

Vaccine-preventable diseases (VPDs) are diseases for which vaccines exist to provide protection against the disease. Vaccination protects the person receiving the vaccine and also helps keep the disease from spreading to others in the community. This report provides statistics on select VPDs for Sacramento County for the years 2013 through 2017.

Table 1 shows the number of cases of select VPDs reported in Sacramento County for the years 2013-2017. During this five-year period, the highest number of cases of chickenpox (hospitalizations/deaths) and mumps were reported in 2017, three times higher than the 2012-2016 five-year average (data not shown). The number of pertussis cases in 2017 remained low compared to 2014 and 2015, following the natural cyclical pattern of disease with peaks every three to five years. No cases of diphtheria, measles, polio, or rubella were reported in 2017.

A total of 20 meningococcal disease cases were reported during this five-year period. Serogroup B was the predominant serogroup for all years, except 2013, and accounted for 65.0% of the cases [Figure 1]. Serogroup B was also the predominant serogroup among those less than 20 years old, representing 90.9% of the cases in this age group [Figure 2].

While most pertussis cases were among those less than 20 years old (91.6%), the most hospitalized varicella cases were among those age 20 and older (77.8%) [Table 2]. Mumps cases were evenly distributed among those less than 20 years old and those age 20 and older.

Not all vaccines may be recorded in the California Immunization Registry (CAIR). Therefore data from the registry are not included in this report as it may not be a true reflection of vaccination rates in the County. Learn more about CAIR here: <http://cairweb.org/>.

Table 1. Cases of Select Vaccine-Preventable Diseases (VPDs), Sacramento County, 2013-2017

Disease	2013	2014	2015	2016	2017
Chickenpox (Varicella), Hospitalizations and Deaths ¹	1	1	1	2	4
Diphtheria ²	0	0	0	0	0
Haemophilus influenzae ^{3*}	5	1	3	2	3
Hepatitis A ¹	4	3	3	12	10
Hepatitis B, Acute Infection ¹	4	0	3	9	5
Measles ¹	0	0	0	0	0
Meningococcal Disease ²	4	3	1	7	5
Mumps ²	0	1	0	2	11
Pertussis ³	71	452	287	71	72
Polio ¹	0	0	0	0	0
Rubella ¹	0	0	0	0	0

¹Includes confirmed cases

²Includes confirmed and probable cases

³Includes confirmed, probable, and suspect cases

⁴Includes confirmed and suspect cases

*In 2016, the Title 17 California Code of Regulations for Reportable Diseases and Conditions was changed to include the reporting of Haemophilus influenzae cases 0-4 years of age only. Prior to 2016, cases 0-14 years of age were reportable.

Figure 1. Meningococcal Disease Cases by Year and Serogroup, Sacramento County, 2013-2017

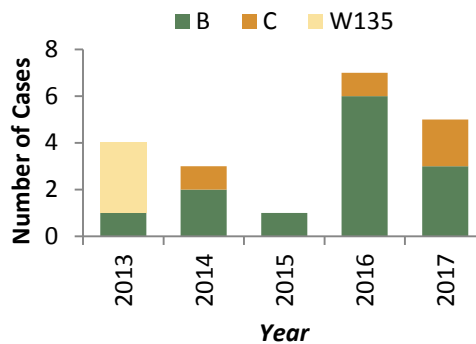


Figure 2. Meningococcal Disease Cases by Age and Serogroup, Sacramento County, 2013-2017

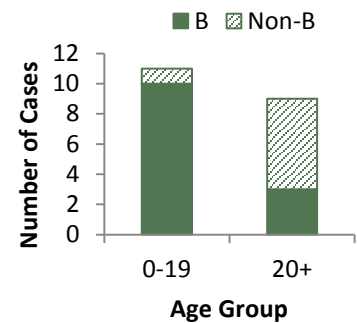


Table 2. Cases of Select Vaccine Preventable Diseases (VPDs) by Age Group, Sacramento County, 2013-2017

Age Group (Years)	Mumps (N=14)	Pertussis* (N=949)	Varicella (N=9)
0-19	7 (50.0%)	869 (91.6%)	2 (22.2%)
20+	7 (50.0%)	80 (8.4%)	7 (77.8%)

*Excludes four cases where age is unknown.

Data Source: California Reportable Disease Information Exchange (CalREDIE).

(<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/CalREDIE.aspx>).

Note: Data are provisional. Counts may be influenced by surveillance artifacts and outbreaks.

Under California Health and Safety Code Sections 120325-120380, children in California are required to receive certain immunizations in order to attend public and private elementary and secondary schools, child care centers, family day care homes, nursery schools, day nurseries, and developmental centers. Students entering elementary school at transitional and traditional kindergarten (4-6 years old) are required to have the following vaccines:

- ❖ Diphtheria, Tetanus, and Pertussis (DTaP, DTP, or DT): 5 doses (4 doses adequate if one was given on or after 4th birthday)
- ❖ Hepatitis B: 3 doses
- ❖ Measles, Mumps, and Rubella (MMR): 2 doses (both given on or after 1st birthday)
- ❖ Measles, Mumps, and Rubella (MMR): 2 doses (both given on or after 1st birthday)
- ❖ Polio (OPV or IPV): 4 doses (3 doses adequate if one was given on or after 4th birthday)
- ❖ Varicella (Chickenpox): 1 dose

California Senate Bill (SB) 277 passed in 2016, becoming the third state in the nation to eliminate religious and personal exemptions for vaccination requirements. The average percent of kindergarten students up-to-date on school vaccines improved after the passing of SB 277 (school year 2016-2017 vs. 2015-2016), especially among schools in the northwestern region of the County [Figure 3]. However the average percent of kindergarten students with permanent medical exemptions also increased throughout the County after the passing of SB 277 [Figure 4].

