EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

OCTOBER 2024

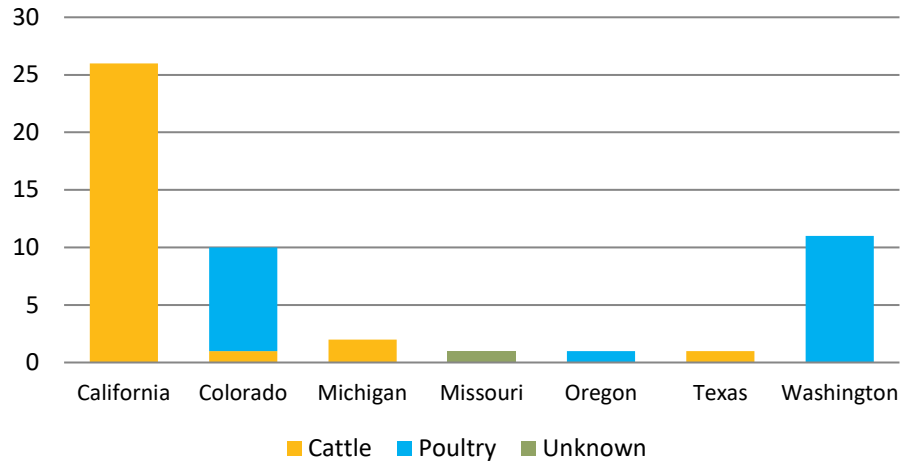
Volume 8, Issue 10: November 15, 2024

HIGHLY PATHOGENIC AVIAN INFLUENZA

Background

Over the last 25 years, there have been global increases in the number and distribution of avian influenza A viral infections. Avian influenza A viruses are classified as either highly pathogenic avian influenza (HPAI) or low pathogenic avian influenza (LPAI), referring to the resulting disease severity in poultry (not in humans). Avian influenza A viruses can infect many species of animals and less commonly humans; both LPAI and HPAI have caused a range of disease severity during sporadic infections in humans over time.

Figure 1. Confirmed Human Cases of Avian Influenza by State and Exposure Source, United States, 2024* N=52



*Year-to-date; current as of 11/15/2024. Source: https://www.cdc.gov/bird-flu/situation-summary/index.html

In 2022, HPAI A (H5N1) clade 2.3.4.4b subtype emerged in North American wild birds, and caused outbreaks in wild birds, poultry, and other mammalian species. A single spillover event from wild birds has contributed to the outbreak of H5N1 in dairy cattle in 2024. The current circulating viral clade, clade 2.3.4.4b, has demonstrated transmissibility among mammals, and most recently impacted dairy cattle and associated dairy workers in California's Central Valley. Human to human transmission has not been observed in the currently circulating influenza A(H5N1) clade in the United States (U.S.) or globally, nor has there been viral adaptation suggestive of increased transmissibility among humans.

The 52 confirmed H5N1 infections in humans in the U.S. in 2024 have been generally mild. However, substantial morbidity and mortality have been demonstrated in H5N1 viruses globally over the last two decades, and thus careful monitoring of animal and human infections as well as viral characteristics are underway. Human cases domestically have included 21 individuals with exposure to infected poultry and 30 with exposure to infected dairy cows, as well as one with no known animal exposure (Figure 1).

Risk to the public remains low, with increased risk to those with recreational or occupational exposures to poultry, dairy cows, alpacas, wildlife, or raw (unpasteurized) milk.

Transmission

Currently, transmission to people is occurring from contact with infected animals such as breathing in dust or droplets with the virus; splashing raw milk from an infected cow into eyes, nose, or mouth; touching eyes, nose, or mouth with unwashed hands after contact with raw milk, cow or bird feces or other contaminated items from an infected animal or handling sick or dead animals infected with the virus. Although consumption of unpasteurized (raw) milk has not been specifically identified as a transmission route, the Centers for Disease Control and Prevention (CDC) does not recommend consumption of unpasteurized milk. Infected dairy cattle have the highest

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 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.

