

Investigation of Measles Outbreak in Bushbuckridge Sub-District, Mpumalanga Province, South Africa, November 2022 - March 2023

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The high number of unvaccinated children was the driver of the outbreak.

BACKGROUND

- Measles is a highly infectious vaccine-preventable disease
- WHO estimates that 136 000 people died from measles in 2022
 - Mostly children under the age of five years
- In South Africa, it is a category 1 notifiable medical condition; it should be reported within 24 hours of clinical diagnosis
- We investigated to establish the existence of the outbreak, determine the source, the magnitude of the outbreak; and implement prevention and control measures.



Figure 1: Timeline showing activities from diagnosis of first case Bushbuckridge Sub-District, Nov 2022 - March 2023

METHODS

- A descriptive cross-sectional study was used.
- A case was any person with laboratory confirmed measles IgM antibody; or any suspected person epidemiologically linked to confirmed cases residing in Bushbuckridge sub-district from 15 October 2022.
- We collected data using Case Investigation Forms and reviewed Road to Health Booklets-a record of a child's growth, immunizations, and health interventions.
- Blood for Measles IgM was collected for Measles laboratory testing, 115 cases were suspected.
- Data was analyzed by frequencies and proportions, results displayed by graphs.

RESULTS

- A total of 42 measles cases were reported in Bushbuckridge Sub-District
- Index case had no travelling history, and he was not attending crèche
- The first four cases were epidemiologically linking, they were attending the same church
- The 2nd and 4th cases were attending the same school in same class.
- Eighty-three (83%) of the cases did not have Road to Health Booklet
- No case fatalities

