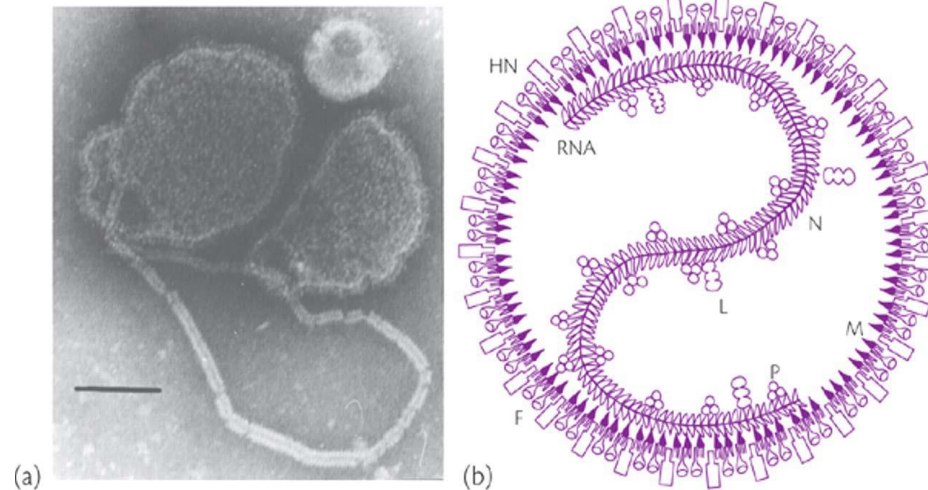


Investigation and Response to the Largest Mumps Outbreak in the City of Toronto in Over 20 Years



Omar Ozaldin

Program Manager, Control of Infectious Diseases and Infection Control

Toronto Public Health

- Describe the epidemiology of the outbreak
- Summarize the public health response
- Discuss the challenges / lessons learned

I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

- Acute vaccine preventable disease
- Transmitted from infected individuals via respiratory droplets
- IC : 12- 25
- POC: 7 days before to 5 days after parotitis
- ~20% sub-clinical or asymptomatic



