EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

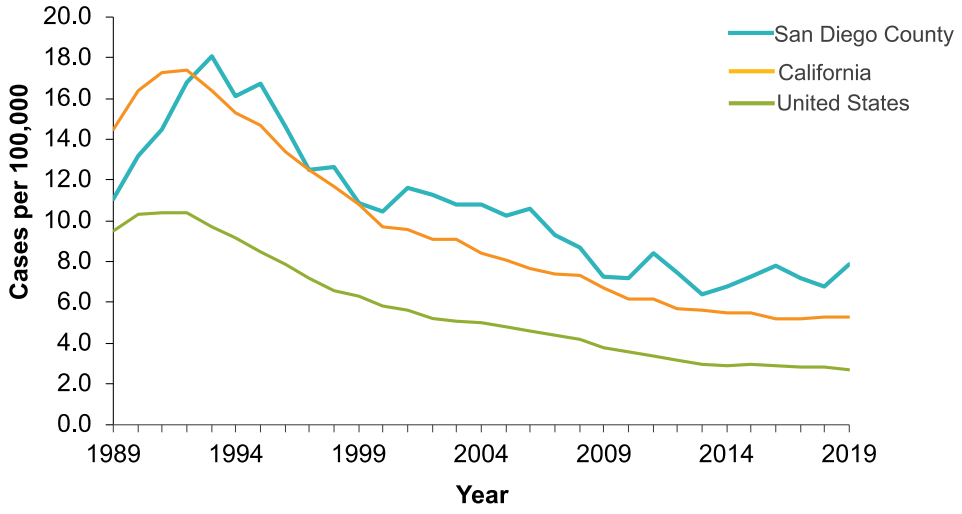
JANUARY 2021

Volume 5, Issue 1: February 16, 2021

TUBERCULOSIS

Active tuberculosis (TB) is a disease caused by the bacterium *Mycobacterium tuberculosis*. TB usually affects the lungs and spreads through the air when a person sick with TB coughs. Not everyone infected with the bacteria becomes sick. Those who have been infected, but are not sick, have latent tuberculosis infection (LTBI). Persons with LTBI can become sick with active TB in the future if they are not treated.

Figure 1. Incidence of Active Tuberculosis Disease in San Diego County, California, and the United States



The incidence of active TB has been declining nationally and in California over the past decade. San Diego has experienced a fluctuating case rate, consistently higher than that of the United States (U.S.) and California. In 2019, San Diego County reported 265 new active TB cases, representing an annual TB incidence of 7.9 cases per 100,000 persons, higher than the California state rate of 5.3, and more than twice the national rate of 2.7 (Figure 1). Although the number of annual cases is small compared to many other infectious diseases, active TB has a high associated mortality of approximately 10%. Children under age five are at the highest risk of severe complications, including brain and spinal involvement that can lead to lifelong disability. Treatment for active TB requires multiple medications for at least 6 to 9 months, and persons with pulmonary disease may be infectious for several weeks to months after starting treatment, requiring isolation and exclusion from work.

During 2017-2019, the median age of active TB cases in San Diego County was 51 years and ranged from less than one year to 100 years. Approximately 5% occurred in children <15 years old, and more than 25% occurred in persons at least 65 years old. The highest proportion of cases occurred in Hispanics (53%) and Asian/Pacific Islanders (35%). Non-Hispanic Whites accounted for 7% and non-Hispanic Blacks for 5% of cases. The highest numbers and rates of active TB occurred in the south and central regions of the county (Figure 2). During 2017-2019, 72% of active TB cases occurred in persons born outside the U.S., and the top birth countries were Mexico (43%), the Philippines (27%), and Vietnam (10%). Among persons with culture-proven TB, 9% had isolates resistant to at least isoniazid, and 1% had multidrug-resistant TB. TB disease due to *M. bovis*, usually contracted through the consumption of unpasteurized dairy products, accounted for 8% of cases of culture-proven disease.

An estimated 80% of active TB cases are due to progression of long-standing LTBI to active TB. In San Diego County, approximately 175,000 San Diegans have LTBI. However, only 25% are aware of their infection, and only

