

Hepatitis A, Orange County 2011 – 2018



Background

Hepatitis A is an acute viral illness caused by hepatitis A virus (HAV). HAV is primarily transmitted via the fecal-oral route through contaminated food/water, or person-to-person amongst close or sexual contacts. While HAV can be detected in the blood, transmission via blood is rare.

HAV infection may not always cause symptoms – adults are much more likely to become ill than children. People may experience a range of symptoms including jaundice (yellowing of skin and/or eyes), fever, malaise, nausea, abdominal pain, diarrhea, and/or dark urine 15 to 50 days after being exposed. There is no specific treatment.

Although good personal hygiene is an easy and practical method to prevent infection, HAV vaccine is the best method to prevent illness. Two doses of HAV vaccination are recommended for all children starting at one year of age, as well as persons with high risk conditions or behaviors including:

- Users of illicit injection and non-injection drugs
- Persons experiencing homelessness
- Persons with chronic liver disease, including those with hepatitis B or C
- Men who have sex with men (MSM)
- Persons traveling to or working in countries with intermediate to high levels of HAV transmission

Orange County, California

In 2013, Orange County was part of a multi-state outbreak associated with a frozen berry mix that contained contaminated pomegranate arils imported from Turkey. The outbreak included 79 cases from several California counties, including 10 cases from Orange County. The median age of Orange County cases was 45 years (range 29-75 years), and 80% were male. Their symptom onset dates ranged from the beginning of May to mid-July. Several recalls were initiated after the discovery of cases that spanned from June 4, 2013, to June 28, 2013. In total, the outbreak sickened 165 persons across 10 states. Since then, additional outbreaks involving frozen berries and other food products have been identified in the United States and other countries.

More recently, HAV outbreaks have occurred amongst people experiencing homelessness and/or using illicit drugs (injection or non-injection). More than half of the states in the United States have reported outbreaks amongst these at risk groups, including California. From March 2017 through October 2018, an outbreak in San Diego County was identified amongst these groups, and Orange County identified two County residents who were linked to the outbreak. Only one of these cases reported experiencing homelessness, neither had a history of illicit drug use. In response, Orange County Health Care Agency (OCHCA) began recommending all persons experiencing homelessness in Orange County be vaccinated against HAV. OCHCA partnered with County shelters and other agencies to provide on-site education and vaccination clinics. Orange County has seen an increase in HAV cases without a history of travel in recent years, though not in persons using illicit drugs or experiencing homelessness.

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**For more
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California
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webpage on
[Hepatitis A
Virus.](#)**

Table 1. Hepatitis A Cases by Gender, Race/Ethnicity, and Age Group, Orange County, 2011 – 2018.

	2011	2012	2013	2014	2015	2016	2017	2018
Total Cases	15	25	24	14	17	26	19	10
Gender								
Male	8	14	17	8	12	17	12	6
Female	7	11	7	6	5	9	7	4
Race/Ethnicity[#]								
AI/AN ¹	0	1	0	0	0	0	0	0
Asian	2	4	3	5	4	3	1	1
Black/African American	0	0	0	0	0	0	0	0
Hispanic	4	2	3	5	1	7	4	2
NHOP ²	0	0	1	0	0	0	0	0
White	8	13	14	3	11	16	10	7
Not Reported/Unknown	1	5	3	1	1	0	4	0
Age Group								
<18 years	1	3	0	1	1	0	0	0
18 – 49 years	12	12	18	8	9	19	10	4
50 – 64 years	2	7	3	4	4	6	6	3
≥ 65 years	0	3	3	1	3	1	3	3

Table 2. Hepatitis A Incidence by Gender, Race/Ethnicity, and Age Group, Orange County, 2011 – 2018.

	2011	2012	2013	2014	2015	2016	2017	2018
Total Cases	0.49	0.81	0.77	0.45	0.54	0.82	0.59	0.31
Gender								
Male	0.53	0.92	1.10	0.51	0.76	1.08	0.76	0.38
Female	0.45	0.71	0.45	0.38	0.31	0.56	0.43	--
Race/Ethnicity[#]								
AI/AN ¹	--	--	--	--	--	--	--	--
Asian	--	--	--	0.89	--	--	--	--
Black/African American	--	--	--	--	--	--	--	--
Hispanic	--	--	--	0.46	--	0.63	--	--
NHOP ²	--	--	--	--	--	--	--	--
White	0.60	0.97	1.04	--	0.81	1.19	0.74	0.52
Age Group								
<18 years	--	--	--	--	--	--	--	--
18 – 49 years	0.86	0.86	1.29	0.57	0.65	1.37	0.72	--
50 – 64 years	--	1.23	--	--	--	0.97	0.95	--
≥ 65 years	--	--	--	--	--	--	--	--

Note: Case counts are subject to change as additional information becomes available. Cases are grouped into calendar years based on the earliest of the following dates: onset, specimen collection, diagnosis, report received, or death. Confirmed cases are included in this analysis. Incidence rates are per 100,000 and only calculated for categories in which there are ≥5 cases (Table 2). Darker orange indicates a higher incidence rate.