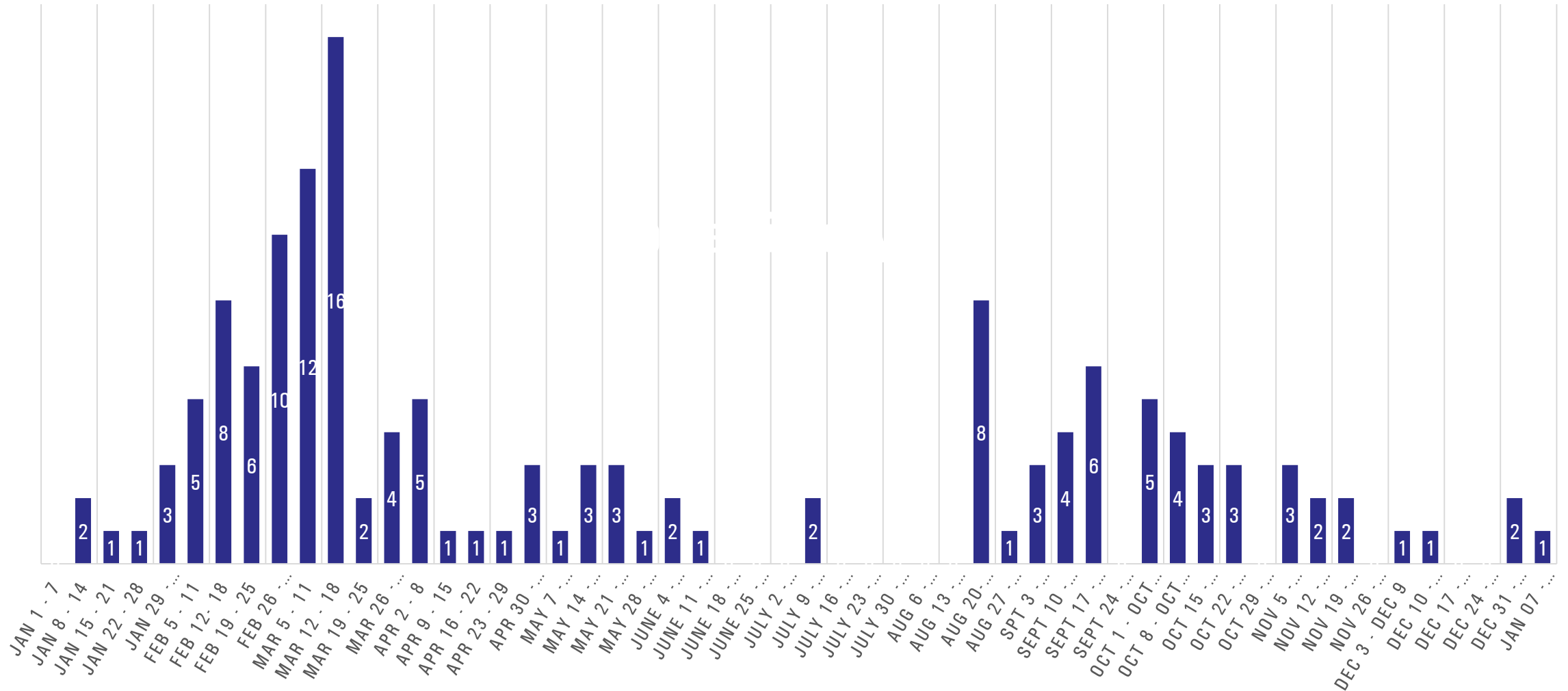
2017 Toronto Mumps Outbreak



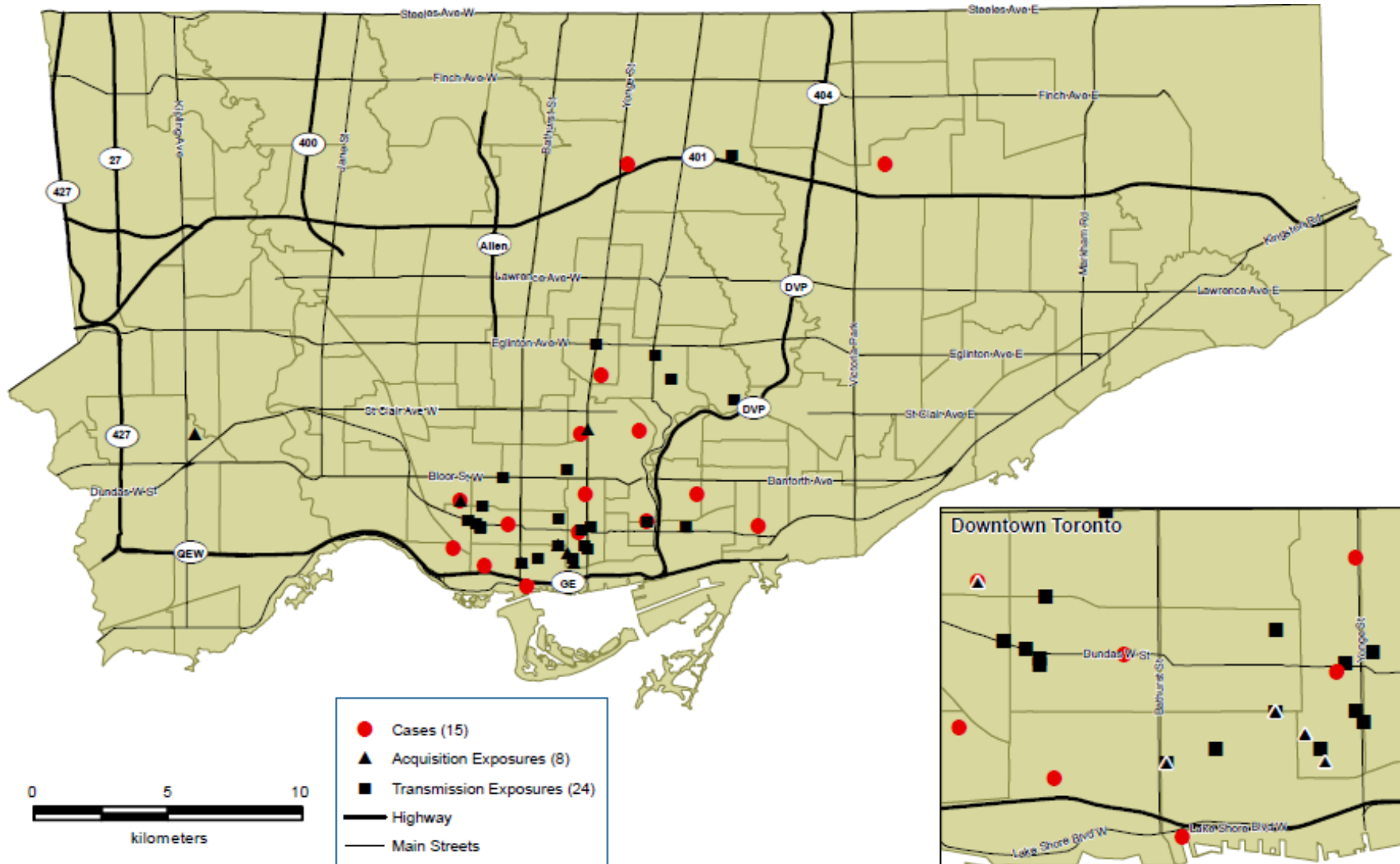
- First two cases among Toronto residents were siblings (18 and 20 year old) who attended a party in Guelph with a confirmed mumps case from another health unit.
- Cases continued to be reported in young adults within Toronto
 - No connections to the Guelph house party, travel, or to other cases
- Outbreak of mumps was declared on January 30, 2017.



