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Epi Case Criteria Guide (ECCG) 2024

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2024 Epi Case Criteria Guide (ECCG)

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REVISIONS FROM THE 2023 EPI CASE CRITERIA GUIDE

Revisions of case criteria for Clinical Description and/or criteria (CD); Confirmed, Probable, Possible, or Suspect cases (CC, PC, PsC, SC); Laboratory Confirmation tests (LC); and Note(s) (N)

- Anaplasmosis (CD), (CC), (PC), (SC), (LC), (N)
Note: Changed from Anaplasmosis (*Anaplasma phagocytophilum* infection).
- Arbovirus, neuroinvasive and non-neuroinvasive (N)
- Ascariasis (LC), (N)
- Botulism, Wound (LC), (N)
- Chagas disease, acute (SC)
- Chagas disease, chronic indeterminate (N)
- Chagas disease, chronic symptomatic (N)
- CRE: CP-CRE/NCP-CRE (CD), (CC), (PC), (PsC), (SC), (LC), (N)
Note: Subtypes of CRE (CP-CRE and NCP-CRE) were excluded.
- Cronobacter (CD), (LC), (N)
- Dengue-like illness, Dengue, Severe Dengue (CD), (N)
- Ebola (CD), (CC), (PC), (PsC), (SC)
- Ehrlichiosis (CD), (CC), (PC), (SC), (LC), (N)
Note: Ehrlichiosis (*Ehrlichia chaffeensis*) infection and Ehrlichiosis (*Ehrlichia ewingii* infection) merged.
- Hookworm (LC), (N)
- Mpox (CD), (CC), (PC), (PsC), (SC), (LC), (N)
- Multisystem Inflammatory Syndrome in Children (CD), (CC), (LC), (N)
- Mumps (CD), (CC), (LC)
- Non-Ebola Viral Hemorrhagic Fever (CD)
- Norovirus (CD), (PC), (LC)
- Novel Coronavirus 2019 (CD), (PC), (SC), (N)
- Poliovirus, paralytic (CD), (CC), (PC), (LC)
- Prion diseases such as Creutzfeldt-Jakob disease (CJD) (N)
- Rabies, animal (LC)
- Shigellosis (LC), (N)
- Smallpox (CD), (CC), (PC), (PsC), (SC), (LC), (N)
- Trichuriasis (LC), (N)
- Tularemia (N)
- Vibriosis (non-cholera *Vibrio* species infections)
Note: Vibriosis (non-cholera *Vibrio* species infections) is a merge of *V. parahaemolyticus*, *V. vulnificus*, and *V. other*.
- Yellow fever
- Zika disease, non-congenital (CD), (CC), (PC), (LC), (N)
- Zika disease, congenital (CD), (CC), (PC), (LC), (N)

Added Conditions

- Mpox

Removed Conditions

- Multidrug Resistant Acinetobacter (MDR-A)
- Ehrlichiosis (*Ehrlichia ewingii* infection)
- Typhus fever (epidemic, louse-borne)
- Ehrlichiosis/anaplasmosis, undetermined
- Zika infection, congenital
- Zika infection, non-congenital

Table of Contents

This document provides infectious disease information for surveillance and data entry staff. It contains a table with condition codes, condition names, and case criteria to aid in the classification and coding of conditions. It is organized alphabetically by condition name.

Conditions specified as reportable in [Title 25, Texas Administrative Code, Chapter 97, Subchapter A, Control of Communicable Diseases](#) are in **bold type**.

Click on a condition in the table of contents to go to the text and on the condition code to move back.

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Term Definitions

Clinically compatible case: Medical history and/or signs and symptoms generally compatible with the disease, as described in the clinical description

Confirmed case: A case that is classified as confirmed for reporting purposes

Culture-independent diagnostic testing: The detection of antigen or nucleic acid sequences of the pathogen

Epidemiologically linked case: A case in which a) the patient has had contact with one or more persons who either have/had the disease or have been exposed to a point source of infection (i.e., a single source of infection, such as an event leading to a foodborne-disease outbreak, to which all confirmed case-patients were exposed) and b) transmission of the agent by the usual modes of transmission is plausible. A case can be considered epidemiologically linked to a laboratory-confirmed case if at least one case in the chain of transmission is laboratory confirmed.

Laboratory-confirmed case: A case that is confirmed by one or more of the laboratory methods listed in the case definition under Laboratory Confirmation Tests. While other laboratory methods can be used in clinical diagnosis, only those listed are accepted as laboratory confirmation for national and state reporting purposes.

Probable case: A case that is classified as probable for reporting purposes

Supportive or presumptive laboratory results: Specified laboratory results that are consistent with the diagnosis, yet do not meet the criteria for laboratory confirmation

Suspect case: A case that is classified as suspect for reporting purposes

Normally sterile site: Invasive diseases typically cause significant morbidity and mortality. Sterile sites include:

- Blood (excluding cord blood)
- Bone or bone marrow
- Cerebrospinal fluid (CSF)
- Pericardial fluid
- Peritoneal fluid
- Pleural fluid
- These are also considered sterile sites when certain other criteria are met:
 - Internal body sites (brain, heart, liver, spleen, vitreous fluid, kidney, pancreas, lymph node or ovary) when the specimen is collected aseptically during a surgical procedure
 - Joint fluid when the joint surface is intact (no abscess or significant break in the skin)

Placentas and amniotic fluid from an intact amnion are not sterile sites, but Group B streptococci or *Listeria* isolation from these sites may qualify as invasive disease. Consult the Sterile Site and Invasive Disease Determination flowchart in Appendix A of the EAIDB Investigation Guidelines: <https://www.dshs.texas.gov/IDCU/investigation/Investigation-Guidance/>

Normally sterile sites do not include:

- Anatomical body areas that normally harbor either resident or transient flora (bacteria) including mucous membranes (e.g., throat, vagina), sputum, and skin; abscesses; or localized soft tissue infection

ABBREVIATIONS

LABORATORY TEST ABBREVIATIONS

CF – Complement fixation
CIDT – Culture-independent diagnostic testing
CLSI – Clinical and Laboratory Standards Institute
CSF – Cerebrospinal fluid
DFA – Direct fluorescent antibody
DNA – Deoxyribonucleic acid
EEG – Electroencephalogram
EIA – Enzyme immunoassay
ELISA – Enzyme-linked immunosorbent assay
HA – Hemagglutination
HI – Hemagglutination inhibition
ID – Immunodiffusion
IFA – Indirect fluorescent antibody test
IgG – Immunoglobulin G
IgM – Immunoglobulin M
IHA – Indirect hemagglutination
IHC – Immunohistochemistry
LA – Latex agglutination
MA -- Microagglutination
MIC – Minimum inhibitory concentration
MRI – Magnetic resonance imaging
NAT – Nucleic acid testing
PCR – Polymerase chain reaction
PRNT – Plaque reduction neutralization test
RIBA – Recombinant immunoblot assay
RIPA – Radio-immune precipitation assay
rRT-PCR – Real-time reverse transcriptase-polymerase chain reaction
RT-PCR – Reverse transcription polymerase chain reaction
RT-QuIC – Real-time quaking-induced conversion
WB – Western blot

HEPATITIS TEST MARKERS

Hepatitis A – HAV
Anti-HAV – hepatitis A antibody
Anti-HAV IgM – hepatitis A IgM antibody
Hepatitis B – HBV
HBcAb or anti-HBc – hepatitis B core antibody
HBc IgM or anti-HBc IgM – hepatitis B core IgM antibody
HBeAb or anti-HBe – hepatitis B e antibody
HBeAg – hepatitis B e antigen
HBsAb or anti-HBs – hepatitis B surface antibody
HBsAg – hepatitis B surface antigen
HBV DNA – hepatitis B nucleic acid
Hepatitis C – HCV
Anti HCV – hepatitis C antibody
HCV RNA – hepatitis C nucleic acid
HCV NAT – hepatitis C nucleic acid testing
HCV RIBA – hepatitis C recombinant immunoblot assay
Hepatitis D – HDV
Anti-HDV – hepatitis D antibody
Hepatitis E – HEV
Anti-HEV IgM – hepatitis E IgM antibody

OTHER ABBREVIATIONS

ALT – Alanine transaminase
ARDS – Acute Respiratory Distress Syndrome
AST – Aspartate transaminase
CDC – Centers for Disease Control and Prevention
DSHS – Department of State Health Services
EAIDU – Emerging and Acute Infectious Disease Unit
FDA – Food and Drug Administration
HAI- Healthcare Associated Infections
ILI – Influenza-Like Illness
NDM-1 – New Delhi Metallo-beta-lactamase-1
NPDPS – The National Prion Disease Pathology Surveillance Center
TAC – Texas Administrative Code
VHF – Viral hemorrhagic fever

NOTES

Arbovirus Classification

Arboviruses (arthropod-borne viruses) are a diverse group of pathogens mostly transmitted by mosquitoes but also other arthropods including ticks. Within the ECCG, there are five separate case definitions for arboviral diseases: Arbovirus, neuroinvasive and non-neuroinvasive; Dengue (includes Dengue-like Illness, Dengue, and Severe Dengue); Yellow fever; Zika disease, congenital; and Zika disease, non-congenital. Though co-infections of multiple arboviruses are possible, diagnostics are often complicated by antibody cross-reactivity between genetically related viruses. Please consider all relevant case definitions, reported epidemiological information (including travel history) and relevant related viruses when interpreting diagnostics; see below for common examples. If lab evidence, clinical manifestations, and exposure history cannot distinguish between two arboviruses (e.g. dengue and Zika), the case should be reported as "Other arboviral diseases" or "Flavivirus disease" if the viruses are all flaviviruses.

- **Flaviviruses:** West Nile, St. Louis encephalitis, Dengue, Yellow fever, Japanese encephalitis, Zika
- **Bunyaviruses:** Cache Valley, California serogroup (includes La Crosse, Keystone, Jamestown Canyon, California Encephalitis, Snowshoe hare, Trivittatus)
- **Alphaviruses:** Chikungunya, Eastern equine encephalitis, Western equine encephalitis

Rickettsia Classification

Rickettsial diseases can be difficult to distinguish between because of overlapping symptomatology and cross-reactivity in serology, which comprises the majority of diagnostic testing for these diseases. The *Rickettsia* are divided into two antigenic groups for surveillance purposes: spotted fever group and typhus group. The condition spotted fever rickettsiosis is defined as infection with spotted fever group *Rickettsia* spread by tick vectors. Flea-borne (murine) typhus, caused primarily by *R. typhi* and spread by fleas, and epidemic typhus, caused by *R. prowazekii* and transmitted by

lice, belong to the typhus group. A table classifying rickettsial species known to cause disease in humans by antigenic group, disease, primary vector, and reservoir occurrence can be found in the CDC's Traveler's Health Yellow Book at <https://wwwnc.cdc.gov/travel/yellowbook/2020/travel-related-infectious-diseases/rickettsial-including-spotted-fever-and-typhus-fever-rickettsioses-scrub-typhus-anaplasmosis-and-ehr>

Streptococcus Classification

Streptococci are facultatively anaerobic, gram-positive organisms that often occur as chains or pairs. There are four different classification systems for *Streptococcus* species, clinical (pyogenic, oral, enteric), hemolysis (alpha-hemolysis, beta-hemolysis, gamma-hemolysis), serological (Lancefield: A-H and K-U), and biochemical (physiological).

Lancefield group

Streptococci are subdivided into groups by antibodies that recognize surface antigens. The serologic reactivity of "cell wall" polysaccharide "C" antigens was described by Rebecca Lancefield. Twenty group-specific antigens were established, Lancefield A- H and K-U. Clinically significant Lancefield groups include A, B, C, F, and G. Some streptococci such as *Streptococcus pneumoniae* and the viridans streptococci are Lancefield group nontypeable.

Hemolytic reaction

The type of hemolytic reaction displayed on blood agar has also been used to classify the streptococci. Beta-hemolysis is associated with complete lysis of red cells surrounding the colony, whereas alpha-hemolysis is a partial or "green" hemolysis associated with reduction of red cell hemoglobin. Nonhemolytic colonies have been termed gamma-hemolytic.

The property of hemolysis is not very reliable for the absolute identification of streptococci, but it is widely used in rapid screens for identification.

Reportable Streptococcus

Streptococcus pneumoniae (pneumococcus) - Most strains of *S. pneumoniae* are alpha-hemolytic but can cause β -hemolysis during anaerobic incubation. They are nontypeable by Lancefield group.

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
<p>Acute Flaccid Myelitis 11120</p>	<p>An illness with onset of acute flaccid limb weakness (low muscle tone, limp, hanging loosely, not spastic or contracted) of one or more limbs.</p> <p>Confirmed: A case that meets the clinical symptoms AND confirmatory laboratory/imaging evidence in the absence of a clear alternative diagnosis attributable to a nationally notifiable condition.</p> <ul style="list-style-type: none"> ▪ MRI showing spinal cord lesion with predominant gray matter involvement* and spanning one or more vertebral segments, AND ▪ Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities. <p>Probable: A case that meets the clinical symptoms AND presumptive laboratory/imaging evidence in the absence of a clear alternative diagnosis attributable to a nationally notifiable condition.</p> <p><i>Presumptive laboratory/imaging evidence:</i></p> <ul style="list-style-type: none"> ▪ MRI showing spinal cord lesion where gray matter involvement is present, but predominance cannot be determined, AND ▪ Excluding persons with gray matter lesions in the spinal cord resulting 	<ul style="list-style-type: none"> ▪ A magnetic resonance image (MRI) showing spinal cord lesion with predominant gray matter* involvement and spanning one or more vertebral segments, ▪ Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities. <p>* Terms in the spinal cord MRI report such as "affecting mostly gray matter," "affecting the anterior horn or anterior horn cells," "affecting the central cord," "anterior myelitis," or "poliomyelitis" would all be consistent with this terminology.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>from physician diagnosed malignancy, vascular disease, or anatomic abnormalities.</p> <p>Suspect: A case that meets the clinical symptoms with supportive laboratory/imaging evidence AND available information is insufficient to classify case as probable or confirmed.</p> <p><i>Supportive laboratory/imaging evidence:</i></p> <ul style="list-style-type: none"> ▪ MRI showing spinal cord lesion in at least some gray matter and spanning one or more vertebral segments, AND ▪ Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities. <p><i>Other classification criteria:</i> Autopsy findings that include histopathologic evidence of inflammation largely involving the anterior horn of the spinal cord spanning one or more vertebral segments.</p>	
<p>Amebic meningitis/encephalitis, other 10096</p>	<p>An infection presenting as meningoencephalitis or encephalitis. Granulomatous amebic encephalitis (GAE) can include general symptoms and signs of encephalitis such as early personality and behavioral changes, depressed mental status, fever, photophobia, seizures, nonspecific cranial nerve dysfunction, and visual loss. GAE neurologic infections are generally fatal within weeks or months; however, a few patients have survived.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed</p>	<p>Detection of <i>Acanthamoeba</i>, <i>Balamuthia</i>, or another non-<i>Naegleria</i> free-living ameba from a clinical specimen or culture via:</p> <ul style="list-style-type: none"> ▪ Detection of nucleic acid (e.g., PCR), OR ▪ Detection of antigen (e.g., immunohistochemistry) <p>Contact the DSHS epidemiologist for meningitis (amebic) at 800-252-8239 if suspected. DSHS can assist in coordinating specimen and/or electronic images submission to the CDC for verification. Collection & shipping procedures can be found at:</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>Note: <i>Acanthamoeba</i> species and <i>Balamuthia mandrillaris</i> can also cause disseminated disease (affecting multiple organ systems) or cutaneous disease. For <i>B. mandrillaris</i> disease, painless skin lesions appearing as plaques a few millimeters thick and one to several centimeters wide have been observed in some patients, especially patients outside the U.S., preceding the onset of neurologic symptoms by 1 month to approximately 2 years. Skin lesions and sinus disease may be seen in <i>Acanthamoeba</i> disease. Disseminated disease and cutaneous disease caused by free-living amoebae are only voluntarily reportable in Texas unless they progress to meningitis or encephalitis.</p> <p>See also Amebic meningoencephalitis, primary (PAM)</p>	<p>http://www.cdc.gov/parasites/acanthamoeba/ and http://www.cdc.gov/parasites/balamuthia/</p> <p>Note: <i>Acanthamoeba</i> spp. and <i>B. mandrillaris</i> can cause clinically similar illnesses and might be difficult to differentiate using commonly available laboratory procedures. Definitive diagnosis by a reference laboratory might be required. A negative test on CSF does not rule out <i>Acanthamoeba</i> or <i>Balamuthia</i> infection because these organisms are not commonly present in the CSF.</p>
<p>Amebic meningoencephalitis, primary (PAM) 80750</p>	<p>An infection presenting as meningoencephalitis or encephalitis. The clinical presentation of PAM is like that of acute meningitis caused by other pathogens and symptoms include headache, nausea, vomiting, anorexia, fever, lethargy, and stiff neck. Disorientation, mental status changes, seizure activity, loss of consciousness, and ataxia may occur within hours of initial presentation. After the onset of symptoms, the disease progresses rapidly and usually results in death within 3 to 7 days.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed</p> <p>Probable: A clinically compatible case that</p>	<p>Detection of <i>Naegleria fowleri</i> from a clinical specimen via:</p> <ul style="list-style-type: none"> ▪ Detection of nucleic acid (e.g., PCR), <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of antigen (e.g., immunohistochemistry) <p>Notes:</p> <ul style="list-style-type: none"> ▪ When available, molecular characterization [e.g., genotype] should be reported. ▪ Contact the DSHS epidemiologist for amebic meningitis at 800-252-8239 if suspected. DSHS can assist in coordinating specimen and/or electronic images submission to the CDC for verification. ▪ Collection & shipping procedures can be found at:

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>meets at least one of the supportive laboratory criteria (listed below) and does not meet confirmatory lab criteria</p> <ul style="list-style-type: none"> ▪ Supportive laboratory evidence: <ul style="list-style-type: none"> ○ Visualization of motile amebae in a wet mount of CSF ○ Isolation of <i>N. fowleri</i> in culture from a clinical specimen <p>See also Amebic meningitis/encephalitis, other</p>	<p>http://www.cdc.gov/parasites/naegleria/diagnosis-hcp.html</p> <p><i>Naegleria fowleri</i> might cause clinically similar illness to bacterial meningitis, particularly in its early stages. Definitive diagnosis by a reference laboratory is required. Unlike <i>Balamuthia mandrillaris</i> and <i>Acanthamoeba</i> spp., <i>N. fowleri</i> is commonly found in the CSF of patients with PAM.</p>
<p>Anaplasmosis 11090</p>	<p>Anaplasmosis is a tick-borne illness caused by the bacterium <i>Anaplasma phagocytophilum</i>, which is transmitted primarily by blacklegged ticks (<i>Ixodes</i> spp.). Anaplasmosis typically presents 5 to 14 days after a tick bite with a combination of nonspecific clinical symptoms, such as fever, fatigue, and headache. Illness is often accompanied by laboratory abnormalities including leukopenia, thrombocytopenia, and mildly elevated liver enzymes. Anaplasmosis may result in severe illness or even death in older or immunocompromised individuals or if treatment is delayed. Serologic testing is commonly used to diagnose anaplasmosis, but as with other closely related species, antibodies to <i>Anaplasma</i> and <i>Ehrlichia</i> can cross-react.</p> <p>Clinical Criteria</p> <ul style="list-style-type: none"> • <u>Objective clinical evidence</u>: fever as reported by patient or healthcare provider, anemia, leukopenia, thrombocytopenia, any hepatic 	<ul style="list-style-type: none"> ▪ Serological evidence of a four-fold change¹ in IgG-specific antibody titer to <i>A. phagocytophilum</i> antigen by indirect immunofluorescence assay (IFA) in paired serum samples (one taken in the first two weeks after illness onset and a second taken two to ten weeks after acute specimen collection)², OR ▪ Detection of <i>A. phagocytophilum</i> DNA in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay, nucleic acid amplification tests (NAAT), or other molecular testing, OR ▪ Demonstration of anaplasma antigen in a biopsy/autopsy sample by IHC, OR ▪ Isolation of <i>A. phagocytophilum</i> from a clinical specimen in cell culture with molecular confirmation (e.g., PCR or sequencing)

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>transaminase elevation, or elevated C-reactive protein</p> <ul style="list-style-type: none"> • <u>Subjective clinical evidence:</u> chills/sweats, headache, myalgia, or fatigue/malaise <p>Confirmed: Meets confirmatory laboratory evidence AND at least one of the objective or subjective clinical evidence criteria.</p> <p>Probable: Meets presumptive laboratory evidence with fever as reported by patient or healthcare provider AND at least one other objective or subjective clinical evidence criterion (excluding chills/sweats) OR meets presumptive laboratory evidence without a reported fever but with chills/sweats AND at least one objective clinical evidence criterion, OR two other subjective clinical evidence criteria.</p> <p><i>Presumptive Laboratory evidence:</i> Serological evidence of IgG antibody reactive with <i>A. phagocytophilum</i> antigen by IFA at a titer $\geq 1:128$ in a sample taken within 60 days of illness onset, OR microscopic identification of intracytoplasmic morulae in leukocytes in a sample taken within 60 days of illness onset.</p> <p><i>Suspect:</i> Meets confirmatory or presumptive laboratory evidence with no or insufficient clinical information to classify as a confirmed or probable case (e.g., a laboratory report only).</p> <p>Notes:</p> <ul style="list-style-type: none"> • A person previously reported as a probable or confirmed case-patient 	<p>¹ A four-fold change in titer is equivalent to a change of two dilutions (e.g., 1:64 to 1:256).</p> <p>² A four-fold rise in titer should not be excluded as confirmatory laboratory criteria if the acute and convalescent specimens are collected within two weeks of one another.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>may be counted as a new case-patient when there is an episode of new clinically compatible illness with confirmatory laboratory evidence.</p> <ul style="list-style-type: none"> • Patients should not be classified as cases for both anaplasmosis and ehrlichiosis based on serologic evidence alone. 	
<p>Anthrax 10350</p>	<p>An illness or post-mortem examination characterized by several distinct clinical forms, including:</p> <ul style="list-style-type: none"> ▪ <i>Cutaneous</i>: A skin lesion evolving during a period of 2-6 days from a papule, through a vesicular stage, to a depressed black eschar. Fever, malaise, and lymphadenopathy can accompany the lesion. ▪ <i>Inhalation</i>: A prodrome resembling a viral respiratory illness, followed by hypoxia and dyspnea, or acute respiratory distress syndrome (ARDS) with resulting cyanosis and shock. Radiographic evidence of mediastinal widening or pleural effusion is common. ▪ <i>Ingestion</i> presents as two sub-types: <ul style="list-style-type: none"> ▪ <i>Gastrointestinal</i>: Severe abdominal pain and tenderness, nausea, vomiting, hematemesis, bloody diarrhea, anorexia, fever, and septicemia. ▪ <i>Oropharyngeal</i>: Mucosal lesion in the oral cavity or oropharynx, with cervical adenopathy, edema, pharyngitis, fever, and possible septicemia. ▪ <i>Injection</i>: Severe soft tissue infection manifested as significant edema or bruising after injection. No eschar is 	<ul style="list-style-type: none"> ▪ Culture and identification of <i>Bacillus anthracis</i> or <i>B. cereus</i> expressing anthrax toxins from clinical specimens by the Laboratory Response Network, OR ▪ Demonstration of <i>B. anthracis</i> antigens in tissues by IHC using both <i>B. anthracis</i> cell wall and capsule monoclonal antibodies, OR ▪ Evidence of a four-fold rise in antibodies to protective antigen between acute and convalescent sera or a fourfold change in antibodies to protective antigen in paired convalescent sera using CDC quantitative anti-PA IgG ELISA testing in an unvaccinated person, OR ▪ Detection of Lethal Factor (LF) in clinical serum specimens by LF mass spectrometry OR ▪ Detection of <i>B. anthracis</i> or anthrax toxin genes by the LRN-validated PCR and/or sequencing in clinical specimens collected from a normally sterile site or lesion of other affected tissue

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>apparent and pain is not common. Nonspecific symptoms such as fever, shortness of breath and nausea are sometimes the first indication of illness.</p> <ul style="list-style-type: none"> ▪ Systemic involvement: May include fever, convulsions, tachycardia, tachypnea, hypotension, leukocytosis, and/or meningeal signs (anthrax meningitis). These complications may be secondary to the above syndromes. <p><i>Clinical criteria:</i> A clinically compatible illness with at least one specific OR two non-specific symptoms and signs that are compatible with cutaneous, ingestion, inhalation, or injection anthrax; systemic involvement; or anthrax meningitis; OR a death of unknown cause AND organ involvement consistent with anthrax.</p> <p>Confirmed: A case that meets clinical criteria AND has confirmatory laboratory test results.</p> <p>Probable: A case that meets clinical criteria AND has a Gram stain demonstrating Gram-positive rods, square-ended, in pairs or short chains; OR a positive result on a test with established performance in a CLIA-accredited laboratory; OR has epidemiologic linkage relating it to anthrax.</p> <p><i>Suspect:</i> A case that meets the clinical criteria AND for whom an anthrax test was ordered, but with no epidemiologic linkage relating it to anthrax.</p> <p>Epidemiologic linkage is defined as one or</p>	<p>Note: As required by TAC, all <i>B. anthracis</i> isolates must be submitted to the DSHS Laboratory. <i>Bacillus cereus</i> expressing anthrax toxin suspect isolates from patients with severe disease should be forwarded for confirmation.</p>

