

2015 Communicable Disease Summary and Reporting Rule Revisions

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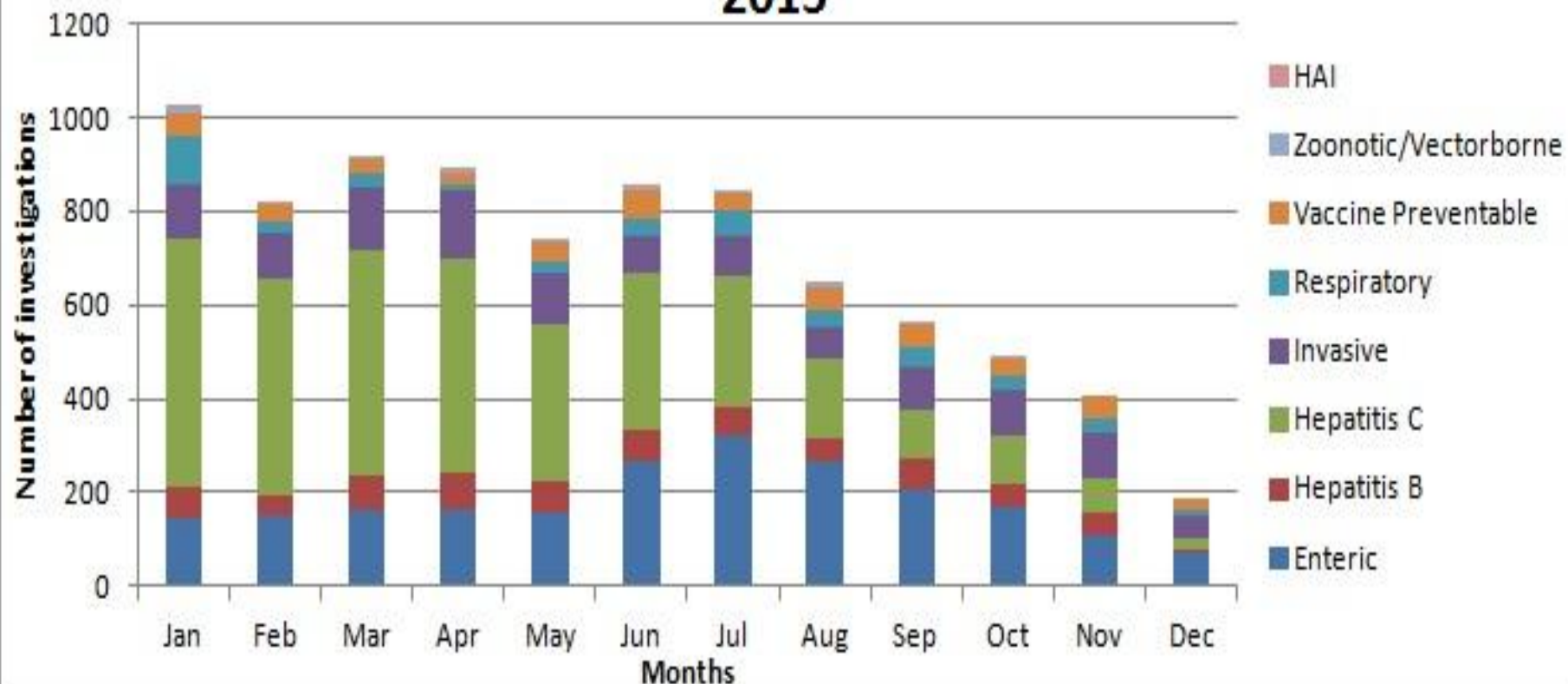
Learning Objectives

- Identify the diseases added to the Communicable Disease Reporting Rule.
- Discuss isolates added to the Communicable Disease Reporting Rule



2015 Statewide Data

Confirmed & Probable Cases Investigations, Indiana, 2015*



Major Outbreak Responses (2015)



Meningococcal Disease Mass Prophylaxis (Allen Co.)

- 1 identified case in a school staff member (Dec. 2015)
- Case was a person employed at an elementary school who had intermittent close contact with many students.
- The Local Health Department worked with the Hospital pharmacy and school to provide prophylaxis
- Mass prophylaxis clinic was held at the school
- Approximately 500 students and staff received antibiotic post-exposure prophylaxis
 - Each of the 300+ students had to be weighed to determine appropriate dose of suspension medication.



Shigella Outbreak 2014 (Central IN)

- Shigellosis transmission among daycare and school attendees
- 854 *S. sonnei* cases from 9 counties were identified
- 749 of 854 cases (88%) were treated with antibiotics regardless of severity.
- Indiana daycare/school exclusion policy encouraged antibiotic treatment.
- CD Rule was revised to decrease antibiotic treatment requirements and decrease antibiotic resistance emergence.



