

COCCIDIOIDOMYCOSIS IN NEW MEXICO

A brief epidemiological summary
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History of Cocci Reporting in New Mexico

- ▣ New Mexico cocci data between 1992-2005 reported to Centers for Disease Control and Prevention (CDC) through the National Electronic Telephonic Surveillance System (NETSS)
- ▣ Between 1992 and 2005, only 269 total cases reported
- ▣ Data quality questionable for these years
- ▣ In 2006, New Mexico introduced the New Mexico Electronic Disease Surveillance System (NMEDSS) along with data quality measures

Prior Cocci Case Definitions: 1995

- ▣ An illness characterized by one or more of the following: Influenza-like signs and symptoms (e.g., fever, chest pain, cough, myalgia, arthralgia, and headache)
 - Pneumonia or other pulmonary lesion, by chest X-ray
 - Erythema nodosum or erythema multiforme rash
 - Involvement of bones, joints, or skin by dissemination
 - Meningitis
 - Involvement of viscera and lymph nodes
- ▣ Laboratory-confirmed coccidioidomycosis requires one or more of the following:
 - Cultural, histopathologic, or molecular evidence of presence of *C. immitis*, or Immunologic evidence of infection
 - Serologic (testing of serum, cerebrospinal fluid, or other body fluid):
 - ▣ Detection of coccidioidal IgM by immunodiffusion, enzyme immunoassay (EIA), latex agglutination, or tube precipitin, or
 - ▣ **Detection of rising titer** of coccidioidal IgG by immunodiffusion, EIA, or complement fixation.
 - Coccidioidal skin test conversion from negative to positive after the onset of clinical signs and symptoms.
- ▣ Confirmed: a case that meets the clinical case definition and is laboratory confirmed.