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	<p>more of the following:</p> <ul style="list-style-type: none"> ▪ Exposure to environment, food, animal, materials, or objects that is suspected or confirmed to be contaminated with <i>B. anthracis</i>; OR ▪ Exposure to the same environment, food, animal, materials, or objects as another person who has lab-confirmed anthrax; OR ▪ Consumption of the same food as another person who has laboratory-confirmed anthrax. 	
<p>Arbovirus, neuroinvasive and non-neuroinvasive</p> <p>Neuroinvasive diseases:</p> <p>10058 Cache Valley virus</p> <p>10054 California serogroup virus</p> <p>10053 Eastern equine encephalitis virus</p> <p>10078 Jamestown Canyon virus</p> <p>10059 Japanese encephalitis virus</p> <p>10081 La Crosse virus</p> <p>10057 Powassan virus</p> <p>10051 St. Louis encephalitis virus</p> <p>10055 Venezuelan equine encephalitis virus</p>	<p>For the purposes of surveillance and reporting, arboviral disease cases are often categorized into two primary groups based on their clinical presentation: neuroinvasive disease and non-neuroinvasive disease. Many arboviruses cause neuroinvasive disease such as aseptic meningitis, encephalitis, or acute flaccid paralysis (AFP). These illnesses are usually characterized by the acute onset of fever with stiff neck, altered mental status, seizures, limb weakness, CSF pleocytosis, and/or abnormal neuroimaging. Less common neurological manifestations, such as cranial nerve palsies, also occur. AFP is characterized by rapid-onset extremity, facial, and/or respiratory weakness and flaccid muscle tone in the affected area; AFP may result from anterior myelitis, peripheral neuritis or post-infectious peripheral demyelinating neuropathy (Guillain-Barré Syndrome). Meningitis is infection or inflammation of the tissues surrounding the brain; symptoms can include fever, headache, photophobia, and</p>	<p>Neuroinvasive</p> <ul style="list-style-type: none"> ▪ Isolation of virus from, or demonstration of specific viral antigen or nucleic acid in, tissue, blood, CSF, or other body fluid, OR ▪ Four-fold or greater change in virus-specific quantitative antibody titers in paired sera, OR ▪ Virus-specific IgM antibodies in serum with confirmatory virus-specific neutralizing antibodies in the same or a later specimen, and negative neutralizing antibody results for potentially cross-reactive* arboviruses endemic to the region where exposure occurred, OR ▪ Virus-specific IgM antibodies in CSF and a negative result for other IgM antibodies in CSF for potentially cross-reactive* arboviruses endemic to the region where exposure occurred <p>Non-neuroinvasive</p> <ul style="list-style-type: none"> ▪ Isolation of virus from, or demonstration of specific viral antigen or nucleic acid in,

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
<p>10056 West Nile virus</p> <p>10052 Western equine encephalitis virus</p> <p>Non-neuroinvasive diseases:</p> <p>10066 Cache Valley virus</p> <p>10061 California serogroup virus</p> <p>10062 Eastern equine encephalitis virus</p> <p>10079 Jamestown Canyon virus</p> <p>10068 Japanese encephalitis virus</p> <p>10082 La Crosse virus</p> <p>10063 Powassan virus</p> <p>10064 St. Louis encephalitis virus</p> <p>10067 Venezuelan equine encephalitis virus</p> <p>10049 West Nile virus</p> <p>10065 Western equine encephalitis virus</p> <p>Other disease categories:</p>	<p>nuchal rigidity. Encephalitis is infection or inflammation of the brain tissue itself and may present with fever, altered mental status, seizures, and focal neurologic deficits; meningitis may also be present simultaneously, known as meningoencephalitis. Most arboviruses are capable of causing an acute systemic febrile illness (e.g., West Nile fever) that may include headache, myalgias, arthralgias, rash, and/or gastrointestinal symptoms. Some viruses also can cause more characteristic clinical manifestations, such as severe polyarthralgia or arthritis due to chikungunya virus or other alphaviruses.</p> <p>Clinical evidence of neuroinvasive disease:</p> <ul style="list-style-type: none"> ▪ Meningitis, encephalitis, acute flaccid paralysis, or other acute signs of central or peripheral neurologic dysfunction, as documented by a physician, AND ▪ Absence of a more likely clinical explanation <p>Clinical evidence of non-neuroinvasive disease:</p> <ul style="list-style-type: none"> ▪ Fever or chills as reported by the patient or a health-care provider, AND ▪ Absence of neuroinvasive disease, AND ▪ Absence of a more likely clinical explanation 	<p>tissue, blood, or other body fluid, excluding CSF,</p> <p>OR</p> <ul style="list-style-type: none"> ▪ Four-fold or greater change in virus-specific quantitative antibody titers in paired sera, <p>OR</p> <ul style="list-style-type: none"> ▪ Virus-specific IgM antibodies in serum with confirmatory virus-specific neutralizing antibodies in the same or a later specimen and negative neutralizing antibody results for potentially cross-reactive* arboviruses endemic to the region where exposure occurred <p>*Refer to Arbovirus Classification note in Notes section for more details.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
<p>11718 California encephalitis virus disease</p> <p>10073 Chikungunya virus disease</p> <p>10093 Colorado tick fever virus disease</p> <p>50237 Flavivirus disease, not otherwise specified</p> <p>11712 Keystone virus disease</p> <p>10072 Other arboviral diseases, not otherwise specified</p> <p>11734 Snowshoe hare virus disease</p> <p>10074 Tick-borne Encephalitis viruses</p> <p>11724 Trivittatus virus disease</p>	<p>Neuroinvasive:</p> <p>Confirmed: A clinically compatible case (meets neuroinvasive clinical evidence criteria) with laboratory confirmation</p> <p>Probable: A clinically compatible case (meets neuroinvasive clinical evidence criteria) with virus-specific IgM antibodies in CSF or serum but no other testing OR with lower levels of neutralizing antibodies for potentially cross-reactive* arboviruses endemic to the region where exposure occurred.</p> <p>Non-neuroinvasive:</p> <p>Confirmed: A clinically compatible case (meets non-neuroinvasive clinical evidence criteria) with laboratory confirmation</p> <p>Probable: A clinically compatible case (meets non-neuroinvasive clinical evidence criteria) with virus-specific IgM antibodies in serum but no other testing OR with lower levels of neutralizing antibodies for potentially cross-reactive* arboviruses endemic to the region where exposure occurred</p>	
<p>Ascariasis</p> <p>80770</p>	<p>A parasitic infection caused by the soil-transmitted helminths <i>Ascaris lumbricoides</i> and <i>Ascaris suum</i>. Most infections with <i>Ascaris</i> spp. are asymptomatic. Live worms, passed in stool or occasionally from the mouth, anus, or nose, are often the first recognized sign of infection. Larval migration may result in pulmonary manifestations such</p>	<ul style="list-style-type: none"> ▪ Microscopic identification of <i>Ascaris</i> spp. (<i>A. lumbricoides</i> or <i>A. suum</i>) eggs in stool specimens, <p>OR</p> <ul style="list-style-type: none"> ▪ Microscopic identification of ascarid larvae

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>as wheezing, cough, fever, eosinophilia and pulmonary infiltration in some patients. Light infections may result in minor abdominal discomfort, dyspepsia, and loss of appetite. Heavy infections may result in severe abdominal pain, fatigue, vomiting, or weight loss. In children, these symptoms can result in nutrient deficiencies resulting in growth retardation and/or cognitive impairment. Serious complications are rare but can be fatal and include intestinal obstruction by a bolus of worms, or obstruction of bile duct, pancreatic duct or appendix by one or more adult worms.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: A clinically compatible case with evidence of infection such as:</p> <ul style="list-style-type: none"> ▪ An ultrasound showing <i>Ascaris</i> spp. worms in the pancreas or liver, OR ▪ CT scans or MRI showing <i>Ascaris</i> spp. worms present in the ducts of the liver or pancreas. 	<p>in sputum or gastric washings,</p> <p>OR</p> <ul style="list-style-type: none"> ▪ Examination of adult worms identified as <i>A. lumbricoides</i> or <i>A. suum</i> passed from the anus, mouth, nose <p>Note: A laboratory confirmed case may involve the examination of adult worms or the microscopic identification of larvae or eggs.</p>
<p>Babesiosis 12010</p>	<p>Babesiosis is a parasitic disease caused by organisms in the <i>Babesia</i> genus. Infection can range from subclinical to life-threatening. Clinical manifestations can include hemolytic anemia and nonspecific influenza-like signs and symptoms (e.g., fever, chills, sweats, headache, myalgia, arthralgia, malaise, fatigue, and generalized weakness), splenomegaly, hepatomegaly, or jaundice. Laboratory findings can include thrombocytopenia, proteinuria, hemoglobinuria, and elevated levels of liver enzymes, blood urea nitrogen, and creatinine. Severe cases can be associated with marked thrombocytopenia, disseminated intravascular coagulation, hemodynamic instability, acute respiratory</p>	<ul style="list-style-type: none"> ▪ Identification of intraerythrocytic <i>Babesia</i> organisms by light microscopy in a Giemsa, Wright, or Wright-Giemsa–stained blood smear, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>Babesia</i> spp. DNA in a whole blood specimen by PCR, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>Babesia</i> spp. genomic sequences in a whole blood specimen by nucleic acid amplification,

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>distress, myocardial infarction, renal failure, hepatic compromise, altered mental status, and death.</p> <p><u>Objective Clinical Criteria:</u> fever, anemia, and/or thrombocytopenia</p> <p><u>Subjective Clinical Criteria:</u> sweats, headache, myalgia, arthralgia, and/or chills</p> <p>Confirmed: A case that is laboratory confirmed AND meets at least one objective or subjective clinical criterion</p> <p>Probable: A case that:</p> <ul style="list-style-type: none"> ▪ Has at least one supportive laboratory result (criteria listed below) AND meets at least one objective clinical criterion (subjective clinical criteria alone are not sufficient) <ul style="list-style-type: none"> ▪ IFA total immunoglobulin (Ig) or IgG titer: <ul style="list-style-type: none"> ▪ <i>B. microti</i>: ≥1:256 (≥1:64 in epidemiologically linked blood donors or recipients) ▪ <i>B. divergens</i>: ≥1:256 ▪ <i>B. duncani</i>: ≥1:512 ▪ Immunoblot IgG: <i>B. microti</i> positive result, OR ▪ Is a blood donor or recipient epidemiologically linked to a confirmed or probable babesiosis case, AND ▪ Has confirmatory laboratory evidence but does not satisfy objective or subjective clinical criterion, OR ▪ Satisfies the supportive laboratory criteria (same as above) <p>Suspect: A case that has confirmatory or supportive laboratory results, but insufficient</p>	<p>OR</p> <ul style="list-style-type: none"> ▪ Isolation of <i>Babesia</i> organisms from a whole blood specimen by animal inoculation

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	clinical or epidemiological information is available for case classification	
Botulism, foodborne 10530	<p>Ingestion of botulinum toxin results in an illness of variable severity. Common symptoms include diplopia, blurred vision, slurred speech, difficulty swallowing, and bulbar weakness. Symmetric descending paralysis can progress rapidly.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed or that occurs among persons who ate the same food as persons who have laboratory confirmed botulism</p> <p>Probable: A clinically compatible case with a history of ingestion of a food item known to carry a risk for the botulism toxin</p>	<ul style="list-style-type: none"> ▪ Detection of botulinum toxin in serum, stool/enema, gastric aspirate/vomit or patient's food, OR ▪ Isolation of <i>Clostridium botulinum</i> from stool/enema or gastric aspirate/vomit <p>Note: As required by TAC all <i>Clostridium botulinum</i> isolates must be submitted to the DSHS Laboratory.</p>
Botulism, infant 10540	<p>An illness of infants, characterized by constipation, poor feeding, altered cry, and "failure to thrive" that can be followed by progressive weakness, impaired respiration, and death.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed, occurring in a child aged less than 1 year</p>	<ul style="list-style-type: none"> ▪ Detection of botulinum toxin in stool/enema or serum, OR ▪ Isolation of <i>Clostridium botulinum</i> from stool/enema <p>Note: As required by TAC all <i>Clostridium botulinum</i> isolates must be submitted to the DSHS Laboratory.</p>
Botulism, other unspecified 10548	<p>Ingestion of botulinum toxin results in an illness of variable severity. Common symptoms include diplopia, blurred vision, slurred speech, difficulty swallowing, and bulbar weakness. Symmetric descending paralysis can progress rapidly.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed in a patient aged greater than or equal to 1 year who has no</p>	<ul style="list-style-type: none"> ▪ Detection of botulinum toxin in clinical specimen, OR ▪ Isolation of <i>Clostridium botulinum</i> from clinical specimen <p>Note: As required by TAC all <i>Clostridium botulinum</i> isolates must be submitted to the DSHS Laboratory.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	history of ingestion of suspect food and has no wounds	
Botulism, wound 10549	<p>An illness resulting from toxin produced by <i>Clostridium botulinum</i> that has infected a wound. Common symptoms include diplopia, blurred vision, slurred speech, difficulty swallowing, and bulbar weakness. Symmetric descending paralysis can progress rapidly.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed in a patient who has no suspected exposure to contaminated food and who has a history of a fresh, contaminated wound during the 2 weeks before onset of symptoms, or a history of injection drug use within the 2 weeks before onset of symptoms</p> <p>Probable: A clinically compatible case in a patient who has no suspected exposure to contaminated food and who has either a history of a fresh, contaminated wound during the 2 weeks before onset of symptoms, or a history of injection drug use within the 2 weeks before onset of symptoms</p>	<ul style="list-style-type: none"> ▪ Detection of botulinum toxin in serum or from wound OR ▪ Isolation of <i>Clostridium botulinum</i> from wound or serum <p>Note: As required by TAC all <i>Clostridium botulinum</i> isolates must be submitted to the DSHS Laboratory.</p>
Brucellosis 10020	<p>An illness that can cause a range of clinical signs and symptoms. Initial signs and symptoms may include fever, sweats, malaise, anorexia, headache, myalgia, arthralgia and/or fatigue. Chronic signs and symptoms may include recurrent fevers, arthritis, epididymitis, orchitis, endocarditis, hepatomegaly, splenomegaly, neurologic symptoms, chronic fatigue, and/or depression.</p> <p>Confirmed: A clinically compatible illness that is laboratory confirmed</p> <p>Probable: A clinically compatible case with</p>	<ul style="list-style-type: none"> ▪ Culture and identification of <i>Brucella</i> spp. from clinical specimens, OR ▪ Four-fold or greater rise in <i>Brucella</i> agglutination titer between acute- and convalescent-phase serum specimens obtained greater than or equal to 2 weeks apart and tested at the same laboratory <p>Note: As required by TAC, all <i>Brucella</i> spp. isolates must be submitted to the DSHS Laboratory.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>at least one of the following:</p> <ul style="list-style-type: none"> ▪ Epidemiologically linked to a confirmed human or animal brucellosis case, OR ▪ <i>Brucella</i> total antibody titer $\geq 1:160$ by standard tube agglutination test (SAT) or by <i>Brucella</i> microagglutination test (BMAT) in one or more serum specimens obtained after onset of symptoms, OR ▪ Detection of <i>Brucella</i> DNA in a clinical specimen by PCR assay 	
<p>Campylobacteriosis 11020</p>	<p>An illness of variable severity commonly manifested by diarrhea, abdominal pain, nausea and sometimes vomiting. The organism may also rarely cause extra-intestinal infections such as bacteremia, meningitis or other focal infections.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ A case with <i>Campylobacter</i> spp. detected in a clinical specimen using a culture independent diagnostic test (CIDT) <p>OR</p> <ul style="list-style-type: none"> ▪ A clinically compatible case that is epidemiologically linked to a case that meets the probable or confirmed laboratory criteria for diagnosis <p>Notes: A case should not be counted as a new case if laboratory results were reported within 30 days of a previously reported infection in the same individual, unless additional information is available</p>	<p>Isolation (Culture) of <i>Campylobacter</i> spp. in a clinical specimen.</p> <p>Note: A positive culture result is considered a Confirmed case. A PCR, enteric panel, or other positive CIDT is considered a Probable case.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	indicating a separate infection, e.g., different species.	
<p><i>Candida auris</i> (<i>C. auris</i>), Clinical 50263</p> <p><i>C. auris</i>, Screening 50264</p>	<p><i>C. auris</i> is an emerging multidrug-resistant yeast that can cause invasive infections and is associated with high mortality. Some <i>C. auris</i> strains are resistant to the three major classes of antifungals (azoles, polyenes, and echinocandins), severely limiting treatment options.</p> <p><i>C. auris</i> can colonize patients' skin and other body sites, perhaps indefinitely, and colonization poses a risk both for invasive infection and transmission. <i>C. auris</i> persists in the healthcare environment for weeks and can spread in healthcare settings and cause outbreaks. Certain routinely used disinfectants in healthcare settings are not effective against <i>C. auris</i>. Epidemiological investigations found that 1/3 to 1/2 of unit patients are colonized with <i>C. auris</i> within weeks of an index patient entering the facility, especially in long-term care.</p> <p><u><i>Candida auris</i>, clinical</u></p> <p>Confirmed: A case with a confirmatory laboratory test from a clinical specimen collected for the purpose of diagnosing or treating disease in the normal course of care.</p> <p><u><i>Candida auris</i>, screening</u></p> <p>Confirmed: Person with confirmatory laboratory evidence from a swab collected</p>	<p>Confirmatory Laboratory Evidence:</p> <p><u><i>Candida auris</i>, clinical</u></p> <ul style="list-style-type: none"> • Detection of <i>C. auris</i> in a clinical specimen obtained during the normal course of care for diagnostic or treatment purposes using either culture or a validated culture-independent test (e.g., nucleic acid amplification test [NAAT]). <p><u><i>Candida auris</i>, screening</u></p> <ul style="list-style-type: none"> • Detection of <i>C. auris</i> in a specimen from a swab obtained for the purpose of colonization screening using either culture or validated culture-independent test (e.g., NAAT). <p>Note: As required by Texas Administrative Code (TAC), all isolates identified as <i>C. auris</i> must be submitted to the Department of State Health Services (DSHS) Laboratory. However, isolates can be submitted to another public health laboratory as designated by DSHS.</p> <p>Please contact a DSHS Epidemiologist or the DSHS Laboratory for additional information on laboratory support.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>for the purpose of screening for <i>C. auris</i> colonization regardless of site swabbed**.</p> <p>**Typical screening specimen sites are skin (e.g., axilla, groin), nares, rectum, or other external body sites. Swabs collected from wound or draining ear as part of clinical care are considered clinical specimens.</p> <p>Criteria to distinguish a new case from an existing case:</p> <p>A Patient who is colonized or infected with <i>C. auris</i> is considered colonized indefinitely.</p> <ul style="list-style-type: none"> • For screening cases, count patient only one time as a screening case. • For clinical cases, count patient only one time as a clinical case. A person with a clinical case should not be counted as a screening case thereafter because all clinical cases are considered to also be colonized with <i>C. auris</i>. 	
<p>Carbapenem-resistant Enterobacterales (CRE) 77924</p>	<p><u>Carbapenem-resistant <i>Enterobacterales</i></u> (previously <i>Enterobacteriaceae</i>) are gram-negative bacilli that are either: (1) resistant to at least one carbapenem antibiotic (ertapenem, meropenem, doripenem, imipenem); or (2) produce a carbapenemase (blaKPC, blaNDM, blaVIM, blaIMP, blaOXA-48, blaSIM, blaGIM, blaSPM, other blaOXA, etc.)</p> <p>CRE can colonize or infect any body site and can cause infections including pneumonia, bloodstream infections, urinary tract infections, wound infections,</p>	<p>Detection of <i>Klebsiella</i> species or <i>E. coli</i> from any body site that is laboratory confirmed with:</p> <p>Resistant to any carbapenem, including meropenem, imipenem, doripenem, or ertapenem</p> <p style="text-align: center;">OR</p> <p>Positive for known carbapenemase resistance gene (i.e. KPC, NDM, VIM, IMP, OXA-48); Xpert Carba-R positive</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>and meningitis. Common healthcare setting CRE infection causes include <i>Klebsiella</i> species, and <i>Escherichia coli</i>. <i>Klebsiella aerogenes</i>, previously known as <i>Enterobacter aerogenes</i>, meets the case definition.</p> <p>Confirmed: A case with a confirmatory laboratory test.</p> <p>Note: Additional CRE information is found at: http://www.cdc.gov/HAI/organisms/cre/index.html</p>	<p>for KPC, PCR or Xpert Carba-R Assay positive;</p> <p>OR</p> <p>Positive on a phenotypic test for carbapenemase production by metallo- β-lactamase test, modified Hodge Test (MHT), Carbapenem Inactivation Method (CIM) positive, or modified CIM (mCIM).</p> <p>Note: If a culture-independent diagnostic test (CIDT) report is received with multiple pathogens detected and a carbapenemase gene is detected, there is no way to know which organism the carbapenemase gene belongs to; recommended collecting a culture from the same site.</p> <p>There is no requirement to submit isolates to the DSHS Laboratory. However, isolates can be voluntarily submitted to the DSHS Laboratory for additional carbapenemase and antibiotic susceptibility testing. Please contact a DSHS HAI/AR Epidemiologist or the DSHS Laboratory for additional information on available lab support. If the CRE isolate is sent to the DSHS Laboratory for additional testing, use the submitting laboratory's antibiotic susceptibility test results to meet the Epi Case Criteria.</p>
<p>Chagas disease, acute 12041</p>	<p>Chagas disease is a parasitic infection caused by <i>Trypanosoma cruzi</i>. The acute phase is characterized by the first 8 weeks of infection, detectable parasitemia, and</p>	<ul style="list-style-type: none"> ▪ Identification of <i>T. cruzi</i> by microscopy including: <ul style="list-style-type: none"> ▪ Microscopic examination of <i>T. cruzi</i> by: <ul style="list-style-type: none"> ▪ Wet mount – motile trypanosomes

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>asymptomatic (most common) or symptomatic manifestations of disease which can include any of the following: Fever, malaise, rash, body aches, headache, loss of appetite, vomiting, diarrhea, hepatomegaly, splenomegaly, lymphadenopathy, Chagoma (nodular swelling at site of inoculation), Romaña’s sign (unilateral swelling of the eyelid), acute myocarditis, and/or meningoencephalitis.</p> <p>Confirmed: A case (asymptomatic or symptomatic) that has confirmatory laboratory testing. Asymptomatic individuals must have evidence of parasitemia based on microscopy or PCR.</p> <p>Suspect: A case diagnosed with DNA-detection methods outside of PCR (e.g., cell-free DNA).</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Cases diagnosed with DNA-detection methods outside of PCR should have samples forwarded to CDC for confirmation. ▪ Samples forwarded to CDC for confirmatory testing which test negative cannot be classified as cases. ▪ Congenital infections are considered acute up to 8 weeks of age and can be diagnosed by confirmatory tests. Infants <12 months and epidemiologically-linked need to be retested after 12 months of age. ▪ Please refer to the DSHS website for guidance on Chagas disease testing: 	<p>OR</p> <ul style="list-style-type: none"> ▪ Thick & thin smears - Giemsa stain <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>T. cruzi</i> DNA by PCR <p>OR</p> <ul style="list-style-type: none"> ▪ Positive diagnostic serology confirmed by testing at CDC <p>Note: No single supportive test has the sensitivity and specificity to be relied on alone, thus two different methods or antibodies specific to <i>T. cruzi</i> are used.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	https://www.dshs.texas.gov/chagas-disease/chagas-disease-resources/chagas-disease-testing-guidance	
Chagas disease, chronic indeterminate 12043	<p>Following the acute phase, most infected people enter into a prolonged, asymptomatic form of disease (called "chronic indeterminate") during which few or no parasites are found in the blood. During this time, most people are unaware of their infection. Many people remain asymptomatic for life and never develop chronic Chagas-related symptoms.</p> <p>Confirmed: An asymptomatic case ≥ 12 months of age with confirmatory lab results</p> <p>Probable: An asymptomatic case ≥ 12 months of age with</p> <ul style="list-style-type: none"> • A single <i>T. cruzi</i> IgG positive ELISA* with an IV (reference interval) ≥ 3.5, OR • Positive blood donor screening <u>and</u> a <i>T. cruzi</i> IgG positive ELISA with an IV < 3.5 (or no IV provided), OR • Two <i>T. cruzi</i> IgG positive ELISAs that are different test kits (e.g., Wiener ELISA and Hemagen ELISA) <p>Suspect: An asymptomatic case ≥ 12 months of age with</p> <ul style="list-style-type: none"> • Positive (reactive) blood donor screening <p>OR</p> <ul style="list-style-type: none"> • A single <i>T. cruzi</i> IgG positive assay* with an IV < 3.5 (or no IV provided) <p>*DSHS or commercial lab (<i>T. cruzi</i> IgG serology tests may be called "<i>Trypanosoma cruzi</i> Antibody, IgG," "<i>Trypanosoma cruzi</i></p>	<ul style="list-style-type: none"> ▪ Detection of antibody specific to <i>T. cruzi</i> by TWO distinct diagnostic tests performed at CDC <p>Note: No single supportive test has the sensitivity and specificity to be relied on alone, thus two different methods or antibodies specific to <i>T. cruzi</i> are used.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>Antibody, Total," or <i>Trypanosoma cruzi</i> Total Antibody")</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Patients with positive blood donor screening should have <i>T. cruzi</i> IgG testing at a commercial or public health lab. ▪ Patients testing positive with commercial lab serology should have samples forwarded to DSHS. ▪ Samples forwarded to CDC for confirmatory testing which test negative cannot be classified as cases. ▪ Women with chronic indeterminate disease can transmit infection to their unborn babies. Infants <12 months of age with a mother from an endemic area, in absence of direct detection of the organism, cannot be classified or ruled out due to maternal antibodies; perform serology at 12 months of age and classify based on presence or absence of symptoms as chronic symptomatic or chronic indeterminate case definition. ▪ Please refer to the DSHS website for guidance on Chagas disease testing: Chagas Disease Human Testing Guidance for Healthcare Providers Texas DSHS 	
<p>Chagas disease, chronic symptomatic 12042</p>	<p>Much like the chronic indeterminate phase, the chronic symptomatic phase of disease (more than 8 weeks post infection) is characterized by undetectable parasitemia. However, an estimated 20-30% of infected people will develop debilitating and sometimes life-threatening medical problems over the course of their lives. Complications of chronic Chagas disease</p>	<ul style="list-style-type: none"> ▪ Detection of antibody specific to <i>T. cruzi</i> by TWO distinct diagnostic tests performed at CDC <p>Note: No single supportive test has the sensitivity and specificity to be relied on alone, thus two different methods or antibodies specific to <i>T. cruzi</i> are used.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>may include heart rhythm abnormalities that can cause sudden death, a dilated heart that doesn't pump blood well, and/or a dilated esophagus or colon, leading to difficulties with eating or passing stool.</p> <p>Confirmed: A clinically compatible case of physician-diagnosed chronic Chagas disease in a patient ≥ 12 months of age with confirmatory laboratory results</p> <p>Probable: An clinically compatible case of physician-diagnosed chronic Chagas disease in a patient ≥ 12 months of age with</p> <ul style="list-style-type: none"> • A single <i>T. cruzi</i> IgG positive ELISA* with an IV (reference interval) ≥ 3.5, OR • Positive blood donor screening <u>and</u> a <i>T. cruzi</i> IgG positive ELISA with an IV < 3.5 (or no IV provided), OR • Two <i>T. cruzi</i> IgG positive ELISAs that are different test kits (e.g., Wiener ELISA and Hemagen ELISA) <p>Suspect: An clinically compatible case of physician-diagnosed chronic Chagas disease in a patient ≥ 12 months of age with</p> <ul style="list-style-type: none"> • Positive (reactive) blood donor screening OR • A single <i>T. cruzi</i> IgG positive assay* with an IV < 3.5 (or no IV provided) <p>*DSHS or commercial lab (<i>T. cruzi</i> IgG serology tests may be called "Trypanosoma cruzi Antibody, IgG," "Trypanosoma cruzi Antibody, Total," or Trypanosoma cruzi Total Antibody")</p>	

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>Notes:</p> <ul style="list-style-type: none"> ▪ Patients with positive blood donor screening should have <i>T. cruzi</i> IgG testing at a commercial or public health lab. ▪ Patients testing positive with commercial lab serology should have samples forwarded to DSHS. ▪ Samples forwarded to CDC for confirmatory testing which test negative cannot be classified as cases. ▪ Women with chronic indeterminate disease can transmit infection to their unborn babies. Infants <12 months of age with a mother from an endemic area, in absence of direct detection of the organism, cannot be classified or ruled out due to maternal antibodies; perform serology at 12 months of age and classify based on presence or absence of symptoms as chronic symptomatic or chronic indeterminate case definition. ▪ Please refer to the DSHS website for guidance on Chagas disease testing: Chagas Disease Human Testing Guidance for Healthcare Providers Texas DSHS 	
<p>Chickenpox - (see Varicella)</p>	<ul style="list-style-type: none"> ▪ See Varicella 	

<p>Cholera (toxigenic <i>Vibrio cholerae</i> O1 or O139) 10470</p>	<p>An illness characterized by profuse watery diarrhea and/or vomiting; severity is variable.</p> <p>Confirmed: A clinically compatible illness that is laboratory confirmed</p> <p>Note: Illnesses caused by strains of <i>V. cholerae</i> other than toxigenic <i>V. cholerae</i> O1 or O139 should not be reported as cases of cholera. (See Vibriosis, other or unspecified)</p>	<ul style="list-style-type: none"> ▪ Isolation of toxigenic (i.e., cholera toxin-producing) <i>Vibrio cholerae</i> O1 or O139 from stool or vomitus, <p>OR</p> <ul style="list-style-type: none"> ▪ Serologic evidence of recent infection <p>Note: As required by TAC all <i>Vibrio</i> species isolates must be submitted to the DSHS Laboratory.</p>
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COVID-19 (Novel Coronavirus 2019)
[11065](#)

A novel coronavirus is a newly identified coronavirus that has not been previously identified in the human population and it is assumed there is no existing immunity to the virus. The virus (SARS-CoV-2) causing coronavirus disease 2019 (COVID-19), first identified in Wuhan, China in 2019 is not the same as coronaviruses that commonly circulate among humans and cause mild illness, like the common cold. The virus is distinct from although closely related to both SARS-CoV and MERS-CoV. Epidemiologic findings indicate COVID-19 may be less severe than SARS or MERS, but evidence suggests that the virus is more contagious than its predecessors[†]. SARS-CoV-2 is a newly identified pathogen and it is assumed there was no pre-existing human immunity to the virus in 2019 and early in 2020. There are risk factors that increase the risk of an individual's illness being more severe.

