EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

MAY 2017

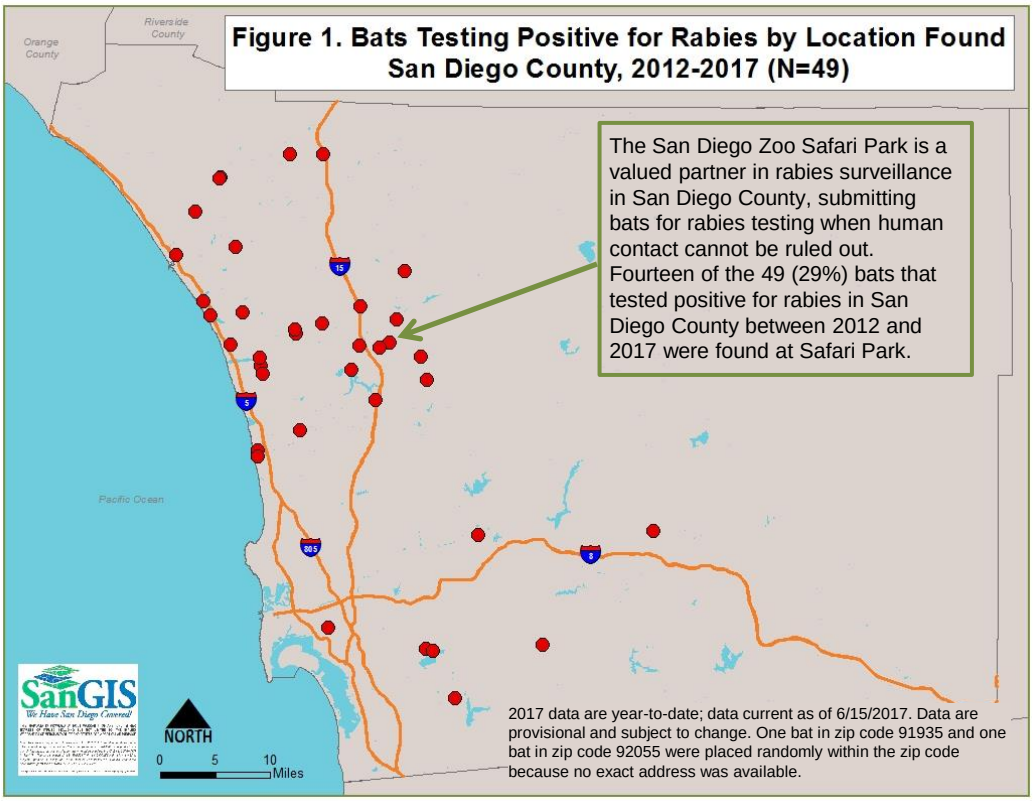
Volume 1, Issue 5: June 15, 2017

RABIES

Rabies is an acute viral zoonotic disease of mammals most frequently transmitted to humans through the bite of an infected animal. The rabies virus infects the central nervous system, causing a progressive encephalomyelitis that is nearly always fatal.

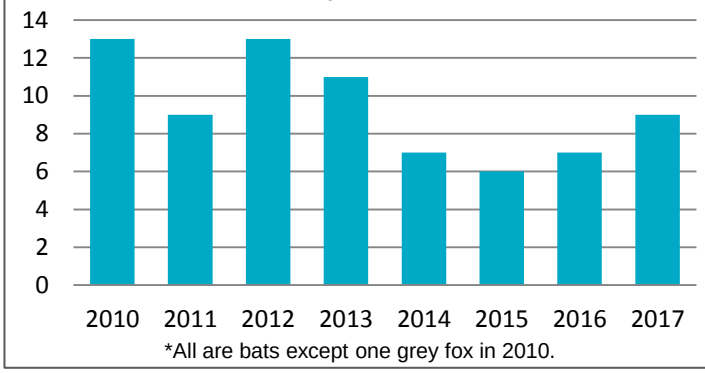
Symptoms in humans include anxiety, confusion, paralysis, hallucinations, agitation, hypersalivation, difficulty swallowing, and hydrophobia. Once symptoms begin, no treatment has proven consistently effective. The incubation period is variable, but usually three to eight weeks. Fortunately, rabies post-exposure prophylaxis (PEP) is safe and effective; PEP consists of rabies vaccine and human rabies immune globulin and can prevent disease when administered as soon as possible after exposure.

