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Background

Salivary glands swelling Droplet transmission Incubation 16-18 days Communicable 2d before & 5d after parotitis

Event Timeline

Cluster of mumps cases in School X (Jan 30) Event alert generated (Feb 4) Confirmation of outbreak (Feb 6) Rapid Response Team & Investigation (Feb 10)

Objective

Describe the mumps outbreak in School X, by time, place, and person, 2023-24

Methods

Descriptive cross-sectional Students and staff, School X

Active case search 11 & 12 Feb, 2024
Stimulated passive surveillance 13 Feb - 30 Mar, 2024

Probable case definition: Acute onset of parotiditis lasting ≥ 2 days from December 1, 2023 to March 30, 2024

Lab confirmation: Isolation of virus OR Positive serological test for IgM antibodies

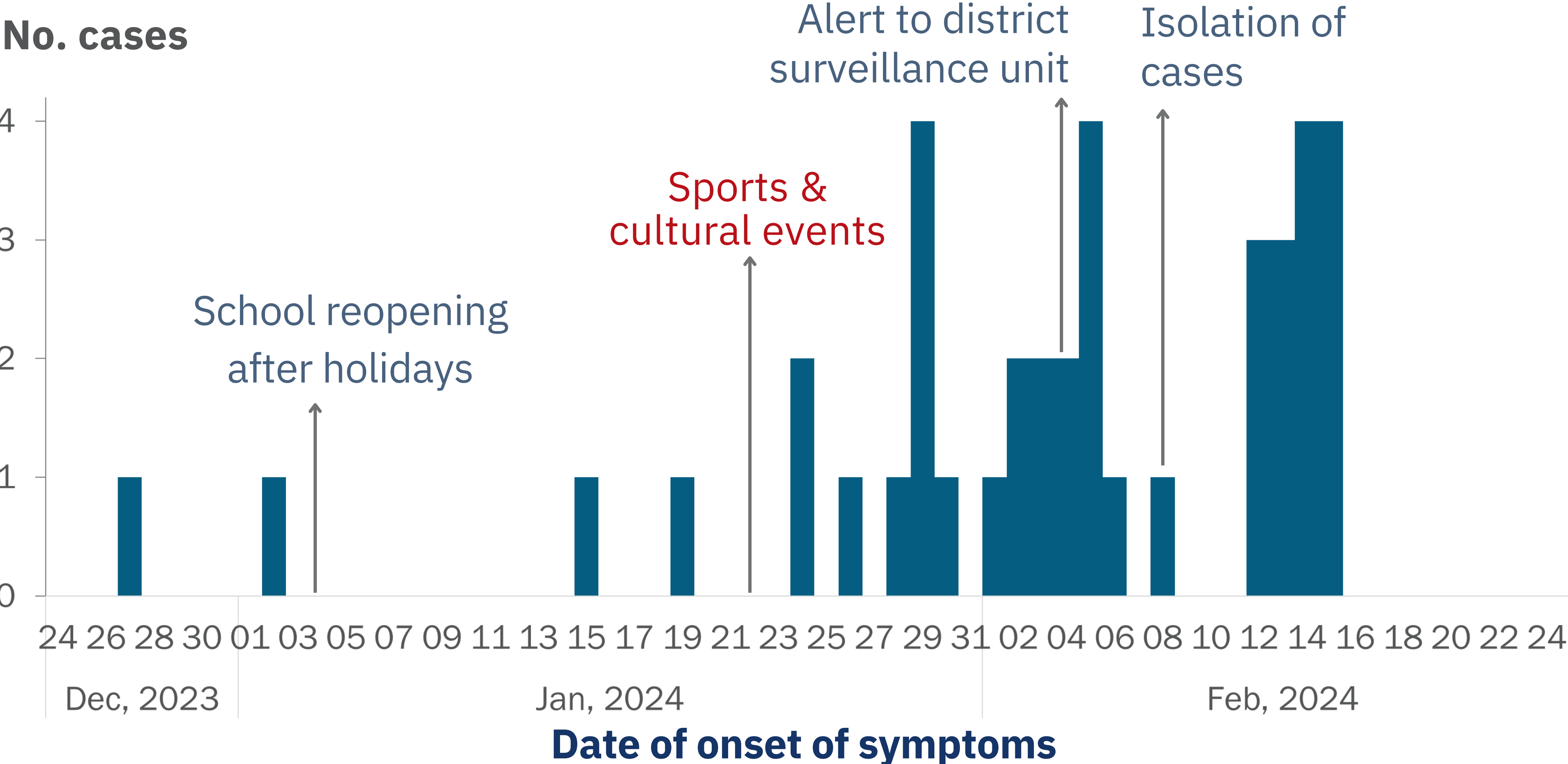
Data collection: Questionnaire for interviewing teachers and students & Data abstraction sheet for extracting student personal information from school register

