2764. Identification and Description of Mumps Cases in a Non-Outbreak Setting and Evaluation of the Effectiveness of Mumps Vaccination Among Vaccine-Exposed Person-Oriented shores (VOPs). Ousseny Zerbo, PhD; Julia Glantefnik, MD; Sharareh Madorese, MD, MPH1; Kristin Goddard, MPH1; Pat Ross, BA1; Ned Pavicic, MD, PhD1; Nicola Klein, MD, PhD1; Kaiser Permanente Vaccine Study Center, Oakland, California; Kaiser Permanente, Oakland, California; Kaiser Permanente Northern California, Oakland, California; Session: 279. Vaccines: Viral Non Influenza Saturday, October 5, 2019: 12:15 PM

Background: Despite high coverage for 2 doses of MMR/MMRV vaccine, the United States and other countries have seen increases in outbreaks of mumps, mainly on college campuses and other close communities, which has been attributed to waning immunity to mumps. The objective of this study was to identify mumps cases within Kaiser Permanente Northern California, a large healthcare organization, and to assess waning of vaccine immunity against mumps in a non-outbreak setting.

Methods: Potential cases were identified by international classification of disease code 072, ICD 10 code B26 or by laboratory orders for mumps. Each potential case was reviewed by medical chart review to confirm diagnoses, timing relative to vaccination and clinical characteristics. We selected cases and controls among KPNC born after 1988 who were members for 29 months before diagnosis or anchor date and who received their second dose at ages 4 to 6 years, matching cases with controls on geographical area. To assess risk of mumps in relation to time since a second MMR/MMRV dose, we compared cases and controls using multivariable logistic regression adjusted for age, sex and calendar time of mumps diagnosis.

Results: Among 397 potential cases identified, chart review confirmed 178 (44.8%) as mumps. About half (87/178) were confirmed by both positive laboratory test and clinical diagnosis, with the remainder by clinical diagnosis alone. Median age at diagnosis for the 187 cases was 30 years (range 1 year–91 years). Most cases had parotitis (93%) and there were 7 cases of orchitis. The 34 cases with complete vaccination information were matched to 539,301 controls. The mean time since the second mumps dose was shorter for cases compared with controls (6.5 years vs. 9.0 years, P = 0.008). After adjustment, there was significantly increased risk of mumps associated with time since second MMR/MMRV dose (adjusted odds ratio = 1.08, 95% CI 1.02–2.05).

Conclusion: In the setting of a large healthcare organization, our results do not provide evidence of waning immunity following 2 doses of MMR/MMRV; however identifying and confirming mumps cases were challenging and analyses were limited by small number of cases. Large future studies will be needed to confirm whether risk of mumps increases over time in non-outbreak settings.

Disclosures. All authors: No reported disclosures.

2766. Variation in Incidence of Pediatric Herpes Zoster by First- and Second-Dose Varicella Vaccine Formulations Sheila Weimann, PhD; Stephanie Irving, MHS3; Padma Koppolu, MPH; Allison Naleway, PhD; Edward Belongia, MD; Simon Hambrick, MD, PhD; Michael L. Jackson, PhD, MPH; Nicola Klein, MD, PhD; Bruno Lewin, MD; Elizabeth Liles, MD; Mona Marin, MD; Ning Smith, MD; Eric Weintraub, MPH; Colleen Chun, MD; Kaiser Permanente Research Institute, Marshfield, Wisconsin; Denver Health, Denver, Colorado; Kaiser Permanente Washington Health Research Institute, Seattle, Washington; Kaiser Permanente Northern California, Oakland, California; Kaiser Permanente Department of Research and Evaluation, Tuscaloosa, Alabama; Centers for Disease Control and Prevention, Atlanta, Georgia; Session: 279. Vaccines: Viral Non Influenza Saturday, October 5, 2019: 12:15 PM

Background: Numerous mumps outbreaks occurred in the United States over the last decade, with outbreaks affecting young adults on college campuses being among the largest and most widely publicized. However, at least half of mumps cases and outbreaks occurred in other age-groups and settings. We describe reported mumps cases among children and adolescents during 2015 through 2017.

Methods: The Centers for Disease Control and Prevention (CDC) analyzed reports of confirmed and probable mumps cases in persons aged ≤18 years (defined here as pediatric mumps) transmitted electronically through the Nationally Notifiable Diseases Surveillance System (NNDSS) by the 52 reporting jurisdictions.

Results: Between January 1, 2015 and December 31, 2017, 49 jurisdictions reported 49 cases of mumps in infants (35% of all US reported cases, 13,807) and 8 jurisdictions reported >100 cases each, representing 82% of all pediatric cases. Overall, 29 (1%) cases were in infants <1 yr, 406 (8%) were in children aged 1–4 years, 1,408 (29%) in children aged 5–10 years, 1,365 (28%) in adolescents aged 11–14 years, and 1,678 (34%) in adolescents aged 15–18 years. Most (3,549, 73%) cases did not travel outside the state during their exposure period; only 37 (1%) traveled outside the country. Cases in patients aged 1–4 years were more frequently non-outbreak associated (38%) than those in patients <1 years and 5–18 years (24% and 9%, respectively). Among 3,509 (68%) patients with known number of MMR doses received, 81% of those 5–18 years had ≥2 MMR doses, while 67% of those 1–4 years had ≥1 dose. Median time since last MMR dose for patients with 2 doses was 8 years (IQR: 4, 11 years). Four patients had meningitis and 1 had encephalitis; all were ≥10 years old and previously received ≥2 MMR doses. Of male mumps patients older than 10 years of age (2,113), 46 (2%) reported having orchitis; of these, 33 (72%) had ≥2 MMR doses. Sixty-four patients were hospitalized and there were no deaths.

Conclusion: About one-third of cases reported during the recent US mumps resurgence had clinical and laboratory features consistent with complications. Compared with previous studies suggests mumps complications may not be adequately captured in national surveillance or identified by providers. Providers should remain vigilant that mumps can still occur among fully vaccinated pediatric patients, even those recently vaccinated.

Disclosures. All authors: No reported disclosures.