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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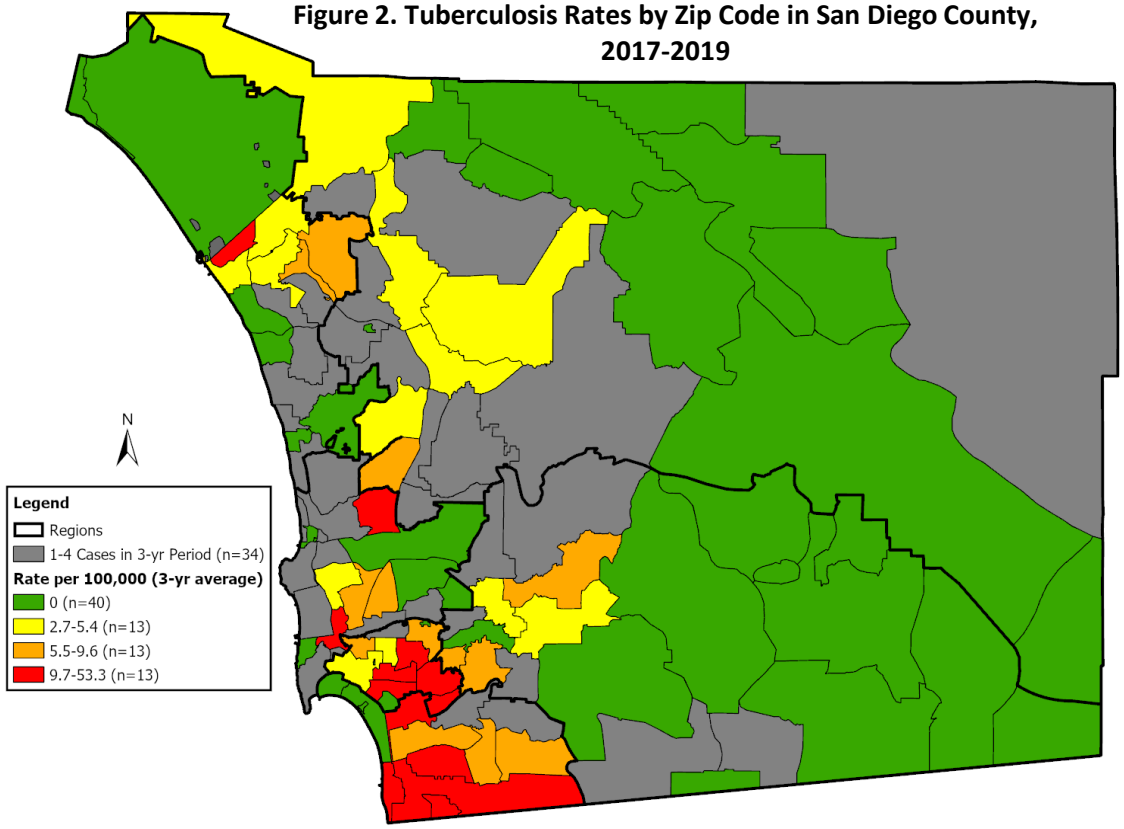
TUBERCULOSIS, continued

15% have been treated. An essential strategy to reduce the toll of active TB in our community is to expand testing of high-risk persons and treatment for LTBI. Two important tools include blood tests (i.e., interferon-gamma release assays) to reduce false positives and short course treatment regimens which reduce LTBI treatment duration to three or four months and increase the likelihood of completion. The San Diego County TB Elimination Initiative, a public-private partnership, developed key recommendations for an elimination plan in 2020, focused on finding and engaging high risk persons and populations to optimize LTBI treatment, promoting LTBI as a major public health concern, developing an LTBI surveillance system, implementing TB screening in educational systems, improving access to testing and treatment, and securing sufficient resources for implementation efforts.

Figure 2. Tuberculosis Rates by Zip Code in San Diego County, 2017-2019



Resources

- San Diego County Tuberculosis Risk Assessment
- CDC Fact Sheet: Interferon-Gamma Release Assays (IGRAs)-Blood Tests for TB Infection
- California Department of Public Health LTBI Treatment Fact Sheets
- National Tuberculosis Controllers Association and CDC LTBI Treatment Guidelines, 2020
- County of San Diego Tuberculosis Control and Refugee Health
- National TB Controllers Association (NTCA) Testing and Treatment of Latent Tuberculosis Infection in the United States: Clinical Recommendations

This edition of the Epidemiology and Immunization Services Monthly Communicable Disease Report features a guest article from the County of San Diego Tuberculosis Control and Refugee Health Program.
In accordance with California Regulations and California Health and Safety Code 121365, all patients with suspected or confirmed active TB disease must be reported to San Diego County TB Control within 24 hours of initial suspicion. Reporting forms may be faxed to 619-692-5516 or the information called to 619-692-8610.
For more information, please call 619-692-8610.