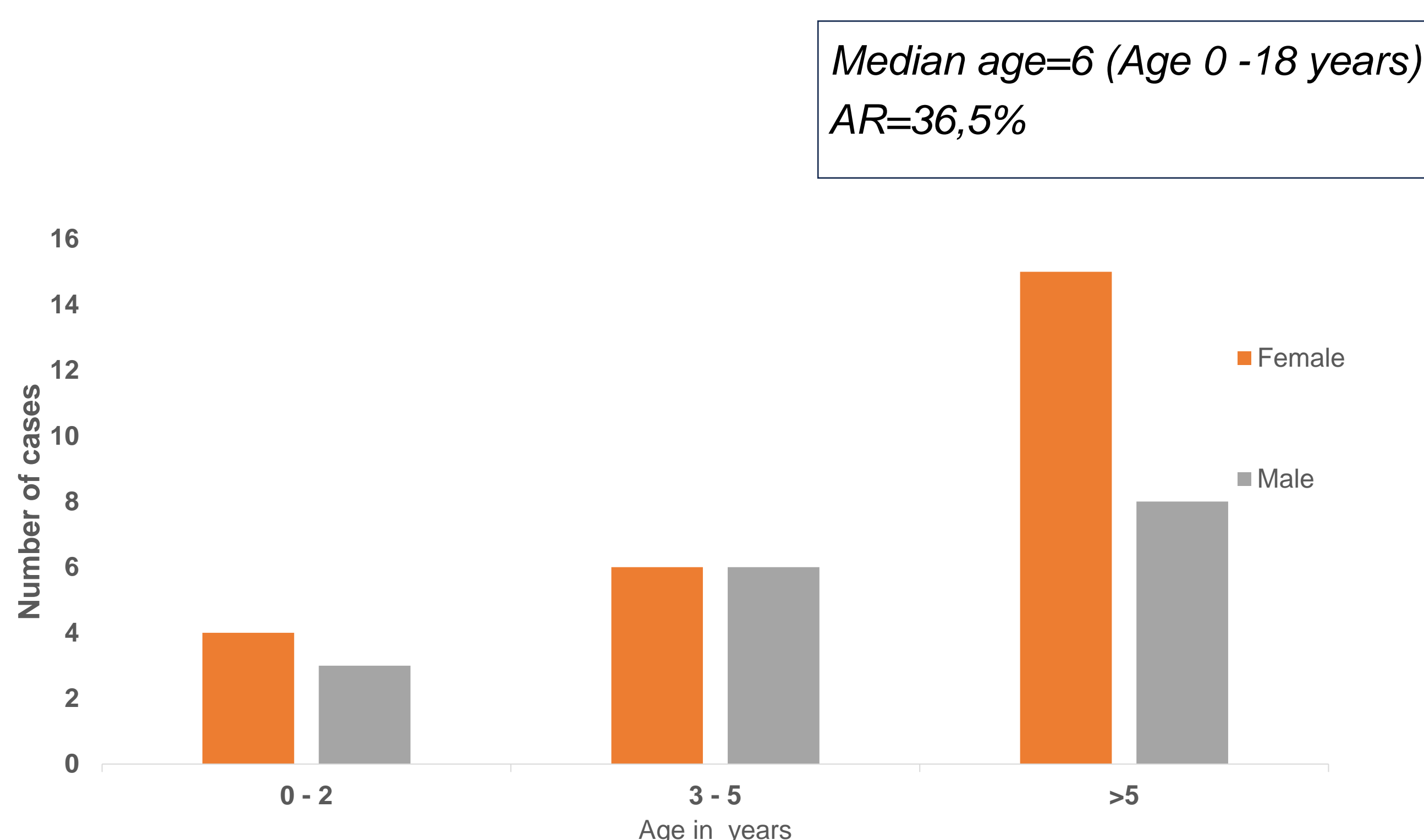


Figure 2: Distribution of cases according age & gender, Bushbuckridge Sub- District, Nov 2022 – March 2023

RESULTS CONTINUED

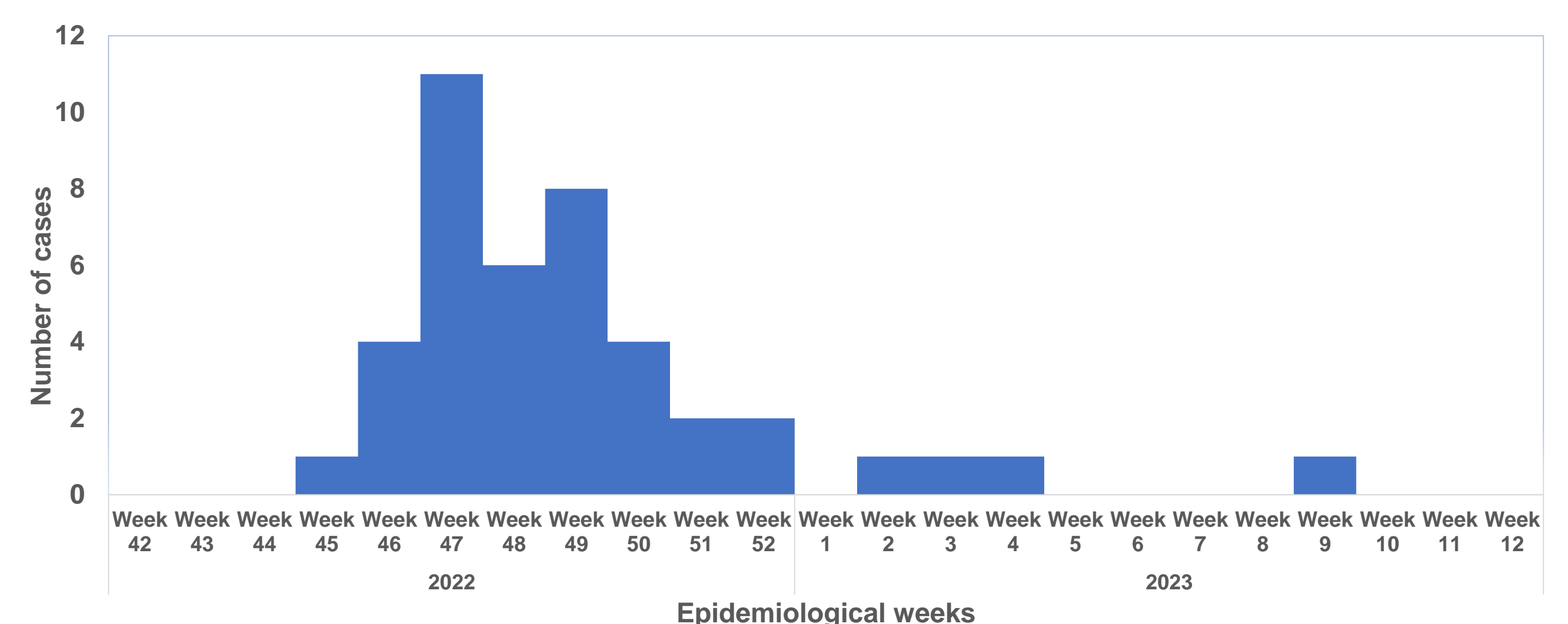


Figure 3: Distribution of cases by epidemiological weeks, Bushbuckridge Sub-District, Nov 2022 – Mar 2023