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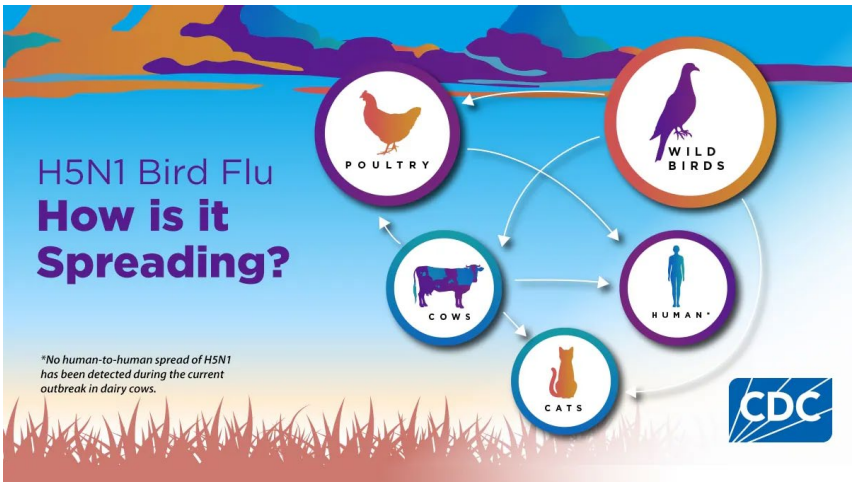
viral load in their milk, contributing to infections in milkers and dairy workers handling raw milk. Workers on poultry farms have also become infected from working directly with infected birds. No human-to-human transmission has been documented in the United States at this time.

Local Cases

In San Diego County, there was an infected poultry flock in 2022, and wild birds have tested positive for H5N1 in 2022 and 2023. There was a single H5 detection in the Point Loma Wastewater treatment plant on September 1, 2024; the source of detection is unknown. There have been no dairy cattle, human, or other mammalian cases detected in San Diego County.

Presentation

Human cases in the U.S. among farmworkers have included mild illness presentations, many reporting conjunctivitis only and others with conjunctivitis and fever, muscle aches, and/or other mild respiratory symptoms.



Source: https://www.cdc.gov/bird-flu/media/images/2024/07/how-it-is-spreading-1200x627-1.png

Prevention

Persons should not touch sick domestic animals or wildlife if avoidable. For those with occupational or recreational exposures, personal protective equipment (PPE) is an important tool to prevent infection. Biosecurity in agricultural settings can help prevent the transmission of H5N1 from sick animals to healthy animals. Although the initial introduction of H5N1 into dairy cattle occurred from wild birds, subsequent dairy herd outbreaks have occurred due to the movement of asymptomatic animals, and the movement of people, vehicles and equipment between farms.

In the clinical setting, standard, contact and airborne transmission precautions are recommended, including gown, gloves, eye protection (face shield or goggles), and respiratory protection that is at least as protective as a fit-tested NIOSH-approved disposable N95 filtering facepiece respirator. Influenza antiviral treatment is recommended as soon as possible for persons with confirmed or suspected avian influenza virus infection.

To the greatest extent possible, non-hospitalized individuals with suspected or confirmed novel or avian influenza should isolate at home, and if test results are pending, isolation can be discontinued if avian or novel influenza has been ruled out. If test results are positive for avian influenza, isolation should continue until the patient is afebrile for 24 hours without the use of fever-reducing medications, and other symptoms are mild and improving.

Vaccination for seasonal influenza is recommended annually. While the annual flu vaccine this season does not directly protect against avian influenza, it can reduce the likelihood of becoming severely ill or hospitalized from seasonal influenza and limit the spread of seasonal influenza among those at increased risk of infection with avian influenza.

Resources

- Centers for Disease Control and Prevention (CDC) Avian Influenza (Bird Flu) website
- California Department of Public Health (CDPH) Bird Flu website
- CDPH Avian and Novel Influenza Quicksheet
- World Health Organization (WHO) Avian Influenza website
- County of San Diego (COSD) Avian Influenza (H5N1 Bird Flu) website
- COSD One Health Epidemiology Program website

Suggested citation:
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Table 1. Select Reportable Diseases

