

CANDIDA AURIS

Since 2009, when *Candida auris* was first identified as a pathogen in Japan, this multidrug-resistant yeast has emerged as a major public health concern, with reports of healthcare associated outbreaks that have resulted in severe and fatal infections. Some strains are resistant to the three major antifungal classes, therefore limiting therapeutic options. *C. auris* has a special predilection for the skin that results in a prolonged carrier state. Its ability to survive in harsh environmental conditions contributes to its persistence in the healthcare environment for weeks, and routine disinfectants used in healthcare settings are not effective against this organism.

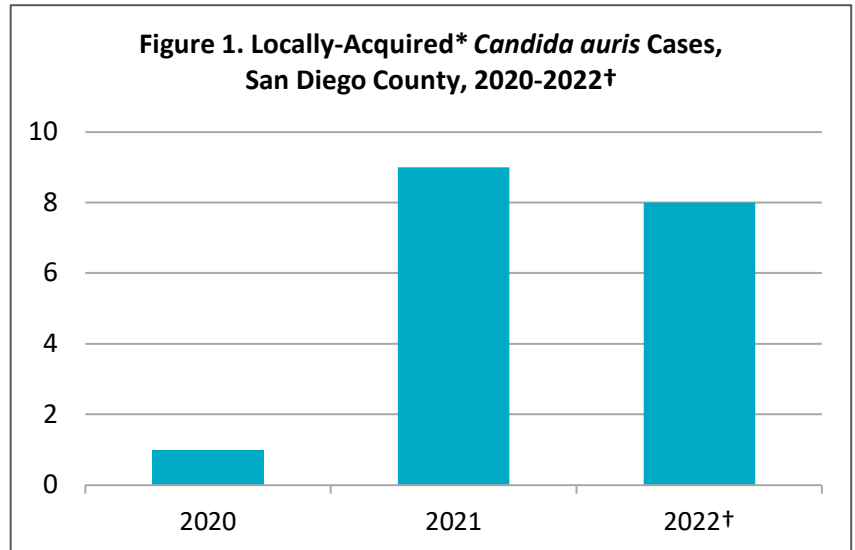
As of 2020, *C. auris* has been isolated in more than 40 countries across six continents and has led to several recent outbreaks in hospitals worldwide. Whole genome sequencing and epidemiologic analyses performed on samples obtained during 2012-2015 identified the simultaneous emergence of multidrug-resistant *C. auris* across three continents, thereby suggesting independent evolution.

California experienced its first *C. auris* outbreak in Orange County in February 2019. Although initially contained, a second surge was noted during the COVID-19 pandemic in May 2020 and spread to five other Southern California local health jurisdictions. Between May 2020-May 2021, 1,192 cases of *C. auris* were identified in 93 California healthcare facilities. During the peak of the COVID-19 pandemic in December 2020 when nearly 1.2 million cases were documented in California, there was a subsequent peak in the number of *C. auris* cases (184) in February 2021 (Figure 2). After statewide mitigation efforts were implemented, the number of *C. auris* cases fell to 78 cases in July 2021. The majority is colonization related (85%) and 76% were identified in long term acute care hospitals and 10% were identified at acute care hospitals.

In San Diego County, 18 cases of *C. auris* have been identified and reported to the County of San Diego between March 2020-present (Figure 1). Three cases were reported by local providers, with epi-linkage to exposures outside of San Diego. The County is conducting ongoing investigation to identify instances of secondary transmission in San Diego and working with facilities on containment.

As with other multi-drug resistant organisms, risk factors that predispose patients to *C. auris* infection and colonization include: multiple medical problems, such as immunosuppressive states, diabetes mellitus, recent surgery; presence of indwelling medical devices (e.g., central venous catheters, urinary catheters); prolonged exposure to healthcare facilities (e.g., long-term care facilities); and extensive exposure to antimicrobial agents. Most patients with *C. auris* are asymptotically colonized; these individuals often remain colonized with *C. auris*

