

# COMMUNICABLE DISEASES

The source of Santa Cruz County's data for communicable diseases is the mandated reports from health care providers and laboratories.<sup>1</sup>

## TUBERCULOSIS

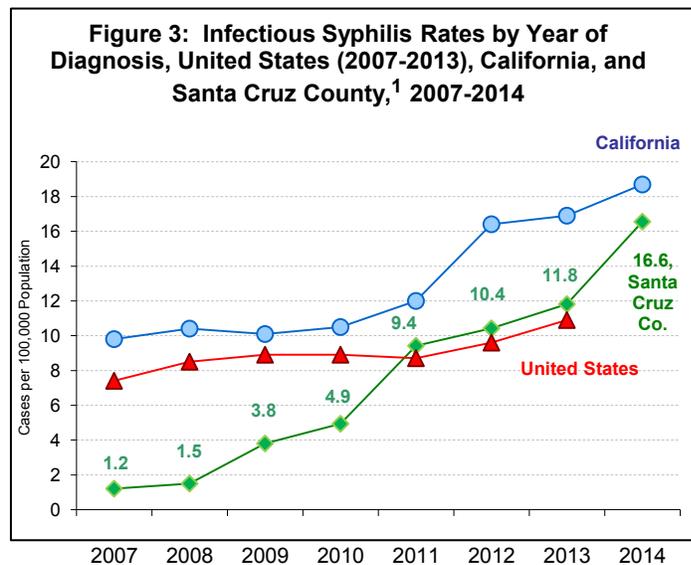
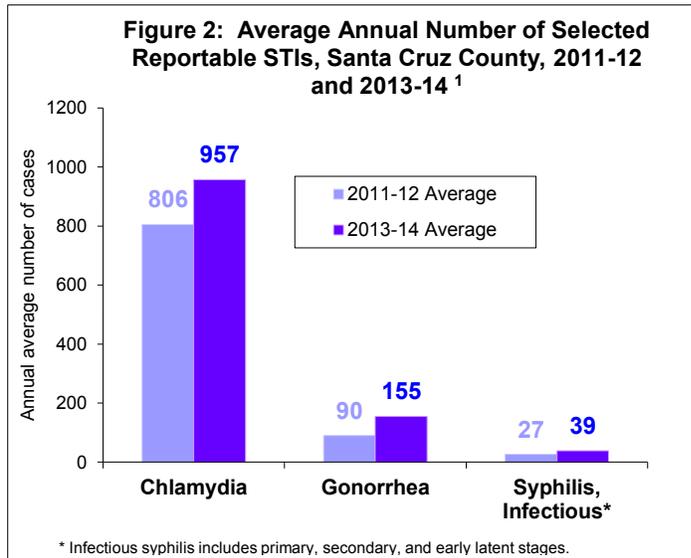
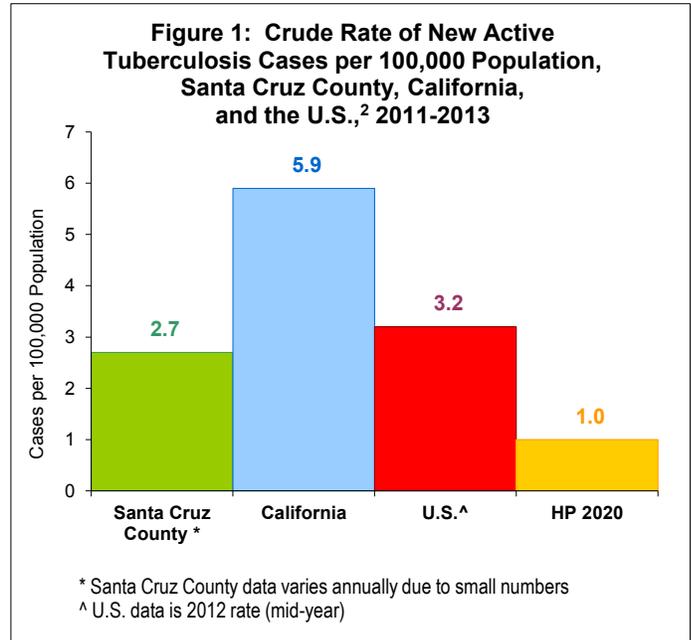
Tuberculosis (TB) is caused by airborne bacteria, and has been infecting humans for thousands of years. In Santa Cruz County, there was an average of 7 active TB cases each year between 2011 and 2013, for an incidence rate of 2.7 per 100,000 population. The statewide and nationwide rates were 5.9 and 3.2 per 100,000, respectively (Figure 1).<sup>2</sup>