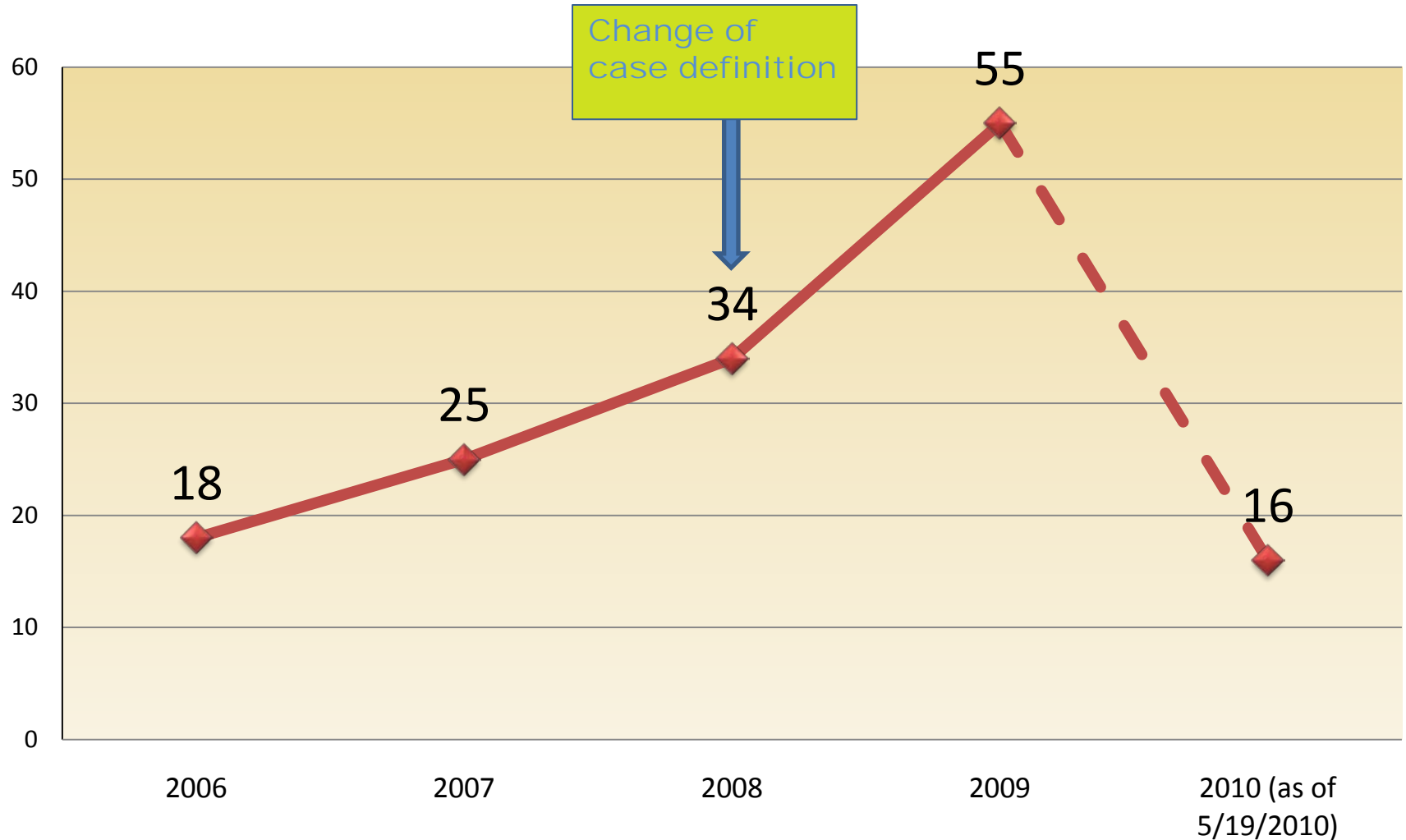
Prior Cocci Case Definitions: 1996

- ▣ An illness characterized by one or more of the following:
 - ILI signs and symptoms
 - Pneumonia
 - Erythema nodosum or multiforme rash
 - Dissemination (bones, joints, skin)
 - Meningitis
 - Involvement of viscera and lymph nodes
- ▣ Lab criteria for diagnosis:
 - Cultural, histopathologic, or molecular evidence of presence of *Coccidioides immitis*, or
 - Positive serologic test for coccidioidal antibodies in serum or cerebrospinal fluid by:
 - ▣ Detection of coccidioidal immunoglobulin M (IgM) by immunodiffusion, enzyme immunoassay (EIA), latex agglutination, or tube precipitin, or
 - ▣ **Detection of rising titer** of coccidioidal immunoglobulin G (IgG) by immunodiffusion, EIA, or complement fixation, or
 - Coccidioidal skin-test conversion from negative to positive after onset of clinical signs and symptoms
- ▣ *Confirmed*: A case that meets the clinical case definition and is laboratory confirmed.

Current NM Case Definition (2008 CDC)

