2020 Reportable Disease Changes

NATIONAL AND MICHIGAN 2020 CHANGES

Background

- The National Notifiable Disease Surveillance System (NNDSS) offers surveillance case definitions with a set of uniform criteria used to define diseases for public health surveillance.
- While the list of reportable conditions varies by state, the Council of State and Territorial Epidemiologists (CSTE) has recommended that state health departments report cases of selected diseases to CDC's National Notifiable Diseases Surveillance System (NNDSS). Every year, case definitions are updated using CSTE's Position Statements.
- In Michigan, reporting of conditions is mandated by the Michigan Public Health Code [Public Act 368 of 1978, 333.5111]. Section 333.5111 mandates that MDHHS annually review, update, and publish the list on the department's website.
- Michigan's reportable disease requirements are updated yearly to reflect changes in national reporting guidance from the Centers for Disease Control and Prevention and CSTE. Changes to the Michigan requirements may also reflect updated laboratory testing capabilities, requests for epidemiologic data, and contacts for local health departments and laboratories.

Summary

Revised national surveillance case definitions for 6 nationally notifiable infectious conditions

Hepatitis C, acute & chronic

Legionellosis

Pertussis

Plague

Spotted fever rickettsiosis

Conditions placed under standardized surveillance, but not designated nationally notifiable

Acute flaccid myelitis (AFM) Blastomycosis

Revised National Case Definition: Hepatitis C, Acute

Removes the requirement for the presence of a discrete onset of symptoms for acute cases, use of bilirubin test results are proposed to allow for objective measures of jaundice

Clinical criteria for Acute Hepatitis C now include:

Jaundice, **OR**

- Peak elevated total bilirubin levels >3.0 mg/dL, OR
- Serum alanine aminotransferase (ALT) > 200IU/dL, AND
- The absence of a more likely diagnosis (which may include evidence of advanced liver disease due to other causes such as alcohol exposure, other viral hepatitis, hemochromatosis, etc.)

•Case Definition: <u>https://wwwn.cdc.gov/nndss/conditions/hepatitis-c-acute/case-definition/2020</u>

Revised National Case Definition: Hepatitis C, Chronic

- A clarification is made regarding the classification of probable chronic hepatitis C cases.
- HCV antibody positive cases that have evidence of having cleared their infection (i.e., HCV RNA negative) at the time of initial report should not be notified to CDC NNDSS as a probable chronic case.
- Cases that have evidence of having cleared the infection at the time of initial report or are considered false positive should not be reported.
- If evidence indicating resolution of infection is received within the calendar year of a case being reported, the case status should be changed to "not a case." If evidence indicating resolution of infection is received after the calendar year of the initials case report, the case status should not be modified as it was a confirmed case at the time of the first report.

Case Definition: <u>https://wwwn.cdc.gov/nndss/conditions/hepatitis-c-chronic/case-definition/2020/</u>

2020 Hepatitis C Case Classification Table		
Updated classification rules to be applied in cases reported on 01/01/2020 and thereafter.	≥3.0 mg/dL, <u>OR</u> A	g: Jaundice, <u>OR</u> bilirubin levels ALT >200 IU/L, <u>AND</u> diagnosis <u>AND</u> age >36 months ¹ Yes
HCV Antibody Positive ² <u>AND</u> HCV Nucleic Acid Test Unknown <u>OR</u> HCV Antigen Test Unknown	Probable, Chronic	Probable, Acute
HCV Nucleic Acid Test Positive ³ OR HCV Antigen Test Positive	Confirmed, Chronic	Confirmed, Acute ⁴
HCV Nucleic Acid Test Negative	Not a Case	Not a case

¹All HCV cases should be >36 months of age, unless known to have been exposed non-perinatally.