The majority of people with TB in Santa Cruz County were born outside of the United States, but about 25% were born in the United States. Over the past couple of years, about 15% of TB cases have been homeless, adding significant costs during periods of isolation. The number of active cases does not fully reflect the workload that tuberculosis imposes on public health agencies. There are at least 10 to 20 times as many persons who need some level of follow-up to rule out active tuberculosis, and case and contact management are very labor intensive. Studies have consistently shown that the resources spent on TB are necessary to keep TB under control.

## SEXUALLY TRANSMITTED INFECTIONS

Sexually transmitted infections (STIs) account for the largest number of reported diseases among Santa Cruz County residents. Chlamydia, gonorrhea and syphilis have all increased from 2011-12 to 2013-14 – with gonorrhea increasing 72% (Figure 2).<sup>1</sup>

Syphilis has increased every year over the past few years (Figure 3). The increasing trend can be seen far and wide; in fact, news articles can be found monthly describing another state or country experiencing increasing rates of syphilis. Some have hypothesized the increase is due to condom fatigue and easier access to new partners through smart phone dating applications. On April 23, 2015, Dr. Gail Bolan, director of the CDC's Division of STD Prevention, announced an "epidemic of syphilis" among gay males that began in 2008.<sup>3</sup> This is consistent with Santa Cruz County syphilis data, with the majority (75%) being males who have sex with males.



# COMMUNICABLE DISEASES

## HIV & AIDS

HIV is costly to treat, preventable, and a very complex health issue. Homophobia and stigma contribute to poor mental health and unhealthy behaviors, such as substance abuse, risky sexual behaviors, and suicide attempts. The majority of infections are among men who have sex with men (MSM). As of the end of 2014, 443 Santa Cruz County residents were known to be living with HIV; 280 (63%) of them also have AIDS.<sup>3</sup> Between 2010 and 2014, there was an average of 18 new HIV cases each year (6.9 new cases per 100,000 population); see Figure 4. Of the new HIV cases diagnosed between 2010 and 2014, one-third were diagnosed with AIDS within a year of their HIV diagnosis. These persons are known as late HIV diagnoses, and tend to have limited HIV education, poor access to HIV testing, and are often MSM and do not identify as gay or bisexual.

