



BC Centre for Disease Control
An agency of the Provincial Health Services Authority

The Unique Epidemiology of Mumps in British Columbia, 2012-2017

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Disclosure Statement

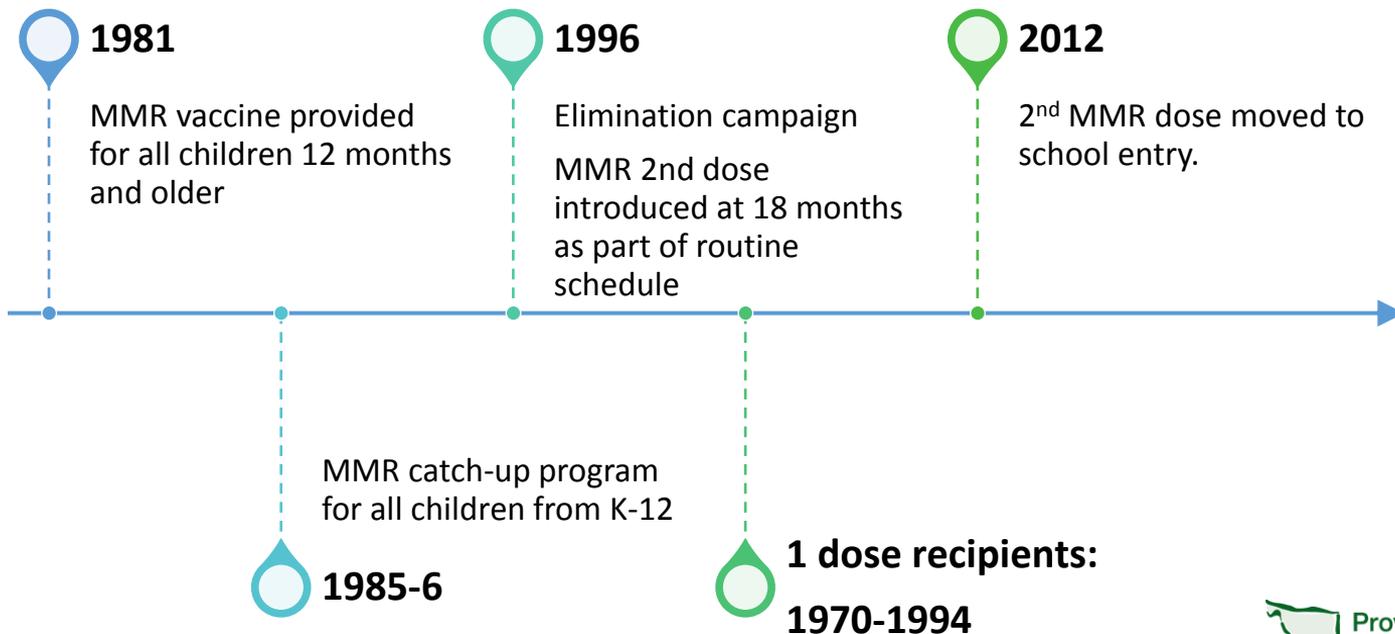
- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Mumps Virus

- Paramyxoviridae family
- Swelling and tenderness of one or both parotid glands
- Mumps vaccine is 88% (31-95%) effective with 2 MMR doses*
- Transmission Dynamics:
 - Saliva
 - Droplets



BC Immunization Program - Mumps



Mumps in British Columbia



Reportable in BC



Large outbreak lead
to a resurgence in
2008



Subsequent
endemicity. Outbreaks
occurring in adults.

2008 – Resurgence

- Community resistant to vaccination
- Occurred February to September
- Young school aged population
- 47% unimmunized