²Any antibody result, regardless of the signal-to-cutoff ratio; includes rapid tests

³Nucleic Acid Tests for HCV include Quantitative HCV RNA tests, Qualitative HCV RNA tests, and HCV Genotype tests ⁴Automatically classify as Confirmed, Acute for a seroconversion if a negative HCV lab test is followed within 12 months by a positive HCV lab test, in the absence of a more likely diagnosis Michigan Hepatitis C Classification Table

- Addition of new clinical criteria (e.g. extrapulmonary legionellosis), updated laboratory criteria, and the addition of probable case classification for cases with an epidemiologic linkage.
- Expands timeframe for exposure history data collection from 10 days to 14 days for Legionnaire's disease.
- •Clinical Criteria: Legionellosis is associated with three clinically and epidemiologically distinct illness: Legionnaire's disease, Pontiac Fever, or extrapulmonary legionellosis.
 - Legionnaires' disease (LD): presents as pneumonia, diagnosed clinically and/or radiographically
 - Pontiac fever (PF): milder, flu-like illness. PF does not present as pneumonia
 - Extrapulmonary legionellosis (XPL): clinical evidence of disease at an extrapulmonary site and diagnostic testing indicates evidence of *Legionella* at that site. Disease sites may be outside the lungs (for example, associated with endocarditis, wound infection, joint infection, graft infection).

Laboratory Criteria

Confirmatory laboratory evidence:

- Isolation of any *Legionella* organism from lower respiratory secretions, lung tissue, pleural fluid, or extrapulmonary site
- Detection of any Legionella species from lower respiratory secretions, lung tissue, pleural fluid, or extrapulmonary site by a validated nucleic acid amplification test
- Detection of Legionella pneumophila serogroup 1 antigen in urine using validated reagents
- Fourfold or greater rise in specific serum antibody titer to *Legionella pneumophila* serogroup 1 using validated reagents

Presumptive laboratory evidence: None required for case classification

Supportive laboratory evidence:

- Fourfold or greater rise in antibody titer to specific species or serogroups of Legionella other than L. pneumophila serogroup 1 (e.g., L. micdadei, L. pneumophila serogroup 6)
- Fourfold or greater rise in antibody titer to multiple species of *Legionella* using pooled antigens.
- Detection of specific Legionella antigen or staining of the organism in lower respiratory secretions, lung tissue, pleural fluid, or extrapulmonary site associated with clinical disease by direct fluorescent antibody (DFA) staining, immunohistochemistry (IHC), or other similar method, using validated reagents

Epidemiologic Linkage

Epidemiologic link to a setting with a confirmed source of Legionella (e.g., positive environmental sampling result associated with a cruise ship, public accommodation, cooling tower, etc.).

OR

•Epidemiologic link to a setting with a suspected source of *Legionella* that is associated with at least one confirmed case.

•Suspect Legionellosis: A clinically compatible case of legionellosis (Legionnaire's Disease, Pontiac Fever, or Extrapulmonary) with supportive laboratory evidence for Legionella

Probable:

- Legionnaires' disease: A clinically compatible case with an epidemiologic link during the 14 days before onset of symptoms
- **Probable Pontiac fever:** A clinically compatible case with an epidemiologic link during the **3** days before onset of symptoms
- •Confirmed Legionellosis: A clinically compatible case of legionellosis (Legionnaire's Disease, Pontiac Fever, or Extrapulmonary) with confirmatory laboratory evidence for *Legionella*.
- Case Definition: <u>https://wwwn.cdc.gov/nndss/conditions/legionellosis/case-definition/2020/</u>

Healthcare-Associated Legionnaire's Disease Case Definition

Presumptive: A case with ≥10 days of continuous stay at a healthcare facility during the 14 days before onset of symptoms

•**Possible:** A case that spent a portion of the 14 days before date of symptom onset in one or more healthcare facilities, but does not meet the criteria for presumptive LD.

Revised National Case Definition: Pertussis

•Changes to the case definition to better capture pertussis cases across all age groups.

•Classifies all PCR positive cases as confirmed, regardless of cough duration or presence of a pertussis symptoms.

•Restricts the confirmed classification to cases with confirmatory lab testing and eliminates agespecific classifications.