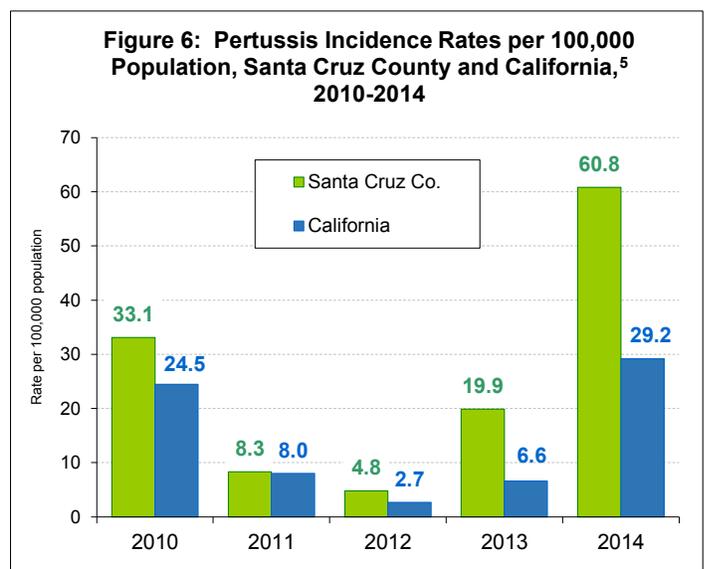
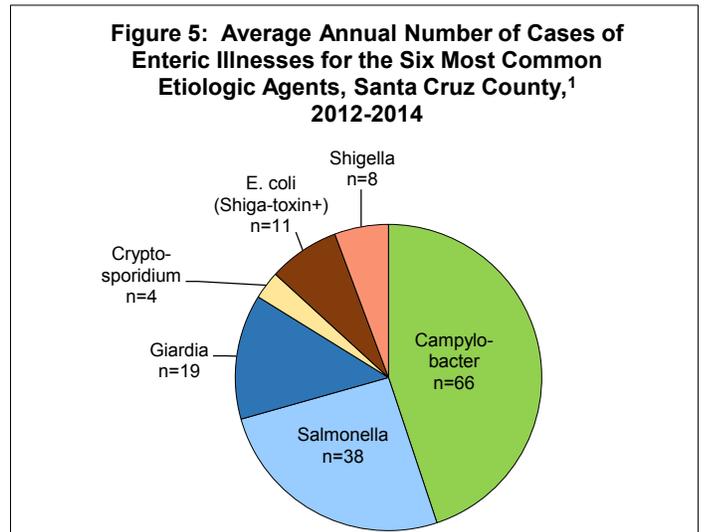
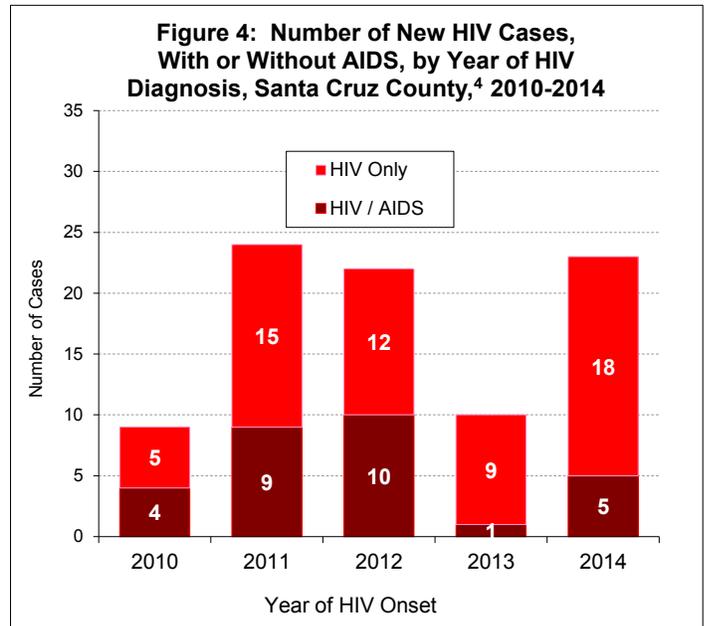
## ENTERICS

Enteric (intestinal) illnesses enter the body through the mouth and are usually spread through contaminated food and water or by contact with vomit or feces. Locally, the top six infectious agents causing enteric illnesses between 2012 and 2014 caused nearly 150 reportable cases per year (see Figure 5 for the top six conditions and their relative contributions to the case counts).<sup>1</sup>

Cases with enteric illnesses are investigated by the Communicable Disease (CD) Unit to identify potential sources of illness and prevent further spread in the community. Prevention includes identifying cases who work in sensitive occupations, such as a restaurant; such persons are often restricted from working until they are no longer contagious.

## VACCINE PREVENTABLE DISEASES

Disease prevention is the key to public health. Vaccines prevent disease in two ways: directly, in the people who receive them, and indirectly, by reducing the number of infected people who could otherwise transmit infection. California experienced a pertussis epidemic in 2014. Pertussis is cyclical and peaks every 3-5 years as the numbers of susceptible persons in the population increases due to waning immunity after disease or vaccination. See the state and county pertussis rates in Figure 6.