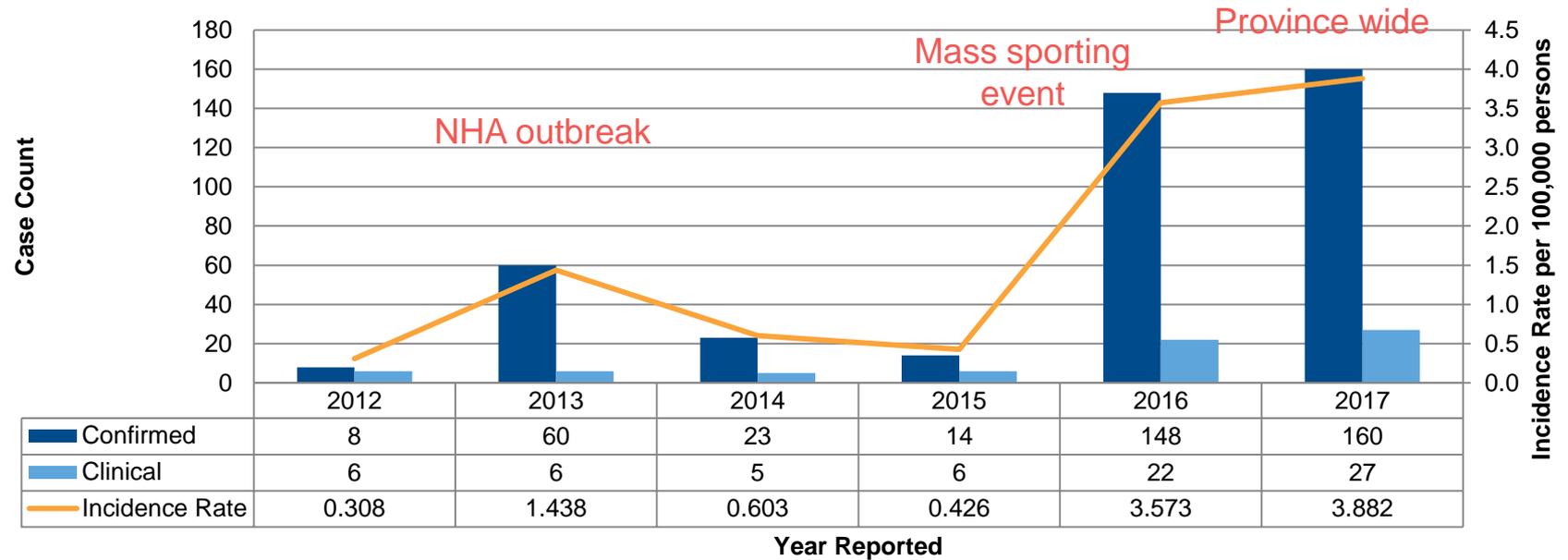


2011 – Demographic Change

- Outbreak began in January in the Whistler ski resort
- Spread to the lower mainland peaking in the first week of July
- Young adults 20-29 years of age
- Under or unimmunized



