

2012 Changes to the National Notifiable Disease Surveillance System (NNDSS)

West Michigan Epi Exchange
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Background

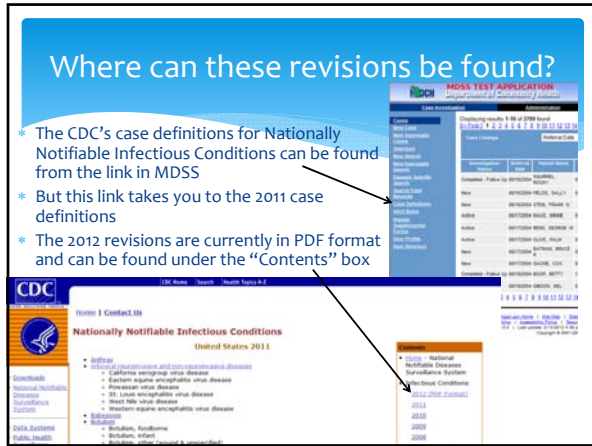
- * The list of nationally notifiable infectious diseases is revised periodically
 - * Disease may be added as a new pathogen emerges
 - * Disease may be deleted as incidence declines
- * The Council of State and Territorial Epidemiologists (CSTE), with input from CDC, makes recommendations *annually* for additions and deletions to the list of nationally notifiable diseases
- * Reporting of diseases is mandated at the state level and the list varies slightly by state
 - * CDC has some case definitions available to non-nationally notifiable diseases
 - * For other diseases there is not a national case definition

2012 NNDSS Changes

- * Addition of “suspect case” to salmonella and shigellosis
- * New reportable conditions, Melioidosis
- * Various revisions to case definitions and laboratory criteria for selected national surveillance case definitions
- * Should be used for reporting new 2012 cases beginning in January 2012

Where can these revisions be found?

- * The CDC's case definitions for Nationally Notifiable Infectious Conditions can be found from the link in MDSS
- * But this link takes you to the 2011 case definitions
- * The 2012 revisions are currently in PDF format and can be found under the "Contents" box



Addition of "Suspect Case" to Salmonella

- * The "Suspect Case" is a new case classification
- * The suspected category will enable public health to track and assess salmonellosis cases diagnosed by non-culture-based laboratory methods.
- * **Salmonella**
 - * Laboratory Criteria: Suspect – Detection of *Salmonella* from a clinical specimen using a non-culture based method
 - * Case Classification: Suspect – A case that meets the suspect laboratory criteria for diagnosis

Addition of "Suspect Case" to Shigellosis

- * The "Suspect Case" is a new case classification
- * The suspected category will enable public health to track and assess shigellosis cases diagnosed by non-culture-based laboratory methods.
- * **Shigellosis**
 - * Laboratory Criteria: Suspect – Detection of *Shigella* from a clinical specimen using a non-culture based method
 - * Case Classification: Suspect – A case that meets the suspect laboratory criteria for diagnosis

New Reportable Condition – Melioidosis

- * Caused by the bacterium *Burkholderia pseudomallei*
- * Found in water and soil
- * Infection through direct contact with an environmental source or through aerosolization
- * *B. pseudomallei* infection has been identified in humans and animals
- * Melioidosis may present as a localized infection, pneumonia, bacteremia or disseminated infection and is potentially severe and fatal
- * Incubation period: generally 1 – 21 days (median 9 days)
- * Disease may occur decades after exposure
- * With a high inoculum, symptoms may appear within a few hours of exposure
- * Predominant in tropical climates and primarily endemic in southeast Asia, China and northern Australia

New Reportable Condition - Melioidosis , cont.