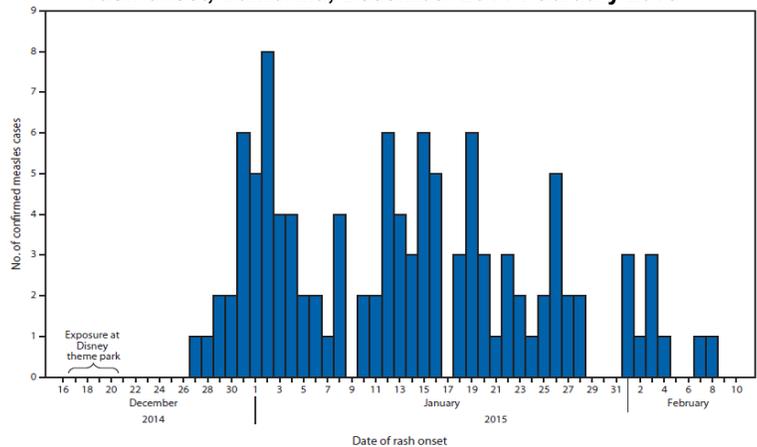
# COMMUNICABLE DISEASES

In December 2014, a large outbreak of measles occurred in California. There were 40 cases acquired at Disneyland, and additional secondary cases were identified in six other states. Overall, there were 110 cases associated with the Disneyland outbreak (Figure 7). Among the vaccine eligible, 67% were intentionally unvaccinated due to personal beliefs.<sup>6</sup> Santa Cruz County managed 3 measles cases in 2013 which included assessing hundreds of contacts needing to be evaluated to prevent further spread. For local vaccination rates, go to the Immunization chapter.

## OUTBREAKS

Between 2011 and 2014, the Santa Cruz County CD Unit reported 49 disease outbreaks.<sup>1</sup> Sixty percent of those were acute gastroenteritis illness, or sudden onset of diarrhea and/or vomiting. See Table 1 for the numbers of outbreaks and combined numbers ill by type of disease in 2014. Acute gastroenteritis and respiratory infections are often very contagious, as can be seen by the number ill.

**Figure 7: Number of Confirmed Measles cases (n=110) by date of rash onset, California, December 2014-February 2015<sup>6</sup>**



**Table 1:  
Outbreaks by Type and Number Ill, Santa Cruz County, 2014<sup>1</sup>**

Type	# of locations	Combined # ill
Acute Gastroenteritis	12	413
Respiratory	4	48
<b>Total</b>	<b>16</b>	<b>461</b>

### Sources

- (1) County of Santa Cruz, Public Health Department, Communicable Disease Unit (unpublished data). Accessed through CalREDIE on April 22, 2015.
- (2) California Department of Public Health and the California Conference of Local Health Officers. County Health Status Profiles 2015. <https://www.cdph.ca.gov/programs/ohir/Documents/OHIRProfiles2015.pdf>. April 2015.
- (3) Starr, Penny. "CDC Official: We're Seeing 'Epidemic of Syphilis' Among Gay Men." Cnsnews.com 23 Apr. 2015.
- (4) California Department of Public Health, Office of AIDS. eHARS Data File for Santa Cruz County, 1st Quarter, 2015 (unpublished).
- (5) California Department of Public Health. Pertussis Summary Report: April 20, 2015. <http://www.cdph.ca.gov/programs/immunize/Documents/Pertussis%20report%204-20-2015.pdf>
- (6) CDC. Morbidity and Mortality Weekly Report. "Measles Outbreak - California, December 2014-February 2015" Feb. 20, 2015. 64 (60); 153-154. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6406a5.htm?s\\_cid=mm6406a5\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6406a5.htm?s_cid=mm6406a5_w)