Those at highest risk for severe disease and death include people aged over 60 years (especially those 85 years and older) and those with underlying conditions, including but not limited to obesity, hypertension, diabetes, cardiovascular disease, chronic respiratory or kidney disease, immunosuppression from solid organ transplant, and sickle cell disease. A complete list can be found at: [People with Certain Medical Conditions | CDC](#). Disease in children mostly appears to be relatively mild, and there is evidence that a significant proportion of infections across all age groups are asymptomatic, or presymptomatic at the time of testing.

Laboratory evidence using a method approved or authorized by the FDA¹ or designated authority:

*Confirmatory** laboratory evidence:*

- Detection of SARS-CoV-2 RNA in a clinical or post-mortem specimen using a diagnostic molecular amplification test performed by a CLIA-certified provider***, OR
- Detection of SARS-CoV-2 in a clinical or post-mortem specimen by genomic sequencing****.

*Presumptive** laboratory evidence:*

- Detection of SARS-CoV-2 specific antigen in a clinical or post-mortem specimen using a diagnostic test performed by a CLIA-certified provider.

*Supportive** laboratory evidence:*

- Detection of SARS-CoV-2 specific antigen by immunocytochemistry OR
- Detection of SARS-CoV-2 RNA or specific antigen using a test performed without CLIA oversight.

1. [FDA Emergency Use Authorizations](#)
[Emergency Use Authorization | FDA](#) and
[Coronavirus Disease 2019 \(COVID-19\) | FDA](#)

Asymptomatic and presymptomatic individuals who are infected may transmit SARS-CoV-2. Symptoms of COVID-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death. People with COVID-19 generally develop signs and symptoms, including mild respiratory symptoms and fever 3-5 days after infection (mean incubation period 3-5 days, range 1- more than 14 days). DSHS is updating the COVID-19 reporting and case classification criteria to better meet long-term surveillance goals for tracking this disease. At this time, universal case investigation and contact tracing is no longer an effective intervention for containing spread. Further, surveillance for probable cases based on clinical criteria and epidemiologic linkage to known cases is no longer necessary. COVID-19 case ascertainment based on positive serologic test results is also no longer relevant due to high community seroprevalence. For these reasons, surveillance should focus on incident cases only. In accordance with the Council of State and Territorial Epidemiologists (CSTE) update to the standardized surveillance case definition and national notification for 2019 novel coronavirus disease (COVID-19) Interim-22-ID-01, DSHS has adopted the following case classification strategy effective January 1, 2023;

† The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team. The Epidemiological Characteristics of an

**. On March 13, 2020, the President issued a Memorandum on Expanding State-Approved Diagnostic Tests: "Should additional States request flexibility to authorize laboratories within the State to develop and perform tests used to detect COVID-19, the Secretary shall take appropriate action, consistent with law, to facilitate the request."*

*** The terms confirmatory, presumptive, and supportive are categorical labels used here to standardize case classifications for public health surveillance. The terms should not be used to interpret the utility or validity of any laboratory test methodology.*

**** Includes those tests performed under a CLIA certificate of waiver.*

***** Some genomic sequencing tests that have been authorized for emergency use by the FDA do not require an initial PCR result to be generated. Genomic sequencing results may be all the public health agency receives.*

Outbreak of 2019 Novel Coronavirus Diseases (COVID-19) in China]. Zhonghua Liu Xing Bing Xue Za Zhi. 2020;41(2):145-151. DOI:10.3760/cma.j.issn.0254-6450.2020.02.003.

Confirmed: A case that meets confirmatory laboratory evidence*

Probable: A case that meets presumptive laboratory evidence*

Suspect: A case that:

- Meets supportive laboratory evidence*

OR

- Meets vital records criteria with no confirmatory or presumptive laboratory evidence for SARS-CoV-2,

Laboratory Criteria for Reporting

- Detection of SARS-CoV-2 RNA in a clinical or post-mortem specimen using a diagnostic molecular amplification test performed by a CLIA-certified provider*,

OR

- Detection of SARS-CoV-2 genomic sequences,

OR

- Detection of SARS-CoV-2 specific antigen in a clinical or post-mortem specimen using a diagnostic test performed by a CLIA-certified provider*

**Includes those tests performed under a CLIA certificate of waiver*

NOTE: Testing performed by individuals at home using over-the-counter test kits is considered supportive laboratory evidence and should not be included in case counts due to lack of CLIA oversight.

Clinical Criteria for Reporting:

N/A

Epidemiologic Linkage Criteria for Reporting:

N/A

Vital Records Criteria for Reporting:

A person whose death certificate lists COVID-19 disease or SARS-CoV-2 or an equivalent term as an underlying cause of death or a significant condition contributing to death.

Criteria to distinguish a new case of this disease or condition from reports or notifications which should not be enumerated as a new case for surveillance:

The following should be enumerated as a new case:

- Person was most recently enumerated as a confirmed or probable case with onset date (if available) or first positive specimen collection date for that classification >90 days prior±,

OR

	<ul style="list-style-type: none"> • SARS-CoV-2 sequencing results from the new positive specimen and a positive specimen from the most recent previous case demonstrate a different lineage, <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Person was previously reported but not enumerated as a confirmed or probable case (i.e., suspect)^{††}, but now meets the criteria for a confirmed or probable case. <p><i>† Some individuals, e.g., severely immunocompromised persons, can shed SARS-CoV-2, as detected by molecular amplification tests, >90 days after infection. For severely immunocompromised individuals, clinical judgment should be used to determine if a repeat positive test is likely to result from long-term shedding and, therefore, not be enumerated as a new case. Severe immunocompromise conditions include chemotherapy for cancer, untreated HIV infection with CD4 T lymphocyte count <200, combined primary immunodeficiency disorder, and receipt of prednisone >20mg/day for more than 14 days.</i></p> <p><i>††Repeat suspect cases should not be enumerated.</i></p>	
Contaminated sharps injury	A contaminated sharps injury that occurs in	Both source person and injured employee

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>a health care setting that is contaminated with human blood or body fluids should be reported per the below guidelines.</p> <p>Contaminated sharps injuries in private facilities must be documented per OSHA guidelines. http://www.osha.gov/SLTC/etools/hospital/hazards/sharps/sharps.html</p> <p>Contaminated sharps injuries in Texas public facilities (government entities) are reported to DSHS Emerging and Acute Infectious Disease Branch.</p> <p><i>The facility where the injury occurred should complete the reporting form and submit it to the local health authority where the facility is located. If no local health authority is appointed for this jurisdiction, submit to the regional director of the Texas Department of State Health Services (TDSHS) regional office in which the facility is located. Address information for regional directors can be obtained at http://www.dshs.state.tx.us/regions/default.shtm. The local health authority, acting as an agent for the TDSHS will receive and review the report for completeness, and submit the report to:</i></p> <p>Texas Department of State Health Services Emerging and Acute Infectious Disease Branch PO Box 149347 (Mail Code 1960), Austin, Texas 78714-9347 Fax number: 512-776-7616</p> <p>The reporting forms can be found at http://www.dshs.state.tx.us/idcu/health/inf</p>	<p>should be tested for HIV, HBV, and HCV due to the exposure and not as a laboratory confirmation.</p> <p>See referenced U.S. Public Health Service Guidelines for recommended follow-up testing.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>ection_control/bloodborne_pathogens/reporting/</p> <p>For health care worker HIV risk assessment and follow-up refer to the Updated U.S. Public Health Service guidelines for the management of occupational exposures to HIV and recommendations for post-exposure prophylaxis http://stacks.cdc.gov/view/cdc/20711 (updated 2013).</p> <p>For health care worker HBV and HCV risk assessment and follow-up refer to the Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-exposure Prophylaxis (updated 2001).</p>	
Cronobacter	<p>In the absence of a more likely alternative diagnosis, it is an acute illness in an infant characterized by an invasive infection, including but not limited to meningitis, cerebral abscess, sepsis, necrotizing enterocolitis, or urinary tract infection. It is recommended that infections with Cronobacter from infants (<12 months of age) are reported to the public health authorities.</p> <p>Confirmed: Meets clinical criteria AND confirmatory laboratory evidence Probable: Meets clinical criteria AND epidemiological linkage criteria AND supportive laboratory evidence Suspect:</p>	<p><i>Confirmatory Laboratory Evidence:</i></p> <ul style="list-style-type: none"> Isolation by culture of <i>Cronobacter</i> spp. in a clinical specimen from a normally sterile site (e.g., blood or cerebrospinal fluid) <p><i>Supportive Laboratory Evidence:</i></p> <ul style="list-style-type: none"> Isolation of <i>Cronobacter</i> spp. in a clinical specimen from a non-sterile site (e.g., stool or rectum, urine, skin, respiratory secretions, or broncho-alveolar lavage, etc.) <p><i>Epidemiologic Linkage Criteria:</i> Epidemiologic risk factors within 7 days prior to illness onset in an infant:</p> <ul style="list-style-type: none"> Consumption of powdered infant formula (PIF) implicated as the source of infection, OR

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<ul style="list-style-type: none"> • Meets clinical criteria AND supportive laboratory evidence, OR • Meets clinical criteria AND epidemiological linkage criteria 	<ul style="list-style-type: none"> • Exposure to a non-PIF product, such as breast milk, implicated as the source of infection, OR • Residing in a congregate setting (e.g., a neonatal intensive care unit [NICU]) with an active <i>Cronobacter</i> spp. outbreak.
<p>Cryptosporidiosis 11580</p>	<p>A gastrointestinal illness characterized by diarrhea and one or more of the following: diarrhea duration of 72 hours or more, abdominal cramping, vomiting, or anorexia.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ A case with <i>Cryptosporidium</i> antigen detected by a screening test method such as, the immunochromatographic card/rapid card test or a laboratory test of unknown method <p>OR</p> <ul style="list-style-type: none"> ▪ A clinically compatible case that is epidemiologically linked to a confirmed case by one of the following means: <ul style="list-style-type: none"> ▪ Household or other close contact to a lab-confirmed case with onset of symptoms within 1 month (before or after), OR ▪ Exposure to an outbreak at a body of water or water facility involving at least 2 lab-confirmed cases and onset of symptoms within one month (before or after) of one or more of these cases <p>Note: A case should not be counted as a new</p>	<p><u>Confirmed:</u> Detection of <i>Cryptosporidium</i> organisms or DNA in stool, intestinal fluid, tissue samples, biopsy specimens, or other biological sample by certain laboratory methods with a high positive predictive value (PPV):</p> <ul style="list-style-type: none"> ▪ Direct fluorescent antibody (DFA) test, OR ▪ Polymerase chain reaction (PCR), OR ▪ Enzyme immunoassay (EIA), OR ▪ Light microscopy of stained specimen. <p><u>Probable:</u> Immunochromatographic card/rapid card test OR Unknown lab test type.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>case if laboratory results were reported within 365 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection</p>	
<p>Cyclosporiasis 11575</p>	<p>An illness of variable severity caused by the protozoan parasite <i>Cyclospora cayetanensis</i>. The most common symptom is watery diarrhea. Other symptoms include loss of appetite, weight loss, abdominal cramps/bloating, nausea, body aches, and fatigue. Vomiting and low-grade fever also may occur.</p> <p>Confirmed: A laboratory-confirmed case with clinical compatibility</p> <p>Probable: A clinically compatible case that is epidemiologically linked to a confirmed case</p> <p>Note: A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection</p>	<p><u>Confirmed:</u></p> <ul style="list-style-type: none"> ▪ Detection of <i>Cyclospora</i> organisms by microscopic examination in stool, intestinal fluid/aspirate, or intestinal biopsy specimens, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>Cyclospora</i> DNA (by PCR) in stool, intestinal fluid/aspirate, or intestinal biopsy specimens <p><u>Probable:</u></p> <ul style="list-style-type: none"> • A probable case must have an epi-linkage
<p>Cysticercosis 12031</p>	<p>Cysticercosis is a tissue infection caused by the larval form of the pork tapeworm, <i>Taenia solium</i>. Infection occurs when the tapeworm eggs are ingested, hatch into larvae, and migrate to tissues where they form cysticerci (cysts). The signs and symptoms of cysticercosis reflect the development of cysticerci in various sites. Subcutaneous cysticerci may be visible or palpable.</p>	<ul style="list-style-type: none"> ▪ Diagnosis of neurocysticercosis is usually made by MRI or CT brain scans in order to identify the presence of cysticerci. If surgery is necessary, confirmation of the diagnosis can be made by demonstrating the cysticercus in the tissue involved (biopsy). ▪ Radiographs can identify calcified cysticerci in tissues other than the brain.

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>When cysticerci are found in the brain, the condition is called neurocysticercosis, which can cause diverse manifestations including seizures, mental disturbances, focal neurologic deficits, and signs of space-occupying intracerebral lesions. Death can occur suddenly. Extracerebral cysticercosis can cause ocular, cardiac, or spinal lesions with associated signs and symptoms. Asymptomatic subcutaneous nodules and calcified intramuscular nodules can be encountered.</p> <p>Confirmed: Laboratory confirmation of the presence of cysticercus in tissue</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Documentation of biopsy or imaging results is required. ▪ Demonstration of <i>T. solium</i> eggs and proglottids in the feces are diagnostic of taeniasis (see Taenia solium and undifferentiated Taeniasis), not cysticercosis. Persons who are found to have eggs or proglottids in their feces should be evaluated serologically since autoinfection, resulting in cysticercosis, can occur. ▪ Blood tests are available to help diagnose an infection but are not always accurate. While suggestive, it does not necessarily prove that cysticercosis is present. 	
<p>Dengue-like Illness 11704</p> <p>Dengue 10680</p>	<p>Dengue is a potentially fatal febrile illness caused by infection with any of the four dengue viruses (DENV-1, -2, -3 and -4). Dengue is transmitted primarily through the bite of <i>Aedes aegypti</i> and <i>Ae. albopictus</i></p>	<ul style="list-style-type: none"> ▪ Detection of DENV nucleic acid in serum, plasma, CSF, other body fluid or tissue by validated RT-PCR, OR

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
<p>Dengue, severe 11705</p>	<p>mosquitoes. For the purposes of surveillance and reporting, based on their clinical presentation, dengue cases can be categorized into three primary groups: dengue-like illness, dengue, and severe dengue. *Indicates clinical evidence that must be documented in medical records</p> <p>Clinical evidence of dengue-like illness:</p> <ul style="list-style-type: none"> ▪ Fever as reported by the patient or healthcare provider <p>Clinical evidence of dengue:</p> <ul style="list-style-type: none"> ▪ Fever as reported by the patient or healthcare provider and the presence of one or more of the following signs and symptoms: <ul style="list-style-type: none"> ▪ nausea/vomiting ▪ rash ▪ aches and pains (i.e. headache, retro-orbital pain, arthralgia, myalgia) ▪ tourniquet test positive ▪ *leukopenia (a total white blood cell count of <5,000/mm³) ▪ abdominal pain or tenderness ▪ persistent vomiting ▪ extravascular fluid accumulation ▪ mucosal bleeding ▪ *liver enlargement >2 centimeters ▪ *increasing hematocrit concurrent with rapid decrease in platelet count, demonstrated in consecutive blood specimens (thrombocytopenia alone is not sufficient) <p>Clinical evidence of severe dengue:</p> <ul style="list-style-type: none"> ▪ Dengue with any one or more of the following scenarios: 	<ul style="list-style-type: none"> ▪ Detection of DENV antigen in tissue, by IHC, OR ▪ Detection in serum or plasma of DENV NS1 antigen by a validated immunoassay, OR ▪ Cell culture isolation of DENV from serum, plasma, or CSF specimen, OR ▪ Detection of IgM anti-DENV in serum or CSF in a traveler returning from a dengue endemic area without ongoing transmission of another flavivirus, clinical evidence of co-infection with a flavivirus or recent vaccination against a flavivirus**, OR ▪ Detection of IgM anti-DENV in serum or CSF in a person living in a dengue endemic or non-endemic area of the US without evidence of other flavivirus transmission**, OR ▪ IgM anti-DENV seroconversion by validated immunoassay in acute (i.e., collected <5 days of illness onset) and convalescent (i.e., collected >5 days after illness onset) serum specimens, OR ▪ IgG anti-DENV seroconversion or ≥4-fold rise in titer in serum specimens collected >2 weeks apart, and confirmed by a neutralization test (e.g., plaque reduction neutralization test) with a >4-fold higher end point titer as compared to other flaviviruses tested** <p>**Refer to Arbovirus Classification note in Notes section for more details.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<ul style="list-style-type: none"> ▪ *severe plasma leakage evidenced by hypovolemic shock and/or extravascular fluid accumulation with respiratory distress ▪ *severe bleeding from the gastrointestinal tract or vagina as defined by requirement for medical intervention including intravenous fluid resuscitation or blood transfusion (not just platelets) ▪ *severe organ involvement, including any of the following: <ul style="list-style-type: none"> ▪ elevated liver transaminases: aspartate aminotransferase (AST) or alanine aminotransferase (ALT) $\geq 1,000$ units per liter (U/L) ▪ impaired level of consciousness and/or diagnosis of encephalitis, encephalopathy, or meningitis ▪ heart or other organ involvement including myocarditis, cholecystitis, and pancreatitis <p>Confirmed: A clinically compatible case of dengue-like illness, dengue, or severe dengue with confirmatory laboratory results</p> <p>Probable: A clinically compatible case of dengue-like illness, dengue, or severe dengue AND one of the following:</p> <ul style="list-style-type: none"> ▪ Detection of IgM anti-DENV by validated immunoassay in serum or CSF in a person 	

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>living in a dengue endemic or non-endemic area of the US with evidence of other flavivirus transmission or recent vaccination against a flavivirus**</p> <ul style="list-style-type: none"> ▪ Detection of IgM anti-DENV by validated immunoassay in serum or CSF in a traveler returning from a dengue endemic area with ongoing transmission of another flavivirus, clinical evidence of co-infection with one of these flaviviruses, or recent vaccination against a flavivirus** <p>Suspect: A clinically compatible case of dengue-like illness, dengue, or severe dengue with an epidemiologic linkage, defined as:</p> <ul style="list-style-type: none"> ▪ Travel to a dengue endemic country or presence at a location with an ongoing outbreak within two weeks prior to onset of an acute febrile illness or dengue, OR ▪ Association in time and place with a confirmed or probable dengue case 	
<p>Diphtheria 10040</p>	<p>An upper respiratory tract illness with an adherent membrane of the nose, pharynx, tonsils, or larynx OR an infection of a non-respiratory anatomical site (e.g., skin, wound, conjunctiva, ear, genital mucosa)</p> <p>Confirmed: A clinically compatible case that is either laboratory confirmed, OR epidemiologically linked to a laboratory-confirmed case</p> <p>OR</p> <p>An infection at a non-respiratory anatomical site (e.g., skin, wound, conjunctiva, ear, genital mucosa) with:</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>Corynebacterium diphtheriae</i> from a clinical specimen, AND ▪ Confirmation of toxin-production by Elek test or by another validated test capable of confirming toxin-production

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<ul style="list-style-type: none"> ▪ Isolation of toxin-producing <i>Corynebacterium diphtheriae</i> from that site <p>Notes:</p> <ul style="list-style-type: none"> ▪ PCR and MALDI-TOF (matrix assisted laser desorption/ionization-time of flight mass spectrometry) diagnosis for <i>C. diphtheria</i>, when used alone, do not confirm toxin production. These tests, when used, should always be combined with a test that confirms toxin production, such as the Elek test. ▪ Individuals without evidence of clinical criteria as described by the diphtheria surveillance case definition but for whom toxin-producing <i>C. diphtheria</i> is confirmed via laboratory testing (isolation and toxigenicity testing by modified Elek test or other validated test capable of confirming toxin-production) should not be classified as cases. These individuals are considered carriers of the bacteria and are not reportable. 	
<p>Ebola (HF) 11630</p>	<p>An illness with an incubation period of 2-21 days with an average of 8-10 days. The course of the disease often progresses from "dry" symptoms such as fever, severe headache, myalgia (muscle pain) to "wet" symptoms such as maculopapular rash that can desquamate, vomiting, diarrhea, abdominal pain, bleeding not related to injury, or low platelet count (thrombocytopenia). Other symptoms and clinical findings may include chills, malaise, fatigue, weakness, nausea, decreased appetite, arthralgia, conjunctival injection</p>	<ul style="list-style-type: none"> ▪ Detection of Ebola virus genetic sequence by real-time RT-PCR from blood or tissues, OR ▪ Isolation of Ebola virus in cell culture for blood or tissues, OR ▪ Detection of Ebola virus antigens in blood by ELISA, OR ▪ Detection of Ebola virus antigens in tissues by immunohistochemistry (IHC)

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>(red eyes), sore throat, hiccups, chest pain, shortness of breath, confusion, seizures, cerebral edema, spontaneous miscarriage, symptoms of impaired kidney and liver function, elevated liver enzymes, or leukopenia frequently with lymphopenia followed later by elevated neutrophils and a left shift.</p> <p>Confirmed: A person that meets laboratory criteria</p> <p>Suspect: A person that meets the clinical criteria AND one or more of the epidemiologic risk factors within 21 days of onset of symptom onset</p> <p>Clinical Criteria:</p> <ul style="list-style-type: none"> ▪ Fever ($\geq 38^{\circ}\text{C}/100.4^{\circ}\text{F}$), AND ▪ One or more of the following symptoms: severe headache, myalgia (muscle pain), erythematous maculopapular rash on the trunk with fine desquamation 3–4 days after rash onset, vomiting, diarrhea, abdominal pain, bleeding not related to injury, or thrombocytopenia <p>Epidemiologic Risk Factor Criteria:</p> <ul style="list-style-type: none"> ▪ Direct contact with blood or body fluids of a person who is sick with or has died from Ebola Virus Disease (EVD), OR ▪ Direct contact with objects (such as clothes, bedding, needles and syringes) contaminated with blood or body fluids from a person who is sick with or has died from EVD, OR ▪ Work in a laboratory that handles, or direct contact with primates or bats from an Ebola virus endemic area or area with 	

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>active transmission, OR</p> <ul style="list-style-type: none"> ▪ Sexual exposure to semen from a confirmed acute or clinically recovered case of EVD or exposure to breast milk of an individual who had EVD, OR ▪ Work in a laboratory that handles EVD specimens, OR ▪ Residence in - or travel to - an EVD endemic area or area of active transmission 	
<p>Echinococcosis 80670</p>	<p>Echinococcosis is an infection caused by the larval stage of tapeworms in the genus <i>Echinococcus</i>, including <i>E. granulosus</i> and <i>E. multilocularis</i>. Transmission occurs through the ingestion of tapeworm eggs in contaminated food, water, soil, dog feces, or on the contaminated coats of dogs and cats. Infection may also occur through the ingestion of cysts in the undercooked internal organs of infected intermediate hosts, such as sheep, goats and swine. Many infections are asymptomatic for years before the growing cysts cause clinical signs and symptoms associated with the affected organs. Liver involvement is associated with abdominal pain, hepatic masses, and biliary duct obstruction. Pulmonary involvement can produce chest pain, cough, and hemoptysis. Other organs, including the brain, bone, and heart, may also be involved with resulting clinical signs and symptoms. Ruptured cysts may cause fever, urticaria (hives), eosinophilia and anaphylactic shock.</p>	<ul style="list-style-type: none"> ▪ Detection of cysts or organ lesions using imaging techniques, including CT, MRI, and ultrasonography AND detection of <i>Echinococcus</i>-specific antibodies, OR ▪ Detection of <i>Echinococcus</i> spp. DNA by PCR in a clinical specimen, OR ▪ Histopathology or parasitology results compatible with <i>Echinococcus</i> spp. (i.e., direct visualization of the protoscolex in cyst fluid)