Tool: Epicollect

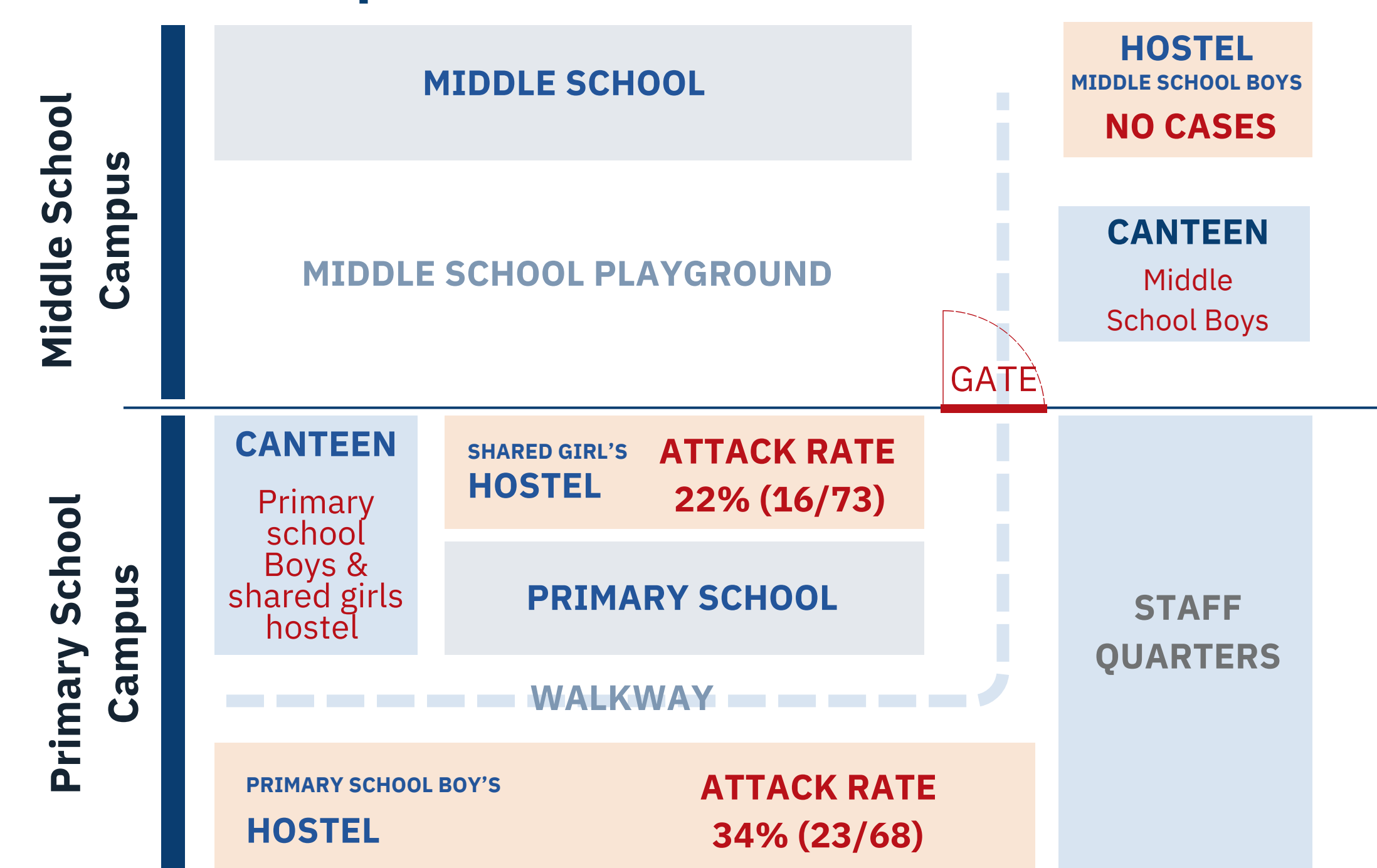
Data analysis: Epi-info 7.2.5.0

Lack of isolation of case-patients and closed gathering led to person-person transmission of Mumps in a close congregate school setting

Epicurve depicting proagated outbreak of mumps



School Campus



Attack Rates

Overall	Students	15.7 %
13.2%	14.1%	12.3 %
		60 % (9/15)

Conclusion: Possible factors for mumps transmission & Hypothesis

- Case patients 2,3,4: Probable Co-Primary cases- Not isolated during communicable period
- Gathering: Sports & cultural events, 20-26 Jan, 2024
- School staff: Poor awareness on early detection & isolation **32.5 % cases not isolated**
- Common kitchen and dining: Primary school boys and shared girls hostel
- Crowded environment in hostel dormitory
- Mumps vaccine not part of routine immunization schedule

- Middle school girls: Quarantined; Separate class sessions in primary school campus. Close contacts identified and quarantined
- Isolation of cases
- Teachers trained for mumps awareness and early detection

Acknowledgement:

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- School X, Surajpur, Chhattisgarh
- ICMR-NIE

