### NEW MEXICO'S SHIGELLOSIS OUTBREAK APRIL 2016 – SEPTEMBER 2017

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### OBJECTIVES

- Understand what Shigellosis is and how it is transmitted
- Describe the largest and longest Shigellosis outbreak in New Mexico (NM)
- Understand the complications associated with an outbreak once it becomes entrenched in a community



## WHAT IS SHIGELLOSIS?



- Infectious disease caused by a group of bacteria called Shigella
- Very contagious = Easily transmissible
- Fecal-Oral Transmission
  - Contaminated hands touching food or objects
  - Eating contaminated food
  - Swallowing contaminated recreational or drinking water
  - Exposure to feces through sexual contact
- Shigella spp. are present in the stools of infected persons while they
  have diarrhea and for up to four weeks if untreated
- Center for Disease Control and Prevention (CDC) estimates there are 500,000 cases of shigellosis every year



### SHIGELLOSIS CASE DEFINITION

- Confirm: A case that meets the confirmed laboratory criteria for diagnosis
- Probable
  - A case that meets the supportive laboratory criteria for diagnosis

OR

- A clinically compatible case that is epidemiologically linked to a case that meets the supportive or confirmatory laboratory criteria for diagnosis
- Clinical Criteria: Diarrhea, fever, nausea, cramps, and tenesmus (cramping rectal pain)
- Supportive Laboratory Evidence: Detection of Shigella or Shigella/enteroinvasive Escherichia coli (EIEC) in a clinical specimen using culture-independent diagnostics testing
- Clinical Laboratory Evidence: Isolation of Shigella from a clinical specimen



### KEY FACTS REGARDING NM'S SHIGELLOSIS OUTBREAK

- Shigella sonnei
- Lea, Eddy, and Chaves counties
- Outbreak started in April 2016
  - First confirmed case was on May 4, 2016
  - NMDOH was notified on May 10, 2016
- 268 cases
  - Confirmed cases: 152 (56.71%)
  - Probable cases: 116 (43.29%)
  - Female: 146 (54.47%)
  - Male: 122 (45.53%)
  - Average Age: 13.86 years old (6 months 81 years old)
  - Median Age: 7 years old



### WHO WAS AFFECTED THE MOST?

































### PFGE MATCHES

- 4 PFGE Matches
  - 1603MLJ16-1 (majority)
  - 1607 Sonnei
  - 1607 Sonnei 2
  - Shigella sonnei, subgroup D



### STEPS TAKEN TO END THIS OUTBREAK

- Multiagency approach
  - New Mexico Department of Health (NMDOH)
  - Children, Youth, and Families Department (CYFD)
  - New Mexico Environmental Department (NMENV)
  - New Mexico School Health Advocates (NMSHA)
  - CDC
- 4 Health Alert Network (HANs) messages
- 8 letters to daycares from CYFD and NMDOH
- 8 letters to schools from NMDOH
- 5 press releases targeting the southeastern counties
- Shigella packet given to all affected daycares and schools
- Weekly conference calls
- Numerous in-person meetings and conference calls with providers
- CDC's Diaper Changing Poster

### Safe and Healthy Diapering to reduce the spread of germs



Keep a hand on the child for safety at all times!



### Cover the diaper changing surface with disposable liner.

- If you will use diaper cream, dispense it onto a tissue now.
- Bring your supplies (e.g., dean diaper, wipes, diaper cream, gloves, plastic or waterproof bag for soiled clothing, extra dothes) to the diapering area.



### 2. CLEAN CHILD

1. PREPARE

Place the child on diapering surface and unfasten diaper.
 Clean the child's diaper area with disposable wipes. Always wipe front to back!
 Keep solled diaper/clothing away from any surfaces that cannot be easily cleaned. Securely bag
 solled chibing.



### 3. REMOVE TRASH

Place used wipes in the soiled diaper.
Discard the soiled diaper and wipes in the trash can.
Remove and discard gloves.



GAL
 APPLACE DIAPER
 Slide a fresh diaper under the child.
 Apply diaper cream, if needed, with a freshly gloved finger

Fasten the diaper and dress the child.

### 5. WASH CHILD'S HANDS

Use soap and water to wash the child's hands thoroughly.
Return the child to a supervised area.

### 6. CLEAN UP



Remove liner from the changing surface and discard in the trash can

- Wipe up any visible soil with damp paper towels or a baby wipe.
- Wet the entire surface with disinfectant; make sure you read and follow the directions on the disinfecting spray, fluid or wipe. Choose disinfectant appropriate for the surface material.



### 7. WASH YOUR HANDS

Wash your hands thoroughly with soap and water.



# WHAT CAUSED THIS OUTBREAK TO PROPAGATE?





When Can A Sick Child Go Back To School Or Daycare?







### SPECIAL THANK YOU TO EVERYONE

- Dana Moore-Smith, NMDOH
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- Johnathan Yoder, CDC
- Paul McClung, CDC
- Elizabeth Adams, CDC
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### THANK YOU. ANY QUESTIONS?