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>Confirmed: An asymptomatic or symptomatic case that meets one or more confirmatory laboratory criteria.</p> <p>Probable: An asymptomatic or symptomatic case with <i>Echinococcus</i>-specific antibodies identified by TWO different types of serological assays.</p> <p><u>Note: Documentation of imaging and/or histopathology results is required.</u></p>	
<p>Ehrlichiosis 11088</p>	<p>Ehrlichiosis is the general name given to the diseases caused by obligate intracellular bacteria in the genus <i>Ehrlichia</i>. <i>Ehrlichia</i> spp. are tickborne pathogens and are the most commonly reported species transmitted by <i>Amblyomma americanum</i>, the lone star tick. The majority of reported human infections are caused by either <i>Ehrlichia chaffeensis</i> or <i>Ehrlichia ewingii</i>. Most cases of ehrlichiosis occur across the south-central, southeastern, and mid-Atlantic states, although <i>Ehrlichia muris eauclairensis</i>, which is transmitted by <i>Ixodes scapularis</i>, the blacklegged tick, has been reported from travelers to, or residents of, Minnesota and Wisconsin. Ehrlichiosis typically presents 5 to 14 days after a tick bite with a combination of nonspecific clinical symptoms, such as fever, fatigue, and headache. Illness is often accompanied by laboratory abnormalities including leukopenia, thrombocytopenia, and mildly elevated liver enzymes. <i>Ehrlichia chaffeensis</i> disease may result in severe illness or even death in older or immunocompromised individuals or if treatment is delayed. Serologic testing is commonly used to diagnosis ehrlichiosis,</p>	<ul style="list-style-type: none"> ▪ Serological evidence of a fourfold change¹ in immunoglobulin G (IgG)-specific antibody titer to <i>Ehrlichia</i> antigen by indirect immunofluorescence assay (IFA) in paired serum samples (one taken in first two weeks after illness onset and a second taken two to ten weeks after acute specimen collection)², OR ▪ Detection of <i>E. chaffeensis</i>, <i>E. ewingii</i>, <i>E. muris eauclairensis</i>, unspicated <i>Ehrlichia</i> spp., or other <i>Ehrlichia</i> spp. DNA in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay, nucleic acid amplification tests (NAAT), or other molecular method, OR ▪ Demonstration of ehrlichial antigen in a biopsy or autopsy sample by IHC, OR ▪ Isolation of of <i>E. chaffeensis</i>, <i>E. ewingii</i>, <i>E. muris eauclairensis</i>, unspicated <i>Ehrlichia</i>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>but antibodies to <i>Anaplasma</i> and <i>Ehrlichia</i> can cross-react.</p> <p>Clinical Criteria</p> <ul style="list-style-type: none"> • <u>Objective clinical evidence</u>: fever as reported by patient or healthcare provider, anemia, leukopenia, thrombocytopenia, or any hepatic transaminase elevation • <u>Subjective clinical evidence</u>: chills/sweats, headache, myalgia, nausea/vomiting, or fatigue/malaise <p>Confirmed: Meets confirmatory laboratory evidence AND at least one of the objective or subjective clinical evidence criteria.</p> <p>Probable: Meets presumptive laboratory evidence with fever as reported by patient or healthcare provider AND at least one other objective or subjective clinical evidence criterion (excluding chills/sweats) OR meets presumptive laboratory evidence without reported fever but with chills/sweats AND at least one objective clinical evidence criterion, OR two other subjective clinical evidence criteria.</p> <p><i>Presumptive Laboratory Evidence:</i> Serological evidence of elevated IgG antibody reactive with <i>Ehrlichia</i> spp. antigen by IFA at a titer $\geq 1:128$ in a sample taken within 60 days of illness onset, OR microscopic identification of intracytoplasmic morulae in leukocytes in a sample taken within 60 days of illness onset.</p> <p>Suspect: Meets confirmatory or presumptive laboratory evidence with no or insufficient clinical information to classify</p>	<p>spp., or other <i>Ehrlichia</i> spp. from a clinical specimen in cell culture with molecular confirmation (e.g., PCR or sequence).</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>as a confirmed or probable case (e.g., a laboratory report only).</p> <p>Notes:</p> <ul style="list-style-type: none"> • A person previously reported as a probable or confirmed case-patient may be counted as a new case-patient when there is an episode of new clinically compatible illness with confirmatory laboratory evidence. • Patients should not be classified as cases for both anaplasmosis and ehrlichiosis based on serologic evidence alone. 	
<p><i>Escherichia coli</i>, Shiga toxin-producing (STEC) 11563</p>	<p>See Shiga toxin-producing Escherichia coli (STEC)</p>	
<p>Fascioliasis 80663</p>	<p><i>Fasciola hepatica</i> and <i>Fasciola gigantica</i> (liver flukes) are transmitted by ingesting raw aquatic plants or water contaminated with immature larvae, usually in locations around domestic and wild ruminants (commonly sheep, cattle and goats). Infection may or may not be symptomatic. In early infection (acute phase), the immature larval flukes migrate through the intestinal wall, the abdominal cavity, and the liver tissue, into the bile ducts, where they develop into mature adult flukes. Symptoms may include fever; gastrointestinal problems such as nausea, vomiting and diarrhea; a swollen liver (hepatomegaly); liver function abnormalities, skin rashes; shortness of breath; and abdominal pain or tenderness. The chronic phase (after the parasite</p>	<ul style="list-style-type: none"> ▪ Microscopic identification of <i>Fasciola</i> eggs in feces, duodenal contents, or bile, OR ▪ Microscopic identification of a <i>Fasciola</i> adult fluke extracted from a clinical specimen (e.g. bile ducts), OR ▪ Detection of <i>Fasciola</i> coproantigens (antigens found in feces) by ELISA

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>settles in the bile ducts), is marked by inflammation and hyperplasia and thickening of the bile ducts and gall bladder, leading to biliary lithiasis or obstruction. Symptoms of this phase may include: biliary colic, nausea, intolerance to fatty food, right upper quadrant pain, epigastric pain, obstructive jaundice, and pruritus, are the result of a blockade in the biliary tract and inflammation in the gall bladder. Inflammation of the liver, gallbladder, and pancreas can also occur.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: A clinically compatible case with</p> <ul style="list-style-type: none"> ▪ Detection of <i>Fasciola</i> antibodies, OR ▪ History of ingestion of watercress or freshwater plants and eosinophilia 	
<p>Granulomatous amebic encephalitis (GAE)</p>	<p>See Amebic meningitis/encephalitis, other</p>	
<p><i>Haemophilus influenzae</i>, invasive disease 10590</p>	<p>Invasive <i>Haemophilus influenzae</i> may manifest as pneumonia, bacteremia, meningitis, epiglottitis, septic arthritis, cellulitis, or purulent pericarditis; less common infections include endocarditis and osteomyelitis</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: Meningitis with detection of <i>H. influenzae</i> type b antigen in cerebrospinal fluid (CSF). (Antigen test results in urine or</p>	<ul style="list-style-type: none"> ▪ Detection of <i>Haemophilus influenzae</i> type b antigen in cerebrospinal fluid [CSF] OR ▪ Detection of <i>Haemophilus influenzae</i>-specific nucleic acid in a specimen obtained from a normally sterile body site (e.g., blood or CSF), using a validated polymerase chain reaction (PCR) assay; OR ▪ Isolation of <i>Haemophilus influenzae</i> from a normally sterile body site (e.g., cerebrospinal fluid [CSF], blood, joint fluid, pleural fluid, pericardial fluid)

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>serum are unreliable for diagnosis of <i>H. influenzae</i> disease.)</p>	<p>See Normally Sterile Site</p> <p>Note: Serotyping of isolates can be performed at the DSHS laboratory. Serotyping is recommended for all <i>H. influenzae</i> cases and required by TAC on isolates from children under 5 years old.</p>
<p>Hantavirus infection, non-HPS 11610</p> <p>Hantavirus pulmonary syndrome 11590</p>	<p>Hantaviruses are rodent-borne viruses that can be transmitted to humans. Patients with hantavirus infection typically present with nonspecific signs and symptoms including fever, myalgia, headache, and chills. After the prodromal phase, symptoms of hantavirus pulmonary syndrome (HPS) may develop.</p> <p>Non-HPS hantavirus infection is a febrile illness with non-specific signs and symptoms including fever, chills, myalgia, headache, and gastrointestinal symptoms, but no cardio-pulmonary symptoms. Clinical laboratory findings may include hemoconcentration, left shift in white blood cell count, neutrophilic leukocytosis, thrombocytopenia, and circulating immunoblasts.</p> <p>HPS is an acute febrile illness characterized by non-specific viral symptoms including fever, chills, myalgia, headache, and gastrointestinal symptoms, and one or more of the following clinical features:</p> <ul style="list-style-type: none"> ▪ Bilateral diffuse interstitial edema, OR ▪ Clinical diagnosis of acute respiratory distress syndrome (ARDS), OR ▪ Radiographic evidence of noncardiogenic 	<ul style="list-style-type: none"> ▪ Detection of hantavirus-specific IgM* or rising titers of hantavirus-specific IgG, OR ▪ Detection of hantavirus-specific ribonucleic acid sequence in clinical specimens, OR ▪ Detection of hantavirus antigen by IHC in lung biopsy or autopsy tissues <p>*Due to the high rate of false positives at commercial labs, a sample should be forwarded to DSHS for confirmatory testing</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>pulmonary edema, OR</p> <ul style="list-style-type: none"> ▪ Unexplained respiratory illness resulting in death, and includes autopsy examination demonstrating noncardiogenic pulmonary edema without an identifiable cause, <p>OR</p> <ul style="list-style-type: none"> ▪ Healthcare record with a diagnosis of HPS, <p>OR</p> <ul style="list-style-type: none"> ▪ Death certificate that lists HPS as a cause of death or a significant condition contributing to death <p>Confirmed: A clinically compatible case of HPS or non-HPS hantavirus infection with confirmatory laboratory results</p>	
<p>Hemolytic uremic syndrome, post-diarrheal (HUS) 11550</p>	<p>Hemolytic uremic syndrome (HUS) is characterized by the acute onset of microangiopathic hemolytic anemia, renal injury, and low platelet count. Thrombotic thrombocytopenic purpura (TTP) also is characterized by these features but can include central nervous system (CNS) involvement and fever and can have a more gradual onset. Most cases of HUS (but few cases of TTP) occur after an acute gastrointestinal illness (usually diarrheal).</p> <p>Confirmed: An acute illness diagnosed as HUS or TTP that both meets the laboratory criteria and began within 3 weeks after onset of an episode of acute or bloody diarrhea</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ An acute illness diagnosed as HUS or TTP that meets the laboratory criteria in a patient who does not have a clear history of 	<p>The following are both present at some time during the illness:</p> <ul style="list-style-type: none"> ▪ Anemia (acute onset) with microangiopathic changes (i.e., schistocytes, burr cells, or helmet cells) on peripheral blood smear, AND ▪ Renal injury (acute onset) evidenced by either hematuria, proteinuria, or elevated creatinine level (i.e., greater than or equal to 1.0 mg/dL in a child aged less than 13 years or greater than or equal to 1.5 mg/dL in a person aged greater than or equal to 13 years, or greater than or equal to 50% increase over baseline) <p>Note: A low platelet count can usually, but not always, be detected early in the illness, but it can then become normal or even high. If a platelet count obtained within 7 days after onset of the acute gastrointestinal illness is not less than 150,000/mm³, other</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>acute or bloody diarrhea in preceding 3 weeks, OR</p> <ul style="list-style-type: none"> ▪ An acute illness diagnosed as HUS or TTP, that a) has onset within 3 weeks after onset of an acute or bloody diarrhea and b) meets the laboratory criteria except that microangiopathic changes are not confirmed <p>Note: See Shiga toxin-producing <i>Escherichia coli</i> (STEC) as cases that meet the HUS case criteria should also be reported as a "Suspect" STEC case, unless other criteria is met for another case definition.</p>	<p>diagnoses should be considered.</p>
<p>Hepatitis A, acute 10110</p>	<p>An acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, abdominal pain, or dark urine), AND a) either jaundice or elevated total bilirubin levels ≥ 3.0 mg/dL, OR elevated serum alanine aminotransferase (ALT) levels >200 IU/L, AND b) the absence of a more likely diagnosis.</p> <p>Confirmed: A case that meets the clinical case criteria and is IgM anti-HAV positive, OR A case that has hepatitis A virus RNA detected by NAAT (such as PCR or genotyping), OR A case that meets the clinical criteria and occurs in a person who has an epidemiological link with a person who had contact (e.g., household or sexual) with a</p>	<ul style="list-style-type: none"> ▪ Immunoglobulin M antibody to hepatitis A virus (anti-HAV IgM) positive, OR ▪ Nucleic acid amplification test (NAAT; such as Polymerase Chain Reaction [PCR] or genotyping) for hepatitis A virus RNA positive

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>laboratory-confirmed hepatitis A case 15-50 days prior to the onset of symptoms</p> <p>AND</p> <p>A case that is not otherwise ruled out by IgM anti-HAV or NAAT for hepatitis A virus testing performed in a public health laboratory.</p> <p>Note: Hepatitis A is usually self-limiting and does not result in chronic infection. However, up to 10% of persons with hepatitis A may experience a relapse during the 6 months after acute illness. Cases of relapsing hepatitis A should not be enumerated as new cases. In addition, a case should not be counted as a hepatitis A case if there is an alternate, more likely diagnosis.</p>	
<p>Hepatitis B, acute 10100</p>	<p>An acute illness with a discrete onset of any sign or symptom* consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain), AND either b) jaundice, or c) elevated serum alanine aminotransferase levels (ALT) >100 IU/L.</p> <p>Confirmed: A case that meets the clinical case definition, is laboratory confirmed, and is not known to have chronic hepatitis B**</p> <p>*A documented negative hepatitis B surface antigen (HBsAg) laboratory test result within 6 months prior to a positive test result (i.e., HBsAg, hepatitis B "e" antigen [HBeAg], or hepatitis B virus</p>	<ul style="list-style-type: none"> ▪ Hepatitis B surface antigen (HBsAg) positive, AND ▪ IgM antibody to hepatitis B core antigen (anti-HBc IgM) positive (if done)

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>nucleic acid testing [HBV NAT] including genotype) does not require an acute clinical presentation to meet the surveillance case definition.</p> <p>**A person should be considered chronically infected if hepatitis B antigen tests (HBsAg, HBeAg, and/or nucleic acid tests) have been positive for 6 months or longer or if the patient has a history of chronic hepatitis B diagnosis.</p>	
<p>Hepatitis B virus infection, perinatal 10104</p>	<p>Perinatal hepatitis B (HBV) in the newborn can range from asymptomatic to fulminant hepatitis.</p> <p>Confirmed: Child born in the US to a HBV-infected mother and positive for HBsAg at ≥ 1 month of age and ≤ 24 months of age OR positive for HBeAg or HBV DNA ≥ 9 months of age and ≤ 24 months of age.</p> <p>Probable: Child born in the US and positive for HBsAg at ≥ 1 month of age and ≤ 24 months of age OR positive for HBeAg or HBV DNA ≥ 9 months of age and ≤ 24 months of age, but whose mother's hepatitis B status is unknown (i.e. epidemiologic linkage not present).</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ If the mother is known to be NOT infected with HBV, refer to the case definition for acute Hepatitis B. <p>These definitions are used for surveillance purposes only, not for perinatal hepatitis B prevention case management purposes.</p>	<ul style="list-style-type: none"> ▪ Hepatitis B surface antigen (HBsAg) positive, hepatitis B e antigen (HBeAg) positive, or detectable Hepatitis B virus DNA (HBV DNA) <p>Note: HBsAg must be tested more than 4 weeks after last dose of hepatitis B vaccine to be considered confirmatory.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
<p>Hepatitis C, acute 10101</p>	<p>All hepatitis C virus cases in each classification category should be > 36 months of age, unless known to have been exposed non-perinatally.</p> <p>Clinical Criteria:</p> <ul style="list-style-type: none"> ▪ Jaundice, OR ▪ Peak total bilirubin levels ≥ 3.0 mg/DL, OR ▪ Elevated serum alanine aminotransferase (ALT) level >200 IU/L, AND ▪ The absence of a more likely diagnosis (which may include evidence of acute liver disease due to other causes or advanced liver disease due to pre-existing chronic Hepatitis C virus (HCV) infection or other causes, such as alcohol exposure, other viral hepatitis, hemochromatosis, etc.) <p>Confirmed:</p> <ul style="list-style-type: none"> ▪ A case that meets the clinical criteria and is laboratory confirmed, OR ▪ A documented negative HCV antibody followed within 12 months by a positive HCV antibody test (anti-HCV test conversion) in the absence of a more likely diagnosis, OR ▪ A documented negative HCV antibody OR negative hepatitis C virus detection test (in someone without a prior diagnosis of HCV infection) 	<p>Hepatitis C virus detection test:</p> <ul style="list-style-type: none"> ▪ Nucleic acid test (NAT) or PCR test for HCV RNA positive (including qualitative, quantitative or genotype testing) <p>OR</p> <ul style="list-style-type: none"> ▪ A positive test indicating presence of hepatitis C viral antigen (HCV antigen)* <p>*When and if a test for HCV antigen(s) is approved by FDA and available</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>followed within 12 months by a positive hepatitis C virus detection test (HCV RNA test conversion) in the absence of a more likely diagnosis.</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ A case that meets clinical criteria and has presumptive laboratory evidence (a positive anti-HCV antibody test), AND ▪ Does not have a hepatitis C virus test reported, AND ▪ Has no documentation of anti-HCV or HCV RNA test conversion within 12 months 	
<p>Hepatitis E, acute 10103</p>	<p>Typical clinical signs and symptoms of acute hepatitis E virus (HEV) are similar to those of other types of acute viral hepatitis and include abdominal pain anorexia, dark urine, fever, hepatomegaly, jaundice, malaise, nausea, and vomiting. Other less common symptoms include arthralgia, diarrhea, pruritus, and urticarial rash. The period of infectivity following acute infection has not been determined, but viral excretion in stools has been demonstrated for up to 14 days after illness onset. In most hepatitis E outbreaks, the highest rates of clinically evident disease have been in young to middle-aged adults; lower disease rates in younger age groups can be the result of anicteric and/or subclinical HEV infection. No evidence of chronic infection has been detected in long-term follow-up of patients with hepatitis E. The case fatality rate is</p>	<ul style="list-style-type: none"> ▪ IgM anti-HEV from CDC laboratory or PCR positive from reference laboratory <p>Note: No FDA approved tests to diagnose HEV infection are available in the United States.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>low except in pregnant women where it can reach 20% among those infected during the third trimester of pregnancy.</p> <p>Confirmed:</p> <ul style="list-style-type: none"> ▪ A case that meets the clinical case description and is laboratory confirmed <p>Probable:</p> <ul style="list-style-type: none"> ▪ A case that meets the clinical case description with supportive laboratory evidence (positive IgM antibody from labs other than CDC), OR ▪ Negative tests for other acute hepatitis markers and an epidemiological link to other confirmed cases or travel history to an endemic area during exposure period 	
<p>Hookworm 80760</p>	<p>A parasitic infection caused by the soil-transmitted helminths <i>Necator americanus</i> and <i>Ancylostoma duodenale</i> (rarely by other <i>Ancylostoma</i> species, e.g. <i>A.ceylanicum</i>). Itching and localized rash are often the first signs of infection. Other symptoms may include cough, abdominal discomfort, diarrhea, blood in the stool, loss of appetite, nausea, fatigue, or pale skin. Light hookworm infections generally produce few or no clinical effects. In heavy infections, symptoms may include abdominal pain, nausea and anorexia. Chronic blood loss at the site of the intestinal attachment of adult worms can lead to anemia. Children with heavy long-term infections may have impaired growth and delayed mental development.</p>	<ul style="list-style-type: none"> ▪ Microscopic identification of <i>Ancylostoma</i> or <i>Necator</i> (Hookworm) eggs in feces, OR ▪ Microscopic identification of <i>Ancylostoma</i> or <i>Necator</i> species larvae cultured from feces, OR ▪ Examination of adult worms identified as <i>Ancylostoma</i> or <i>Necator</i> species expelled after treatment or removed during endoscopy <p>Note: A laboratory confirmed case may involve the examination of adult worms or the microscopic identification of larvae or eggs.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	Confirmed: A case that is laboratory confirmed	
Influenza, human isolates - [outbreaks only] 11060	<p>The flu is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness and at times can lead to death. Symptoms of flu may include fever, headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose, and muscle aches. Stomach symptoms (nausea, vomiting, and diarrhea) can occur but are more common in children than adults. Complications of flu can include bacterial pneumonia, ear infections, sinus infections, dehydration, and worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes.</p> <p>Confirmed: Case that is clinically compatible and laboratory confirmed</p> <p>Outbreak: See the Texas Influenza Surveillance Handbook for more information on influenza (flu)-associated outbreaks including operational influenza-like illness (ILI) and flu-associated outbreak definitions.</p> <p>Note: Influenza is not a reportable condition in Texas. See Influenza A, novel/variant infection for reporting of novel/variant strains. See Influenza-associated pediatric mortality for reporting of influenza-associated deaths in all persons aged <18 years.</p>	<ul style="list-style-type: none"> ▪ Influenza virus isolation in tissue cell culture from respiratory specimens, OR ▪ Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens, OR ▪ Immunofluorescent antibody staining (direct or indirect) of respiratory specimens, OR ▪ Rapid influenza diagnostic testing of respiratory specimens, OR ▪ Immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens, OR ▪ Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera
Influenza A, novel/variant 11062	An illness compatible with influenza virus infection (fever >100 degrees Fahrenheit, with cough and/or sore throat)	Identification of an influenza A virus subtype or strain that is different from currently circulating human influenza H1 and H3

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>Confirmed: A case of human infection with a laboratory confirmed novel/variant influenza A virus</p> <p>Probable: A case meeting the clinical criteria and epidemiologically linked* to a confirmed case, but for which no confirmatory laboratory testing for novel/variant influenza virus infection has been performed or test results are inconclusive for a novel/variant influenza A virus infection</p> <p><i>Epidemiologic linkage criteria:</i> a) the patient has had contact with one or more persons who either have or had the disease and b) transmission of the agent by the usual modes of transmission is plausible. A case can be considered epidemiologically linked to a laboratory-confirmed case if at least one case in the chain of transmission is laboratory confirmed.</p> <p>Suspect: A case meeting the clinical criteria in which influenza A has been detected but is pending laboratory confirmation. Any case of human infection with an influenza A virus that is different from currently circulating human influenza H1 and H3 viruses is classified as a suspect case until the confirmation process is complete.</p> <p>Note: Typically, sporadic novel/variant influenza cases will have a history of either close contact with ill animals known to transmit novel subtypes of influenza A (such as wild birds or poultry, swine, or other mammals) OR travel, within 14 days, to any</p>	<p>strains as confirmed by CDC’s influenza laboratory, by public health laboratories using CDC-approved protocols for that specific strain, or by labs using FDA-authorized tests for specific strains.</p> <ul style="list-style-type: none"> ▪ Novel/variant subtypes include, but are not limited to, H2, H5, H7, and H9 subtypes. ▪ Influenza H1 and H3 subtypes originating from a non-human species or from genetic re-assortment between animal and human viruses are also novel/variant subtypes or strains. ▪ Methods available for detection of currently circulating human influenza viruses at public health laboratories (e.g., rRT-PCR) will also detect suspected novel/variant subtypes and strains. ▪ Initial confirmation that a specific influenza A virus represents a novel/variant virus will be performed by CDC’s influenza laboratory. ▪ Currently, only viral isolation, RT-PCR, gene sequencing, or a 4-fold rise in strain-specific serum antibody titers are considered confirmatory for case classification purposes.