Figure 3. Average Percent of Kindergarten Students Up-to-Date on Vaccinations by School Zip Code, Sacramento County, 2015-2016 vs. 2016-2017 School Yearⁱⁱⁱ

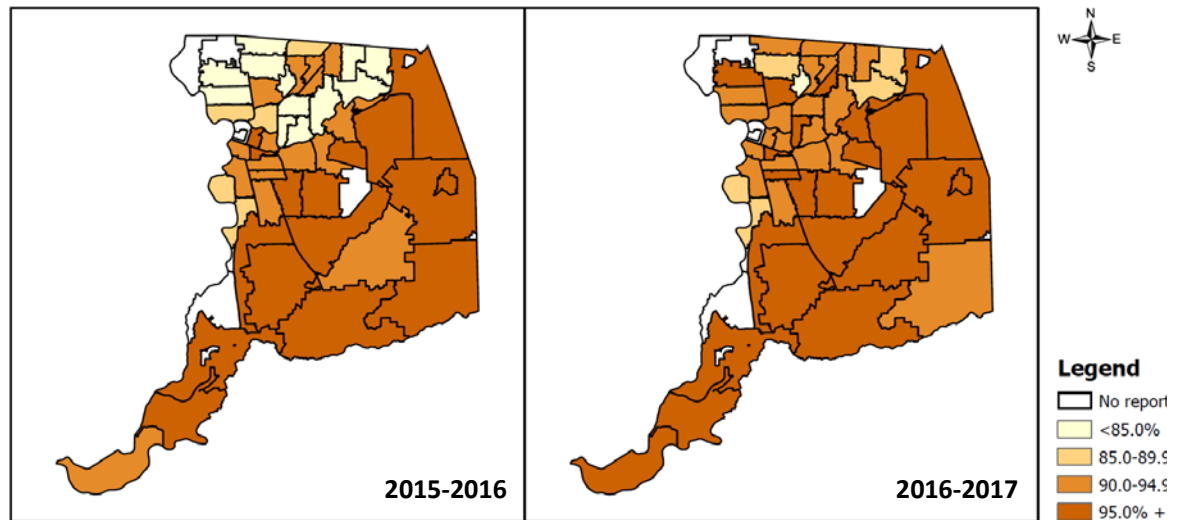
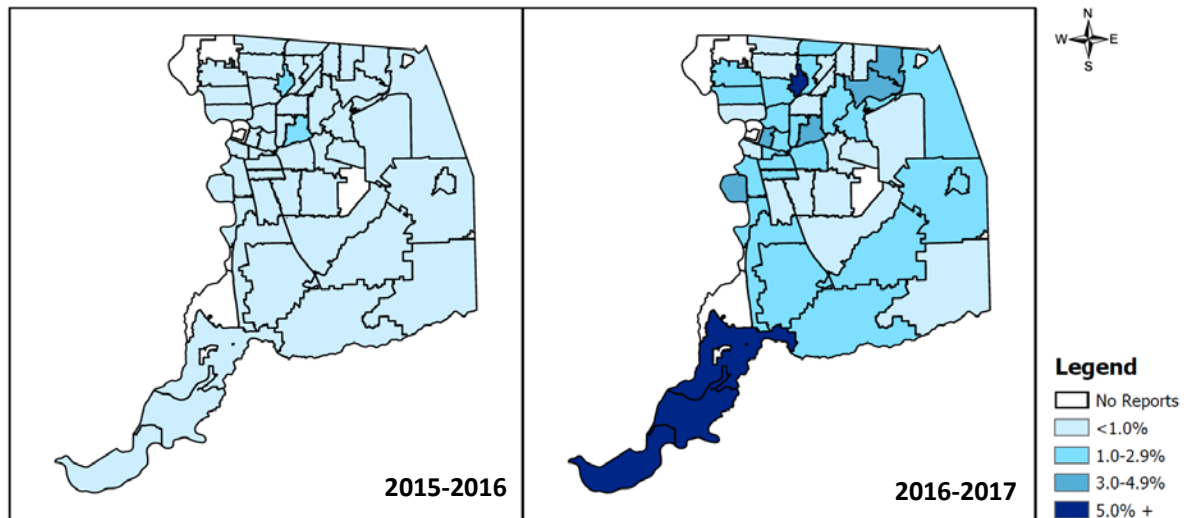


Figure 4. Average Percent of Kindergarten Students with Medical Exemptions by School Zip Code, Sacramento County, 2015-2016 vs. 2016-2017 School Yearⁱⁱⁱ



Data Source: Shot for School (<http://www.shotsforschool.org/>).

Information about vaccines can be found at the Sacramento County Public Health's Immunization Assistance Program website ([http://www.dhhs.saccounty.net/PUB/Pages/Immunization-Assistance-Program/Immunization-Assistance-Program-\(IAP\).aspx](http://www.dhhs.saccounty.net/PUB/Pages/Immunization-Assistance-Program/Immunization-Assistance-Program-(IAP).aspx)), California Department of Public Health website (<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/immunize.aspx>), or Centers for Disease Control and Prevention's website (<https://www.cdc.gov/vaccines/index.html>).