The CD Rule



CD Rule

- 410 IAC 1-2.3 repealed
- 410 IAC 1-2.5 enacted December 25, 2015
- 410 IAC 1-2.5-75: Reporting requirements for physicians and hospital administrators
- 410 IAC 1-2.5-76: Laboratories; reporting requirements
- 410 IAC 1-2.5-77: Disease intervention measures; responsibility to investigate and implement



Overview of the CD Rule

- Definitions
- Reporting requirements for physicians, hospitals, and laboratories
- Disease intervention measures (general and disease specific)
 - Responsibilities
 - Timeliness
- References



What's New to the CD Rule?



Reportable Diseases

- Newly reportable:
 - Carbapenemase-producing Carbapenem-resistant Enterobacteriaceae (CP-CRE)
 - Chikungunya virus disease
 - Cysticercosis (*Taenia solium*)
 - Latent tuberculosis infection
 - Varicella-zoster virus



Carbapenemase-Producing Carbapenem-Resistant *Enterobacteriaceae*

- **Epidemiology** – Can cause infections associated with high mortality rates (up to 50%) due to resistant to carbapenem antibiotics and contain enzymes (carbapenemases) that make carbapenems ineffective.
- **Transmission** – person to person via hands of HCPs or contact with infected stool, wounds, or contaminated environmental surfaces (e.g. medical equipment)
- **Incubation** – not well defined
- **Control Measures** – The facility **should** initiate Contact Precautions; additional precautions should be added if any other transmissible condition is present. AND...
 - Can consider screening patients to determine if they are epidemiologically linked
 - Can consider chlorhexidine gluconate bathing
- **Laboratory Testing** – Bacterial culture with antibiotic resistance susceptibility testing.



Chikungunya virus disease

- Epidemiology
 - Travel to Caribbean, Central/South America, other tropical and subtropical areas
- Transmission
 - *Aedes aegypti* and *Aedes albopictus* mosquitoes
- Incubation: 3–7 days
- Control measures
 - Traveler education
 - Mosquito bite prevention
- Laboratory testing: PCR, IgM/IgG serology



Cysticercosis (*Taenia solium*)

- Epidemiology
 - Underdeveloped areas with poor sanitation and pork consumption
 - US: Latin American immigrants
- Transmission
 - Ingestion of undercooked pork from a pig that has ingested human feces (taeniasis)
 - Ingestion of human feces (cysticercosis)
- Control measures:
 - Cook meat to temperature
 - Basic sanitation
- Laboratory testing: fecal microscopy, tissue biopsy



Latent Tuberculosis Infection (LTBI)

(Cases and Suspects still reportable)

- Epidemiology
 - Prevalence increases with age. Estimated that 1/3 of the human population is infected (worldwide)
- Transmission
 - TB is spread only by those with active TB disease, who expel tubercle bacilli via aerosolized, droplet or airborne route through coughing, singing, or sneezing.
 - People with Latent TB infections (LTBI) *cannot* infect others
- Incubation
 - Latent TB: 2-10 weeks from infection to primary lesion or positive TST/IGRA
- Control Measures
 - Prompt diagnoses and treatment of active TB disease
 - Treatment of LTBI before progression to active disease
 - Screening of high-risk population, including HIV positive and homeless individuals
- Laboratory Testing
 - Test for infection only, further evaluation need for distinction between TB/LTBI
 - Tuberculin Skin Test (TST) using a purified protein derivate (PPD)
 - Interferon Gamma Release Assay (IGRA) of blood



Varicella Zoster Virus (VZV)

(newly LAB reportable)

- Epidemiology
 - Varicella occurs worldwide. Humans are the only source of infection.
- Transmission
 - Person-to-person transmission occurs via airborne route from infected respiratory tract secretions or by direct contact with or inhalation of aerosols from vesicular fluid of skin lesions.
- Incubation
 - usually 14 to 16 days
- Control Measures
 - school or child care setting exclusion until the rash has crusted.
- Laboratory Testing
 - PCR or IgG Serology



Arboviral Diseases

- Dengue, chikungunya, EEE, SLE, WEE, West Nile virus, California serogroup viruses, and Powassan virus
- All will remain reportable, but will now be listed separately on the reportable disease list, as well as under the general term “arboviral disease”.
- Note: formerly “Encephalitis, arboviral”



Reportable Diseases

- Scientific name change:
 - *Anaplasma phagocytophilum* (formerly *Ehrlichia phagocytophilum*)
- To be removed from the reportable list:
 - *Streptococcus* Group B Invasive Disease