Table 1. Select Reportable Diseases		2021			Prior Years		
Disease and Case Inclusion Criteria (C,P,S)		Current Month	Prior Month	Year-to-Date (YTD)	2020 YTD	Avg YTD, Prior 3 Years	2020 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	0	0.7	2
Brucellosis	C,P	0	0	0	0	0.0	0
Campylobacteriosis	C,P	33	25	33	76	62.3	582
Chickenpox, Hospitalization or Death	C,P	0	0	0	0	0.3	0
Chikungunya	C,P	0	0	0	0	0.0	1
Coccidioidomycosis	C	0	24	0	8	28.3	67
Cryptosporidiosis	C,P	0	0	0	3	4.7	29
Dengue Virus Infection	C,P	0	0	0	2	1.0	5
Encephalitis, All	C	2	0	2	5	3.7	21
Giardiasis	C,P	7	7	7	13	22.3	144
Hepatitis A, Acute	C	0	0	0	4	3.0	15
Hepatitis B, Acute	C	0	1	0	2	1.3	7
Hepatitis B, Chronic	C,P	73	63	73	77	76.7	636
Hepatitis C, Acute	C,P	0	0	0	10	4.7	25
Hepatitis C, Chronic	C,P	167	201	167	391	367.3	2,701
Legionellosis	C	4	3	4	4	4.7	33
Listeriosis	C	0	3	0	0	0.7	16
Lyme Disease	C,P	0	0	0	1	0.7	1
Malaria	C	0	1	0	2	0.7	7
Measles (Rubeola)	C	0	0	0	0	0.0	0
Meningitis, Aseptic/Viral	C,P,S	0	3	0	8	7.0	54
Meningitis, Bacterial	C,P,S	5	0	5	4	4.7	19
Meningitis, Other/Unknown	C	0	0	0	1	1.3	6
Meningococcal Disease	C,P	0	0	0	1	2.0	4
Mumps	C,P	0	0	0	2	2.7	16
Pertussis	C,P,S	2	1	2	86	75.7	217
Rabies, Animal	C	1	0	1	1	0.3	8
Rocky Mountain Spotted Fever	C,P	0	0	0	0	0.0	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	19	27	19	41	39.0	476
Shiga toxin-Producing *E. coli* (including O157)	C,P	7	4	7	13	9.7	94
Shigellosis	C,P	8	15	8	34	34.0	236
Typhoid Fever	C,P	0	0	0	1	1.7	4
Vibriosis	C,P	0	2	0	1	1.7	36
West Nile Virus Infection	C,P	0	0	0	0	0.0	1
Yersiniosis	C,P	2	0	2	1	1.7	27
Zika Virus	C,P	0	0	0	0	0.3	0

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 3. Select Enteric Infections by Month
February 2020 – January 2021

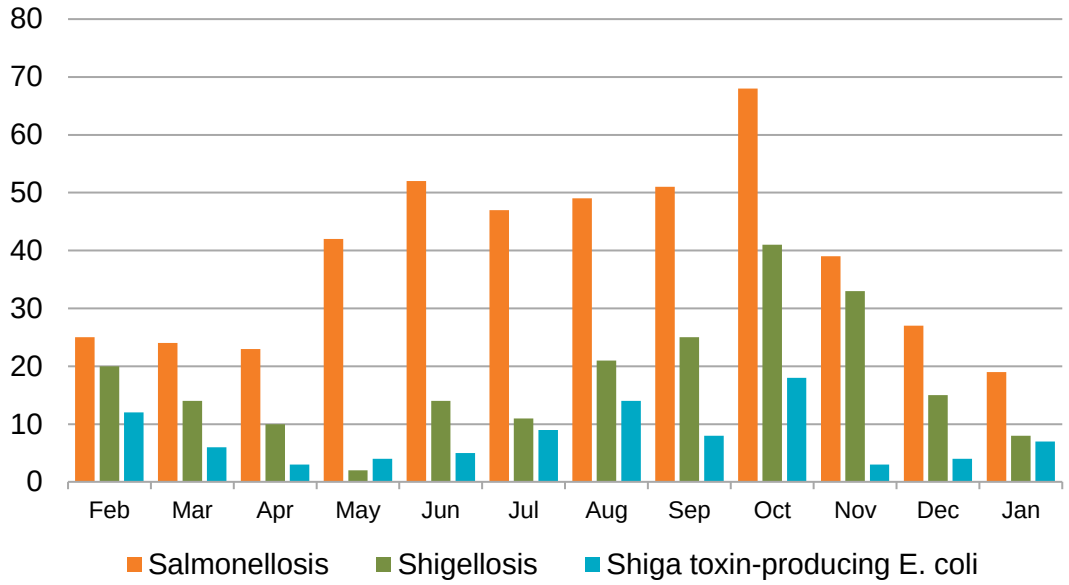


Figure 4. Select Vaccine-Preventable Infections by Month
February 2020 – January 2021

