

Outbreak of Mumps on a College Campus in Cambridge, Massachusetts: The Local Perspective

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Agenda

- Background
- Interview Tips for the College Population
- Best Practices for University Protocols
- Unique Sources of Exposure
- Communication: What Worked, What Didn't?



Interagency Coordination

| Massachusetts Department of Public Health | Cambridge Public Health Department | University Health Services |
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| <ul style="list-style-type: none">• Regional coordination• Statewide communication• Laboratory testing | <ul style="list-style-type: none">• Primary case interviews• Contact tracing• Local communication | <ul style="list-style-type: none">• Primary clinical investigation• Specimen collection• Isolation & quarantine• Transportation |

Interviewing the College Population, 2016-2017

- First point of contact: **email**
 - Prefer not to speak over the phone
 - Will not answer calls from unknown numbers
 - Do not check voicemails or have voicemail set up
- Contact students in the afternoon, evenings, or weekends (avoid mornings)
- Be clear about time commitment
- Build trust: who gets to know what information?
- Be prepared with statistics!
- Use university as backup



Undergrad vs. Grad Students

Undergraduate Students

- Biggest isolation challenge: loneliness
- More likely to require isolation-appropriate housing from the university
- More likely to need food delivered from the dining hall during isolation
- Higher number of close contacts, but contacts are more likely to be vaccinated
- Common contact sources: roommates, athletic teams, social clubs, weekend parties

Graduate Students

- Biggest isolation challenge: academics
- More likely to already live in isolation-appropriate housing
- More likely to be able to order their own groceries/takeout during isolation
- Lower number of close contacts, but contacts are less likely to be vaccinated (babies/young children)
- Common contact sources: jobs, teaching assistant positions, medical/dental offices

University Protocols: Best Practices

- Preparing for isolation: space, meal delivery, hygiene needs, mental health needs, ensuring protocol followed
 - Daily calls from health services, meals delivered in person, cooperation of athletic/academic personnel
- Set up centralized hub of online information
- Provide tips to partygoers instead of discouraging social activities
- Put emergency management personnel in charge of logistic coordination
 - Plugged into housing, dining, facilities, environmental services, transportation, etc.

University Protocols: Overcoming Challenges

- If housing for isolation is running low, can more than one case be isolated together?
 - Yes, but only as a last resort and only if both cases are PCR+
- How much information do healthy students need to know about sick students being isolated in their buildings?
- What are some possible clinical issues we may encounter?
 - Unfamiliarity with parotid swelling and buccal swabs
 - Differing definitions of Day 0 for calculating isolation dates
 - Uncertainty with re-isolating cases who move from unilateral to bilateral swelling



Sources of Exposure & Solutions

- Social clubs: key is to provide tips, not discourage
- Athletic teams (athletes spend a lot of time together and travel frequently)
 - Cooperation of athletic administration
 - Cross-team socialization
 - Gyms: locker rooms, equipment, water fountains
- Spring break: students traveled domestically and internationally
 - Encourage students who get sick and visit a doctor out of town to still contact the university and inform physician of exposure to mumps outbreak
 - Most doctors outside of an outbreak situation won't do the appropriate tests, suspect mumps, or send the results to MA
 - Uptick in cases **after** spring break: students return to parties, forget about outbreak, take fewer precautions

Communication Challenges

- Messages that got lost
 - High rate of false negatives → case definition still counts you if you have symptoms for 2+ days and have an epi-link to the outbreak population
 - Vaccination:
 - You are still at risk if you have both MMRs
 - The “perpetrators” are not unvaccinated students – the university has a 98-99% vaccination rate
 - The MMR may be one vaccine, but there are different rates of effectiveness for measles, mumps, and rubella
- Decision to only report confirmed cases and not suspect cases may have led to people not taking the outbreak as seriously

Thank You!

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