Figure 1. Bats Testing Positive for Rabies by Location Found San Diego County, 2012-2017 (N=49)



Human deaths from rabies remain common in under-developed countries around the world, where access to health care and rabies PEP is limited. Human rabies has become increasingly uncommon in the United States, declining over the last century from 100 cases per year to only one to three cases annually in recent years. The last case in San Diego County was in 2001, in a person who sustained a dog bite in the Philippines. In the United States, rabies deaths can often be attributed to an unrecognized exposure (for example, unnoticed or seemingly insignificant contact with a bat), resulting in a failure to seek medical attention.

Figure 2. Animal* Rabies Cases, San Diego County, 2010-2017



2017 data are year-to-date; data current as of 6/15/2017. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

The epidemiology of animal rabies in the United States has also changed over the years. Prior to 1960, most cases of animal rabies were in domestic animals. Now, over 90% of rabies cases detected in animals in the United States (nearly 6,000 in 2014) are in wild animals, primarily raccoons, bats, skunks, and foxes. Since 2010, 75 animals have tested positive for rabies in San Diego

Continued on next page

The Monthly Communicable Disease Surveillance Report is a publication of the County of San Diego Public Health Services Epidemiology and Immunization Services Branch (EISB). EISB works to identify, investigate, register, and evaluate communicable, reportable, and emerging diseases and conditions to protect the health of the community. The purpose of this report is to present trends in communicable disease in San Diego County. To subscribe to this report, send an email to EpiDiv.HHSA@sdcounty.ca.gov.

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County, including nine so far this year; all but one (a grey fox infected with a bat variant of rabies in 2010) were bats.

A domestic animal has not tested positive for rabies in San Diego County in over 40 years. However, hundreds of domestic animals in the United States test positive for rabies each year. Bites from domestic dogs and cats should be considered a potential risk for rabies exposure, with increased risk when there is no evidence of animal ownership, the bite is unprovoked, the animal is ill appearing, or the animal is not up-to-date on rabies vaccination. The Epidemiology Program is available 24/7 to provide consultation regarding potential rabies exposures.

Rabies-related calls are among the most frequent type of calls received by the Epidemiology Program from the public, the medical community, and animal health care providers. In many years, it is the single most common topic, representing close to 20% of all calls.

In 2016, the Epidemiology Program received 333 rabies-related inquiries, including general questions about the disease or the vaccine, requests for or questions related to rabies testing of animals, and post-exposure prophylaxis (PEP) consults. In over half of the 107 PEP consults provided in 2016, PEP was recommended at least as a consideration. The final decision ultimately remains with a victim and his or her provider.

Inquiries to the Epidemiology Program and positive test results in animals tend to follow a seasonal pattern, with instances increasing during the summer months when bat activity increases and warmer weather and outdoor activities provide opportunities for humans and pets to have contact with wild animals.

Figure 3. Rabies-Related Calls to Epidemiology by Topic, 2016 and Rabies-Positive Animals, 2010-2016

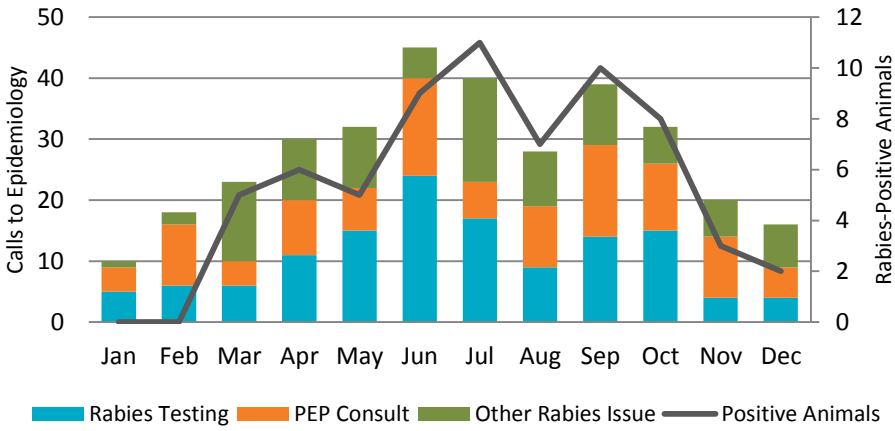
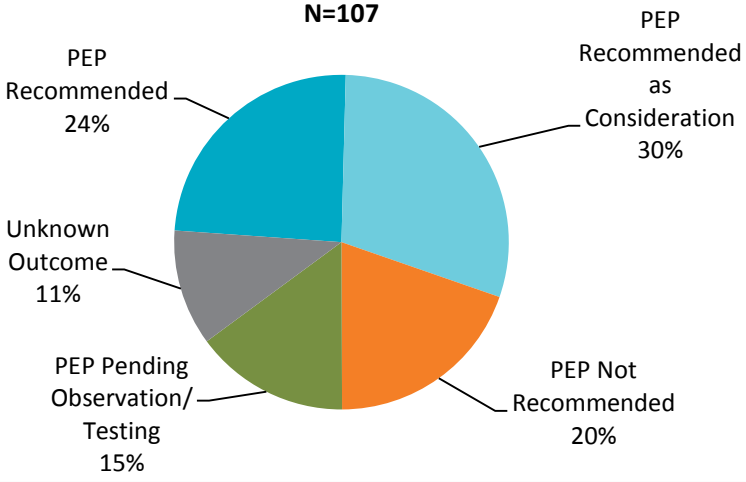