Disease and Case Inclusion Criteria (C,P,S)		2024 Sept.	2024 August	2024 January-Sept. (YTD)	Prior Years 2023 YTD	Prior Years Avg YTD, 2021-2023	Prior Years 2023 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	1	0	5	0	2.7	1
Brucellosis	C,P	0	0	1	3	3.3	3
Campylobacteriosis	C,P	98	89	981	964	843.3	1,122
Candida auris	C	23	19	129	77	40.3	95
Chickenpox, Hospitalization or Death	C,P	0	0	3	7	3.7	8
Chikungunya	C,P	0	0	2	0	1.0	0
Coccidioidomycosis	C	26	40	442	399	370.3	477
Cryptosporidiosis	C,P	7	10	112	113	79.3	132
Dengue Virus Infection	C,P	11	8	50	20	11.7	25
Encephalitis, All	C	2	5	29	27	26.7	34
Giardiasis	C,P	21	22	204	199	170.7	239
Hepatitis A, Acute	C	2	2	11	36	23.3	45
Hepatitis B, Acute	C	0	0	10	12	13.3	13
Hepatitis B, Chronic	C,P	36	41	517	616	667.7	740
Hepatitis C, Acute	C,P	0	1	80	98	79.7	112
Hepatitis C, Chronic	C,P	275	248	1,808	1,900	2,519.7	2,176
Legionellosis	C	5	5	55	79	65.0	94
Listeriosis	C	0	0	7	11	11.7	11
Lyme Disease	C,P	0	0	5	11	10.3	12
Malaria	C	0	3	13	11	10.0	16
Measles (Rubeola)	C	0	0	4	0	0.0	0
Meningitis, Aseptic/Viral	C,P,S	6	9	88	50	51.7	63
Meningitis, Bacterial	C,P,S	3	2	32	32	26.7	42
Meningitis, Other/Unknown	C	0	2	23	20	21.3	25
Meningococcal Disease	C,P	0	0	4	4	2.3	4
Mumps	C,P	0	0	1	0	1.3	0
Pertussis	C,P	53	51	557	154	93.3	329
Rabies, Animal	C	4	3	10	8	5.0	8
Rocky Mountain Spotted Fever	C,P	0	0	4	4	2.3	4
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	62	87	639	574	550.7	685
Shiga toxin-Producing *E. coli* (including O157)	C,P	15	27	226	227	182.3	265
Shigellosis	C,P	52	54	425	421	404.3	523
Typhoid Fever	C,P	0	0	3	5	8.7	7
Vibriosis	C,P	1	11	47	39	40.7	45
West Nile Virus Infection	C,P	0	2	2	0	2.0	0
Yersiniosis	C,P	7	13	119	69	43.3	86
Zika Virus	C,P	0	1	1	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. Includes San Diego County resident cases only.

San Diego County Sexually Transmitted Infection Data | San Diego County Tuberculosis Data

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Figure 2. Select Enteric Infections by Month
November 2023 – October 2024

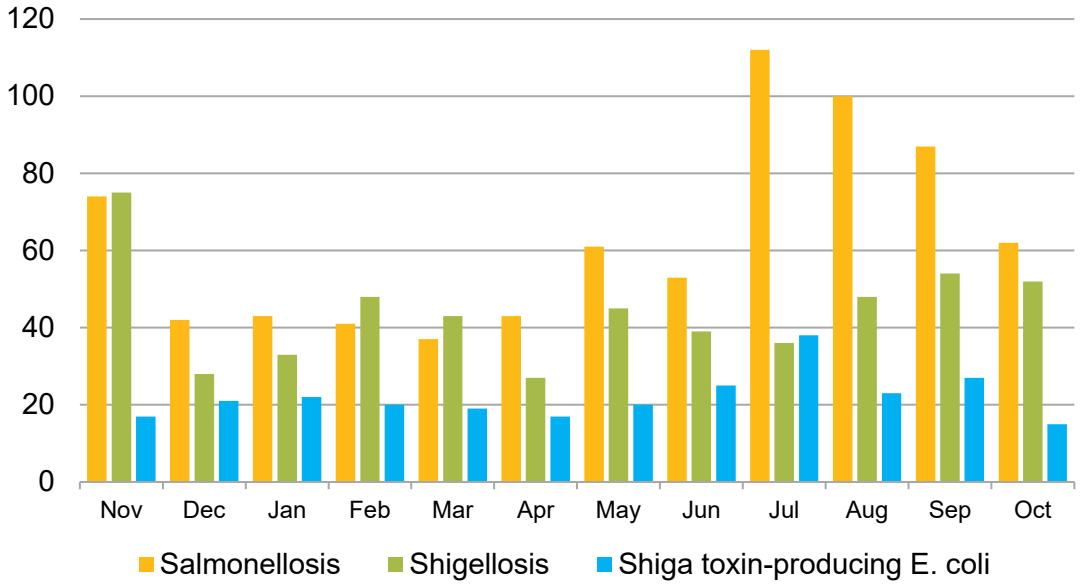

Figure 3. Select Vaccine-Preventable Infections by Month
November 2023 – October 2024