- * Melioidosis is considered to be a global threat by many experts
- * *Burkholderia pseudomallei* is included on the list of category B bioterrorism agents and toxins due to its suitability as a biological weapon
- * In the United States, confirmed cases have occurred among travelers to and immigrants from areas of endemicity
- * *B. pseudomallei* has also been isolated from military personnel of all nationalities (including U.S. troops) who have served in areas endemic for melioidosis

Melioidosis Case Classification

- * **Probable:** A case that meets the clinical case definition, one or more of the probable lab criteria, and one of the following epidemiologic findings:
 - * History of travel to a melioidosis-endemic region, **OR**
 - * Known exposure to *B. pseudomallei* as a result of intentional release or occupational risk (lab exposure).
- * **Confirmed:** A case that is laboratory confirmed, with or without clinical evidence

Melioidosis Clinical Description

- * Clinical presentation of the disease varies on a case by case basis
- * The following characteristics are typical of melioidosis.
 - * An acute or chronic localized infection which may or may not include symptoms of fever and muscle aches. Such infection often results in ulcer, nodule, or skin abscess.
 - * An acute pulmonary infection with symptoms of high fever, headache, chest pain, anorexia, and general muscle soreness.
 - * A bloodstream infection with symptoms of fever, headache, respiratory distress, abdominal discomfort, joint pain, muscle tenderness, and/or disorientation.
 - * A disseminated infection with symptoms of fever, weight loss, stomach or chest pain, muscle or joint pain, and/or headache or seizure. Abscesses in the liver, lung, spleen, and prostate are often observed in patients diagnosed with disseminated infections; less frequently, brain abscesses may be seen.

Melioidosis Laboratory Criteria for Diagnosis

- * **Confirmed:**
 - * Isolation of *B. pseudomallei* from a clinical specimen of a case of severe febrile illness: Culture of the organism may be done by blood, sputum, urine, pus, throat swab, or swabs from organ abscesses or wounds.
- * **Probable:**
 - * Evidence of a fourfold or greater rise in *B. pseudomallei* antibody titer by IHA between acute and convalescent-phase serum specimens obtained greater than or equal to 2 weeks apart.
 - * Evidence of *B. pseudomallei* DNA (for example, by LRN-validated polymerase chain reaction) in a clinical specimens collected from a normally sterile site (blood) or lesion of other affected tissue (abscesses, wound).

Cryptosporidiosis

- * More specific clinical description
 - * Diarrhea duration of 72 hours or more, abdominal cramping, vomiting, or anorexia
- * Laboratory criteria changes
 - * Addition of Enzyme immunoassay [EIA] or Light microscopy of stained specimen as laboratory criteria for a confirmed case
 - * Addition of rapid card test or a laboratory test of unknown method as laboratory criteria for a probable case
- * Additional Comment:
 - * Persons who have a diarrheal illness and are epidemiologically linked to a probable case because that individual was only diagnosed with cryptosporidiosis by an immunocard/rapid test/ or unknown test method cannot be classified as probable cases.
 - * These epi-links can be considered suspect cases only

Hepatitis A

- * Additions and a deletion to clinical signs and symptoms specified in the case definition were made
- * 2012 Clinical Description:
 - * 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
 - * a) jaundice, or
 - * b) elevated serum aminotransferase (alanine aminotransferase or aspartate aminotransferase) levels

Hepatitis B, Acute

- * Revisions to specific signs and symptoms in the clinical case definition and laboratory criteria
- * 2012 Clinical Description:
 - * 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
 - * a) jaundice, or
 - * b) elevated serum alanine aminotransferase (ALT) levels >100 IU/L
 - * *A documented negative hepatitis B surface antigen (HBsAg) laboratory test result within 6 months prior to a positive test (either HBsAg, hepatitis B "e" antigen (HBeAg), or hepatitis B virus nucleic acid testing (HBV NAT) including genotype) result does not require an acute clinical presentation to meet the surveillance case definition

Hepatitis B, Acute cont.