Revised National Case Definition: Pertussis

Clinical Criteria: In the absence of a more likely diagnosis, a cough illness lasting ≥2 weeks, with at least one of the following signs or symptoms:

- Paroxysms of coughing; OR
- Inspiratory whoop; OR
- Post-tussive vomiting; OR
- Apnea (with or without cyanosis)

Laboratory Criteria

- Isolation of *B. pertussis* from a clinical specimen
- Positive Polymerase Chain Reaction (PCR) for B. pertussis

Epidemiologic Linkage: Contact with a laboratory-confirmed case of pertussis

Revised National Case Definition: Pertussis

Case Classification

Probable:

- In the absence of a more likely diagnosis, illness meeting the clinical criteria OR
- Illness with cough of any duration, with at least one of the following signs or symptoms:
 - Paroxysms of coughing; or
 - Inspiratory whoop; or
 - Post-tussive vomiting; or
 - Apnea (with or without cyanosis) AND
 - Contact with a laboratory confirmed case (epidemiologic linkage)
- **Confirmed:** Acute cough illness of any duration, with
 - Isolation of *B. pertussis* from a clinical specimen **OR**
 - PCR positive for *B. pertussis*

Case Definition: https://wwwn.cdc.gov/nndss/conditions/pertussis/case-definition/2020/

•Incorporates newer laboratory diagnostics (PCR and immunohistochemical assays).

•Allows for clinically compatible illness that may not align with a discrete clinical syndrome such as a non-specific febrile illness that may be present early in the disease course.

•Allows for epidemiologic linkage to provide supportive evidence to case classification.

Clinical Criteria

An illness characterized by acute onset of fever as reported by the patient or healthcare provider with or without one or more of the following specific clinical manifestations:

- Regional lymphadenitis (bubonic plague)
- Septicemia (septicemic plague)
- Pneumonia (pneumonic plague)
- Pharyngitis with cervical lymphadenitis (pharyngeal plague)

Laboratory Criteria

Confirmatory laboratory evidence:

- Isolation of Y. pestis from a clinical specimen with culture identification validated by a secondary assay (e.g., bacteriophage lysis assay, direct fluorescent antibody assay) as performed by a CDC or Laboratory Response Network (LRN) laboratory, OR
- Fourfold or greater change in paired serum antibody titer to *Y. pestis* F1 antigen

Presumptive laboratory evidence*:

- Elevated serum antibody titer(s) to Yersinia pestis fraction 1 (F1) antigen (without documented fourfold or greater change) in a patient with no history of plague vaccination, OR
- Detection of *Yersinia pestis* specific DNA or antigens, including F1 antigen, in a clinical specimen by direct fluorescent antibody assay (DFA), immunohistochemical assay (IHC), or polymerase chain reaction (PCR)

*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.

Epidemiologic Linkage

Person that is epidemiologically linked to a person or animals with confirmatory laboratory evidence within the prior two weeks;

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 geographicallylocalized area with confirmed plague epizootic activity in fleas or animals as determined by the relevant local authorities

Criteria to Distinguish a New Case from an Existing Case

Serial or subsequent plague infections in one individual should only be counted if there is a new epidemiologically-compatible exposure and new onset of symptoms.

Case Classification

Suspect

- A clinically-compatible case with epidemiologic linkage without laboratory evidence, **OR**
- Confirmed or presumptive laboratory evidence without any associated clinical information
- •**Probable :** A clinically-compatible case with presumptive laboratory evidence without epidemiologic linkage in absence of an alternative diagnosis

Confirmed

- A clinically-compatible case with confirmatory laboratory evidence, OR
- A clinically-compatible case with presumptive laboratory evidence AND epidemiologic linkage

Case definition: https://wwwn.cdc.gov/nndss/conditions/plague/case-definition/2020/

Revised National Case Definition: Spotted fever rickettsiosis (includes Rocky Mountain Spotted Fever)

 Updates the lab criteria used to classify SFR to help focus investigations towards suspect patients more likely to be cases.

Clinical Criteria: Fever as reported by the patient or a healthcare provider, AND one or more of the following: rash, eschar, headache, myalgia, anemia, thrombocytopenia, or any hepatic transaminase elevation.