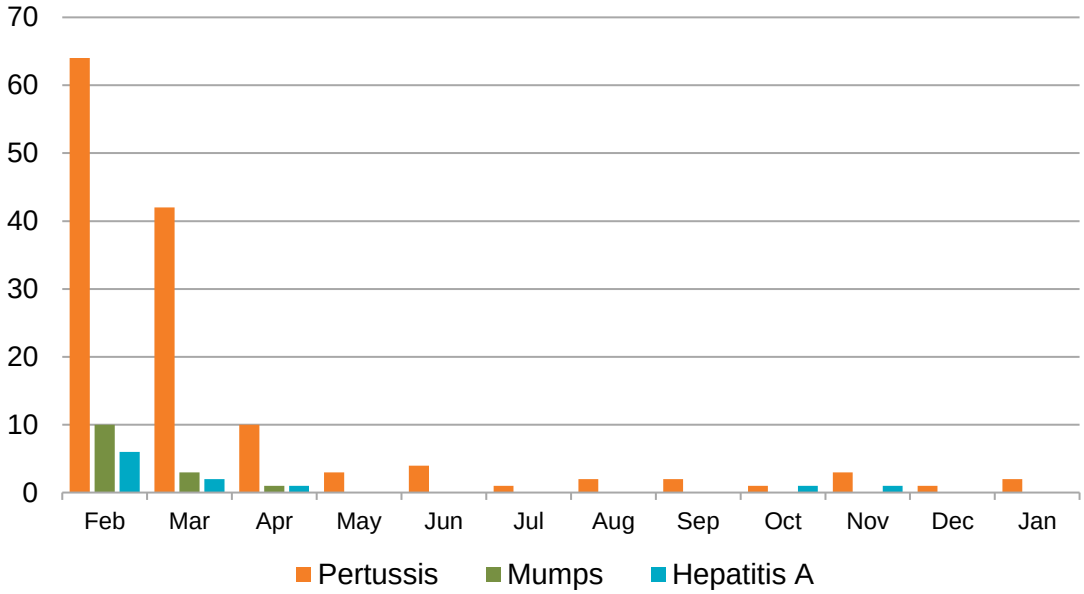


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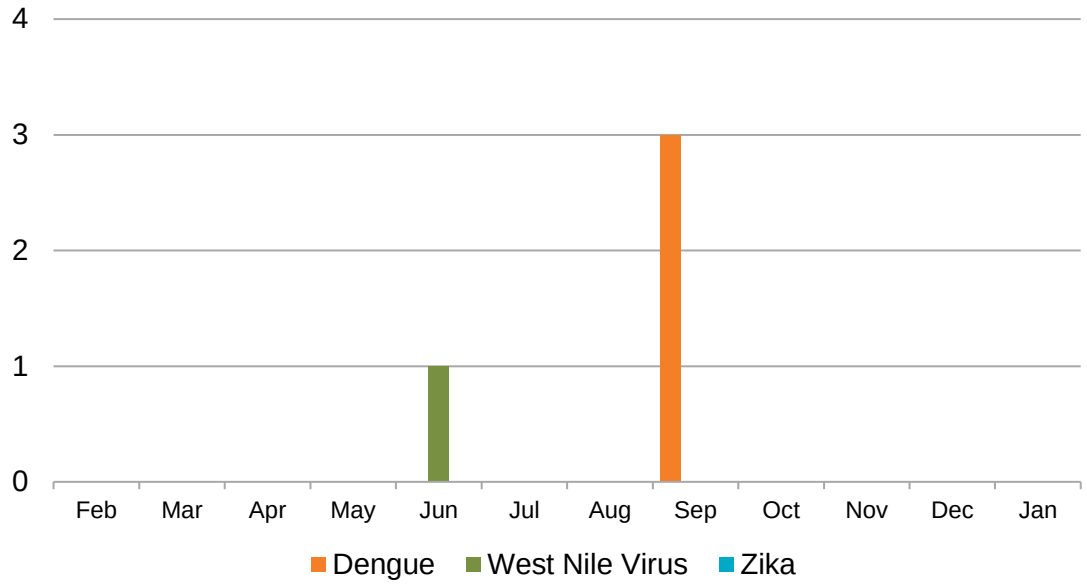
Figure 5. Select Vector-Borne Infections by Month
February 2020 – January 2021



All of the dengue and Zika virus cases are travel-associated. For additional information on Zika cases, see the HHSA Zika Virus webpage. For more information on West Nile virus, see the County West Nile 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 this effort.

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.