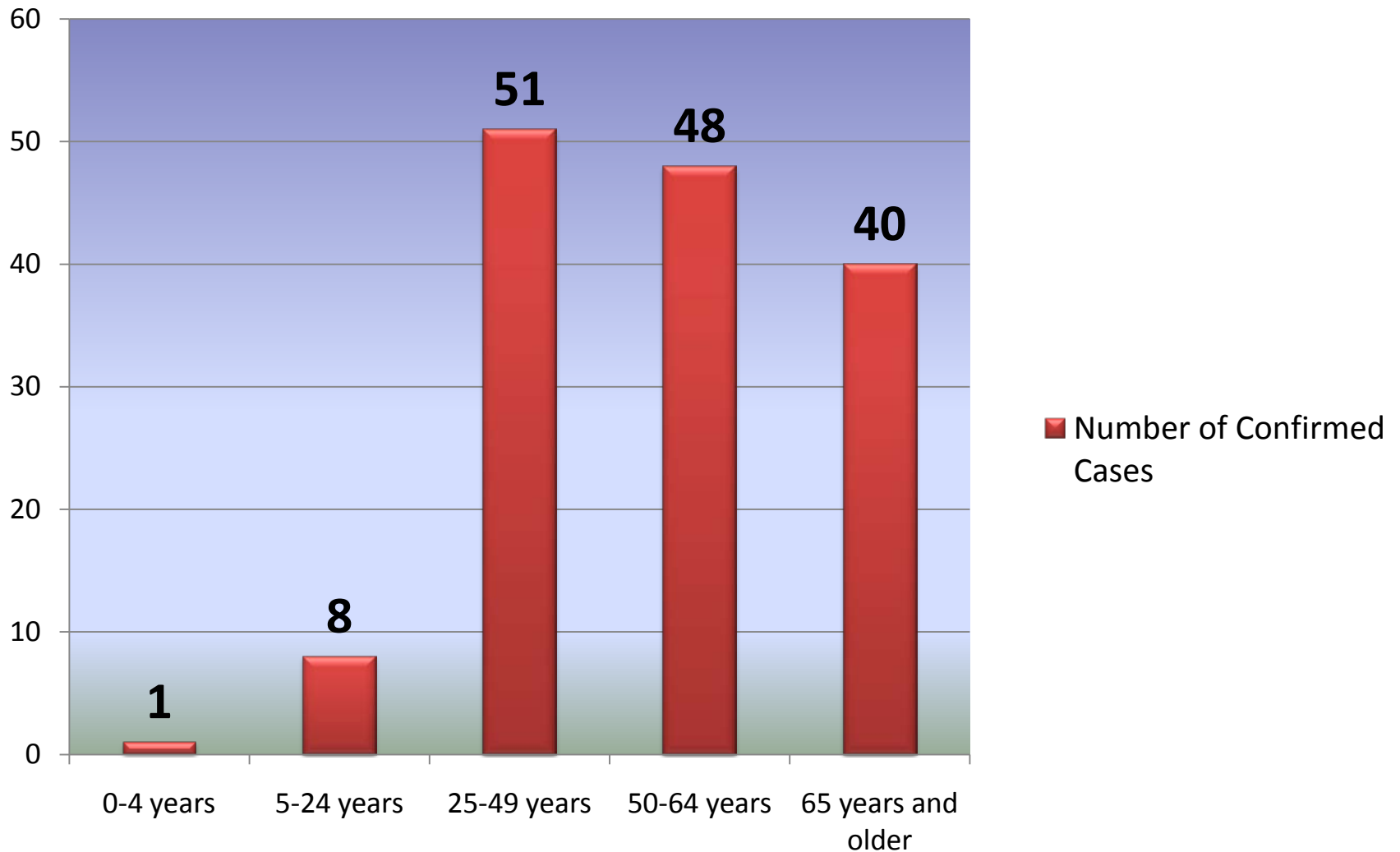
- ▣ An illness characterized by one or more of the following:
 - ILI signs and symptoms
 - Pneumonia, diagnosed by chest radiograph
 - Erythema nodosum or multiforme rash
 - Dissemination (bones, joints, skin)
 - Meningitis
 - Involvement of viscera and lymph nodes
- ▣ Must meet at least one of following lab criteria:
 - Cultural, histopathologic, or molecular evidence of presence of *Coccidioides* species, or
 - Positive serologic test for coccidioidal antibodies in serum, cerebrospinal fluid, or other body fluids by:
 - ▣ Detection of coccidioidal immunoglobulin M (IgM) by immunodiffusion, enzyme immunoassay (EIA), latex agglutination, or tube precipitin, or
 - ▣ **Detection** of coccidioidal immunoglobulin G (IgG) by immunodiffusion, EIA, or complement fixation, or
- ▣ Coccidioidal skin-test conversion from negative to positive after onset of clinical signs and symptoms (no longer used)
- ▣ **Confirmed: a case that meets the clinical case definition and is laboratory confirmed.**

Coccidioidomycosis: Number of Confirmed Cases in New Mexico, 2006-2010



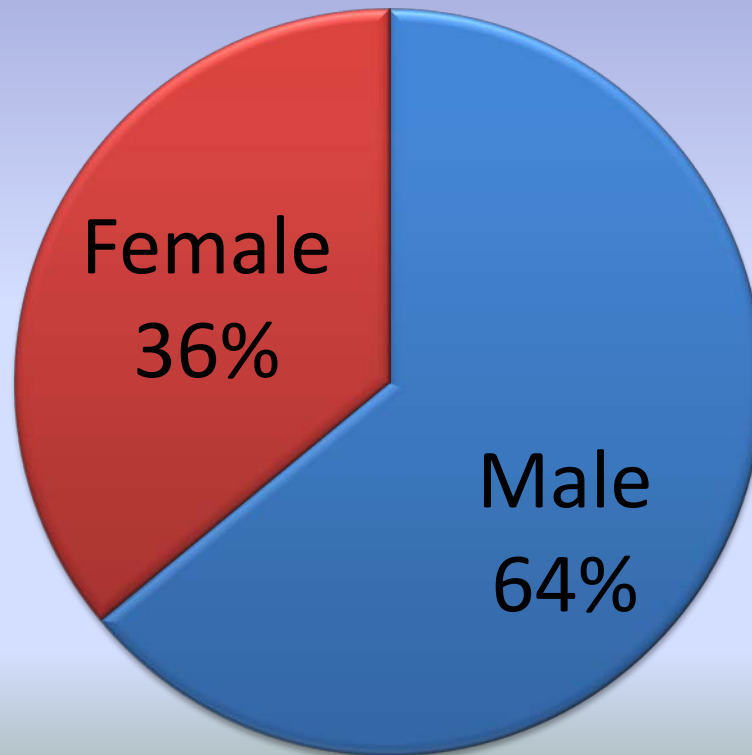
*as reported in the New Mexico Electronic Disease Surveillance System