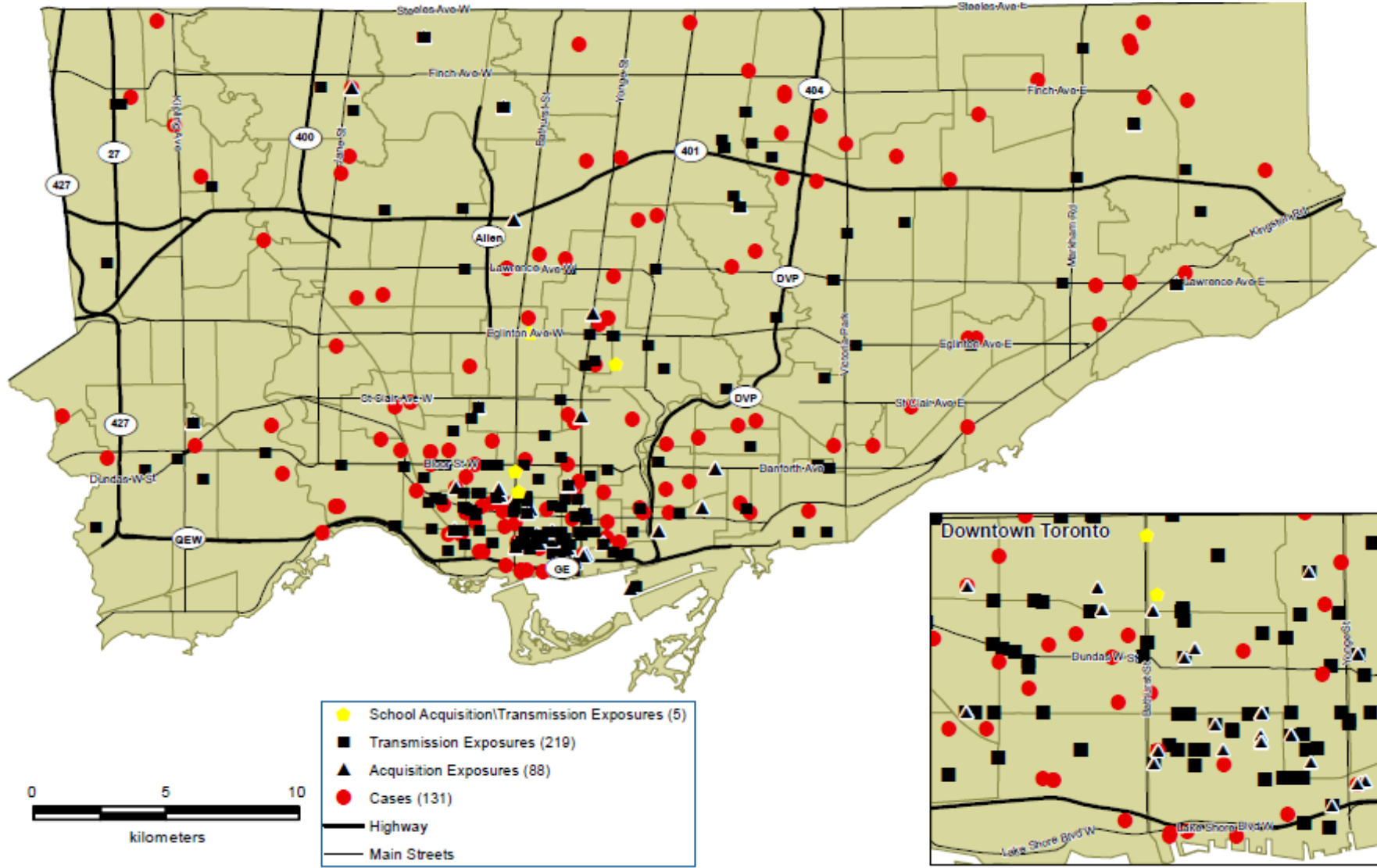
Epidemic Curve of Confirmed Mumps Cases in Toronto by Onset Week, January 1, 2017 to February 26, 2018.



