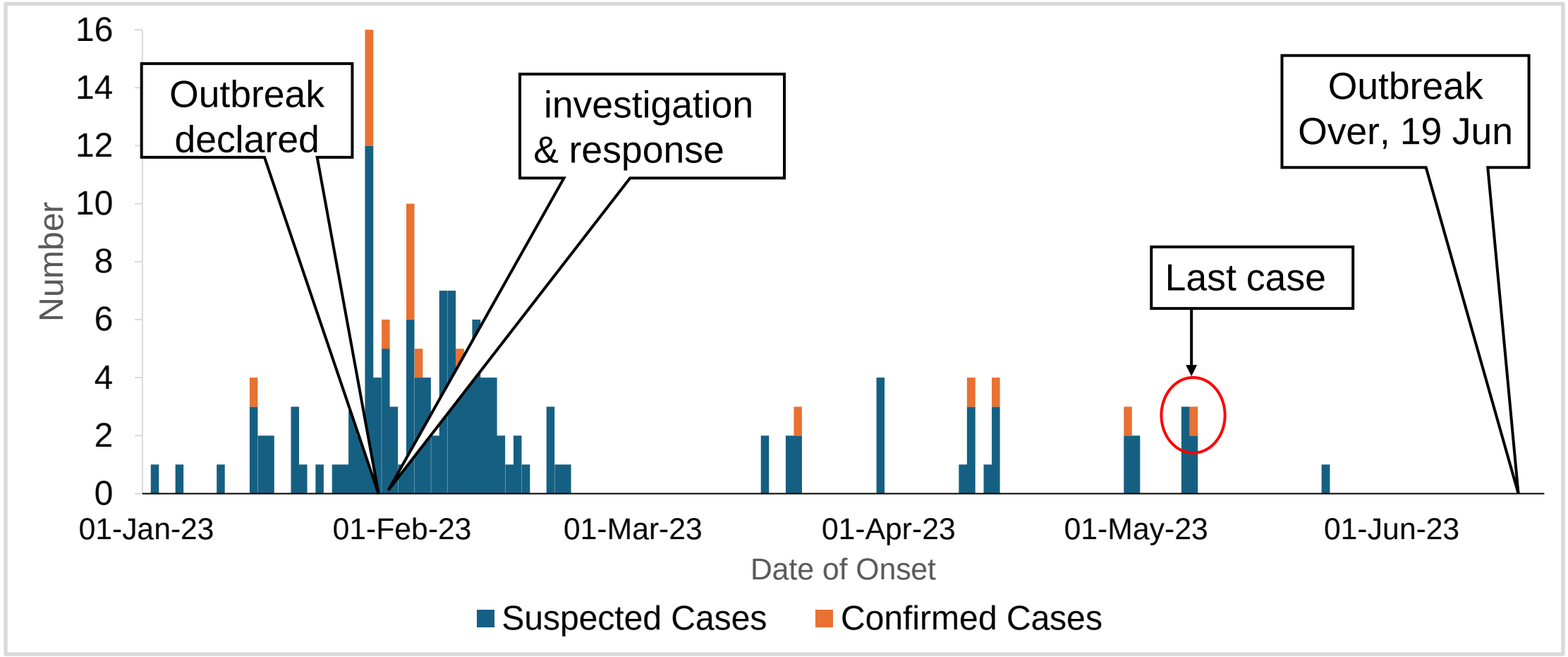
- Of the 121 suspected cases, 17 (14.1%) were confirmed

Characteristics of Measles IgM+ Cases, CRR & NBE, 2024 (N=17)

Characteristics	Freq (n)	Percentage (%)
Age group (years)		
<1	0	0
1-5	5	29.4
>5	12	70.6
Sex		
Male	7	41.2
Female	10	58.8
Vaccination Status		
Yes	7	41.2
No	10	58.8