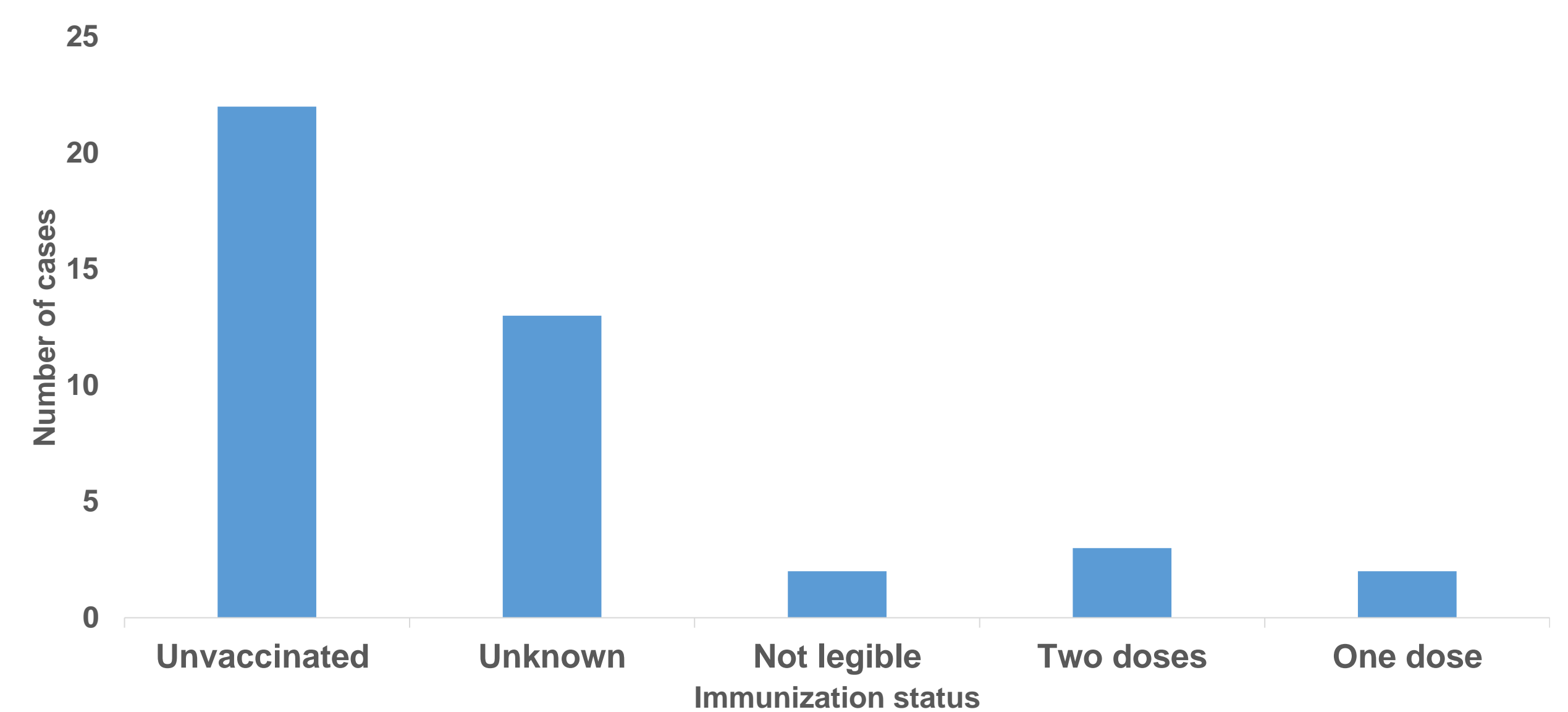


Figure 4: Distribution of cases by immunization history, Bushbuckridge Sub-district, Nov 2022 – Mar 2023

CONCLUSIONS

- The high number of unvaccinated children was the driver of the outbreak, most children affected by the outbreak did not get their childhood immunization, and only a few were immunized.

PUBLIC HEALTH ACTIONS

- Contacts were traced, and advised to isolate
- Door to door campaigns, radio slots were conducted to give health education on measles, hand wash, and distribute measles pamphlets.
- Hand washing campaign conducted in schools
- Vaccination campaign was conducted with 42,6% coverage of the under 15 population.

ADDITIONAL KEY INFORMATION

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