Map of cases – March 8, 2017



Map of cases – December 2017



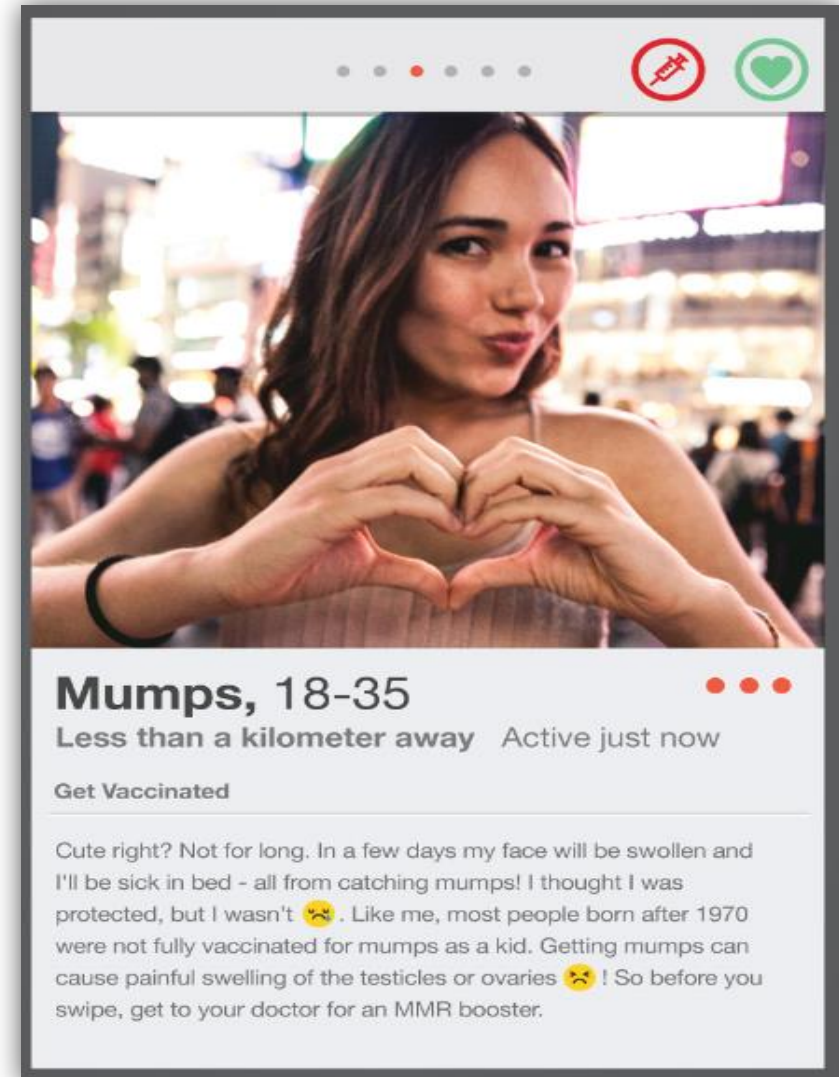
Case and Contact Management

- Case Investigation
 - ✓ Reporting
 - ✓ Classification
 - ✓ Exclusion
- Contact Tracing
 - ✓ Identification
 - ✓ Susceptibility
 - ✓ Notification
 - ✓ Management
- Immunization Clinics



Bar Inspections

- 70 cases (53%) reported acquisition or transmission exposures at local Toronto bars among staff and patrons.
- Inspected by Healthy Environments
 - Inadequate dish and glass cleaning and disinfection
 - A letter and fact sheet on mumps were also provided during the inspection
 - 1600 food establishments inspected




Communication Strategy

- **Health Care Provider Updates**
 - Status of the outbreak.
 - Diagnosis, testing and reporting.
 - Messaging to vaccinate 18 to 35 year old patients.
- **Media Interviews**
 - Over 70 media interviews:
 - Mumps is spreading in the City.
 - Check your immunization status.
 - Get vaccinated.
- **Over 4000 letters to schools, universities and community centres.**




- Social media**

 **Steven Luu** Together with this picture, I thought Mumps was the next hot indie band

Like · Reply · 43w

8

 **tfc.** @ChickaTI

Lol I just saw a Toronto Public Health campaign that said "catch feelings this summer, not mumps" 😬

4:07 PM - 17 Jul 2017

 **Toronto Public Health**
July 6, 2017 · 🌐

Catch feelings this summer, not mumps. Talk to your doctor about the MMR vaccine:



Mumps, 18-35

Mumps in Toronto: Get Vaccinated
Most adults born after 1970 were not fully vaccinated for mumps as a kid. Don't assume you are immune, get to your doctor and ask for a booster.

WWW1.TORONTO.CA [Learn More](#)

Like · Comment · Share

54

31 Shares

1 Comment

 **Lydia Schoch** @TorontoLydia · 11 Jul 2017

Replying to @TOPublicHealth

This was a great tweet. It makes me want to get vaccinated again even though I'm already fully vaccinated. 😊 Keep up the good work.

3

 **Norm Kelly** @norm · 27 Mar 2017

Many young adults in the city are getting the **mumps**. Avoid that possibility by getting the vaccine! 🚫



Toronto PublicHealth @TOPublicHealth

Are you vaccinated for mumps? Adults born after 1970 should get two doses of the mumps vaccine. Learn more: ow.ly/9cXs30a9dAW

8 · 56 · 208

- Cohort group (1970 – 1992)
 - Unsure of vaccination status.
 - ❖ Without a registry, it is difficult to assess vaccination coverage among adults.
- “Hipster” population
 - Difficult to reach using typical methods (e.g., phone calls).
 - ❖ Creative methods to reach clients.
- Suspect Case Reporting
 - For every confirmed case, there was ~1.5 DNM cases that still required investigation.
 - ❖ Surge capacity.



CCDR

CANADA COMMUNICABLE DISEASE REPORT

Investigation and management of a large community mumps outbreak among young adult urbanites in Toronto, January 2017 to February 2018

By V. Dubey, MD, O. Ozaldin MSc, L. Shulman MHSc., R. Stuart MSc, J. Maclachlan , L. Bromley, A. Summers, MD

<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr.html>

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Questions