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	country where a novel influenza A virus (such as highly pathogenic avian influenza A H5N1) has been recently identified in animals or people.	
Influenza-associated pediatric mortality 11061	<p>An influenza-associated death is defined for surveillance purposes as a death resulting from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test. There should be no period of complete recovery between the illness and death. Influenza-associated deaths in all persons aged <18 years should be reported.</p> <p>A death should not be reported if there is no laboratory confirmation of influenza virus infection, the influenza illness is followed by full recovery to baseline health status prior to death, the death occurs in a person 18 years of age or older, or after review and consultation there is an alternative agreed upon cause of death which is unrelated to an infectious process (For example, a child with a positive influenza test whose death clearly resulted from trauma after a car accident would not qualify as a case. However, a child with a respiratory illness and a positive influenza test whose death is attributed to another infectious cause such as staphylococcal pneumonia would still qualify as a case.).</p> <p>Confirmed: A death meeting the clinical case definition that is laboratory confirmed</p>	<p>Laboratory testing for influenza virus infection can be done on pre- or post-mortem clinical specimens, and may include identification of influenza A or B virus infections by a positive result by at least one of the following:</p> <ul style="list-style-type: none"> ▪ Influenza virus isolation in tissue cell culture from respiratory specimens, OR ▪ Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens, OR ▪ Immunofluorescent antibody staining (direct or indirect) of respiratory specimens, OR ▪ Rapid influenza diagnostic testing of respiratory specimens, OR ▪ Immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens, OR ▪ Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera
Legionellosis 10490	Legionellosis is associated with three clinically and epidemiologically distinct	<ul style="list-style-type: none"> ▪ Isolation (culture) of any <i>Legionella</i> organism from respiratory secretions, lung

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>illnesses: Legionnaires' disease, which is characterized by fever, myalgia, cough, and clinical or radiological pneumonia; Pontiac fever, a milder illness without pneumonia; and extrapulmonary legionellosis, a rare manifestation in which <i>Legionella</i> can cause disease at sites outside the lungs (e.g., endocarditis, wound infection, joint infection, graft infection).</p> <p>Confirmed: A clinically compatible case that meets at least one of the confirmatory laboratory criteria</p> <p>Probable: A clinically compatible case with an epidemiologic linkage* during the incubation period</p> <p><i>*Epidemiologic linkage criteria:</i></p> <ol style="list-style-type: none"> 1) Linkage to a setting with a confirmed source of <i>Legionella</i> <p>OR</p> <ol style="list-style-type: none"> 2) Linkage to a setting with a suspected source of <i>Legionella</i> that is associated with at least one confirmed case 	<p>tissue, pleural fluid, or other normally sterile fluid,</p> <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of any <i>Legionella</i> species from lower respiratory secretions, lung tissue, or pleural fluid by a validated nucleic acid amplification test (e.g. PCR), <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>Legionella pneumophila</i> serogroup 1 antigen in urine using validated reagents, <p>OR</p> <ul style="list-style-type: none"> ▪ Demonstration of seroconversion by a fourfold or greater rise in specific serum antibody titer between paired acute and convalescent phase serum specimens to <i>Legionella pneumophila</i> serogroup 1 using validated reagents
<p>Leishmaniasis 80550</p>	<p>Leishmaniasis is a parasitic disease that is present primarily in South and Central America, Africa, Asia, and southern Europe. The <i>Leishmania</i> parasite is transmitted via the bite of phlebotomine sand flies. There are several forms of the disease in humans: cutaneous, the most common, which causes skin lesions; visceral, which may affect multiple internal organs, including the liver, spleen, and bone marrow; and mucosal, a less common form that affects mucous</p>	<ul style="list-style-type: none"> ▪ Microscopic identification of the nonmotile, intracellular form (amastigote) in stained specimens from lesions, <p>OR</p> <ul style="list-style-type: none"> ▪ Culture of the motile, extracellular form (promastigote) on suitable media, <p>OR</p> <ul style="list-style-type: none"> ▪ An intradermal (Montenegro) test with leishmanin, an antigen derived from the promastigotes, is usually positive in established disease, <p>OR</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>membranes of the nose, mouth, or throat. Most leishmaniasis cases reported in Texas are the cutaneous form and are travel-associated, albeit autochthonous cases occur occasionally. Cutaneous leishmaniasis infection can present as one or more skin sores weeks or months after a sand fly bite. Over time, the sores may change in size and appearance—they may start out as papules or nodules and may end up as ulcers which might scab over. Lesions can heal spontaneously within weeks to months, or last for a year or more. Some <i>Leishmania</i> strains can disseminate to cause mucosal lesions (espundia) years after the primary cutaneous lesion has healed. Without treatment, this sequela can progress and lead to destruction of the naso-oropharyngeal mucosa, which can be severely disfiguring. Visceral leishmaniasis infection can be asymptomatic or result in manifestations such as fever, weight loss, hepatosplenomegaly, and pancytopenia. Severe cases of visceral leishmaniasis are often fatal without treatment.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed</p>	<ul style="list-style-type: none"> ▪ Positive <i>Leishmania</i> Real-Time PCR or <i>Leishmania</i> PCR and DNA sequencing at CDC
<p>Listeriosis 10640</p>	<p>In adults, invasive disease caused by <i>Listeria monocytogenes</i> manifests most commonly as meningitis or bacteremia; infection during pregnancy can result in fetal loss through miscarriage or stillbirth, or neonatal meningitis or bacteremia. Other manifestations can also be observed.</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>L. monocytogenes</i> from a normally sterile site, e.g., blood, cerebrospinal fluid (CSF), or less commonly, joint, pleural, or pericardial fluid, OR ▪ Isolation of <i>L. monocytogenes</i> from

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>Confirmed: A clinically compatible case that is laboratory confirmed</p> <p>Probable: The mother of a neonate with confirmed or probable listeriosis, even if the laboratory criteria are not met for the mother; a neonate born to a mother with confirmed or probable listeriosis, even if laboratory criteria are not met for the neonate; or a clinically compatible case detected through use of a culture independent laboratory testing method.</p> <p>Suspect: Isolation of <i>L. monocytogenes</i> from a non-invasive, non-sterile clinical specimen, e.g., stool, urine, wound.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Pregnancy loss and intrauterine fetal demise are considered maternal outcomes and would be counted as a single case in the mother. ▪ Cases in neonates and mothers should be reported separately when each meets the case definition. A case in a neonate is counted if live-born. <p>A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection.</p>	<p>products of conception at time of delivery and non-sterile sites of neonates obtained within 48 hours of delivery,</p> <p>OR</p> <ul style="list-style-type: none"> ▪ In the setting of miscarriage or stillbirth, isolation of <i>L. monocytogenes</i> from placental or fetal tissue, <p>OR</p> ▪ In the setting of pregnancy or live birth, isolation of <i>L. monocytogenes</i> from mother’s or neonate’s blood or other sterile site, or from placental or amniotic fluid <p>See Normally Sterile Site</p> <ul style="list-style-type: none"> ▪ Note: As required by TAC all <i>Listeria monocytogenes</i> isolates must be submitted to the DSHS Laboratory.
<p>Lyme disease 11080</p>	<p>A systemic, tickborne disease with protean manifestations, including dermatologic, rheumatologic, neurologic, and cardiac abnormalities. The most common clinical marker for the disease is erythema</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>B. burgdorferi</i> sensu stricto or <i>B. mayonii</i> in culture, <p>OR</p> ▪ Detection of <i>B. burgdorferi</i> sensu stricto or <i>B. mayonii</i> in a clinical specimen by a <i>B.</i>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>migrans (EM), the initial skin lesion that occurs in 60-80% of patients. For purposes of surveillance, EM is defined as a skin lesion that typically begins as a red macule or papule and expands over a period of days to weeks to form a large round lesion, often with partial central clearing. Secondary lesions also may occur. Annular erythematous lesions occurring within several hours of a tick bite represent hypersensitivity reactions and do not qualify as EM. For most patients, the expanding EM lesion is accompanied by other acute symptoms, particularly fatigue, fever, headache, mildly stiff neck, arthralgia, or myalgia. These symptoms are typically intermittent. Texas is a low-incidence jurisdiction for Lyme disease (has had <10 confirmed cases/100,000 population for a period of three consecutive years) and thus follows the recommended reporting criteria for low-incidence jurisdictions.</p> <p>Clinical criteria: An illness characterized by one of the following early or late-stage manifestations, as reported by a healthcare provider, and in the absence of another known etiology:</p> <ul style="list-style-type: none"> ▪ Erythema migrans (EM) rash ≥5 cm in diameter ▪ Recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints ▪ Any of the following signs that cannot be explained by any other etiology, alone or in combination: lymphocytic 	<p><i>burgdorferi</i> group-specific NAAT assay, OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>B. burgdorferi</i> group-specific antigens by immunohistochemical assay (IHC) on biopsy or autopsy tissues, OR ▪ Standard two-tier test (STTT): positive or equivocal EIA or IFA test, followed by a positive IgM¹ or IgG² immunoblot OR ▪ Modified two-tier test (MTTT): positive or equivocal EIA or IFA test, followed by a different, sequential positive or equivocal EIA <p>¹IgM WB is considered positive when at least two of the following three bands are present: 24 kilodalton (kDa) outer surface protein C (OspC)*, 39 kDa basic membrane protein A (BmpA), and 41 kDa (Fla). <u>Disregard IgM results for specimens collected >30 days after symptom onset.</u></p> <p>²IgG WB is considered positive when at least five of the following 10 bands are present: 18 kDa, 24 kDa (OspC)*, 28 kDa, 30 kDa, 39 kDa (BmpA), 41 kDa flagellin (Fla), 45 kDa, 58 kDa (not GroEL), 66 kDa, and 93 kDa.</p> <p>*Depending upon the assay, OspC could be indicated by a band of 21, 22, 23, 24 or 25 kDa.</p>

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	<p>meningitis; cranial neuritis, particularly facial palsy (unilateral or bilateral); radiculoneuropathy; or, rarely, encephalomyelitis</p> <ul style="list-style-type: none"> ▪ Acute onset of high-grade (2nd-degree or 3rd-degree) atrioventricular conduction defects that resolve in days to weeks <p>Confirmed: A clinically compatible case that has confirmatory laboratory evidence.</p> <p>Probable: A clinically compatible case that has presumptive laboratory evidence:</p> <ul style="list-style-type: none"> ▪ Positive IgG² immunoblot without positive or equivocal first-tier screening assay. <p><i>Suspect:</i> A case of EM rash with no laboratory evidence of infection OR a case that meets confirmatory or presumptive laboratory criteria, but no clinical information is available</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ A new case is one that has not been reported within the same calendar year ▪ While a single IgG immunoblot is adequate for surveillance purposes, a two-tier test is still recommended for patient diagnosis; a positive IgG immunoblot preceded by a negative screen is considered a false positive ▪ There is no validated Lyme disease test for CSF; positive tests on CSF are not confirmatory 	
<p>Malaria 10130</p>	<p>Initial symptoms of malaria are non-specific and include fever, chills, sweats, headaches, muscle pains, nausea and vomiting. In</p>	<ul style="list-style-type: none"> ▪ Detection and specific identification of malaria parasite species by microscopy on blood films in a laboratory with

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>severe cases of malaria (usually caused by <i>Plasmodium falciparum</i>), clinical findings can also include confusion, coma, neurologic focal signs, severe anemia, and respiratory difficulties.</p> <p>Confirmed: A case that is laboratory confirmed in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country</p> <p><i>Suspect:</i> Detection of <i>Plasmodium</i> species by rapid diagnostic antigen testing (RDT) without confirmation by microscopy or nucleic acid testing in any person (symptomatic or asymptomatic) <i>diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country</i></p> <ul style="list-style-type: none"> ▪ Note: A subsequent episode of malaria is counted as an additional case, regardless of the detected <i>Plasmodium</i> species, unless the case is indicated as a treatment failure within 4 weeks of initial presentation. 	<p>appropriate expertise</p> <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>Plasmodium</i> species by nucleic acid test* <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of unspciated malaria parasite by microscopy on blood films in a laboratory with appropriate expertise <p>*Laboratory-developed malaria PCR tests must fulfill CLIA requirements, including validation studies.</p>
<p>Measles (Rubeola) 10140</p>	<p>An illness characterized by all of the following: a generalized maculopapular rash lasting at least 3 days; a temperature $\geq 101.0^{\circ}\text{F}$ ($>38.3^{\circ}\text{C}$); and cough, coryza, or conjunctivitis.</p> <p>Confirmed: An acute, febrile rash illness (temperature can be lower than 101°F and rash < 3 days) that is:</p>	<ul style="list-style-type: none"> ▪ IgG seroconversion or a significant rise in measles immunoglobulin G antibody level by any standard serologic assay *, <p>OR</p> <ul style="list-style-type: none"> ▪ Isolation of measles virus from a clinical specimen*, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of measles-virus-specific nucleic acid by PCR *,

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	<ul style="list-style-type: none"> ▪ Laboratory confirmed OR ▪ Epidemiologically linked to a laboratory confirmed measles case 	<p>OR</p> <ul style="list-style-type: none"> ▪ A positive serological test for measles immunoglobulin M antibody* not otherwise ruled out by other confirmatory testing or more specific measles testing in a public health laboratory <p>*Not explained by MMR vaccination during the previous 6-45 days</p>
<p>Melioidosis 11585</p>	<p>Melioidosis is caused by the environmental bacterium <i>Burkholderia pseudomallei</i>. Infection typically occurs through direct contact with contaminated soil or water via subcutaneous inoculation, ingestion, or inhalation. An estimated 165,000 human melioidosis cases occur annually, mainly in the highly endemic areas of southeast Asia and northern Australia. Melioidosis is an emerging infectious disease in the Americas, with cases reporting travel to Mexico, Brazil, Puerto Rico, and the U.S. Virgin Islands. A recent investigation into two Mississippi melioidosis cases established the presence of <i>B. pseudomallei</i> in the environment in the U.S. The median incubation period is 9 days but ranges from a few hours to decades after exposure.</p> <p>Clinical Criteria: In the absence of a more likely diagnosis, at least one of the following signs or symptoms: Fever, muscle aches, ulcer, nodule, skin abscess, pneumonia, headache, chest pain, anorexia, respiratory distress, abdominal discomfort, joint pain, disorientation, weight loss, seizure, organ abscess (liver,</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>B. pseudomallei</i> from a clinical specimen

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	<p>lung, spleen, prostate, or brain), AND/OR encephalomyelitis/meningitis/extracranial disease</p> <p>Confirmed: A case that is lab confirmed Probable: A case that meets presumptive laboratory criteria AND one of the following: clinical criteria and epidemiologic linkage; OR vital records criteria and epidemiologic linkage; OR other criteria and epidemiologic linkage.</p> <ul style="list-style-type: none"> ▪ Evidence of a fourfold or greater rise in <i>B. pseudomallei</i> antibody titer by IHA between acute- and convalescent-phase serum specimens obtained at least two weeks apart, OR ▪ Evidence of <i>B. pseudomallei</i> DNA (for example, by LRN-validated nucleic acid amplification test) in a clinical specimen <p>Suspect: A case that meets supportive laboratory evidence AND one of the following: clinical criteria and epidemiologic linkage; OR vital records criteria and epidemiologic linkage; OR other criteria and epidemiologic linkage.</p> <ul style="list-style-type: none"> ▪ Single <i>B. pseudomallei</i> total antibody titer of greater than or equal to 1:40 by serology in one or more serum specimens <p><i>Epidemiologic linkage</i> is defined as a person with at least one of the following findings:</p> <ul style="list-style-type: none"> ▪ History of travel to or residence in a region endemic for melioidosis, OR ▪ Known exposure to <i>B. pseudomallei</i> as a result of intentional release or known product/source exposure (outside of laboratory), OR 	

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	<ul style="list-style-type: none"> ▪ Known exposure to <i>B. pseudomallei</i> as a result of an occupational risk (i.e., laboratory exposure) <p><i>Vital records criteria</i> is defined as a person whose death certificate lists melioidosis as a cause of death or a significant condition contributing to death</p> <p><i>Other criteria</i> include a person whose healthcare record contains a recent diagnosis of melioidosis</p> <p>Note: The categorical labels used here to stratify laboratory evidence are intended to support the standardization of case classifications for public health surveillance. The categorical labels should not be used to interpret the utility or validity of any laboratory test methodology.</p>	
<p>Meningococcal infection, invasive (<i>Neisseria meningitidis</i>) 10150</p>	<p>Invasive meningococcal disease manifests most commonly as meningitis and/or meningococemia that can progress rapidly to purpura fulminans, shock, and death. However, other manifestations (e.g., pneumonia, myocarditis, endocarditis or pericarditis, arthritis, cervicitis) might be observed.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: A case that has one of the following:</p> <ul style="list-style-type: none"> ▪ <i>N. meningitidis</i> antigen detection by immunohistochemistry (IHC) on formalin-fixed tissue ▪ <i>N. meningitidis</i> antigen detection by latex 	<ul style="list-style-type: none"> ▪ Isolation of <i>Neisseria meningitidis</i> from a normally sterile site, OR ▪ Isolation of <i>N. meningitidis</i> from purpuric lesions, OR ▪ Detection of <i>N. meningitidis</i>-specific nucleic acid in a specimen obtained from a normally sterile site, using a validated polymerase chain reaction (PCR) assay <p>See Normally Sterile Site</p> <p>Note: As required by TAC all <i>Neisseria meningitidis</i> isolates from normally sterile sites and/or purpuric lesions must be submitted to the DSHS Laboratory for typing</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>agglutination of CSF</p> <p><i>Suspect:</i> A case that has one of the following:</p> <ul style="list-style-type: none"> ▪ Clinical purpura fulminans in the absence of a positive blood culture ▪ Gram-negative diplococci, not yet identified, isolated from a normally sterile site (e.g., blood or CSF) 	<p>and molecular analysis.</p>
<p>Mpox 11801</p>	<p>Mpox is an illness typically characterized by a rash that may be located on the genitals, anus, hands, feet, chest, face, or mouth. The characteristic rash associated with mpox lesions involves the following: deep-seated and well-circumscribed lesions, often with central umbilication; and lesion progression through specific sequential stages—macules, papules, vesicles, pustules, and scabs.; this can sometimes be confused with other diseases that are more commonly encountered in clinical practice (e.g., secondary syphilis, herpes, and varicella zoster). Historically, sporadic accounts of patients co-infected with the mpox virus and other infectious agents (e.g., varicella zoster, syphilis) have been reported, so patients with a characteristic rash should be considered for testing, even if other tests are positive. The average incubation period for symptom onset is 7–14 days with a range of 5–21 days. The causative agent is the monkeypox virus which belongs to the Orthopoxvirus genus in the family Poxviridae. The Orthopoxvirus genus also includes variola virus (which causes smallpox), vaccinia virus (used in the smallpox vaccine), and cowpox virus.</p>	<p><i>Confirmatory laboratory evidence:</i></p> <ul style="list-style-type: none"> • Detection of MPXV nucleic acid by molecular testing in a clinical specimen; OR • Detection of MPXV by genomic sequencing in a clinical specimen. • Isolation of mpox virus in culture from a clinical specimen <p><i>Presumptive laboratory evidence:</i></p> <ul style="list-style-type: none"> • Orthopoxvirus DNA by polymerase chain reaction of a clinical specimen OR • Orthopoxvirus using immunohistochemical or electron microscopy testing methods OR • Demonstration of detectable levels of anti-orthopoxvirus IgM antibody during the period of 4 to 56 days after rash onset.

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	<p>Confirmed: Meets confirmatory laboratory criteria</p> <p>Probable: No suspicion of other recent Orthopoxvirus exposure AND meets presumptive laboratory criteria</p> <p>Suspect: New characteristic rash OR meets one of the epidemiologic criteria and has a high clinical suspicion† for mpox</p> <p>Epidemiologic Criteria Within 21 days of illness onset:</p> <ul style="list-style-type: none"> • Reports having contact with a person or people with a similar appearing rash or who received a diagnosis of confirmed or probable mpox OR • Had close or intimate in-person contact with individuals in a social network experiencing mpox activity, this includes men who have sex with men (MSM) who meet partners through an online website, digital application (“app”), or social event (e.g., a bar or party) OR • Traveled outside the US to a country with confirmed cases of mpox or where mpox virus is endemic OR • Had contact with a dead or live wild animal or exotic pet that is an African endemic species or used a product derived from such animals (e.g., game meat, creams, lotions, powders, etc.) 	
<p>Multisystem Inflammatory Syndrome in Children (MIS-C) associated with SARS-CoV-2 Infection 11066</p>	<p>MIS-C associated with SARS-CoV-2 infection is a severe delayed hyperinflammatory condition in children and adolescents occurring 2–6 weeks after</p>	<p><i>Confirmatory laboratory evidence:</i></p> <ul style="list-style-type: none"> • Detection of SARS-CoV-2 RNA in a clinical specimen*** up to 60 days prior to

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>antecedent SARS-CoV-2 infection. MIS-C is characterized by fever, elevated laboratory markers of systemic inflammation, and multiple organ system dysfunction including cardiovascular, mucocutaneous, gastrointestinal, hematologic, neurologic, and renal involvement. Some patients may also present with respiratory failure or radiographic pulmonary abnormalities, which may reflect associated pulmonary hyperinflammation, a phenotypic overlap with COVID-19 viral pneumonia, or cardiogenic pulmonary edema. Patients with MIS-C are often critically ill, with the majority requiring admission to an intensive care unit (ICU) and 1–3% requiring extracorporeal membrane oxygenation (ECMO). Mortality among MIS-C patients has been estimated to be 1–2%.</p> <p>In accordance with the Council of State and Territorial Epidemiologists (CSTE) update to the Standardized Case Definition for Surveillance of Multisystem Inflammatory Syndrome in Children Associated with SARS-CoV-2 Infection 22-ID-02, DSHS has adopted the following case classification strategy effective January 1, 2023;</p> <p>Confirmed:</p> <ul style="list-style-type: none"> Meets the clinical criteria AND the confirmatory laboratory evidence. <p>Probable:</p> <ul style="list-style-type: none"> Meets the clinical criteria AND the epidemiologic linkage criteria. <p>Suspect:</p>	<p>or during hospitalization, or in a post-mortem specimen using a diagnostic molecular amplification test (e.g., polymerase chain reaction [PCR]),</p> <p>OR</p> <ul style="list-style-type: none"> Detection of SARS-CoV-2 specific antigen in a clinical specimen*** up to 60 days prior to or during hospitalization, or in a post-mortem specimen, <p>OR</p> <ul style="list-style-type: none"> Detection of SARS-CoV-2 specific antibodies^ in serum, plasma, or whole blood associated with current illness resulting in or during hospitalization <p><i>Presumptive laboratory evidence: N/A</i></p> <p><i>Supportive laboratory evidence: N/A</i></p> <p><i>***Positive molecular or antigen results from self-administered testing using over-the-counter test kits meet laboratory criteria.</i></p> <p><i>^Includes a positive serology test regardless of COVID-19 vaccination status. Detection of antinucleocapsid antibody is indicative of SARS-CoV-2 infection, while anti-spike protein antibody may be induced either by COVID-19 vaccination or by SARS-CoV-2 infection.</i></p> <p><i>Note: The categorical labels used here to stratify laboratory evidence are intended to</i></p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<ul style="list-style-type: none"> • Meets the vital records criteria. <p><i>Note: For cases initially identified as suspect, jurisdictions may conduct investigation of clinical and laboratory records to determine if confirmed or probable case criteria are met.</i></p> <p><i>Comment: To provide consistency in case classification, review of case information and assignment of final case classification for all suspected MIS-C cases will be done by experts in national MIS-C surveillance at Texas DSHS Central Office and staff at CDC.</i></p> <p>Clinical Criteria An illness in a person aged <21 years characterized by all of the following, in the absence of a more likely alternative diagnosis*:</p> <ul style="list-style-type: none"> • Subjective or documented fever (temperature $\geq 38.0^{\circ}$ C) <p>AND</p> <ul style="list-style-type: none"> • Clinical severity requiring hospitalization or resulting in death <p>AND</p> <ul style="list-style-type: none"> • Evidence of systemic inflammation indicated by C-reactive protein ≥ 3.0 mg/dL (30 mg/L) <p>AND</p> <ul style="list-style-type: none"> • New onset manifestations in at least two of the following categories: <ol style="list-style-type: none"> 1. Cardiac involvement indicated by: <ul style="list-style-type: none"> • Left ventricular ejection fraction 	<p><i>support the standardization of case classifications for public health surveillance. The categorical labels should not be used to interpret the utility or validity of any laboratory test methodology.</i></p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p><55%, OR</p> <ul style="list-style-type: none"> • Coronary artery dilatation, aneurysm, or ectasia, <p>OR</p> <ul style="list-style-type: none"> • Troponin elevated above laboratory normal range, or indicated as elevated in a clinical note <p>2. Mucocutaneous involvement indicated by:</p> <ul style="list-style-type: none"> • Rash, <p>OR</p> <ul style="list-style-type: none"> • Inflammation of the oral mucosa (e.g., mucosal erythema or swelling, drying or fissuring of the lips, strawberry tongue), <p>OR</p> <ul style="list-style-type: none"> • Conjunctivitis or conjunctival injection (redness of the eyes), <p>OR</p> <ul style="list-style-type: none"> • Extremity findings (e.g., erythema [redness] or edema [swelling] of the hands or feet) <p>3. Shock**</p> <p>4. Gastrointestinal involvement indicated by:</p> <ul style="list-style-type: none"> • Abdominal pain, <p>OR</p> <ul style="list-style-type: none"> • Vomiting, <p>OR</p> <ul style="list-style-type: none"> • Diarrhea <p>5. Hematologic involvement indicated</p>	

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	<p>by:</p> <ul style="list-style-type: none"> • Platelet count <150,000 cells/μL, <p>OR</p> <ul style="list-style-type: none"> • Absolute lymphocyte count (ALC) <1,000 cells/μL <p><i>*If documented by the clinical treatment team, a final diagnosis of Kawasaki Disease should be considered an alternative diagnosis. These cases should not be reported to state MIS-C surveillance.</i></p> <p><i>** Clinician documentation of shock meets this criterion.</i></p> <p><i>Epidemiologic Linkage Criteria</i> Close contact[‡] with a confirmed or probable case of COVID-19 disease in the 60 days prior to hospitalization.</p> <p><i>‡Close contact is generally defined as being within 6 feet for at least 15 minutes (cumulative over a 24-hour period). However, it depends on the exposure level and setting; for example, in the setting of an aerosol-generating procedure in healthcare settings without proper personal protective equipment (PPE), this may be defined as any duration.</i></p> <p><i>Vital Records Criteria</i> A person aged <21 years whose death certificate lists MIS-C or multisystem inflammatory syndrome as an underlying cause of death or a significant condition contributing to death.</p> <p><i>Criteria to distinguish a new case of this</i></p>	

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>disease or condition from reports or notifications which should not be enumerated as a new case for surveillance: A case should be enumerated as a new case if the person had never previously been enumerated as a case OR if the person was most recently enumerated as a case with illness onset date (if available) or hospital admission date >90 days prior.</p>	
<p>Mumps 10180</p>	<p>Acute parotitis or other (non-parotid) salivary gland(s) swelling lasting at least 2 days, OR a mumps-associated complication, including orchitis, ophoritis, aseptic meningitis, encephalitis, hearing loss, mastitis, or pancreatitis, unexplained by another more likely diagnosis</p> <p>Confirmed: A case that meets confirmatory laboratory evidence</p> <p>Probable: A case that meets the clinical criteria, AND</p> <ul style="list-style-type: none"> ▪ Has a positive test for serum anti-mumps immunoglobulin M (IgM) antibody AND does not meet epidemiologic linkage criteria, OR ▪ Has exposure to or contact with a confirmed mumps case or is a member of a group or population identified by public health authorities as being at increased risk for acquiring mumps because of an outbreak <p>Suspect: A case that has parotitis, acute salivary gland swelling, orchitis, or oophoritis</p>	<ul style="list-style-type: none"> ▪ Isolation of mumps virus from a clinical specimen, OR ▪ Detection of mumps-virus-specific nucleic acid by PCR <p>Note: An elevated serum amylase is not confirmatory for mumps.</p>

Condition/Code	Case Definition/Case Classification	Laboratory Confirmation Tests
	<p>unexplained by another more likely diagnosis, OR a has a positive lab result with no mumps clinical symptoms (with or without an epidemiologic link to a confirmed or probable case) AND documentation that mumps was suspected.</p>	
<p>Norovirus - [outbreaks only] 10996</p>	<p>Acute onset vomiting with watery, non-bloody diarrhea, abdominal cramps, and nausea. Low-grade fever may also occasionally occur, and vomiting is more common in children.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed</p> <p>Probable: A clinically compatible case that is epidemiologically linked to a confirmed case</p>	<ul style="list-style-type: none"> ▪ Detection of norovirus DNA (PCR) in stool or vomitus. Identification of norovirus can best be made from stool specimens taken within 48 to 72 hours after onset of symptoms. Virus can sometimes be found in stool samples taken as late as 2 weeks after recovery. <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of norovirus antigen in stool. <p>Note: The etiology of gastrointestinal outbreaks should be confirmed by submitting specimens to the DSHS Laboratory. Sequencing for norovirus strains is available.</p>

Novel Coronavirus

10575

**For COVID-19, please see [COVID-19 \(Novel Coronavirus 2019\)](#)*

This section refers to diseases caused by novel coronaviruses other than Coronavirus Disease 2019 (COVID-19) caused by the virus SARS-CoV-2, which is described in a previous section. Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a novel coronavirus. SARS was first identified in 2003 with the SARS-associated coronavirus (SARS-CoV). SARS-CoV has not been detected since the 2003 outbreak ended. However, in 2012 a new coronavirus causing an acute severe respiratory disease was detected in countries in or near the Arabian Peninsula--Middle East Respiratory Syndrome coronavirus (MERS-CoV). Symptoms of a novel coronavirus causing an acute respiratory syndrome may include fever and cough in addition to pneumonia or acute respiratory distress syndrome (ARDS).