Results 3/4

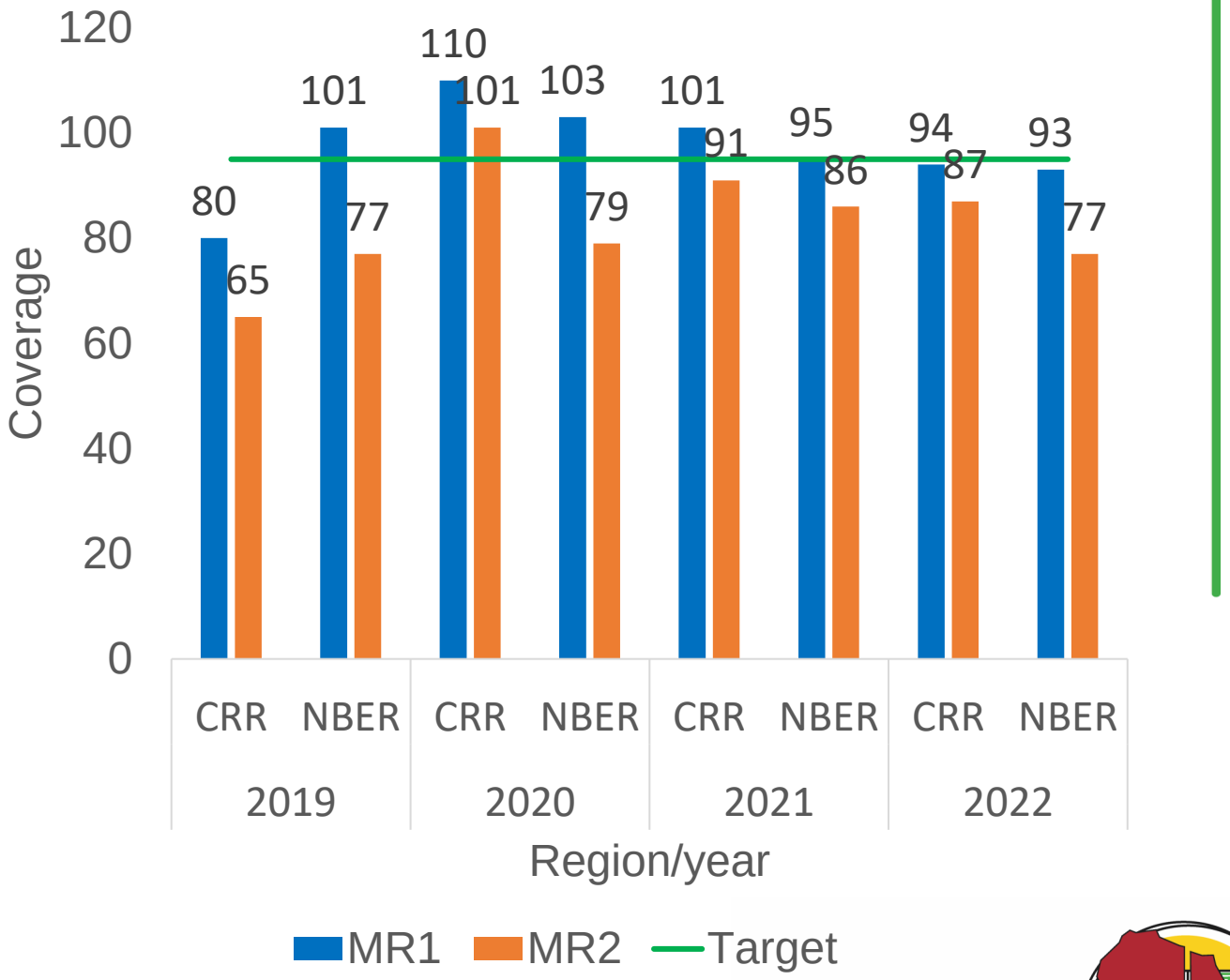
Onset of Measles IgM+, Jan – June 2023, NBER & CRR



Results 4/4

- Low MR2 coverage (<95%)
- SIA was done in Oct 2022 & May 2023, targeting <5years
- NBER-101.3%& CRR 93.3%
- Forty-nine (49) vaccinated & 3 specimens collected

The MR1 & MR2 vaccination coverage, 2019 – 2022, NBER & CRR



Discussion

- More than half of the measles IgM+ were children above 5
  - Contrast to a study in Senegal (Jallow et al., 2022)
  - Immunity gap of children 5 – 10 years
- Majority of measles (58.8%) infections were unvaccinated
  - Similar to a study in Senegal (Jallow et al., 2022)
  - Reports of measles transmission in Senegal amidst free movement

Conclusion & Recommendation

- Senegal (Kaolack) was the source of the outbreak
- The outbreak was cause by an immunity gap
- Cases were higher among the above 5
- MoH should enhance cross-border coordination
- EPI should conduct mass vaccination (5- 10 yrs)

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Thank you