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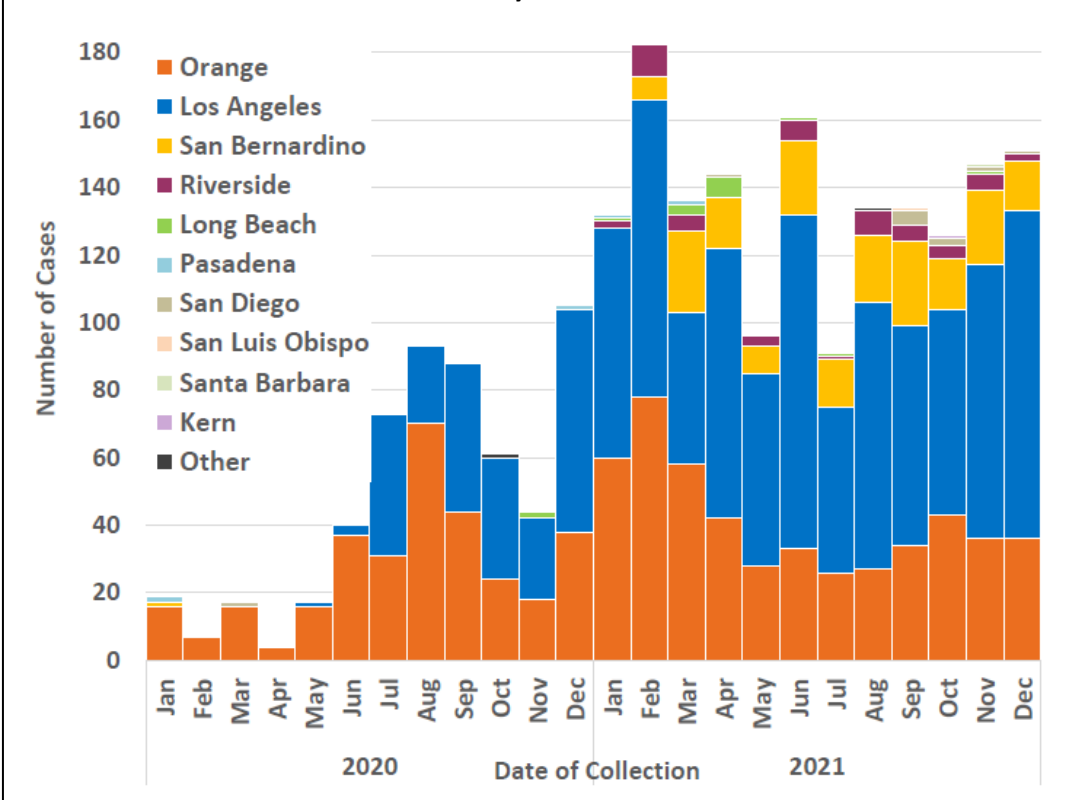
*Includes cases suspected to be locally acquired. May include San Diego County residents and non-residents. †2022 data are year-to-date; current as of 4/15/2022. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

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 identifies, investigates, registers, and evaluates 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, visit the [Data and Reports](#) page on the Epidemiology Program website (www.sdepi.org) and click on the subscribe link.

CANDIDA AURIS, continued

for many months, perhaps indefinitely, even after the acute infection has resolved. Invasive infections, such as bloodstream, wound, and ear infections develop in 5-10% of cases. Persistent fungemia, when associated with a central line that cannot be removed, is likely related to a biofilm or to hematogenous dissemination to other sites. Eradication of soft-tissue infection can be difficult, even with appropriate antimicrobial therapy, unless the bioburden is reduced. Based on a limited number of cases with *C. auris* infections, the Centers for Disease Control and Prevention estimates the overall mortality to be 30-60%.

Figure 2. *Candida auris* Cases in California by Local Health Jurisdiction, January 2020-December 2021



The [accurate diagnosis](#) of *C. auris* is dependent on the laboratory methods used; therefore, knowing the laboratory methodology is critical. Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOFMS) is the most reliable method to detecting *C. auris*, but *C. auris* must be included in the database. The identification of *C. haemulonii* should be an alert that *C. auris* is a possibility. Other *Candida* species may be misidentified and are dependent on the phenotypic method that is used for yeast identification. Although not yet widely available, molecular methods can correctly identify *C. auris*.

Source: California Health Alert Network (CAHAN) [Health Advisory: Further Emergence of *Candida auris* in Healthcare Facilities Outside of Orange and Los Angeles Counties](#), February 2022

Resources

- [Centers for Disease Control and Prevention \(CDC\) Candida auris Website](#)
- [CDC Candida auris Fact Sheets](#)
- [California Department of Public Health \(CDPH\) Candida auris website](#)
- [CDPH Candida auris Quicksheet](#)
- [CAHAN San Diego Health Advisory: Candida auris detected in San Diego County facilities \(9/28/2021\)](#)