Clinical criteria for the specific novel coronavirus will be determined by the Centers for Disease Control and Prevention (CDC). Case definitions for confirmed, probable and suspect cases may be redefined based on the specific novel coronavirus. Additionally, CDC may require that patients undergo testing for alternate causes of infection including all clinically indicated tests for community acquired pneumonia, before being considered a probable or suspect case.

Confirmed: A person who has laboratory confirmation of infection with a novel coronavirus

- Identification of a novel coronavirus that is different from currently circulating human coronaviruses as confirmed by CDC's laboratory, by public health laboratories using CDC-approved protocols for a specific novel strain, or by labs using an FDA approved test for a specific novel strain
- Initial confirmation that a specific coronavirus represents a novel virus will be determined by the CDC
- Other laboratory confirmation criteria may be defined by CDC for the specific novel coronavirus

Probable: A person who meets the criteria for a suspect case, has absent or inconclusive* laboratory results for novel coronavirus infection, and is a close contact** of a laboratory confirmed case

Suspect: A person who meets the clinical criteria AND at least one of the following:

- 1) Has recent travel history to any country where a novel coronavirus has been recently identified in people
- 2) Has had close contact** with a symptomatic person who recently traveled to any country where a novel coronavirus has been recently identified in people
- 3) Is a member of a cluster of patients with severe acute respiratory illness (e.g., fever and pneumonia requiring hospitalization) of unknown etiology in which a novel coronavirus is being evaluated, in consultation with state and local health departments
- 4) Has a recent history of other relevant exposures, as defined by CDC

*Examples of laboratory results that may be considered inconclusive include a positive test on a single PCR target, a positive test with an assay that has limited performance data available, or a negative test on an inadequate specimen.

**See <http://www.cdc.gov/coronavirus/mers/case-def.html> for current MERS Patient Under Investigation (PUI) criteria for suspect cases and for the definition of "close contact".

<p>Outbreaks, exotic diseases, and unusual expression of disease</p> <p>Amebiasis Cronobacter Giardia 11570 Influenza, human isolates 11060 Norovirus 10996 Streptococcal toxic- shock syndrome 11700</p>	<p>In addition to specified reportable conditions, any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern should be reported by the most expeditious means available.</p>	
<p>Paragonimiasis 80664</p>	<p>Paragonimiasis (lung fluke trematode) is transmitted by eating inadequately cooked crustaceans (primarily crayfish in the US) that are infected with the parasite. Disease most frequently involves the lungs. Initial signs and symptoms may be diarrhea and abdominal pain followed several days later by fever, chest pain, and fatigue. The symptoms may also include a dry cough, which later becomes productive with rusty-colored or blood-tinged sputum on exertion, and pleuritic chest pain. X-ray findings may include diffuse and/or segmental infiltrates, nodules, cavities, ring cysts and/or pleural effusions. Extrapulmonary disease is not uncommon, with flukes found in such sites as the CNS, subcutaneous tissues, intestinal wall, peritoneal cavity, liver, lymph nodes and genitourinary tract. Infection usually lasts for years, and the infected person may be asymptomatic. Paragonimiasis may be mistaken for tuberculosis, clinically and on chest X-rays.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: A clinically compatible case with</p>	<ul style="list-style-type: none"> ▪ Microscopic identification of <i>Paragonimus</i> eggs in feces, sputum, pleural fluid, CSF, or pus, OR ▪ Identification of worms or eggs in biopsies of pulmonary, cerebral, subcutaneous, or intra-abdominal nodules or cystic lesions

	<ul style="list-style-type: none"> ▪ Detection of <i>Paragonimus</i> antibodies by CF, EIA, or immunoblot, OR ▪ Positive skin test for <i>Paragonimus</i>, OR ▪ History of ingestion of inadequately cooked crustaceans and marked eosinophilia with total WBC count in the normal range or supportive x-ray findings 	
<p>Pertussis 10190</p>	<p>A cough illness lasting at least 14 days AND at least one of the following additional symptoms in the absence of a more likely diagnosis:</p> <ul style="list-style-type: none"> ▪ Paroxysmal coughing, OR ▪ Inspiratory "whoop," OR ▪ Post-tussive vomiting, OR ▪ Apnea (with or without cyanosis) <p>Confirmed: A person with an acute cough illness of any duration who is laboratory confirmed</p> <p>Probable: In the absence of a more likely diagnosis, a person who is not laboratory confirmed (not tested, tests are negative, or tested by serology or DFA), and is either:</p> <ul style="list-style-type: none"> ▪ A person with an acute cough illness of any duration, with <ul style="list-style-type: none"> • At least one of the following signs or symptoms: <ul style="list-style-type: none"> ▪ Paroxysms of coughing, OR ▪ Inspiratory whoop, OR ▪ Post-tussive vomiting, OR ▪ Apnea (with or without cyanosis) <p>AND epidemiological linkage to a laboratory confirmed case</p> <p>OR</p> <ul style="list-style-type: none"> ▪ A person who meets the clinical case 	<ul style="list-style-type: none"> ▪ Isolation (culture) of <i>Bordetella pertussis</i> from a clinical specimen, OR ▪ Positive polymerase chain reaction (PCR) assay for <i>Bordetella pertussis</i> ▪ Note: Because <i>B. pertussis</i> can be difficult to culture, a negative culture result does not rule out pertussis. Negative PCR results do not require investigation unless reported as a suspected case by a healthcare provider. Direct fluorescent antibody (DFA) staining of a patient's specimen and serological laboratory results (pertussis IgA, IgG or IgM) are NOT considered confirmatory for pertussis, but should be investigated as soon as possible.

	definition.	
<p>Plague 10440</p>	<p>Plague, a bacterial infection caused by <i>Yersinia pestis</i>, is transmitted to humans via flea bites or by direct exposure to infected tissues or respiratory droplets. The disease is characterized by fever, chills, headache, malaise, prostration, and leukocytosis and can manifest in one or more specific clinical presentations which typically reflect the route of exposure to the pathogen.</p> <p><i>Clinical evidence:</i> Acute onset of fever as reported by the patient or healthcare provider with or without one or more of the following: regional lymphadenitis, septicemia, pneumonia, or pharyngitis with cervical lymphadenitis.</p> <p>Confirmed: A clinically compatible case with confirmatory laboratory evidence, OR a clinically compatible case with presumptive laboratory evidence AND epidemiologic linkage (see below)</p> <p>Probable: A clinically compatible case with a presumptive laboratory evidence* as listed below that lacks an alternative diagnosis and epidemiologic linkage (see below)</p> <ul style="list-style-type: none"> ▪ Elevated serum antibody titer(s) to <i>Y. pestis</i> fraction 1 (F1) antigen (without documented four-fold or greater change) in a patient with no history of plague vaccination, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>Y. pestis</i> specific DNA or antigens, including F1 antigen, in a clinical specimen by DFA, IHC, or PCR <p><i>Suspect:</i> A clinically compatible case without laboratory evidence that has an</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>Y. pestis</i> from a clinical specimen with culture identification validated by a secondary assay (e.g. bacteriophage lysis assay, DFA assay) as performed by a CDC or LRN laboratory, <p>OR</p> <ul style="list-style-type: none"> ▪ Four-fold or greater change in paired serum antibody titer to <i>Y. pestis</i> F1 antigen <p>For isolates of other species of <i>Yersinia</i>, see Yersiniosis</p> <p>Note: As required by TAC, all <i>Y. pestis</i> isolates must be submitted to an LRN laboratory.</p>

epidemiologic linkage **OR** an individual with confirmed or presumptive laboratory evidence without any associated clinical information

Epidemiologic linkage is defined as one or more of the following:

- Person that is epidemiologically linked to a person or animals with confirmatory laboratory evidence within the prior two weeks;
- OR**
- Close contact with a confirmed pneumonic plague case, including but not limited to presence within two meters of a person with active cough due to pneumonic plague;
- OR**
- A person that lives in or has traveled within two weeks of illness onset to a geographically-localized area with confirmed plague epizootic activity in fleas or animals as determined by the relevant local authorities.

**Other laboratory tests, including rapid bedside tests, are in use in some low resourced international settings but are not recommended as laboratory evidence of plague infection in the United States.*

<p>Poliomyelitis, paralytic 10410</p>	<p>Acute onset of a flaccid paralysis of one or more limbs with decreased or absent tendon reflexes in the affected limbs, without other apparent cause</p> <p>Confirmed*: A case that meets the clinical case definition AND confirmatory laboratory evidence</p> <p>*Note: All suspected cases of paralytic poliomyelitis are reviewed by a panel of expert consultants at the Centers for Disease Control and Prevention (CDC) before final case classification occurs.</p>	<ul style="list-style-type: none"> ▪ Poliovirus detected by sequencing of the capsid region of the genome by the CDC Poliovirus Laboratory ▪ Poliovirus detected in an appropriate clinical specimen (e.g., stool [preferred], cerebrospinal fluid, oropharyngeal secretions) using a properly validated assay[^], AND specimen is not available for, sequencing by the CDC Poliovirus Laboratory
<p>Poliovirus infection, nonparalytic 10405</p>	<p>Most poliovirus infections are asymptomatic or cause mild febrile disease.</p> <p>Confirmed: Laboratory confirmed poliovirus infection in a person without symptoms of paralytic poliomyelitis</p>	<ul style="list-style-type: none"> ▪ Poliovirus detected by sequencing of the capsid region of the genome by the CDC Poliovirus Laboratory ▪ Poliovirus detected in an appropriate clinical specimen (e.g., stool [preferred], cerebrospinal fluid, oropharyngeal secretions) using a properly validated assay[^], AND specimen is not available for, sequencing by the CDC Poliovirus Laboratory
<p>Primary amebic meningoencephalitis (PAM)</p>	<p>See Amebic meningoencephalitis (PAM)</p>	

<p>Prion diseases, such as Creutzfeldt-Jakob disease (CJD) 80060</p>	<p>Creutzfeldt-Jakob disease (CJD) is a human prion disease described as rapidly progressive, neurodegenerative, and invariably fatal. Human prion diseases include sporadic forms of disease (sporadic CJD (sCJD), sporadic fatal insomnia (sFI), and variably protease-sensitive prionopathy (VPSPr)), genetic/familial forms of disease (genetic or familial CJD (gCJD or fCJD), fatal familial insomnia (FFI), and Gerstmann-Sträussler-Scheinker syndrome (GSS)), and acquired forms of disease (iatrogenic CJD (iCJD), Kuru (described only in the Fore population of Papua New Guinea), and variant CJD (vCJD)).</p> <p>Classical sporadic CJD presentation consists of rapidly progressive dementia, visual abnormalities, myoclonus, or cerebellar dysfunction (where both balance abnormalities and muscle incoordination can be seen). Most patients eventually develop pyramidal and extrapyramidal dysfunction, such as abnormal reflexes (hyperreflexia), spasticity, tremors, and rigidity. Akinetic mutism appears late in the disease. Median duration of illness is 4-5 months; the duration of illness is usually less than 12 months.</p> <p>For purposes of surveillance and notification: prion diseases such as Creutzfeldt-Jakob disease (CJD) includes sCJD, and also includes SFI, VPSPr, any gCJD or fCJD, FFI, GSS syndrome, iCJD, Kuru, vCJD, and any novel prion disease affecting humans.</p> <p><u>Sporadic CJD (sCJD)*</u></p>	<p>Confirmatory Laboratory Criteria (brain tissue) - sporadic, genetic/familial & iatrogenic CJD</p> <ul style="list-style-type: none"> ▪ Diagnosis by standard neuropathological techniques AND/OR ▪ Immunohistochemistry AND/OR ▪ Western blot confirmed protease-resistant PrP AND/OR ▪ Presence of scrapie-associated fibrils <p>Supportive Laboratory Criteria - sporadic, genetic/familial & iatrogenic CJD</p> <ul style="list-style-type: none"> ▪ <i>CSF 14-3-3 protein</i>: Reported as elevated, above normal limits, or positive. If 14-3-3 protein is the only supportive test used in determining classification, then duration of illness must be < 2 years. ▪ <i>CSF RT-QuIC</i>: Positive ▪ <i>EEG</i>: Reported as “typical of” or “consistent with” sporadic CJD or the report indicates the presence of generalized bi- or triphasic “periodic sharp wave complexes” (PSWC) at a frequency of 1-2 per second. No limitation on duration of illness. ▪ <i>Brain MRI</i>: High signal abnormalities in the caudate nucleus and/or putamen OR in at least two cortical regions (temporal, parietal, occipital) on diffusion-weighted imaging (DWI) or fluid attenuated inversion recovery (FLAIR). No limitation on duration of illness. <p>Exclusion Criterion:</p>
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	<p><i>Confirmed:</i> Satisfactory confirmatory test findings on autopsy or biopsy of brain tissue</p> <p><i>Probable:</i></p> <ul style="list-style-type: none"> ▪ Neuropsychiatric disorder AND positive RT-QuIC in CSF or other tissues <p>OR</p> <ul style="list-style-type: none"> ▪ Rapidly progressive dementia AND at least two of the following four clinical features: <ul style="list-style-type: none"> a) Myoclonus b) Visual or cerebellar signs c) Pyramidal/extrapyramidal signs d) Akinetic mutism <p>AND satisfying at least one of the supportive laboratory criteria, AND absence of routine investigations indicating an alternative diagnosis</p> <p><i>Possible (Suspect):</i></p> <p>Progressive dementia AND at least two of the following four clinical features: <ul style="list-style-type: none"> a) Myoclonus b) Visual or cerebellar signs c) Pyramidal/extrapyramidal signs d) Akinetic mutism AND absence of any supportive laboratory criteria, AND duration of illness < 2 years, AND absence of routine investigations indicating an alternative diagnosis</p> <p>*sCJD includes sporadic fatal insomnia (sFI) and variably protease-sensitive prionopathy (VPSPr) which are typically neuropathologic diagnoses</p>	<p>On neurohistopathological analysis of whole brain autopsy tissue, the absence of findings consistent with prion disease (negative results) is sufficient to “rule out” possible and probable cases and reclassify as “Not a Case”.</p> <p>Note: Whole brain autopsy and neuropathology is the only way to confirm or rule-out prion disease. Biopsy tissue can only confirm presence of prion disease but is not sufficient to rule-out prion disease. Autopsy or postmortem biopsy (when autopsy is not possible) is strongly encouraged, while biopsy on living patients should be reserved for diagnosing treatable diseases. The National Prion Disease Pathology Surveillance Center (NPDPS) performs analysis on CSF, blood, and brain tissue. They provide free transport, shipping, and autopsy services for suspected cases of CJD (the family must initiate contact). Physicians are strongly encouraged to confirm the diagnosis of CJD by discussing and arranging autopsy with the NPDPS and family members. Autopsy is “highly suggested” for all cases with onset age less than 55 years or physician diagnosed CJD that does not meet the epidemiologic case criteria.</p>
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<p>Prion diseases, such as Creutzfeldt-Jakob disease (CJD) 80060</p>	<p><u>Genetic/Familial CJD (gCJD or fCJD)**</u></p> <p>A classification of <i>Confirmed or Probable</i> requires:</p> <ul style="list-style-type: none"> ▪ Confirmed or probable CJD AND confirmed or probable CJD classification in a first degree relative <p>AND/OR</p> <ul style="list-style-type: none"> ▪ Neuropsychiatric disorder AND disease-specific PRNP gene mutation <p>**Fatal familial insomnia (FFI) and Gerstmann-Sträussler-Scheinker syndrome (GSS) are specific genetic/familial CJD diseases, and classification will be based on neuropathology results and/or a specific PRNP gene mutation for the disease and family history.</p> <p><u>Acquired CJD</u></p> <p>Iatrogenic CJD (iCJD):</p> <ul style="list-style-type: none"> ▪ Progressive cerebellar syndrome in a recipient of human cadaveric-derived pituitary hormone <p>OR</p> <ul style="list-style-type: none"> ▪ Meets sCJD criteria AND a recognized exposure risk (e.g., antecedent neurosurgery with dura mater graft) 	<p>See above for confirmatory laboratory criteria, supportive laboratory criteria, and exclusion criterion.</p>
<p>Prion diseases, such as Creutzfeldt-Jakob disease (CJD) 80060</p>	<p>Variant CJD (vCJD) was first described in 1996 in the United Kingdom, and there is strong evidence it is the same agent that was responsible for the bovine spongiform encephalopathy (BSE) outbreak in cattle. Variant CJD is characterized by presumed exposure to BSE most commonly through consumption of contaminated meat, a prolonged incubation period of many years or decades, and presence of a neuropsychiatric disease that is progressive</p>	<p>Confirmatory Laboratory Criteria (brain tissue) – variant CJD</p> <ul style="list-style-type: none"> ▪ Numerous widespread kuru-type amyloid plaques surrounded by vacuoles in both the cerebellum and cerebrum (i.e., florid plaques) AND ▪ Spongiform change and extensive prion protein deposition shown by immunohistochemistry throughout the cerebellum and cerebrum

and invariably fatal. Median age at death in the United Kingdom is 28 years. Clinical presentation includes early psychiatric symptoms (anxiety/depression/withdrawal) or sensory symptoms, and delayed development of neurologic signs (≥ 4 months), and duration of illness lasting over 6 months with a median duration of illness of 13-14 months.

Confirmed: Confirmatory laboratory criteria are met

*Suspect***:* The following criteria are met:

- Current age or age at death <55 years (a brain autopsy is recommended, however, for all physician-diagnosed CJD cases)
- Psychiatric symptoms at illness onset AND/OR persistent painful sensory symptoms (frank pain and/or dysesthesia)
- Dementia AND development ≥ 4 months after illness onset of at least two of the following five neurologic signs: poor coordination, myoclonus, chorea, hyperreflexia, or visual signs. (If persistent painful sensory symptoms exist, ≥ 4 months delay in the development of the neurologic signs is not required.)
- A normal or an abnormal EEG, BUT NOT the diagnostic EEG changes often seen in classic CJD
- Duration of illness of over 6 months
- Routine investigations of the patient do not suggest an alternative, non-CJD diagnosis

Supportive Laboratory Criteria – variant CJD

- EEG with normal or abnormal findings BUT WITHOUT findings consistent with sporadic CJD (absence of “periodic sharp wave complexes” - PSWC), OR EEG not reported or performed
- Presence of “bilateral pulvinar high signal” OR “pulvinar sign” OR “symmetrical, bilateral high signal in the posterior thalamic nuclei” on brain MRI (relative to other deep gray-matter nuclei)

Exclusion Criterion: On neurohistopathological analysis of whole brain autopsy tissue, the absence of findings consistent with prion disease (negative results) is sufficient to “rule out” possible and probable cases and reclassify as “Not a Case”.

Note: Whole brain autopsy and neuropathology is the only way to confirm or rule-out prion disease. Biopsy tissue can only confirm presence of prion disease but is not sufficient to rule-out prion disease. Autopsy or postmortem biopsy (when autopsy is not possible) is strongly encouraged, while biopsy on living patients should be reserved for diagnosing treatable diseases. [The National Prion Disease Pathology Surveillance Center \(NPDPS\)](#) performs analysis on CSF, blood, and brain tissue. They provide free transport, shipping, and autopsy services for suspected cases of CJD (the family must initiate contact). Physicians are strongly encouraged to

	<ul style="list-style-type: none"> ▪ No history of receipt of cadaveric human pituitary growth hormone or a dura mater graft ▪ No history of CJD in a first degree relative or PRNP gene mutation in the patient <p>OR</p> <ul style="list-style-type: none"> ▪ Presence of "bilateral pulvinar high signal" or "pulvinar sign" or "symmetrical, bilateral high signal in the posterior thalamic nuclei" on brain MRI, <p>AND</p> <ul style="list-style-type: none"> ▪ Presence of all of the following: a progressive neuropsychiatric disorder, a normal or an abnormal EEG, BUT NOT the diagnostic EEG changes often seen in classic CJD, duration of illness of over 6 months, routine investigations of the patient do not suggest an alternative, non-CJD diagnosis, & no history of receipt of cadaveric human pituitary growth hormone or a dura mater graft <p>AND</p> <ul style="list-style-type: none"> ▪ Four of the following five criteria: <ul style="list-style-type: none"> ○ Early psychiatric symptoms (anxiety, apathy, delusions, depression, withdrawal) ○ Persistent painful sensory symptoms (frank pain and/or dysesthesia) ○ Ataxia ○ Myoclonus or chorea or dystonia ○ Dementia <p>***A history of possible exposure to bovine spongiform encephalopathy (BSE) such as residence or travel to a BSE-affected</p>	<p>confirm the diagnosis of CJD by discussing and arranging autopsy with the NPDPS and family members. Autopsy is "highly suggested" for all cases with onset age less than 55 years or physician diagnosed CJD that does not meet the epidemiologic case criteria.</p>
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	country after 1980 increases the index of suspicion for a variant CJD diagnosis.	
<p>Q Fever, acute 10257</p>	<p>Q fever is a zoonotic disease caused by <i>Coxiella burnetii</i>. Asymptomatic infection occurs in approximately half of those infected. Exposure to <i>C. burnetii</i> is usually via aerosol, and the source can be unknown (especially for chronic infection). Exposure can be associated with goats, sheep, or other livestock, but direct contact with animals is not required, and variable incubation periods can be dose dependent. Acute infection, if symptomatic, is characterized by acute onset of fever accompanied by rigors, myalgia, malaise, and severe retrobulbar headache, and can include fatigue, night sweats, dyspnea, confusion, nausea, diarrhea, abdominal pain, vomiting, non-productive cough, or chest pain. Acute hepatitis, atypical pneumonia, and meningoencephalitis may be present with severe disease. Pregnant women are at risk for fetal death and abortion. Clinical laboratory findings can include elevated liver enzyme levels, leukocytosis, and thrombocytopenia.</p> <p><i>Clinical evidence:</i> Acute fever and one or more of the following: rigors, severe retrobulbar headache, acute hepatitis, pneumonia, or elevated liver enzyme levels.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed</p> <p>Probable: A clinically compatible case with a single supportive IgG-specific antibody titer to <i>C. burnetii</i> Phase II antigen of $\geq 1:128$ by</p>	<ul style="list-style-type: none"> ▪ Serological evidence of a four-fold change in IgG-specific antibody titer to <i>C. burnetii</i> Phase II antigen by IFA between paired serum samples (preferably one taken during the first week of illness and a second 3-6 weeks later; phase I titer may be elevated as well), OR ▪ Detection of <i>C. burnetii</i> DNA in a clinical specimen by PCR, OR ▪ Demonstration of <i>C. burnetii</i> antigen in a clinical specimen by IHC, OR ▪ Isolation of <i>C. burnetii</i> from a clinical specimen in cell culture

	IFA, and the absence of a more likely clinical explanation	
Q Fever, chronic 10258	<p>Chronic Q fever is characterized by a <i>Coxiella burnetii</i> infection that persists for more than 6 months. Potentially fatal endocarditis can evolve months to years after acute infection, particularly in persons with underlying valvular disease. Infections of aneurysms and vascular prostheses have been reported. Immunocompromised individuals are particularly susceptible. Rare cases of chronic hepatitis without endocarditis, osteomyelitis, osteoarthritis, and pneumonitis have been described.</p> <p><i>Clinical evidence:</i> Chronic hepatitis, osteomyelitis, osteoarthritis, or pneumonitis (in the absence of other known etiology); suspected infection of a vascular aneurysm or vascular prosthesis; or newly recognized, culture-negative endocarditis (particularly in a patient with previous valvulopathy or a compromised immune system).</p> <p>Confirmed: A clinically compatible (meets clinical evidence criteria) case of chronic illness that is laboratory confirmed</p> <p>Probable: A clinically compatible case of chronic illness with an antibody titer to <i>C. burnetii</i> Phase I IgG antigen that is $\geq 1:128$ and $< 1:800$ by IFA</p>	<ul style="list-style-type: none"> ▪ Serological evidence of IgG antibody to <i>C. burnetii</i> Phase I antigen of $\geq 1:800$ by IFA (phase II will likely be elevated as well but will generally be lower than phase I) OR ▪ Detection of <i>C. burnetii</i> DNA in a clinical specimen by PCR, OR ▪ Demonstration of <i>C. burnetii</i> antigen in a clinical specimen by IHC, OR ▪ Isolation of <i>C. burnetii</i> from a clinical specimen in cell culture
Rabies, animal 10340	<p>All warm-blooded animals, including humans, are susceptible to rabies. In Texas, skunks, bats, coyotes, and foxes are the most commonly infected animals. Domestic dogs, cats, and livestock usually acquire rabies infections from wild animals.</p>	<ul style="list-style-type: none"> ▪ A positive DFA test (preferably performed on central nervous system tissue), OR ▪ Isolation of rabies virus (in cell culture or in a laboratory animal) OR

	<p>Medical authorities distinguish between "furious" and "dumb" rabies on the basis of clinical signs. In the furious variety, the "mad dog" symptoms are pronounced. The animal is irritable and will snap and bite at real or imaginary objects. It can run for miles and attack anything in its path. The animal is extremely vicious and violent. Paralysis sets in shortly, usually affecting the hind legs first. Death follows four to seven days after the onset of clinical signs. In dumb rabies, the prominent symptoms are drowsiness and paralysis of the lower jaw. The animal can appear to have a bone lodged in its throat, sometimes causing owners to force open an animal's mouth to investigate and become unwittingly exposed to rabies. Animals with dumb rabies have no tendency to roam but will snap at movement. They are completely insensitive to pain, and usually become comatose and die from three to ten days after first symptoms appear.</p> <p>Confirmed: A case that is laboratory confirmed</p>	<ul style="list-style-type: none"> ▪ A positive rabies virus direct rapid immunohistochemical test (dRIT) <p>OR</p> <ul style="list-style-type: none"> ▪ A positive rabies virus test by immunohistochemistry (IHC) on formalin-fixed tissue <p>OR</p> <ul style="list-style-type: none"> ▪ A positive pan-lyssavirus probe-based real time reverse transcription-polymerase chain reaction (RT-PCR) test <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of lyssavirus nucleic acid by genomic sequencing
<p>Rabies, human 10460</p>	<p>Rabies is an acute encephalomyelitis that almost always progresses to coma or death within 10 days after the first symptom.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed by testing at a state or federal public health laboratory</p> <p>Note: Laboratory confirmation by all of the methods listed under "Lab Confirmation Tests" is strongly recommended.</p>	<ul style="list-style-type: none"> ▪ Detection of Lyssavirus antigens in a clinical specimen (preferably the brain or the nerves surrounding hair follicles in the nape of the neck) by DFA, <p>OR</p> <ul style="list-style-type: none"> ▪ Isolation (in cell culture or in a laboratory animal) of Lyssavirus from saliva, or central nervous system tissue, <p>OR</p> <ul style="list-style-type: none"> ▪ Identification of Lyssavirus specific antibody (i.e., by IFA or complete rabies virus neutralization at 1:5 dilution) in the CSF, <p>OR</p>

		<ul style="list-style-type: none"> ▪ Identification of Lyssavirus specific antibody (i.e., by IFA or complete rabies virus neutralization at 1:5 dilution) in the serum of an unvaccinated person, OR ▪ Detection of Lyssavirus viral RNA using RT-PCR in saliva, CSF, or tissue
<p>Relapsing fever, tick-borne (TBRF) 10845</p>	<p>Tick-borne Relapsing Fever (TBRF) is an illness caused by infection with some members of the genus <i>Borrelia</i>, including <i>B. hermsii</i>, <i>B. parkeri</i>, and <i>B. turicatae</i>. <i>Borrelia</i> spirochetes that cause TBRF are transmitted to humans through the bite of infected "soft ticks" of the genus <i>Ornithodoros</i>. Each relapsing fever group <i>Borrelia</i> species is usually associated with a specific tick species: <i>B. hermsii</i> is transmitted by <i>O. hermsi</i>, <i>B. parkeri</i> by <i>O. parkeri</i>, and <i>B. turicatae</i> by <i>O. turicata</i> ticks. Disease incubation averages one week following a tick bite. Illness is characterized by periods of fever, often exceeding 103°F, lasting 2-7 days, alternating with afebrile periods of 4-14 days. Febrile periods are often accompanied by shaking chills, sweats, headache, muscle and joint pain, and nausea/vomiting. TBRF may be fatal in 5-10% of untreated cases. TBRF contracted during pregnancy can cause spontaneous abortion, premature birth, and neonatal death.</p> <p><i>Clinical evidence:</i> Measured fever $\geq 38.8^{\circ}\text{C}$ (102°F) alone OR one or more episodes of subjective or measured fever $< 101^{\circ}\text{F}$ AND two or more of the following: headache, myalgia, nausea/vomiting, or arthralgia.</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>Borrelia hermsii</i>, <i>B. parkeri</i>, or <i>B. turicatae</i> from blood using a <i>Borrelia</i>-specific medium such as Barbour-Stoenner-Kelly (BSK) broth medium OR ▪ <i>Borrelia hermsii</i>, <i>B. parkeri</i>, or <i>B. turicatae</i> detection through nucleic acid testing, such as PCR, which differentiates soft-tick relapsing fever <i>Borrelia</i> spp. from other relapsing fever <i>Borrelia</i> spp.