Coccidioidomycosis: Age Ranges for Confirmed Cases in New Mexico, 2006-2010



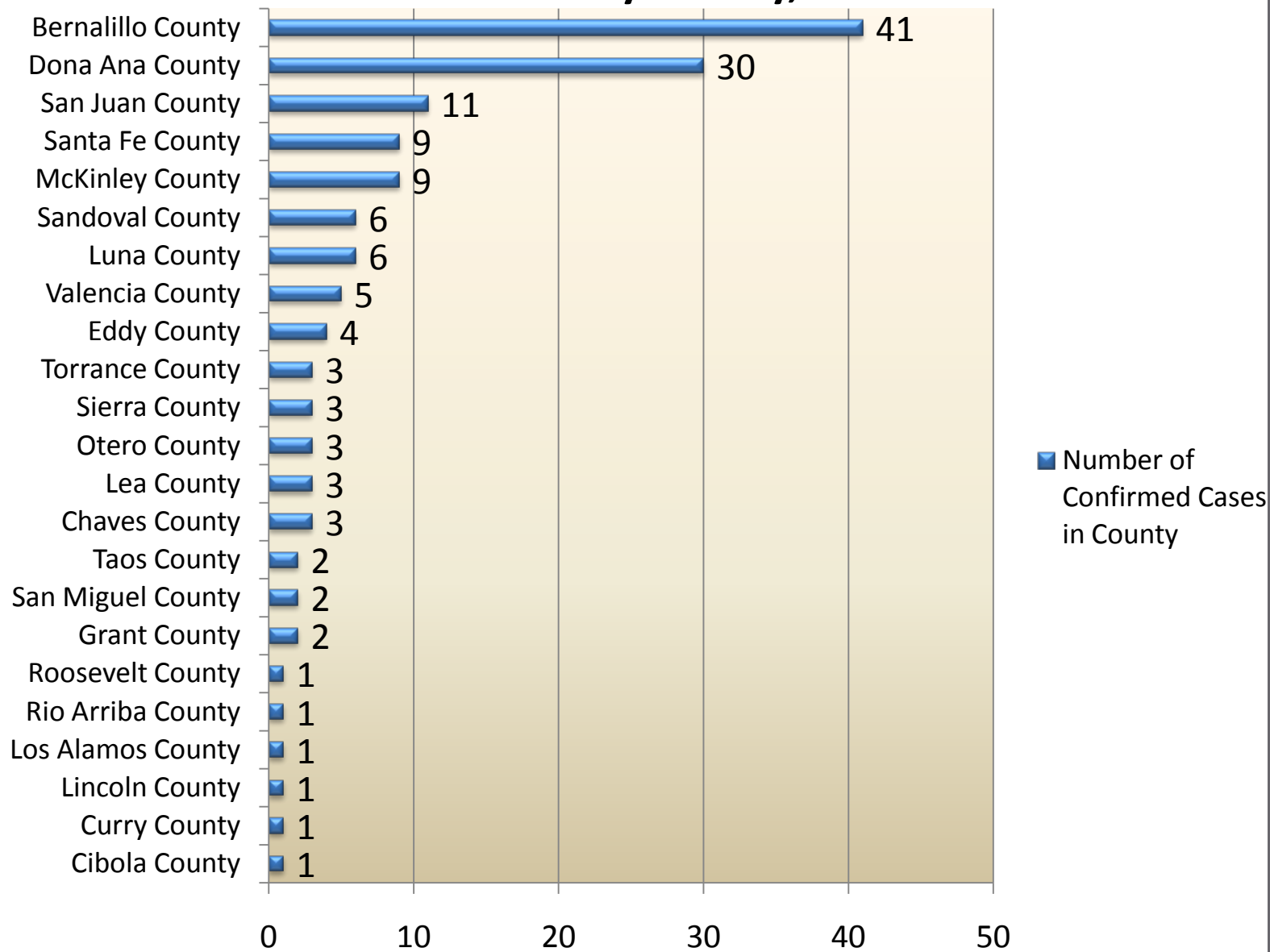
*as reported in the New Mexico Electronic Disease Surveillance System

Coccidioidomycosis: Sex of Confirmed Cases in New Mexico, 2006-2010



*as reported in the New Mexico Electronic Disease Surveillance System

Coccidioidomycosis: Number of Confirmed Cases in New Mexico by County, 2006-2010



*as reported in the New Mexico Electronic Disease Surveillance System

“A” Mountain, Las Cruces, NM: Dust Storm March 2010