Mumps cases by year in BC, 2012-2017

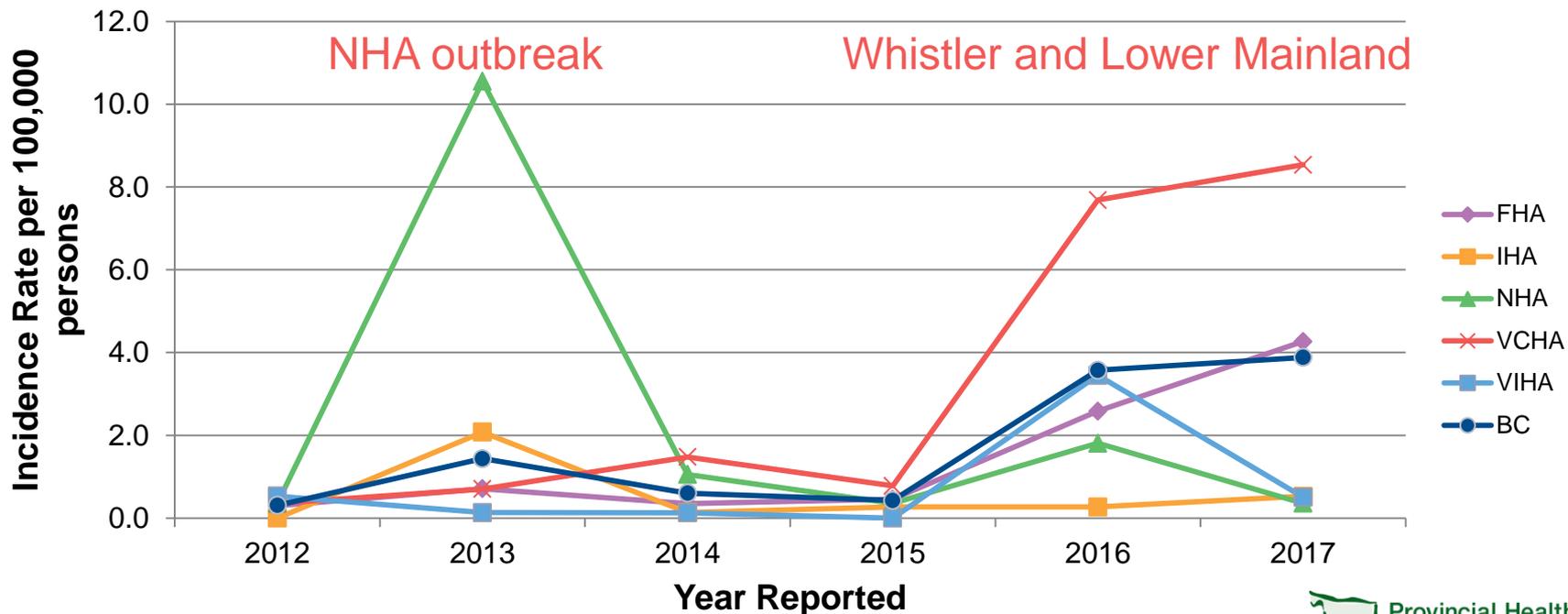


2013 Outbreak – Immunization Shift

- Adolescent sports team related outbreaks
- One community outbreak that affected mostly 20-39 years of age
- Adolescent associated spread
- 29% received 2 doses



Incidence Rate by Region, 2012-2017

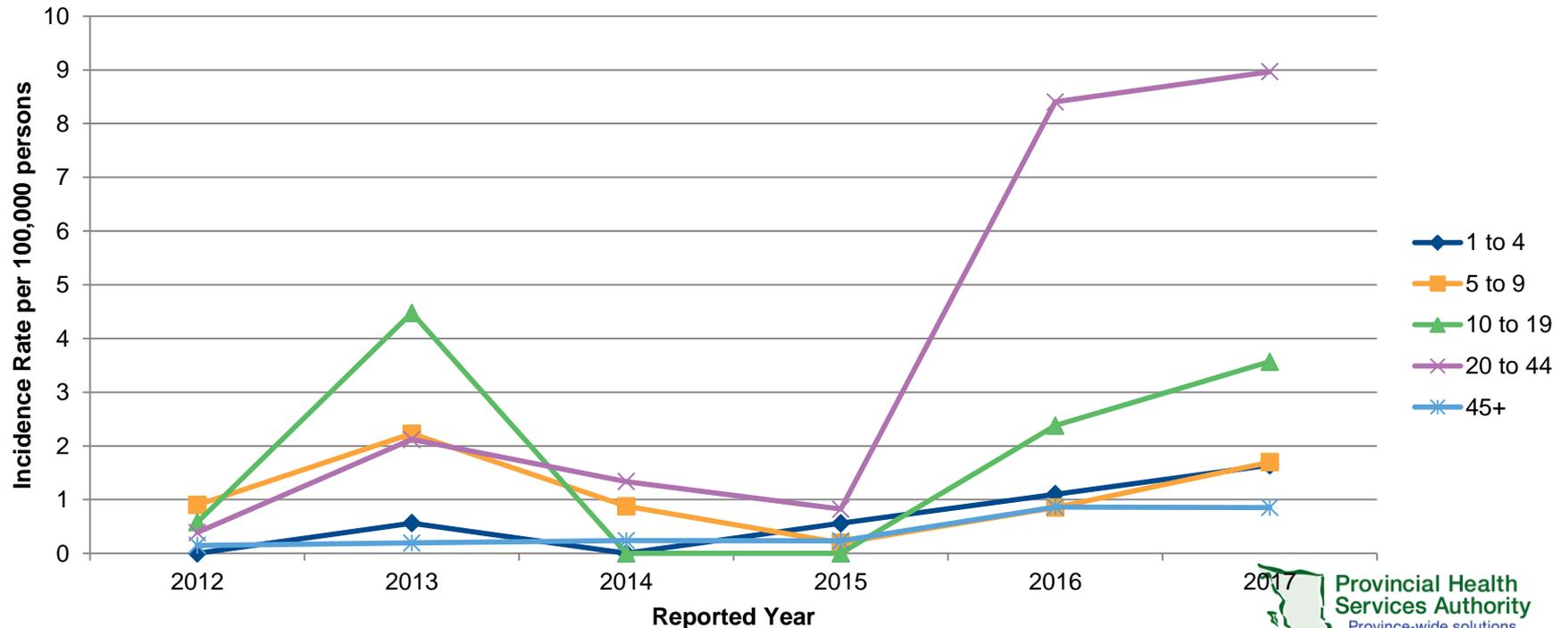


Mumps in 2016

- Outbreak associated with a mass sporting event in mid-March
- Spread to Whistler; community transmission occurred
- 76% between 22-46 years of age



Age Distribution of cases in BC, 2012-2017



Mumps in 2017 – Sustained Activity

- Continued activity from 2016
- No recognized outbreaks
- 68% 23-47 years of age



Contrast to US outbreaks



Outbreaks are occurring in the post-secondary institutions in university aged students.



Majority of cases have been fully immunized with 2 MMR doses



ACIP recommends consideration for 3rd dose MMR

Thank you!

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- Dr. Monika Naus

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