Epidemiologic linkage criteria: Onset of clinically compatible illness 2-18 days after sharing the same exposure site and time as a confirmed case.

Exposure criteria: Exposure is defined as time spent in a county in which *Ornithodoros* soft ticks are present or where a confirmed autochthonous case of TBRF has been previously reported. Time spent in cabins, caves, around firewood, or other possible soft tick habitat within 2-18 days of symptom onset is considered highest risk.

Confirmed: A clinically compatible illness that is laboratory confirmed, **OR** a clinically compatible illness with presumptive laboratory evidence* that meets the exposure and/or epidemiologic linkage criteria.

Probable: A clinically compatible illness with presumptive laboratory evidence*, defined as:

- Identification of *Borrelia* spirochetes in peripheral blood, bone marrow, or cerebral spinal fluid (CSF), **OR**
- Serologic evidence of *Borrelia hermsii*, *B. parkeri*, or *B. turicatae* infection by equivocal or positive EIA and positive Western blot, **OR**
- Relapsing fever *Borrelia* detection through nucleic acid testing, such as PCR, which does not differentiate soft-tick relapsing fever *Borrelia* spp. from other relapsing fever *Borrelia* spp.

Note: Antibodies stimulated by other spirochetal infections (e.g. Lyme disease and syphilis) may cross react on TBRF serologic assays. Epidemiological

	information including exposure history is crucial to differentiate positive serology results.	
Rickettsiosis, unspecified 65466	<p>Flea-borne typhus and spotted fever rickettsioses (SFR) are vector-borne infections caused by some members of the genus <i>Rickettsia</i>. These infections can be difficult to differentiate clinically and serologically due to antibody cross-reactivity.</p> <p><i>Clinical evidence:</i> Acute illness lasting less than 30 days with fever and two or more of the following: rash, headache, nausea/vomiting, myalgia, anemia, thrombocytopenia, or elevated liver enzymes.</p> <p>Probable: A case that meets clinical criteria with similar elevations* in IgG serologic titers ($\geq 1:128$ to spotted fever and/or typhus group antigens) in a sample taken within 60 days of illness onset that cannot be definitively classified as spotted fever rickettsiosis or flea-borne typhus <u>and</u> does not have a more likely clinical explanation.</p> <p><i>*Serologic IgG titers that are equal <u>or</u> within one dilution of each other</i></p> <p>Note: For "Rickettsiosis, unspecified," an undetermined case can only be classified as probable.</p> <p>See Rickettsia Classification</p>	<ul style="list-style-type: none"> ▪ Not applicable – see note
Rubella 10200	An illness that has all the following characteristics: Acute onset of generalized maculopapular rash; temperature $\geq 99^{\circ}\text{F}$ (37.2°C), if measured; and	<ul style="list-style-type: none"> ▪ Isolation of rubella virus, OR ▪ Significant rise between acute- and convalescent-phase titers in serum rubella

	<p>arthralgia/arthritis, lymphadenopathy, or conjunctivitis.</p> <p>Confirmed: A case that is clinically compatible and is laboratory confirmed or epidemiologically linked to a laboratory-confirmed case</p> <p>Note: Serum rubella IgM test results that are false positives have been reported in persons with other viral infections (e.g., acute infection with Epstein-Barr virus [infectious mononucleosis], recent cytomegalovirus infection, and parvovirus infection) or in the presence of rheumatoid factor. Patients who have laboratory evidence of recent measles infection are excluded.</p>	<p>immunoglobulin G (IgG) antibody level* by any standard serologic assay,</p> <p>OR</p> <ul style="list-style-type: none"> ▪ Positive serologic test for rubella-specific immunoglobulin M (IgM) antibody* not otherwise ruled out by more specific testing in a public health laboratory, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of rubella-virus-specific nucleic acid by PCR <p>*Not explained by MMR vaccination during the previous 6-45 days.</p>
<p>Rubella, congenital syndrome 10370</p>	<p>An illness of newborns resulting from rubella infection in utero and characterized by signs or symptoms from the following categories:</p> <ul style="list-style-type: none"> a) Cataracts/congenital glaucoma, congenital heart disease (most commonly patent ductus arteriosus or peripheral pulmonary artery stenosis), hearing loss, or pigmentary retinopathy b) Purpura, hepatosplenomegaly, jaundice, microcephaly, developmental delay, meningoencephalitis, or radiolucent bone disease <p>Confirmed: A clinically consistent case that is laboratory confirmed</p> <p>Probable: A case that is not laboratory confirmed, that has any two complications listed in (a) of the clinical case definition or one complication from (a) and one from (b), and lacks evidence of any other etiology</p>	<ul style="list-style-type: none"> ▪ Isolation of rubella virus, <p>OR</p> <ul style="list-style-type: none"> ▪ Demonstration of rubella-specific immunoglobulin M (IgM) antibody, <p>OR</p> <ul style="list-style-type: none"> ▪ Infant rubella antibody level that persists at a higher level and for a longer period than expected from passive transfer of maternal antibody (i.e., rubella titer that does not drop at the expected rate of a twofold dilution per month), <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of rubella-virus-specific nucleic acid by PCR
<p>Salmonella Paratyphi 50266</p>	<p>An illness caused by <i>Salmonella</i> Paratyphi serotypes A, B (tartrate negative), and C</p>	<p>Confirmed:</p> <ul style="list-style-type: none"> • Isolation of <i>S. Paratyphi</i> A, B (tartrate

that is often characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and non-productive cough. However, mild and atypical infections may occur. Carriage of *S. Paratyphi* A, B (tartrate negative), and C may be prolonged.

Confirmed: A case that is laboratory confirmed

Probable:

- A clinically compatible case with *S. Paratyphi* A, B (tartrate negative), or C detected by use of culture independent laboratory methods (non-culture based),
- OR**
- A clinically compatible case that is epidemiologically linked to a case that meets the probable or confirmed laboratory criteria for diagnosis

Notes:

- Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.
- *S. Paratyphi* B (tartrate positive) was previously known as *S. Java* and should be reported under the "Salmonellosis, non-paratyphi/non-typhi" condition
- Carriage of *S. Paratyphi* A, B (tartrate negative), and C can be prolonged. A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection, e.g.,

negative), or C from a clinical specimen

Probable:

- Detection of *S. Paratyphi* A, B (tartrate negative), or C in a clinical specimen using a CIDT

Note: As required by [TAC](#) all *Salmonella* spp. isolates must be submitted to the DSHS Laboratory.

	different serotype.	
<p>Salmonella Typhi 50267</p>	<p>An illness caused by <i>Salmonella</i> Typhi that is often characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and non-productive cough. However, mild and atypical infections may occur. Carriage of <i>S. Typhi</i> may be prolonged.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ A clinically compatible case with <i>S. Typhi</i> detected by use of culture independent laboratory methods (non-culture based), OR • A clinically compatible case that is epidemiologically linked to a case that meets the probable or confirmed laboratory criteria for diagnosis <p>Notes:</p> <ul style="list-style-type: none"> ▪ Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported. ▪ Carriage of <i>S. Typhi</i> can be prolonged. A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection, e.g., different serotype. 	<p>Confirmed:</p> <ul style="list-style-type: none"> ▪ Isolation of <i>S. Typhi</i> from blood, stool, or other clinical specimen <p>Probable:</p> <ul style="list-style-type: none"> ▪ Detection of <i>S. Typhi</i> in a clinical specimen using a CIDT <p>Note: As required by TAC all <i>Salmonella</i> spp. isolates must be submitted to the DSHS Laboratory.</p>

Salmonellosis, non-Paratyphi/non-Typhi
[50265](#)

An illness of variable severity commonly manifested by diarrhea, fever, abdominal pain, nausea, and sometimes vomiting. Asymptomatic infections can occur, and the organism can cause extraintestinal infections.

Confirmed: A case that is laboratory confirmed. When available, *Salmonella* serotype characterization should be reported

Probable:

- A case with *Salmonella sp.* (excluding *S. Typhi* and *S. Paratyphi* [A, B (tartrate negative), and C]) detected by use of culture independent laboratory methods (non-culture based),

OR

- A clinically compatible case that is epidemiologically linked to a case that meets the probable or confirmed laboratory criteria for diagnosis

Notes:

- A case with isolation of *S. Paratyphi B* (tartrate positive) from a clinical specimen should be reported as a "Salmonellosis, non-Paratyphi/non-Typhi" case.
- Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.
- A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection, e.g.,

Confirmed:

- Isolation of *Salmonella* (excluding *S. Typhi* and *S. Paratyphi* [A, B (tartrate negative), and C])* from a clinical specimen

OR

- A whole genome sequencing result from DSHS

Probable:

- Detection of *Salmonella* spp. in a clinical specimen using a CIDT.

Notes:

- *[S. Typhi](#) is reportable as *Salmonella Typhi*.
- *[S. Paratyphi](#) is reportable as *Salmonella Paratyphi*.

Note: As required by [TAC](#) all *Salmonella* spp. isolates must be submitted to the DSHS Laboratory.

	different serotype.	
<p>Shiga toxin-producing <i>Escherichia coli</i> (STEC) 11563</p>	<p>An infection of variable severity characterized by diarrhea (often bloody) and abdominal cramps. Illness can be complicated by hemolytic uremic syndrome (HUS) or thrombotic thrombocytopenic purpura (TTP); asymptomatic infections also can occur and the organism can cause extraintestinal infections.</p> <p>Confirmed: A case that meets the laboratory criteria for diagnosis; when available, O and H antigen serotype characterization should be reported</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ A case with isolation of <i>E. coli</i> O157 from a clinical specimen, without confirmation of H antigen, with detection of Shiga toxin or detection of Shiga toxin genes, OR ▪ A clinically compatible case that is epidemiologically linked to a confirmed or probable case with laboratory evidence, OR ▪ A clinically compatible illness in a person with identification of an elevated antibody titer to a known Shiga toxin-producing <i>E. coli</i> serotype, OR ▪ A clinically compatible illness in a person with detection of Shiga toxin or Shiga toxin genes in a clinical specimen using a CIDT and no known isolation of <i>Shigella</i> from a clinical specimen, OR ▪ A clinically compatible illness in a person with detection of <i>E. coli</i> O157 or Shiga toxin-producing <i>E. coli</i> in a clinical specimen using a CIDT, OR 	<p>Confirmed:</p> <ul style="list-style-type: none"> ▪ Isolation of <i>Escherichia coli</i> from a clinical specimen with detection of Shiga toxin or Shiga toxin genes, OR ▪ Isolation of <i>Escherichia coli</i> O157:H7 from a clinical specimen, OR ▪ A whole genome sequencing result from DSHS <p>Probable:</p> <ul style="list-style-type: none"> ▪ Detection of Shiga toxin or Shiga toxin gene in a clinical specimen using a CIDT OR ▪ Detection of <i>E. coli</i> O157 or STEC/EHEC in a clinical specimen using a CIDT <p>▪ Notes: <i>Escherichia coli</i> non-O157:H7 isolates must also have Shiga toxin-production verified to qualify for the “confirmed” case status. Shiga toxin can be demonstrated by EIA or PCR testing.</p> <p>As required by TAC, for all cases of Shiga toxin-producing <i>E. coli</i> infections, including <i>E. coli</i> O157:H7 and cases where Shiga-toxin activity is demonstrated, available isolates or specimens must be submitted to the DSHS Laboratory.</p>

- A clinically compatible illness in a person that is a member of a risk group as defined by public health authorities during an outbreak

Suspect:

- Identification of an elevated antibody titer against a known Shiga toxin-producing serogroup of *E. coli* in a person with no known clinical compatibility, OR
- Detection of Shiga toxin or Shiga toxin genes in a clinical specimen using a CIDT and no known isolation of *Shigella* from a clinical specimen in a person with no known clinical compatibility, OR
- Detection of *E. coli* O157 or Shiga toxin-producing *E. coli* in a clinical specimen using a CIDT with no known clinical compatibility, OR
- A person with a diagnosis of post-diarrheal HUS/TTP

Notes:

- EIA and/or PCR positive results for Shiga toxin-production, in the absence of isolation of *E.coli*, can only qualify a case as "probable."
- Cases meeting confirmed or probable criteria for both STEC and [HUS](#) should be reported separately under each condition.
- A case should not be counted as a new case if a positive laboratory result is reported within 180 days of a previously reported positive laboratory result in the same individual, OR
- When two or more different serogroups are identified in one or more specimens from the same individual, each

	<p>serogroup/serotype should be reported as a separate case.</p> <ul style="list-style-type: none"> Persons with (1) detection of Shiga toxin or Shiga toxin genes using a CIDT and (2) isolation of <i>Shigella</i> spp. from a clinical specimen should not be reported as an STEC case. 	
<p>Shigellosis 11010</p>	<p>An illness of variable severity characterized by diarrhea, fever, nausea, cramps, and tenesmus. Asymptomatic infections can occur.</p> <p>Confirmed: A case that is laboratory confirmed. When available, <i>Shigella</i> serogroup or species and serotype characterization should be reported.</p> <p>Probable:</p> <ul style="list-style-type: none"> A case with <i>Shigella</i> spp. or <i>Shigella</i>/EIEC detected, in a clinical specimen, by use of culture independent laboratory methods (non-culture based, CIDT), OR A clinically compatible case that is epidemiologically linked to a case that meets the probable or confirmed laboratory criteria for diagnosis <p>Notes:</p> <ul style="list-style-type: none"> Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported. A case should not be counted as a new case if laboratory results were reported within 90 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection, e.g., different serotype. 	<p>Confirmed:</p> <ul style="list-style-type: none"> Isolation of <i>Shigella</i> from a clinical specimen. OR A whole genome sequencing result from DSHS. <p>Probable:</p> <ul style="list-style-type: none"> Detection of <i>Shigella</i> spp. or <i>Shigella</i>/EIEC in a clinical specimen using a CIDT

Smallpox
[11800](#)

An illness with acute onset of fever $\geq 101^{\circ}$ F ($\geq 38.3^{\circ}$ C) followed by a rash characterized by firm, deep seated vesicles or pustules in the same stage of development without other apparent cause.

Confirmed: A case of smallpox that is laboratory confirmed, or a case that meets the clinical case definition and is epidemiologically linked to a laboratory confirmed case.

Probable: A case that meets the clinical case definition without laboratory confirmation or epidemiological link to a confirmed case, **OR** a case with an atypical presentation of smallpox (e.g., hemorrhagic type, flat type, and variola sine eruptione) that has an epidemiological link to a confirmed case of smallpox.
(Detailed clinical description is available on the CDC web site, see <https://www.cdc.gov/smallpox/clinicians/clinical-disease.html>.)

Suspect: A case with a generalized, acute vesicular or pustular rash illness with fever preceding development of rash by 1-4 days

Exclusion Criteria: A case can be excluded as a suspect or probable smallpox case if an alternative diagnosis fully explains the illness or appropriate clinical specimens are negative for laboratory criteria for smallpox.

Note: The smallpox case definition above is to be used only during post-event surveillance. Pre-event surveillance relies on a highly specific clinical case definition focused on identifying a classic case (ordinary type) of smallpox., In the absence of known smallpox disease, the predictive value of a positive smallpox diagnostic test is extremely low,

▪ Polymerase chain reaction (PCR) identification of variola DNA in a clinical specimen,

OR

▪ Isolation of smallpox (variola) virus from a clinical specimen (National LRN laboratory only; confirmed by variola PCR)

Note: Laboratory diagnostic testing for variola virus should be conducted in a CDC Laboratory Response Network (LRN) laboratory utilizing LRN-approved PCR tests and protocols for variola virus. Initial confirmation of a smallpox outbreak requires additional testing at CDC.

Generic orthopox PCR and negative stain electron microscopy (EM) identification of a pox virus in a clinical specimen are suggestive of an orthopox virus infection but not diagnostic for smallpox.

	<p>therefore, testing to rule out smallpox should be limited to cases that fit the clinical case definition in order to lower the risk of obtaining a false positive test result.</p> <ul style="list-style-type: none"> For post-event enhanced surveillance and case reporting guidance see https://www.cdc.gov/smallpox/bioterrorism-response-planning/public-health/enhanced-surveillance-case-reporting.html. 	
<p>Spotted fever rickettsiosis 10250</p>	<p>Spotted fever rickettsioses (SFR) are tick-borne infections caused by some members of the genus <i>Rickettsia</i>. The most well-known SFR is Rocky Mountain spotted fever (RMSF), an illness caused by <i>Rickettsia rickettsii</i>. Disease onset for RMSF averages one week following a tick bite. Illness is characterized by acute onset of fever and can be accompanied by headache, malaise, myalgia, nausea/vomiting, or neurologic signs; a macular or maculopapular rash may appear 4-7 days following onset in many (~80%) patients, often present on the palms and soles. RMSF can be fatal in as many as 20% of untreated cases, and severe fulminant disease can occur. In addition to RMSF, human illness associated with other spotted fever group <i>Rickettsia</i> (SFGR) species, including infection with <i>R. parkeri</i>, has also been reported. In these patients, clinical presentation appears similar to, but can be milder than, RMSF; the presence of an eschar at the site of tick attachment has been reported for some other SFR.</p> <p><i>Clinical evidence:</i> Acute illness lasting less than 30 days with fever and one or more of the following: rash, eschar, headache, myalgia, anemia, thrombocytopenia, or any</p>	<ul style="list-style-type: none"> Serological evidence of a four-fold increase in IgG-specific antibody titer reactive with SFGR** antigen by IFA between paired acute (taken in the first two weeks after illness onset) and convalescent (taken two to ten weeks after acute specimen collection) serum specimens, OR Detection of SFGR** nucleic acid in a clinical specimen via amplification of a species-specific target by PCR assay, OR Demonstration of SFGR** antigen in a biopsy or autopsy specimen by IHC, OR Isolation of SFGR** from a clinical specimen in cell culture and molecular confirmation (e.g., PCR or sequence). <p>**The spotted fever group <i>Rickettsia</i> (SFGR) are <i>R. aeschlimannii</i>, <i>R. africae</i>, <i>R. australis</i>, <i>R. conorii</i>, <i>R. heilongjiangensis</i>, <i>R. helvetica</i>, <i>R. honei</i>, <i>R. japonica</i>, <i>R. marmionii</i>, <i>R. massiliae</i>, <i>R. parkeri</i>, <i>R. rickettsii</i>, <i>R. sibirica</i>, <i>R. sibirica mongolotimonae</i>, and <i>R. slovaca</i>. <i>Rickettsia</i> spp. excluded from this group are <i>R. felis</i> and <i>R. akari</i>.</p>

	<p>hepatic transaminase elevation.</p> <p>Confirmed: Clinically compatible case (meets clinical evidence criteria) that is laboratory confirmed</p> <p>Probable: Clinically compatible case with serological evidence of elevated IgG antibody reactive with SFGR antigen* by IFA (serologic titer of $\geq 1:128$; specimen collected within 60 days of onset) and the absence of a more likely clinical explanation</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Because antibodies for rickettsial diseases can be cross-reactive, specimens should be tested against a panel* of <i>Rickettsia</i> antigens, including, at a minimum, <i>R. rickettsii</i> and <i>R. typhi</i>, to differentiate between SFGR and non-SFGR species. ▪ A case should not be counted as new if the case has ever previously been reported for the same condition. <p>* <i>Specimens can be forwarded to the DSHS Serology lab for rickettsial panel testing.</i> See Rickettsia Classification</p>	<p>Note: DNA-detection methods outside of PCR (e.g. cell-free DNA) does not meet lab criteria. Samples can be forwarded for additional testing at the DSHS lab or CDC.</p>
<p>Streptococcal toxic shock syndrome - [outbreaks only] 11700</p>	<p>Streptococcal toxic-shock syndrome (STSS) is a severe illness associated with invasive or noninvasive group A streptococcal (<i>Streptococcus pyogenes</i>) infection. STSS may occur with infection at any site but most often occurs in association with infection of a cutaneous lesion. Signs of toxicity and a rapidly progressive clinical course are characteristic, and the case fatality rate may exceed 50%.</p> <p>An illness with the following clinical manifestations:</p> <ol style="list-style-type: none"> 1) Hypotension defined by a systolic blood 	<ul style="list-style-type: none"> ▪ Isolation of group A <i>Streptococcus</i> (<i>S. pyogenes</i>) (GAS)

pressure less than or equal to 90 mm Hg for adults or less than the fifth percentile by age for children aged less than 16 years,

AND

2) Multi-organ involvement characterized by two or more of the following:

- *Renal Impairment*: Creatinine greater than or equal to 2 mg/dL (greater than or equal to 177 $\mu\text{mol/L}$) for adults or greater than or equal to twice the upper limit of normal for age. In patients with preexisting renal disease, a greater than twofold elevation over the baseline level.
- *Coagulopathy*: Platelets less than or equal to 100,000/mm³ (less than or equal to 100 x 10⁶/L) or disseminated intravascular coagulation, defined by prolonged clotting times, low fibrinogen level, and the presence of fibrin degradation products
- *Liver Involvement*: Alanine aminotransferase, aspartate aminotransferase, or total bilirubin levels greater than or equal to twice the upper limit of normal for the patient's age. In patients with preexisting liver disease, a greater than twofold increase over the baseline level.
- *Acute Respiratory Distress Syndrome*: Defined by acute onset of diffuse pulmonary infiltrates and hypoxemia in the absence of cardiac failure or by evidence of diffuse capillary leak manifested by acute onset of generalized edema, or pleural or peritoneal effusions with hypoalbuminemia

	<ul style="list-style-type: none"> ▪ A generalized erythematous macular rash that may desquamate ▪ Soft-tissue necrosis, including necrotizing fasciitis or myositis, or gangrene <p><i>Confirmed:</i> A case that meets the clinical case definition and is laboratory confirmed with isolation of group A <i>Streptococcus</i> from a normally sterile site (e.g., blood or cerebrospinal fluid or, less commonly, joint, pleural, or pericardial fluid)</p> <p><i>Probable:</i> A case that meets the clinical case definition in the absence of another identified etiology for the illness and with isolation of group A <i>Streptococcus</i> from a non-sterile site</p> <p>Note: Enter all confirmed and probable STSS cases as confirmed group A <i>Streptococcus</i>, invasive disease, code 11710.</p>	
<p><i>Streptococcus pneumoniae</i>, invasive disease (IPD) 11723*</p> <p>*Note: Code 11717 was used prior to 2010 and for 2010 there are cases under both codes.</p>	<p><i>Streptococcus pneumoniae</i> bacteria cause many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis). Only invasive <i>Streptococcus pneumoniae</i> is reportable.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: A case with detection of <i>S. pneumoniae</i> from a normally sterile site using a culture independent diagnostic test (CIDT) (e.g., PCR, antigen-based tests) without isolation of the bacteria</p> <p>Note: Positive lab results from a specimen collected more than 30 days after the collection date of a prior case should be counted as a new case. If specimen collection occurred within 30 days of the</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>S. pneumoniae</i> from a normally sterile site (e.g., blood or cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid) <p>See Normally Sterile Site and Streptococcus Classification</p> <p>Note: Serotyping of isolates can be performed at the DSHS laboratory. Serotyping is required by TAC for invasive <i>Streptococcus pneumoniae</i> cases on all isolates from children under 5 years old.</p>

	collection date of a prior case, it should not be counted as a new case.	
<i>Taenia solium</i> and undifferentiated <i>Taenia</i> infection 80680	<p>Taeniasis is an intestinal infection with the adult stage of the pork (<i>T. solium</i>) or beef (<i>T. saginata</i>) tapeworm. Clinical manifestations of infection with the adult worm, if present, are variable and can include nervousness, insomnia, anorexia, weight loss, abdominal pain, and digestive disturbances; many infections are asymptomatic. Taeniasis is usually a nonfatal infection, but the larval stage of <i>T. solium</i> can cause fatal cysticercosis.</p> <p>Confirmed: Laboratory identification of the presence of <i>T. solium</i> proglottids, eggs, or antigens in a clinical specimen</p> <p>Probable: Laboratory identification of the presence of undifferentiated <i>Taenia</i> spp. tapeworm proglottids or eggs in a clinical specimen</p> <p>See Cysticercosis</p>	<ul style="list-style-type: none"> ▪ Infection with an adult tapeworm is diagnosed by identification of proglottids (segments), eggs, or antigens of the worm in the feces or on anal swabs <p>Note: Eggs of <i>T. solium</i> and <i>T. saginata</i> cannot be differentiated morphologically. Specific diagnosis is based on the morphology of the scolex (head) and/or gravid proglottids.</p>
Tetanus 10210	<p>Acute onset of hypertonia and/or painful muscular contractions (usually of the muscles of the jaw and neck) and generalized muscle spasms without other apparent medical cause.</p> <p>Probable: A clinically compatible case, as reported by a health-care professional</p>	Not applicable
Trichinellosis (Trichinosis) 10270	<p>A disease caused by ingestion of <i>Trichinella</i> larvae. The disease has variable clinical manifestations. Common signs and symptoms include eosinophilia, fever, myalgia, and periorbital edema.</p> <p>Confirmed: A clinically compatible case that is laboratory confirmed in the patient</p> <p>Probable: A clinically compatible illness in</p>	<ul style="list-style-type: none"> ▪ Demonstration of <i>Trichinella</i> spp. larvae in tissue obtained by muscle biopsy, OR ▪ Positive serologic test for <i>Trichinella</i> spp.