- * Laboratory Criteria for Diagnosis:
 - * HBsAg positive, **AND**
 - * Immunoglobulin M (IgM) antibody to hepatitis B core antigen (IgM anti-HBc) positive (if done)
- * The criteria of having a negative IgM anti-HAV was removed

Hepatitis B, chronic

- * Laboratory criteria revised
 - * Specifies that a positive hepatitis B virus (HBV) DNA includes qualitative, quantitative and genotype testing

Hepatitis C, Acute

- * Revisions to specific signs and symptoms in the clinical case definition and laboratory criteria
- * 2012 Clinical Description:
 - * 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
 - * a) jaundice, or
 - * b) elevated serum alanine aminotransferase (ALT) levels >400IU/L.
- * *A documented negative HCV antibody laboratory test result followed within 6 months by a positive test (as described in the laboratory criteria for diagnosis) result does not require an acute clinical presentation to meet the surveillance case definition.

Hepatitis C, Acute

- * Laboratory criteria revised
 - * Specifies that Nucleic Acid Test (NAT) for HCV RNA positive includes qualitative, quantitative and genotype testing
 - * Specifies "if done" for meeting the following two criteria
 - * Absence of IgM antibody to hepatitis A virus (if done) (IgM anti-HAV), **AND**
 - * Absence of IgM antibody to hepatitis B core antigen (if done) (IgM anti-HBc)

Hepatitis C, Chronic

- * The laboratory criteria were revised
- * 2012 Laboratory Criteria for Diagnosis
- * Laboratory Criteria for Diagnosis
 - * One or more of the following three criteria (except in persons less than 18 months of age, for whom only criteria 3 would meet the case classification criteria):
 - * Antibodies to hepatitis C virus (anti-HCV) screening-test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay as defined by CDC, **OR**
 - * Hepatitis C virus recombinant immunoblot assay (HCV RIBA) positive, **OR**
 - * Nucleic acid test (NAT) for HCV RNA positive (including qualitative, quantitative or genotype testing)

Mumps

- * The case reporting criteria to public health authorities and the case classifications for suspect, probable, and confirmed were revised
- * This case definition was revised in 2008 and problems were found with the definitions in outbreaks that occurred in 2009-2010 including
 - * Some cases could be confirmed without laboratory evidence
 - * There was no classification for someone who is laboratory confirmed but has no mumps-specific symptoms
 - * Criteria for epidemiologically linking cases were not appropriate
 - * Mumps laboratory diagnostics have improved

Mumps

- * 2012 Case classification
- * Suspect:
 - * Parotitis, acute salivary gland swelling, orchitis, or oophoritis unexplained by another more likely diagnosis, **OR**
 - * A positive lab result with no mumps clinical symptoms (with or without epidemiological-linkage to a confirmed or probable case).
- * Probable:
 - * Acute parotitis or other salivary gland swelling lasting at least 2 days, or orchitis or oophoritis unexplained by another more likely diagnosis, **OR**
 - * A person with a positive test for serum anti-mumps immunoglobulin M (IgM) antibody, **OR**
 - * A person with epidemiologic linkage to another probable or confirmed case or linkage to a group/community defined by public health during an outbreak of mumps.

Mumps

- 2012 Case classification, cont.
- Confirmed:
 - A positive mumps laboratory confirmation for mumps virus with reverse transcription polymerase chain reaction (RT-PCR) or culture in a patient with an acute illness characterized by any of the following:
 - Acute parotitis or other salivary gland swelling, lasting at least 2 days
 - Aseptic meningitis
 - Encephalitis
 - Hearing loss
 - Orchitis
 - Oophoritis
 - Mastitis
 - Pancreatitis

Vibriosis

- The case definition was expanded to include other species that cause vibriosis
- Laboratory Criteria for Diagnosis
 - Isolation of a species of the family *Vibrionaceae* (other than toxigenic *Vibrio cholerae* O1 or O139, which are reportable as cholera) from a clinical specimen
- Comment: Genera in the family *Vibrionaceae* (not all have been recognized to cause human illness) currently include:

• Aliivibrio	• Listonella
• Allomonas	• Photobacterium
• Catenococcus	• Salinivibrio
• Enterovibrio	• Vibrio
• Grimontia	