Isolate Reportable Changes

- Newly required:
 - Carbapenemase-producing Carbapenem-resistant Enterobacteriaceae (CP-CRE)
 - *Shigella* species
 - *Vibrio cholerae*
 - *Vibrio* species (other than toxigenic *Vibrio cholerae*)
- No longer required:
 - Nocardia
 - Herpes simplex virus (neonatal)



Isolate Reportable Changes

- Require specimen submission for organisms detected by a culture-independent diagnostic test (CIDT):
 - Shiga toxin-producing *E. coli* (STEC)
 - *Salmonella* species
 - *Shigella* species
 - *Vibrio cholera*
 - *Vibrio* species (other than toxigenic *Vibrio cholerae*)



Timeliness Changes

- Laboratory: reporting timeliness now match those for disease reporting
- Now reportable within 24 hours:
 - Invasive *Haemophilus influenzae* (previously immediately reportable)
 - Mumps (previously reportable within 72 hours)
 - Pertussis (previously immediately reportable)



Disease Specific Control Measures



Animal Bites

- ANY rabies vector species (including bats, skunks, raccoons, foxes, and other wild carnivores) **must be** euthanized and tested for rabies after a human bite, even if the animal is being kept as a pet and/or permitted by the Indiana DNR.
- Authorization to make exceptions to this section is granted to the local health officer and/or State Veterinarian.



Animal Bites (cont.)

- Language permitting euthanasia and rabies testing of “stray or unwanted” biting animals has been removed. These animals must now be quarantined for 10 days after a bite.
- Unhealthy or terminally injured animals may still be euthanized and tested.



Food Employee Exclusions

- Specific to Hepatitis A, Shiga toxin-producing *E. coli* (STEC), Salmonellosis, Shigellosis, and Typhoid Fever.
- Aligned with the Retail Food Establishment Sanitation Requirements (410 IAC 7-24) proposed revisions.



Food Employee Exclusions

- Some examples of the alignment between the CD Rule and the Food Code...
 - “Ready-to-eat” was defined and the its use was expanded to be included in Hepatitis A
 - In regards to Shigella, the rule now clarifies when to restrict and re-instate food employees



Influenza-associated Death

- Definition has been expanded to include “listed anywhere on the death certificate as primary, secondary, or contributory cause of death” as a means by which an influenza diagnosis has been detected.
- Investigations by the local health officer shall now include an epidemiologic investigation.



Influenza-associated Death (cont.)

What the rule says:

- A report is not necessary if the diagnosis of influenza is neither confirmed by laboratory testing nor listed on the death certificate as primary, secondary, or contributory cause of death on the death certificate.

What the rule means:

- Influenza-associated death is only reportable if laboratory confirmed or listed on the death certificate as a primary, secondary, or contributory cause of death.



Measles School Exclusions

- Anyone who gets a first or second dose of MMR as part of an outbreak control program can return **immediately** to school as long as all persons without documented proof of immunity have been excluded and that vaccination occurred within 72 hours of exposure.
- Previous rule did not address case contacts who received vaccination as part of an outbreak response



Measles and Mumps Health Care Facility Exclusions

- All exposed employees without proof of immunity must be excluded from day 5-21 (for measles) and day 9-25 (for mumps) after exposure, regardless of vaccination or if IG was given after exposure.
- This was a clarification added to the rule, as the previous version of the rule did not directly address this



Shigella Exclusion

- Daycare & pre-school attendees will be able to return to school if they...
 - Are asymptomatic for 48 hours **OR**
 - Initiated antibiotic treatment ≥ 48 hours **OR**
 - Submit **1** stool sample that is negative (minimum 48 hours after antibiotics)
- Healthcare workers and daycare workers can return to work if they...
 - Are asymptomatic for 24 hours **OR**
 - Submit **1** stool sample that is negative



Varicella

Chickenpox not Shingles

- Laboratory testing requirements for “break-through” and hospitalized cases have been added.
 - PCR
 - Culture
 - IgG paired serology
- Outbreak control measures added
 - Defines an outbreak
 - Provides guidance on exclusions and timelines
 - Provides guidance on contact tracing



Link to the New CD Rule

410 Indiana Administrative Code (Full):

www.in.gov/legislative/iac/T04100/A00010.PDF

Or

Visit the ISDH website:

www.in.gov/isdh/25366.htm



Recorded Webinar

A pre-recorded Communicable Disease Reporting Rule webinar is available at:

<https://videocenter.isdh.in.gov/videos/video/2011/>



Questions?

Contact:
Epidemiology Resource Center
317-233-7125