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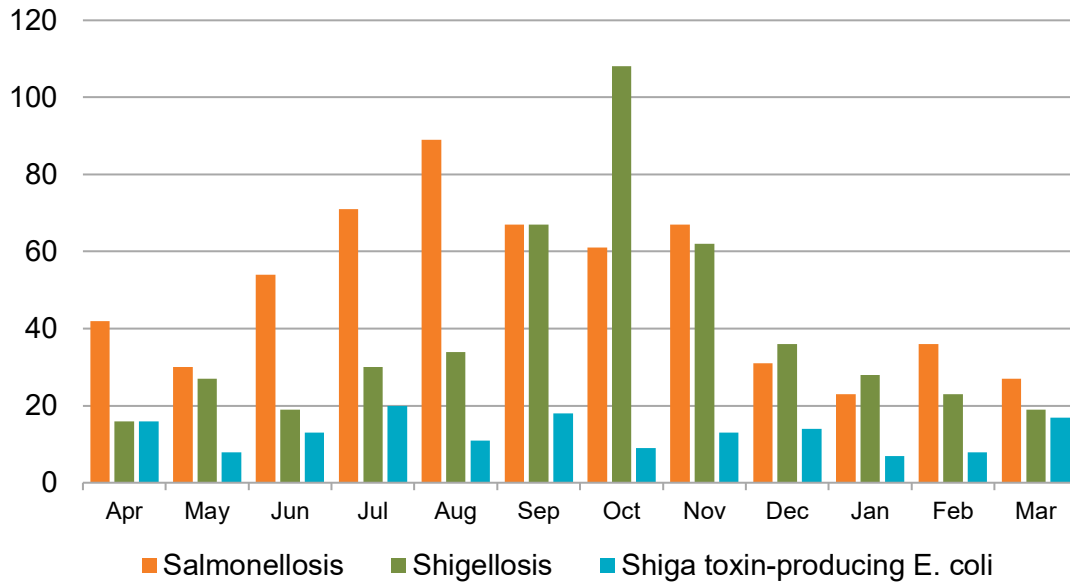


Table 1. Select Reportable Diseases		2022			Prior Years		
		Current Month	Prior Month	Year-to-Date (YTD)	2021 YTD	Avg YTD, Prior 3 Years	2021 Total
Disease and Case Inclusion Criteria (C,P,S)							
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	1	0.3	3
Brucellosis	C,P	1	0	2	1	0.7	3
Campylobacteriosis	C,P	53	43	143	155	173.3	904
Chickenpox, Hospitalization or Death	C,P	0	0	0	3	1.3	3
Chikungunya	C,P	0	1	1	0	0.0	2
Coccidioidomycosis	C	26	31	98	148	136.0	510
Cryptosporidiosis	C,P	2	2	8	4	9.7	53
Dengue Virus Infection	C,P	0	0	0	0	0.7	2
Encephalitis, All	C	1	1	3	12	12.3	36
Giardiasis	C,P	9	14	34	35	46.0	167
Hepatitis A, Acute	C	1	0	1	2	5.3	10
Hepatitis B, Acute	C	2	1	5	3	2.3	16
Hepatitis B, Chronic	C,P	88	78	251	192	214.0	810
Hepatitis C, Acute	C,P	1	1	5	30	22.3	74
Hepatitis C, Chronic	C,P	270	224	727	1,108	1,095.0	3,581
Legionellosis	C	5	4	20	17	14.0	63
Listeriosis	C	0	0	0	0	0.7	8
Lyme Disease	C,P	0	0	0	3	2.0	14
Malaria	C	1	1	2	0	2.3	8
Measles (Rubeola)	C	0	0	0	0	0.0	0
Meningitis, Aseptic/Viral	C,P,S	3	6	13	15	24.0	48
Meningitis, Bacterial	C,P,S	3	1	7	10	9.3	22
Meningitis, Other/Unknown	C	0	1	2	7	9.7	34
Meningococcal Disease	C,P	0	0	0	0	2.7	1
Mumps	C,P	0	0	1	0	7.7	2
Pertussis	C,P,S	5	2	10	10	120.3	69
Rabies, Animal	C	0	1	1	1	0.7	4
Rocky Mountain Spotted Fever	C,P	0	0	0	1	0.7	2
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	27	36	86	72	91.0	583
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	17	8	32	16	28.0	138
Shigellosis	C,P	19	23	70	33	62.7	432
Typhoid Fever	C,P	0	1	4	1	2.3	10
Vibriosis	C,P	0	0	3	2	6.0	51
West Nile Virus Infection	C,P	0	0	0	0	0.0	3
Yersiniosis	C,P	0	0	6	3	6.7	22
Zika Virus	C,P	0	0	0	0	0.3	0