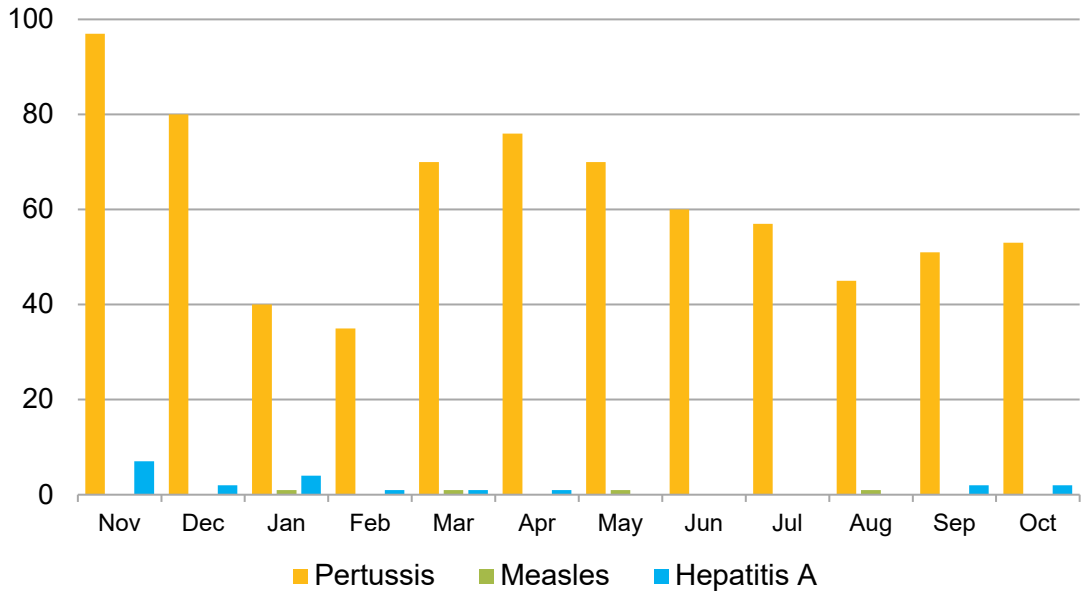

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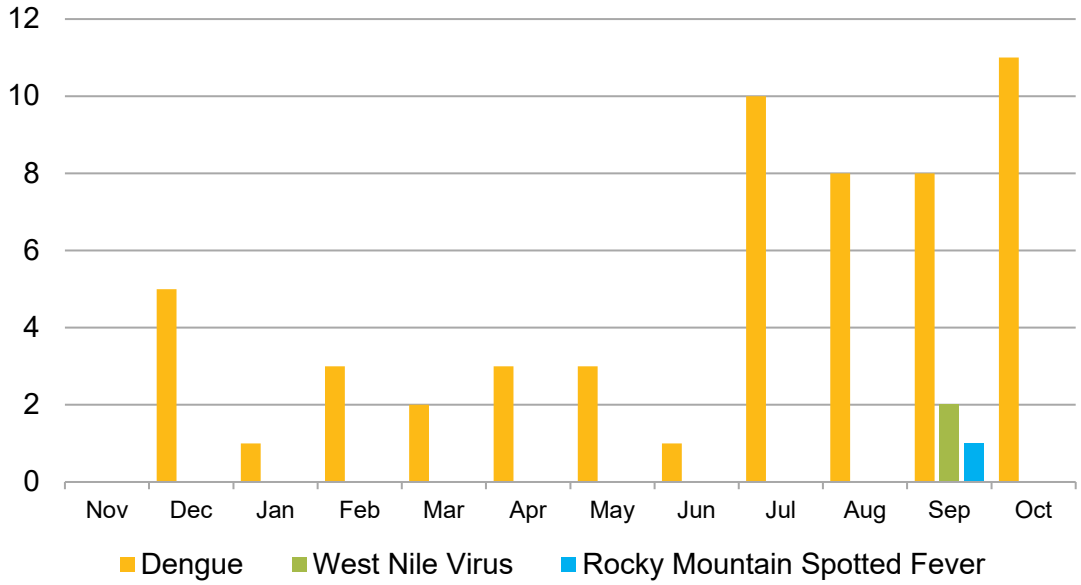
Figure 4. Select Vector-Borne Infections by Month
November 2023 – October 2024



All of the dengue cases are travel-associated. For more information on West Nile virus, see the County West Nile virus webpage.
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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.