¹ American Indian or Alaska Native

² Native Hawaiian or Other Pacific Islander

[#] Whites, Blacks/African Americans, American Indians/Alaska Natives, Asians, Native Hawaiians or Other Pacific Islanders were non-Hispanic.

Key Points:

- Orange County has observed a steady decline in HAV incidence since 1995, most likely attributable to the HAV vaccine (**Figure 1**).
- There is generally a higher incidence of HAV infection among males, non-Hispanic/whites, and ages 18 to 49 years (**Table 2**).
- Except for 2017 and 2018, Orange County had a slightly elevated incidence of HAV infection compared to California and United States (**Figure 2**).
- Almost half of Orange County cases from 2011-2018 required hospitalization (**Figure 3**).
- Only 9% of cases from 2011-2018 reported being vaccinated against HAV (**Figure 3**).
- The most common risk factor reported amongst cases from 2011-2018 was international travel. Very few cases reported using illicit drugs or experiencing homelessness (**Figure 3**).

Figure 1. Hepatitis A Cases in Orange County, 1995-2018.

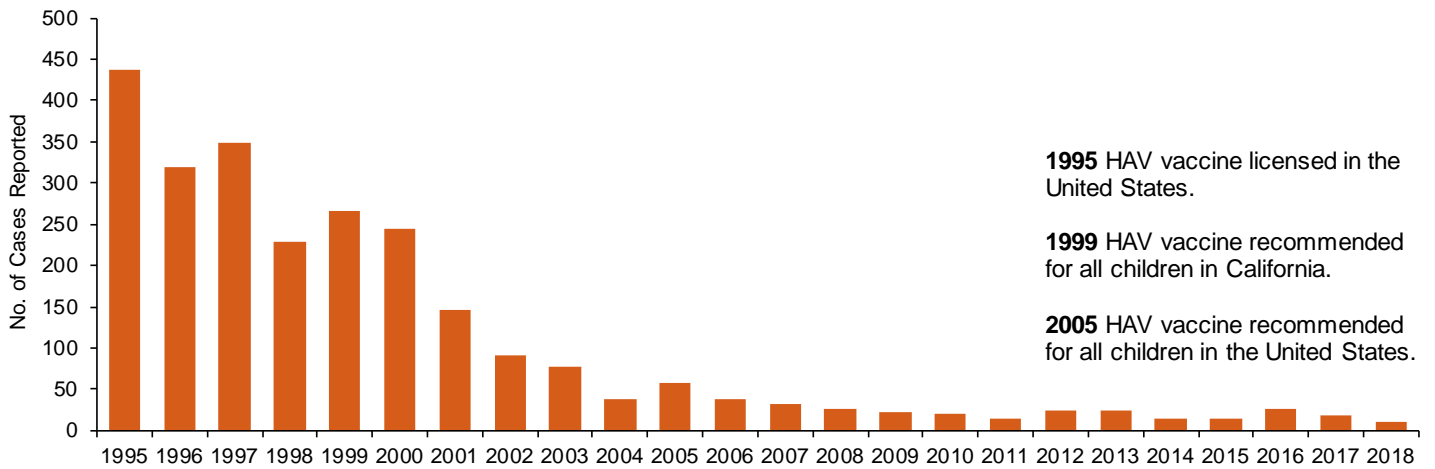


Figure 2. Hepatitis A Incidence, Orange County, California, United States, 2011-2018.

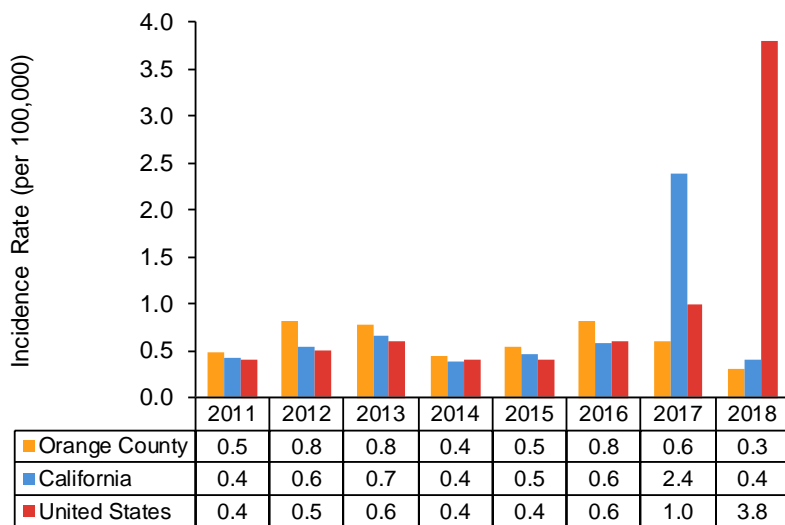


Figure 3. Select Hepatitis A Risk Factors and Clinical Data, Orange County, 2011-2018.