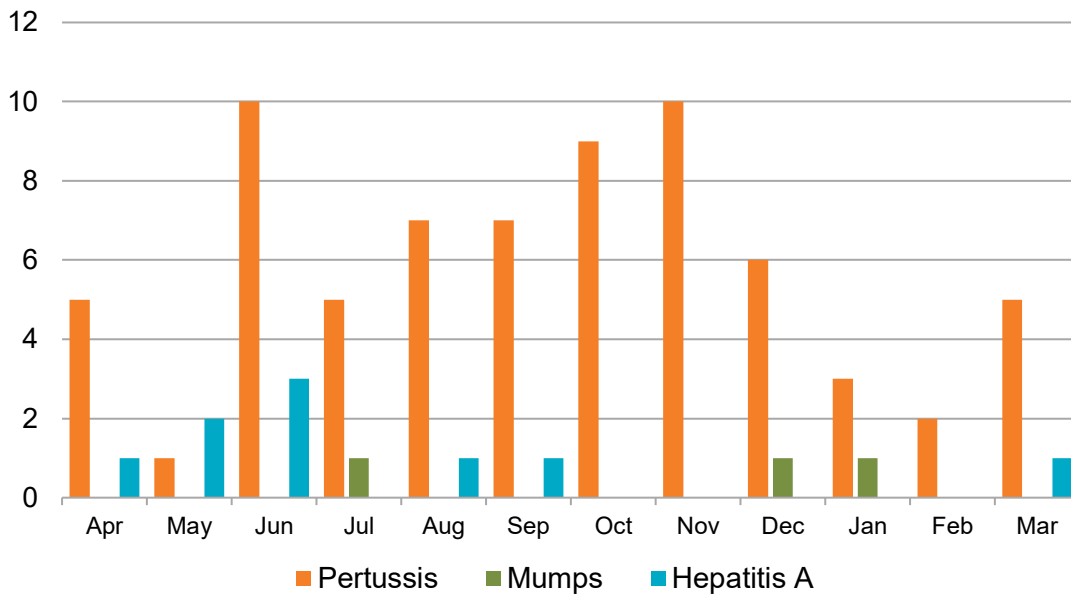
Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously 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 2. Select Enteric Infections by Month
April 2021 – March 2022**

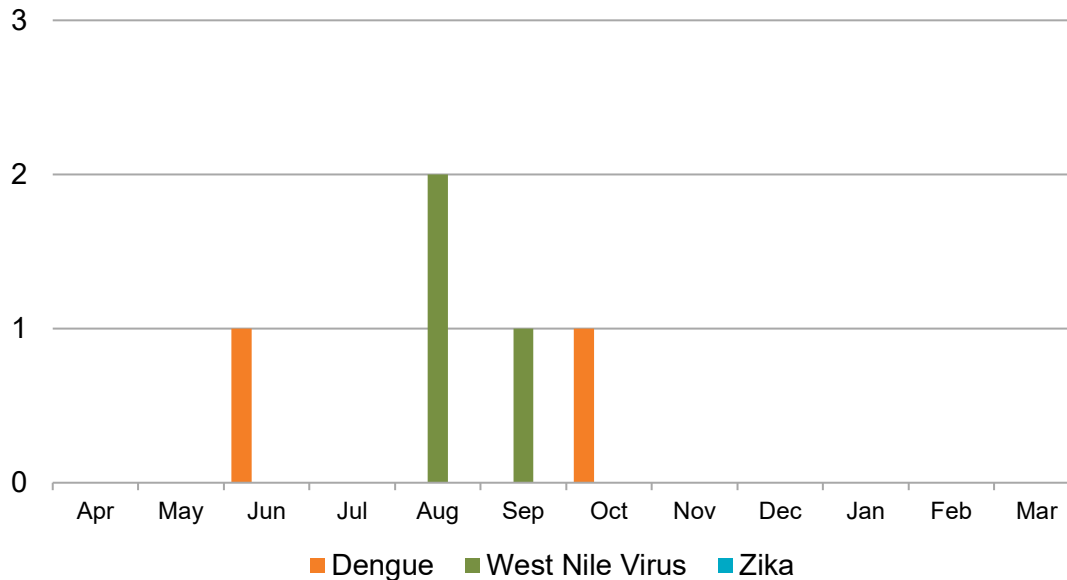


**Figure 3. Select Vaccine-Preventable Infections by Month
April 2021 – March 2022**



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**Figure 4. Select Vector-Borne Infections by Month
April 2021 – March 2022**



All of the dengue and Zika virus cases are travel-associated. For additional information on Zika cases, see the [HHS 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>.