Laboratory Criteria

Confirmatory laboratory evidence:

 Detection of SFGR nucleic acid in a clinical specimen via amplification of a *Rickettsia* genus- or species-specific target by Polymerase Chain Reaction (PCR) assay, **OR**

Serological evidence of a fourfold increase in IgG-specific antibody titer reactive with SFGR antigen by indirect immunofluorescence antibody assays (IFA) between paired serum specimens (one taken in the first two weeks after illness onset and a second taken two to ten weeks after acute specimen collection)*, OR

Demonstration of SFGR antigen in a biopsy or autopsy specimen by immunohistochemical methods (IHC), OR

•Isolation of SFGR from a clinical specimen in cell culture and molecular confirmation (e.g., PCR or sequence)

Revised National Case Definition: Spotted fever rickettsiosis (includes Rocky Mountain Spotted Fever)

Laboratory Criteria (continued)

■*Presumptive laboratory evidence:* Serologic evidence of elevated IgG antibody at a titer ≥1:128 reactive with SFGR antigen by IFA in a sample taken within 60 days of illness onset.**

Supportive laboratory evidence: Serologic evidence of elevated IgG antibody at a titer <1:128 reactive with SFGR antigen by IFA in a sample taken within 60 days of illness onset.</p>

*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. **This includes paired serum specimens without evidence of fourfold rise in titer, but with at least one single titer≥1:128 in IgG-specific antibody titers reactive with SFGR antigen by IFA.

Revised National Case Definition: Spotted fever rickettsiosis (includes Rocky Mountain Spotted Fever)

Case Classification

Suspect:

- A case with confirmatory or presumptive laboratory evidence of infection with no clinical information available, OR
- A clinically compatible case (meets clinical criteria) that has supportive laboratory evidence.
- •**Probable:** A clinically compatible case (meets clinical criteria) that has presumptive laboratory evidence.
- **Confirmed:** A clinically compatible case (meets clinical criteria) that is laboratory confirmed.

Case Definition: <u>https://wwwn.cdc.gov/nndss/conditions/spotted-fever-rickettsiosis/case-definition/2020/</u>

Conditions with revised or new definitions that are not nationally reportable

Acute Flaccid Myelitis (AFM) (Reportable in Michigan)

- Revises the laboratory/imaging criteria.
- Confirmed Case Classification: Revised to include persons meeting the clinical criteria with confirmatory labs/imaging evidence and absence of a clear alternative diagnosis attributable to a nationally notifiable condition.
- Probable Case Classification: Revised to remove the requirement of pleocytosis and include persons meeting the clinical criteria with presumptive lab/imaging evidence and absence of a clear alternative diagnosis to a nationally notifiable condition.
- Suspect Case Classification: Created to include persons meeting the clinical criteria but for whom available information is insufficient to classify the case as confirmed or probable.
- Case definition available at: <u>https://wwwn.cdc.gov/nndss/conditions/acute-flaccid-myelitis/case-definition/2020/</u>

Conditions with revised or new definitions that are not nationally reportable

•Blastomycosis (Reportable in Michigan): creation of a national case definition for blastomycosis

Clinical Criteria: Clinical presentation should include:

At least two of the following findings:

- Cough
- Fever or chills or night sweats
- Shortness of breath
- Poor appetite or weight loss
- Myalgia (muscle pain)
- Arthralgia (joint pain) or bone pain
- Fatigue

OR At least one of the following findings determined to be likely attributed to *Blastomyces* infection:

- Abnormal lung findings on chest imaging (e.g., pulmonary infiltrates, nodule, or mass-like lesions)
- Single or multiple skin lesions (often verrucous or ulcerated)
- Bone or joint abnormality (e.g., osteomyelitis, pathologic fracture)
- Meningitis, encephalitis, or focal brain lesion
- Abscess, granuloma, or lesion in other body system (e.g., genitourinary, ocular)



Laboratory Criteria

Confirmatory laboratory evidence*:

- Culture of *Blastomyces* spp. from a clinical specimen
- Identification of characteristic Blastomyces spp. yeast in tissue or body fluid by histopathology
- Identification of characteristic Blastomyces spp. yeast in tissue or body fluid by cytopathology (i.e., fungal smear)
- Demonstration of *Blastomyces*-specific nucleic acid or proteins in a clinical specimen or isolate using a validated molecular assay (e.g., Polymerase Chain Reaction (PCR), DNA Probe, Matrix-Assisted Laser Desorption/Ionization-Time Of Flight (MALDI-TOF))

Presumptive laboratory evidence*:

- Detection of *Blastomyces* antigen at or above the minimum level of quantification in serum, urine, or other body fluid by enzyme immunoassay (EIA) test**
- Detection in serum of antibodies against *Blastomyces* by immunodiffusion

*Additional details regarding diagnostic characteristics of laboratory methods used for diagnosis of blastomycosis are described in <u>Appendix 1</u>.

**The EIA threshold is not set based on clinical or epidemiological data but rather to err on the side of specificity rather than sensitivity. Cross-reactivity is a known problem with the EIA antigen test, and cases known to be infected with another fungal infection should not be counted as blastomycosis cases. This cutoff is to be used in surveillance case definitions and not for making clinical decisions.



•Epidemiologic Linkage: Epidemiologically linked (e.g., common environmental exposure, which may be suspected among family members, coworkers, friends, etc.) with a confirmed case.

•Criteria to Distinguish a New Case from an Existing Case: a given person should be counted only once as a probable or confirmed case of blastomycosis despite repeated positive testing over time.

Case Classification

Probable

- A clinically compatible case that meets presumptive laboratory criteria*, **OR**
- A clinically compatible case that does not meet laboratory criteria* but is epidemiologically linked to a confirmed case, **OR**

A case with confirmatory laboratory criteria but no clinical information available.
*Illness in a person with compelling evidence (e.g., culture, histopathology, seroconversion) of a different fungal infection, such as histoplasmosis or coccidioidomycosis, and meeting only non-confirmatory laboratory criteria for blastomycosis should not be counted as a case of blastomycosis since other fungal infections can cause false positive *Blastomyces* antigen and antibody test results.

Confirmed: A clinically compatible case that meets confirmatory laboratory criteria.

Case definition: <u>https://wwwn.cdc.gov/nndss/conditions/blastomycosis/case-definition/2020/</u>

Modifications to the Michigan Reportable Disease List

HIV – Changed footnote (2) denoting that HIV lab results be reported to MDHHS electronically or by arrangement and that HIV case reports be reported to MDSS or by MDHHS Form 1355. Effective in March 2019, House Bill No. 6023 revised the timing of reporting for HIV laboratory results and case reports, removing the 7-day reporting rule. HIV should now be reported within 24 hours.

•Neisseria gonorrhoeae (Gonorrhea): added footnote (4), isolates from sterile sites only must be submitted to MDHHS Lansing Laboratory

• Yersinia enterocolitica (Yersiniosis): added footnote (4), only isolates must be submitted to MDHHS Lansing Laboratory

Legend – (2): modified language to read "Report HIV lab results to MDHHS electronically/by arrangement & case reports to MDSS or by MDHHS Form 1355."

Modifications to the Brick Book

- Updated Reportable Disease Lists by Condition (page 6) and by Pathogen (page 11) to reflect 2020 changes described above
- •Updated language regarding reporting for schools, daycares, and camps (page 3)
- Updated language regarding Michigan vaccine programs (page 9)
- •Updated link to required vaccines for school or child care (page 10)
- Added Neisseria gonorrhoeae (isolate collected from a sterile site) and Yersinia enterocolitica (isolates only) to table of isolates or specimens that must be submitted to MDHHS Lansing Laboratory (page 14)

Michigan 2020 Updated Documents

Updated reportable disease lists (by pathogen and by condition), as well as the Healthcare Professional's Guide (Brick Book) are available for download at <u>www.michigan.gov/cdinfo</u>



VERSION 1.0

Resources



The full National update can be found at https://wwwn.cdc.gov/nndss/downloads.html



MDHHS tip sheets and guidance documents can be found at <u>www.michigan.gov/cdinfo</u>



MDSS website: www.michigan.gov/mdss