Figure 4. Outcomes of Rabies Post-Exposure Prophylaxis (PEP) Consults to the Epidemiology Program, 2016 N=107



Federal Resources

- Centers for Disease Control and Prevention (CDC) Rabies website
- CDC Rabies Vaccination website
- Advisory Committee on Immunization Practices (ACIP) - Rabies
- Rabies Surveillance in the United States during 2014

State Resources

- California Department of Public Health (CDPH) Rabies website
- CDPH California Compendium of Rabies Control and Prevention
- Investigation, Management, and Prevention of Animal Bites in California
- CDPH Rabies Surveillance in California Annual Report 2015

Local Resources

- County of San Diego Rabies website

Table 1. Select Reportable Diseases		2017			Prior Years		
Disease and Case Inclusion Criteria (C,P,S)		Current Month	Prior Month	Year-to-Date (YTD)	2016 YTD	Avg YTD, 2014-2016	2016 Total
Amebiasis	C	1	0	3	3	11.7	5
Botulism (Foodborne, Infant, Wound)	C	1	0	2	2	1.0	5
Brucellosis	C	0	1	2	2	0.7	4
Campylobacteriosis	C	95	82	363	267	250.0	780
Chickenpox, Hospitalization or Death	C,P	1	0	1	1	0.7	3
Chikungunya	C,P	0	0	1	0	0.7	6
Coccidioidomycosis	C,P	6	3	35	52	57.7	153
Cryptosporidiosis	C,P	4	2	9	9	9.7	35
Dengue Virus Infection	C	1	0	4	6	3.0	23
Encephalitis, All	C,P	0	1	7	26	27.0	71
Giardiasis	C,P	41	22	139	133	103.3	398
Hepatitis A, Acute	C	66	48	153	10	6.7	26
Hepatitis B, Acute	C,P	1	1	6	2	3.3	3
Hepatitis B, Chronic	C	85	72	373	366	359.3	865
Hepatitis C, Acute	C,P	0	1	2	0	0.3	1
Hepatitis C, Chronic	C,P	208	206	960	1187	1191.7	2579
Legionellosis	C	4	5	23	18	19.3	53
Listeriosis	C,P	0	0	4	8	4.0	22
Lyme Disease	C	0	2	4	0	0.7	10
Malaria	C	0	0	1	4	2.7	12
Measles (Rubeola)	C,P	0	0	2	0	4.0	0
Meningitis, Aseptic/Viral	C	10	11	36	45	60.3	140
Meningitis, Bacterial	C	0	1	6	21	16.7	54
Meningitis, Other/Unknown	C,P,S	1	1	3	16	17.3	29
Meningococcal Infection	C,P	0	0	0	0	2.3	2
Mumps	C,P	0	0	6	13	4.3	22
Pertussis	C,P,S	120	108	433	142	495.7	412
Rabies, Animal	C	3	2	8	1	2.0	7
Rocky Mountain Spotted Fever	C,P	0	0	1	0	0.7	2
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	30	30	157	145	166.3	534
Shiga toxin-Positive Feces (without culture confirmation)	C,P	0	0	2	9	4.3	24
Shiga toxin-Producing E. coli (including O157)	C,P	0	0	3	11	11.3	38
Shigellosis	C,P	8	16	83	65	45.0	242
Typhoid Fever	C,P	0	1	2	2	2.0	6
Vibriosis	C,P	0	0	4	7	8.0	29
West Nile Virus Infection	C,P	0	0	0	0	0.0	22
Yersiniosis	C,P	6	9	24	6	6.3	15
Zika Virus	C,P	1	1	5	14	5.0	83

Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously or subsequently reported counts due to differences in inclusion or grouping criteria, late reporting, or updated case information. Inclusion criteria (C,P,S = Confirmed, Probable, Suspect) based on Council of State and Territorial Epidemiologists/Centers for Disease Control and Prevention (CSTE/CDC) surveillance case criteria.