	<p>a person who shared an epidemiologically implicated meal or ate an epidemiologically implicated meat product, OR a clinically compatible illness in a person who consumed a meat product in which the parasite was demonstrated</p> <p><i>Suspect:</i> A person without clinically compatible illness who shared an implicated meal or ate an implicated meat product, has no known prior history of <i>Trichinella</i> infection, and has a positive serologic test for trichinellosis</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Epidemiologically implicated meals or meat products are defined as a meal/meat product that was consumed by a person who subsequently developed a clinically compatible illness that was laboratory confirmed. ▪ Subsequent cases of trichinellosis experienced by one individual should only be counted if there is a clinically-compatible illness AND a compatible exposure. 	
<p>Trichuriasis 80790</p>	<p>A parasitic infection caused by the soil-transmitted helminth <i>Trichuris trichiura</i> (whipworm). People with light infections are usually asymptomatic. Cases with heavy infections may experience frequent, painful passage of stool that contains a mixture of mucus, water, and blood. Rectal prolapse can also occur. Heavy infections in children can lead to severe anemia, delayed physical growth and impaired cognitive development.</p> <p>Confirmed: A case that is laboratory confirmed</p>	<ul style="list-style-type: none"> ▪ Microscopic identification of <i>Trichuris</i> eggs or adult worms in feces, OR ▪ Observation during endoscopy of <i>Trichuris</i> adult worms characterized by a threadlike form with an attenuated, whip-like end, OR ▪ Examination of adult <i>Trichuris</i> worms on prolapsed rectal mucosa <p>Note: A laboratory confirmed case may involve the examination of adult worms or</p>

		the microscopic identificaion of adult worms or eggs
<p>Tularemia 10230</p>	<p>The signs and symptoms of tularemia vary depending on how the bacteria enter the body. Illness ranges from mild to life-threatening. All forms are accompanied by fever, which can be as high as 104°F. Clinical diagnosis is supported by evidence or history of a tick or deerfly bite, exposure to tissues of a mammalian host of <i>Francisella tularensis</i>, or exposure to potentially contaminated water. Illness is characterized by several distinct forms, including the following:</p> <ul style="list-style-type: none"> ▪ Ulceroglandular: cutaneous ulcer with regional lymphadenopathy ▪ Glandular: regional lymphadenopathy with no ulcer ▪ Oculoglandular: conjunctivitis with preauricular lymphadenopathy ▪ Oropharyngeal: stomatitis or pharyngitis or tonsillitis and cervical lymphadenopathy ▪ Pneumonic: primary pleuropulmonary disease ▪ Typhoidal: febrile illness without early localizing signs and symptoms <p>Confirmed: A clinically compatible case with confirmatory laboratory results</p> <p>Probable: A clinically compatible case with laboratory results indicative of presumptive infection and the absence of a more likely clinical explanation:</p> <ul style="list-style-type: none"> ▪ Elevated serum antibody titer(s)* to <i>F. tularensis</i> antigen (without documented fourfold or greater change) in a patient with no history of tularemia vaccination, 	<ul style="list-style-type: none"> ▪ Isolation of <i>F. tularensis</i> in a clinical or autopsy specimen, <p>OR</p> <ul style="list-style-type: none"> ▪ Four-fold or greater rise in serum antibody titer* to <i>F. tularensis</i> antigen between acute and convalescent specimens. <p>Note: As required by TAC, all <i>F. tularensis</i> isolates must be submitted to the DSHS Laboratory.</p>

	<p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>F. tularensis</i> in a clinical or autopsy specimen by fluorescent assay <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>F. tularensis</i> in a clinical or autopsy specimen by PCR <p>Notes*:</p> <ul style="list-style-type: none"> • Most ELISAs are qualitative tests and do not provide a titer. Some commercial labs perform reflex titer testing for ELISA-positive specimens; contact the commercial lab for these results. Enter titer results into NEDSS as a lab report or a comment in the ELISA ELR. • Samples that are ELISA-positive with no reflex testing should be forwarded to DSHS for <i>Francisella tularensis</i> serology at CDC. • IFA testing at commercial labs can be unreliable and results should be interpreted with caution if samples cannot be forwarded for validation. 	
<p>Typhus, flea-borne (endemic, murine) 10260</p>	<p>Flea-borne typhus is a rickettsial disease whose course resembles that of louse-borne typhus, but is generally milder. The onset is variable, often sudden and marked by headache, chills, fatigue, fever, and general body aches. A macular rash may appear on the 5th or 6th day, initially on the upper trunk, followed by spread to the entire body, but usually not to the face, palms or soles. Absence of louse infestation, geographic and seasonal distribution, and sporadic occurrence of the disease help to differentiate it from louse-borne typhus.</p> <p><i>Clinical evidence:</i> Acute illness lasting less than 30 days with fever and two or more of</p>	<ul style="list-style-type: none"> ▪ Serological evidence of a four-fold increase in IgG-specific antibody titer reactive with <i>R. typhi</i> by IFA test between paired serum specimens (preferably one taken in the first two weeks of illness and a second up to ten weeks later), <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of <i>R. typhi</i> nucleic acid via amplification of <i>R. typhi</i> target by rt-PCR assay <p>OR</p> <ul style="list-style-type: none"> ▪ Demonstration of typhus fever group antigen in a biopsy or autopsy specimen by IHC, <p>OR</p> <ul style="list-style-type: none"> ▪ Isolation of <i>R. typhi</i> from a clinical

the following: headache, myalgia, rash, nausea/vomiting, thrombocytopenia, or any elevated liver enzyme

Confirmed: Clinically compatible case that is laboratory confirmed

Probable: Clinically compatible case with evidence of epidemiologic linkage*, the absence of a more likely clinical explanation, and supportive lab evidence:

- Serologic evidence of elevated IgG at a titer of $\geq 1:128$ reactive with *R. typhi* antigen by IFA in a sample taken within 60 days of illness onset,
- OR**
- Serologic evidence of elevated IgM at a titer of $\geq 1:256$ reactive with *R. typhi* antigen by IFA in a sample taken within 60 days of illness onset.

Epidemiologic linkage criteria:* Was in same household or had same defined exposure as a confirmed case within the past 14 days before onset of symptoms, **OR likely vector exposure in an area with suitable seasonal and ecological conditions for potential local vector-borne transmission

Notes:

- Because antibodies for rickettsial diseases can be cross-reactive, specimens should be tested against a panel** of *Rickettsia* antigens, including, at a minimum, *R. rickettsii* and *R. typhi*, to differentiate between SFG and non-SFG *Rickettsia* spp.
- According to CDC, rickettsial IgM tests lack specificity (resulting in false

specimen in cell culture and molecular confirmation (e.g., PCR or sequence)

Note: DNA-detection methods outside of PCR (e.g. cell-free DNA) does not meet lab criteria. Samples can be forwarded for additional testing at the DSHS lab or CDC.

	<p>positives); thus, IgG titers are much more reliable.</p> <ul style="list-style-type: none"> ▪ A case should not be counted as new if the case has ever previously been reported for the same condition. <p><i>**Specimens can be forwarded to the DSHS Serology Laboratory for rickettsial panel testing.</i></p> <p>See Rickettsia Classification</p>	
<p>Vancomycin-intermediate <i>Staphylococcus aureus</i> (VISA) 11663</p>	<p><i>Staphylococcus aureus</i> can produce a variety of syndromes with clinical manifestations including skin and soft tissue lesions, empyema, pyarthrosis, bloodstream infection, pneumonia, osteomyelitis, septic arthritis, endocarditis, sepsis, and meningitis.</p> <p>Confirmed: VISA from any body site that is laboratory confirmed. (minimum inhibitory concentration [MIC]: 4-8 µg/ml).</p> <p>Note: The DSHS Laboratory uses the E-test for confirmation of resistance. E-test generates MIC values from a continuous scale and can give results in-between conventional two-fold dilutions. According to manufacturer’s protocol, a value which falls between standard two-fold dilutions is rounded up to the next upper two-fold value before categorization so that a MIC of 3µg/ml is reported as intermediate resistance.</p> <p>Additional VISA information is found at: https://www.cdc.gov/hai/organisms/visa_vrsa/visa_vrsa.html</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>Staphylococcus aureus</i> from any body site; <p>AND</p> <ul style="list-style-type: none"> ▪ Intermediate-level resistance (MIC: 4-8 µg/ml) of the <i>Staphylococcus aureus</i> isolate to vancomycin, detected and defined according to Clinical and Laboratory Standards Institute (CLSI) approved standards and recommendations; <p>AND</p> <ul style="list-style-type: none"> ▪ Confirmed by the DSHS Laboratory <p>Note: As required by TAC, all <i>Staphylococcus aureus</i> isolates with a vancomycin MIC greater than 2 µg/mL must be submitted to the DSHS Laboratory. Please contact a DSHS HAI/AR Epidemiologist or the DSHS Laboratory for additional information on available laboratory support.</p> <p>http://www.cdc.gov/HAI/settings/lab/visa_vrsa_lab_detection.html</p>
<p>Vancomycin-resistant <i>Staphylococcus aureus</i> (VRSA)</p>	<p><i>Staphylococcus aureus</i> produces a variety of syndromes with clinical manifestations</p>	<ul style="list-style-type: none"> ▪ Isolation of <i>Staphylococcus aureus</i> from any body site;

<p>11665</p>	<p>including skin and soft tissue lesions, empyema, pyarthrosis, bloodstream infection, pneumonia, osteomyelitis, septic arthritis, endocarditis, sepsis, and meningitis.</p> <p>Confirmed: A VRSA from any body site that is laboratory confirmed (MIC: $\geq 16 \mu\text{g/ml}$).</p> <p>Additional VRSA information is found at: https://www.cdc.gov/hai/organisms/visa_vrsa/visa_vrsa.html</p>	<p>AND</p> <ul style="list-style-type: none"> High-level resistance of the <i>Staphylococcus aureus</i> isolate to vancomycin (MIC: $\geq 16 \mu\text{g/ml}$), detected and defined according to CLSI approved standards and recommendations; <p>AND</p> <ul style="list-style-type: none"> Confirmed by the DSHS Laboratory. <p>Note: As required by TAC, all <i>Staphylococcus aureus</i> isolates with a vancomycin MIC greater than $2 \mu\text{g/mL}$ must be submitted to the DSHS Laboratory. Please contact a DSHS HAI Epidemiologist or the DSHS Laboratory for additional information on available laboratory support.</p> <p>http://www.cdc.gov/HAI/settings/lab/visa_vrsa_lab_detection.html</p>
<p>Varicella (chickenpox) 10030</p>	<p>In the absence of a more likely alternative diagnosis, an acute illness with a generalized rash with vesicles (maculopapulovesicular rash) OR without vesicles (maculopapular rash).</p> <p>Confirmed: A case that</p> <ul style="list-style-type: none"> Meets clinical definition AND confirmatory laboratory evidence <p>OR</p> <ul style="list-style-type: none"> Meets clinical definition with a generalized rash with vesicles AND confirmatory epidemiologic linkage evidence 	<p><i>Confirmatory Laboratory Evidence:</i></p> <ul style="list-style-type: none"> Isolation of varicella-zoster virus (VZV) from a clinical specimen <p>OR</p> <ul style="list-style-type: none"> Varicella antigen detected by direct fluorescent antibody (DFA) <p>OR</p> <ul style="list-style-type: none"> Varicella-specific nucleic acid detected by polymerase chain reaction (PCR) <p>OR</p> <ul style="list-style-type: none"> Significant rise in serum varicella immunoglobulin G (IgG) antibody level by any standard serologic assay <p><i>Supportive Laboratory Evidence:</i></p>

<p>Probable: A case that</p> <ul style="list-style-type: none"> • Meets clinical definition with a generalized rash with vesicles <p>OR</p> <ul style="list-style-type: none"> • Meets clinical definition with a generalized rash without vesicles AND: • Confirmatory or presumptive epidemiologic linkage evidence <p>OR</p> <ul style="list-style-type: none"> • Supportive laboratory evidence <p>OR</p> <ul style="list-style-type: none"> • Meets provider diagnosis of varicella or chickenpox but no rash description AND: • Confirmatory or presumptive epidemiologic linkage evidence <p>OR</p> <ul style="list-style-type: none"> • Confirmatory or supportive laboratory evidence <p><i>Confirmatory Epidemiologic Linkage Evidence:</i></p> <ul style="list-style-type: none"> ▪ Exposure to or contact with a laboratory-confirmed varicella case <p>OR</p> <ul style="list-style-type: none"> ▪ Linked to a varicella cluster or outbreak containing ≥ 1 laboratory-confirmed case <p>OR</p> <ul style="list-style-type: none"> ▪ Exposure to or contact with a person with herpes zoster (regardless of laboratory confirmation) <p><i>Presumptive Epidemiologic Linkage Evidence:</i> Exposure to or contact with a probable varicella case that had a generalized rash with vesicles</p>	<ul style="list-style-type: none"> ▪ Positive test for serum VZV immunoglobulin M (IgM) antibody
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<p><i>Vibriosis (non-cholera Vibrio species infections)</i> 11541</p>	<p>Vibriosis is caused by infection with pathogenic species of the family <i>Vibrionaceae</i> (species other than toxigenic <i>Vibrio cholerae</i> O1 and O139, which cause cholera). These pathogens typically cause gastrointestinal illness with watery diarrhea and vomiting, primary septicemia, or wound infections. Asymptomatic infections can occur, and the organism can cause extraintestinal infections.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable:</p> <ul style="list-style-type: none"> ▪ A case with a species of the family <i>Vibrionaceae</i> (other than toxigenic <i>Vibrio cholerae</i> O1 or O139) detected, in a clinical specimen, by use of culture independent laboratory methods (non-culture based, CIDT), OR ▪ A clinically compatible case that is epidemiologically linked to a case that meets the probable or confirmed laboratory criteria for diagnosis <p>Note: The CDC has merged <i>Vibrio parahaemolyticus</i>, <i>Vibrio vulnificus</i>, and <i>Vibriosis</i>, other or unspecified into a single reportable disease, rather than splitting them into 3 distinct categories.</p> <p>A case should not be counted as a new case if laboratory results were reported within 30 days of a previously reported infection in the same individual, unless additional information is available indicating a separate infection, e.g., different species.</p>	<p>Confirmed:</p> <ul style="list-style-type: none"> ▪ Isolation of <i>Vibrio spp</i> (except toxigenic Vibrio cholerae O1 or O139) from a clinical specimen <p>Probable:</p> <ul style="list-style-type: none"> ▪ Detection of vibrio spp. in a clinical specimen using a CIDT <p>Note: As required by TAC all <i>Vibrio</i> species isolates must be submitted to the DSHS Laboratory.</p>
<p>Viral Hemorrhagic Fever (VHF) non-</p>	<p>An illness with acute onset of fever</p>	<ul style="list-style-type: none"> ▪ Detection of VHF* viral antigens in blood by

<p>Ebola*</p> <p>11640 Crimean-Congo HF</p> <p>11648 Guanarito HF</p> <p>11638 Junin (Argentine) HF</p> <p>11632 Lassa fever</p> <p>11644 Lujo HF</p> <p>11637 Machupo (Bolivian) HF</p> <p>11631 Marburg fever</p> <p>11639 Sabia (Brazilian) HF</p> <p>*Viral Hemorrhagic Fevers include Ebola - please see Ebola case definition for Ebola specific information</p>	<p>≥38°C/100.4°F, AND one or more of the following clinical findings: severe headache, muscle pain, erythematous maculopapular rash on the trunk with flaking or shedding (fine desquamation) of the skin 3–4 days after rash onset, vomiting, diarrhea, abdominal pain, bleeding or bruising not related to injury, or thrombocytopenia. For arenaviruses (Chapare, Guanarito, Junin, Lassa, Lujo, Machupo, Sabia) pharyngitis, retrosternal chest pain, or proteinuria may also occur.</p> <p><i>Confirmed:</i> A person that meets laboratory criteria</p> <p><i>Suspect:</i> A person that meets the clinical criteria AND meets one or more of the following exposures within 21 days before onset of symptoms:</p> <ul style="list-style-type: none"> ▪ Contact with blood or other body fluids of a patient with VHF, OR ▪ Residence in—or travel to—an VHF endemic area or area with active transmission, OR ▪ Work in a laboratory that handles VHF specimens, OR ▪ Work in a laboratory that handles, or contact with primates, bats, or rodents infected with a VHF or from an endemic area or area with active transmission, OR ▪ Sexual exposure to semen of a confirmed acute or clinically recovered case of VHF \or breast milk of an individual who had VHF 	<p>enzyme-linked immunosorbent assay (ELISA) antigen detection,</p> <p>OR</p> <ul style="list-style-type: none"> ▪ Isolation of VHF virus in cell culture for blood or tissues, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of VHF specific genetic sequence by Reverse Transcription Polymerase Chain Reaction (RT-PCR) from blood or tissues, <p>OR</p> <ul style="list-style-type: none"> ▪ Detection of VHF viral antigens in tissues by IHC <p>*Viral hemorrhagic fever (VHF) agents include:</p> <ul style="list-style-type: none"> ▪ Crimean-Congo hemorrhagic fever viruses ▪ Ebola virus (see Ebola case definition) ▪ Lassa virus ▪ Lujo virus ▪ Marburg virus ▪ New world arenaviruses (Chapare, Guanarito, Machupo, Junin, Sabia viruses)
<p>Yellow fever</p> <p>10660</p>	<p>Yellow fever virus is a mosquito-borne flavivirus that is closely related to dengue, Japanese encephalitis, West Nile, and Zika viruses. Yellow fever is preventable by a safe and effective vaccine.</p>	<ul style="list-style-type: none"> ▪ Isolation of yellow fever virus from, or demonstration of yellow fever viral antigen or nucleic acid in, tissue, blood, CSF, or other body fluid, AND no history of yellow fever vaccination within 30 days before

Most yellow fever virus infections are asymptomatic. Following an incubation period of 3–9 days, approximately one-third of infected people develop symptomatic illness characterized by fever and headache. Other clinical findings include chills, vomiting, myalgia, lumbosacral pain, and bradycardia relative to elevated body temperature. An estimated 5%–25% of patients progress to more severe disease, including jaundice, renal insufficiency, cardiovascular instability, or hemorrhage (e.g., epistaxis, hematemesis, melena, hematuria, petechiae, or ecchymoses). The case-fatality rate for severe yellow fever is 30%–60%.

Clinical criteria: An acute illness with at least one of the following: fever, jaundice, or elevated total bilirubin ≥ 3 mg/dl, and the absence of a more likely clinical explanation.

Confirmed: A clinically compatible case that is laboratory confirmed

Probable: A clinically compatible case with supportive serology:

- Yellow fever virus-specific IgM antibodies in CSF or serum, **AND** negative IgM results for other cross-reactive arboviruses endemic to the region where exposure occurred*, **AND** no history of yellow fever vaccination, **AND**
- Epidemiologic linkage to a confirmed yellow fever case or having visited or resided in an area with a risk of yellow fever in the 2 weeks before onset of

onset of illness unless there is molecular evidence of infection with wild-type yellow fever virus,

OR

- Four-fold or greater rise or fall in yellow fever virus-specific neutralizing antibody titers in paired sera, **AND** no history of yellow fever vaccination within 30 days before onset of illness,

OR

- Yellow fever virus-specific IgM antibodies in CSF or serum with confirmatory virus-specific neutralizing antibodies in the same or a later specimen, **AND** no history of yellow fever vaccination.

*Refer to Arbovirus Classification note in Notes section for more details.

	illness.	
Yersiniosis 11565	<p>An illness characterized by acute diarrhea (may be bloody) with abdominal pain. Other symptoms include acute mesenteric lymphadenitis mimicking appendicitis, exudative pharyngitis, and systemic infection.</p> <p>Note: Extra-intestinal manifestations may also be present, such as abscess, which could be a source for testing, and reactive arthritis and erythema nodosum, which are often immunologic phenomena not directly caused by the infection. These manifestations are not required as part of the clinical criteria.</p> <p>Confirmed: A case that is laboratory confirmed</p> <p>Probable: A clinically compatible case that is epidemiologically linked to a confirmed case, or a clinically compatible case identified through use of a culture independent diagnostic test (CIDT) such as PCR.</p> <p>Note: A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual.</p>	<p>Confirmed:</p> <ul style="list-style-type: none"> Isolation* of <i>Yersinia</i> (except <i>Y. pestis</i>***) in a clinical specimen <p>Probable:</p> <ul style="list-style-type: none"> Detection of any <i>Yersinia</i> non-pestis species using a PCR <p>*As required by TAC all <i>Yersinia pestis</i> isolates must be submitted to the DSHS Laboratory.</p> <p>***For <i>Yersinia pestis</i> isolates, see Plague</p>
Zika disease, congenital 50224	<p><i>Clinical evidence:</i> A liveborn infant with one or more of the following not explained by another genetic, infectious, or other etiology (including a positive test for another likely etiology, including but not limited to cytomegalovirus):</p> <ul style="list-style-type: none"> microcephaly (occipital frontal circumference >2 standard 	<ul style="list-style-type: none"> Detection of ZIKV , viral antigen or viral RNA in infant CSF, blood, urine, or postmortem tissue (collected within 4 weeks of birth) with a validated diagnostic test <p>OR</p> <ul style="list-style-type: none"> Positive ZIKV IgM antibody test in infant

	<p>deviations below the mean for age and sex) at birth or postnatal onset,</p> <ul style="list-style-type: none"> ▪ cortical hypoplasia or abnormal gyral patterns (polymicrogyria, lissencephaly, heterotopia), ▪ increased volume of cerebrospinal fluid (CSF) (hydrocephalus ex vacuo, unspecified hydrocephalus, ventriculomegaly) due to loss of brain parenchyma, ▪ intracranial calcifications (most commonly between the cortex and subcortex), ▪ congenital contractures of major joints (arthrogryposis) associated with structural brain anomalies, ▪ congenital paralysis of the diaphragm associated with structural brain anomalies, ▪ corpus callosum agenesis/hypoplasia, ▪ cerebellar hypoplasia, ▪ scarring of the macula with coarse deposits of pigment in the retina (focal retinal pigmentary mottling), ▪ other structural eye anomalies (microphthalmia, cataracts, chorioretinal atrophy, optic nerve hypoplasia) <p>Confirmed: A liveborn infant who meets clinical and confirmatory laboratory criteria and whose gestational parent meets either epidemiologic linkage criteria or confirmatory laboratory criteria for <i>non-congenital Zika virus disease</i> (see next page) during <u>this</u> pregnancy</p> <p>Probable: A liveborn infant who meets clinical criteria and:</p> <ul style="list-style-type: none"> ▪ Whose gestational parent meets 	<p>blood or CSF with positive ZIKV neutralizing antibody titers (collected within 4 weeks of birth)</p>
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	<p>either epidemiologic linkage criteria or confirmatory laboratory criteria for <i>non-congenital Zika virus disease</i> (see next page) during <u>this</u> pregnancy</p> <p>Meets presumptive laboratory evidence of infection as follows (specimens collected within 4 weeks of birth):</p> <ul style="list-style-type: none"> • Positive ZIKV IgM antibody test of infant serum or CSF with no neutralizing antibody testing performed; OR • Detection of ZIKV, viral antigen, or viral RNA in amniotic fluid, placenta, umbilical cord, or cord blood 	
<p>Zika disease, non-congenital 50223</p>	<p>A mosquito-borne viral illness transmitted by <i>Aedes</i> mosquitoes, including <i>Ae. aegypti</i> and <i>Ae. albopictus</i>. Infection is asymptomatic in up to 80% of cases and clinical illness, when it occurs, is typically mild and lasts for several days to a week. Transmission of Zika virus (ZIKV) <i>in utero</i> has been associated with severe birth outcomes, including microcephaly and fetal loss.</p> <p><i>Clinical evidence:</i> An individual with one or more of the following not explained by another etiology:</p> <ul style="list-style-type: none"> ▪ Clinically compatible illness that includes: <ul style="list-style-type: none"> ▪ acute onset of fever (measured or reported), or ▪ generalized rash, or 	<ul style="list-style-type: none"> ▪ Detection of ZIKV , viral antigen or viral RNA in body fluid or tissue with a validated diagnostic test <p>OR</p> <ul style="list-style-type: none"> ▪ Positive ZIKV IgM antibody test in blood or CSF with positive ZIKV neutralizing antibody titers and negative neutralizing antibody titers against dengue or other flaviviruses endemic to the region where exposure occurred* <p>*Refer to Arbovirus Classification note in Notes section for more details.</p>

- arthralgia, or
- non-purulent conjunctivitis
- Loss of a fetus at greater or equal to 20 weeks gestation
- Guillain-Barré syndrome

Epidemiologic linkage criteria:

- Resided in or traveled to an area with risk of ZIKV transmission (within 14 days before onset of febrile symptoms, 28 days before Guillain-Barré syndrome onset, or during pregnancy) **OR**
- Sexual contact, within 14 days of symptom onset or during pregnancy, with a person who in the last 90 days has either been diagnosed with Zika virus infection or has returned from traveling to an area with a risk of Zika virus transmission; **OR**
- Laboratory exposure to Zika virus before onset of symptoms or during pregnancy; **OR**
- Receipt of blood, blood products, organ transplant, or tissue transplant (within 30 days of symptom onset or during pregnancy if the person was diagnosed with Zika infection or was exposed to a risk area)

Confirmed: An individual who meets the clinical, epidemiologic linkage, and confirmatory laboratory criteria.

Probable: An individual who meets the clinical, epidemiologic linkage, and following presumptive laboratory criteria:

- Positive ZIKV IgM antibody test of blood or CSF with negative dengue virus IgM antibody test and no neutralizing antibody test performed*; **OR**
- Four-fold or greater rise in ZIKV-specific neutralizing antibody titers in paired blood specimens; **OR**
- Positive ZIKV IgM antibody test in blood or CSF after exposure to an active Zika virus outbreak (as determined by DSHS and CDC)