Figure 5. Select Enteric Infections by Month
June 2016 – May 2017

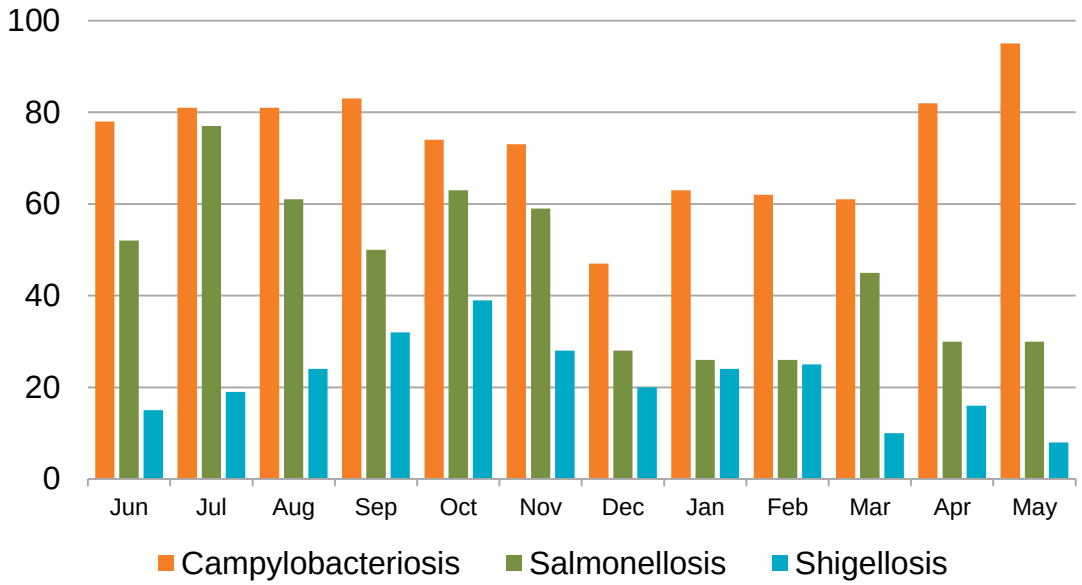


Figure 6. Select Vaccine-Preventable Infections by Month
June 2016 – May 2017

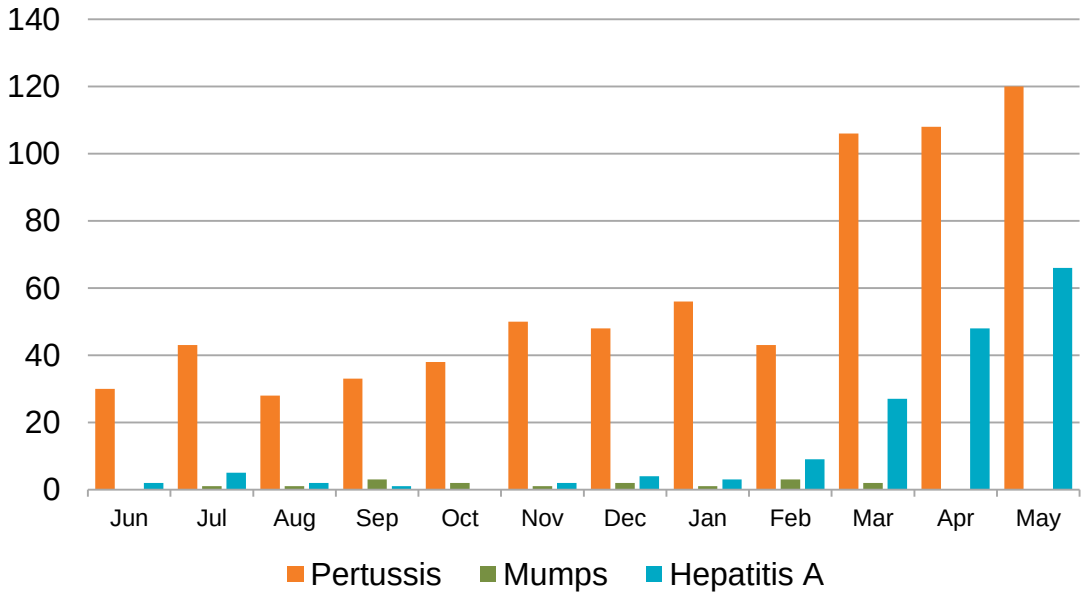


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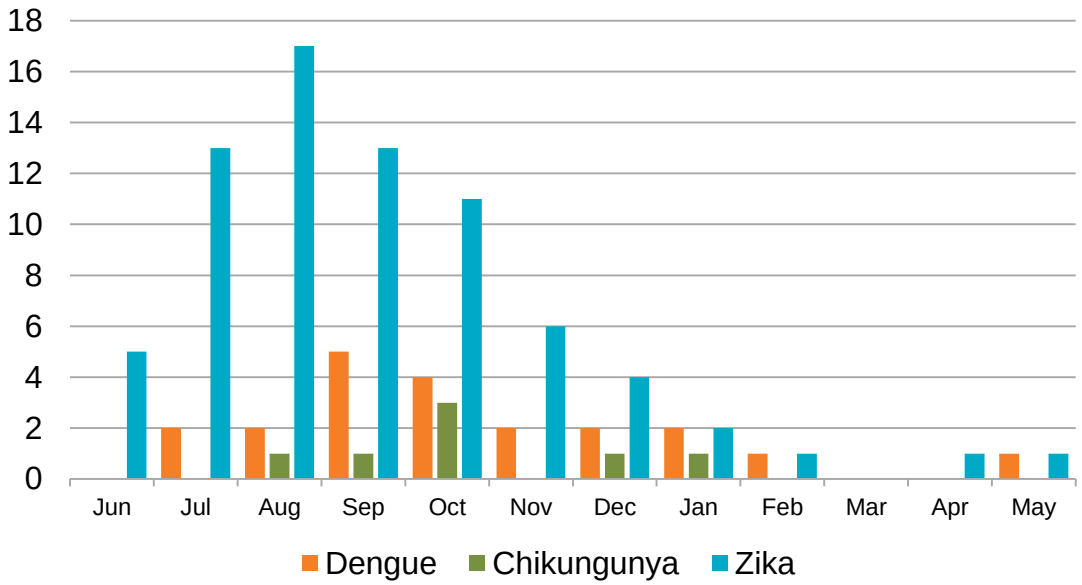
Figure 7. Select Vector-Borne Infections by Month
June 2016 – May 2017



All of these dengue, chikungunya, and Zika virus cases are travel-associated. For additional information on Zika cases, see the HHSA Zika Virus webpage. ***Case counts are provisional and subject to change as additional information becomes available.*** Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously or subsequently reported counts due to differences in inclusion or grouping criteria, late reporting, or updated case information. Inclusion criteria (C,P,S = Confirmed, Probable, Suspect) based on Council of State and Territorial Epidemiologists/Centers for Disease Control and Prevention (CSTE/CDC) surveillance case criteria.

Disease Reporting in San Diego County

San Diego County communicable disease surveillance is a collaborative effort among Public Health Services, hospitals, medical providers, laboratories, and the San Diego Health Connect Health Information Exchange (HIE). The data presented in this report are the result of those efforts.

Reporting is crucial for disease surveillance and detection of disease outbreaks. Under the California Code of Regulations, Title 17 (Sections 2500, 2505, and 2508), public health professionals, medical providers, laboratories, schools, and others are mandated to report more than 80 diseases or conditions to San Diego County Health and Human Services Agency.

To report a communicable disease, contact the Epidemiology Program by phone at (619) 692-8499 or download and print a Confidential Morbidity Report form and fax it to (858) 715-6458. For urgent matters on evenings, weekends or holidays, dial (858) 565-5255 and ask for the Epidemiology Program duty officer. For more information, including a complete list of reportable diseases and conditions in California, visit the Epidemiology Program website, www.sdepi.org.

Tuberculosis, sexually transmitted infections, and HIV disease are covered by other programs within Public Health Services. For information about reporting and data related to these conditions, search for the relevant program on the Public Health Services website, http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs.html.