Fungal pneumonia: a silent epidemic
Coccidioidomycosis (valley fever)

Coccidioidomycosis, a fungal disease called "cocci" or "valley fever," is a major cause of community-acquired pneumonia in the southwestern US.

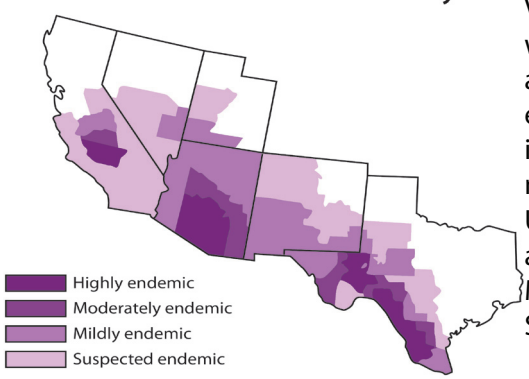
A costly problem

- In 2011, more than 20,000 cases were reported in the US, twice as many cases as tuberculosis.
- Nearly 75% of valley fever victims miss work or school for about two weeks.[2]
- More than 40% of valley fever victims are hospitalized. The average cost of a hospital stay for valley fever is almost $50,000.[2]

From soil to lungs

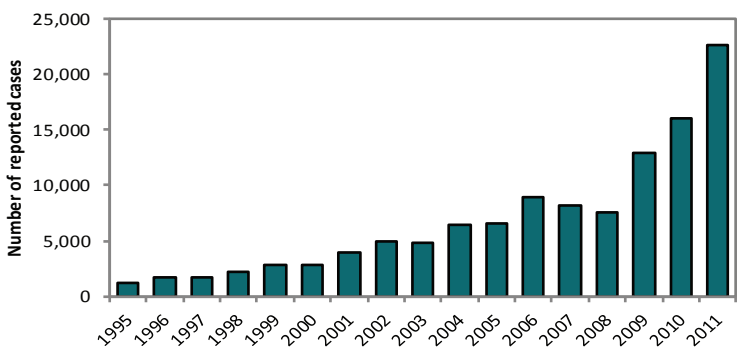
Valley fever is an illness caused by the fungus *Coccidioides*, which lives in soil. People can become infected by inhaling fungal spores. This can cause flu-like symptoms that may last from weeks to months.

Areas Endemic for Coccidioidomycosis



Valley fever occurs in people who live in or have traveled to areas where *Coccidioides* is endemic, or native and common in the environment. It is found most often in the southwestern United States (especially Arizona and California) and parts of Mexico, Central America, and South America.

Number of US valley fever cases, 1995-2011



An estimated 150,000 more cases go undiagnosed every year. More than 70% of cases occur in Arizona and 25% occur in California.[1]

Challenges arise in unpredictable ways

- More people exposed to *Coccidioides* due to increased travel and relocation to endemic areas
- Changes in temperature and rainfall can affect the growth and distribution of the fungus
- Changes in how cases are being detected and reported

National Center for Emerging & Zoonotic Infectious Diseases
Division of Foodborne, Waterborne, and Environmental Diseases

http://www.cdc.gov/fungal/

Common symptoms. Unusual cause.

Because the symptoms (fever, cough, headache, rash, muscle aches, or joint pain) are similar to other common illnesses, diagnosis and treatment are often delayed. In a very small proportion of people, the infection can cause chronic pneumonia, spread from the lungs to the rest of the body and cause meningitis (brain or spine infection), or even death.

People at risk

Anyone can get valley fever by inhaling airborne spores in endemic areas. It is most common among older adults, particularly those ages 60 and older, but more young people are getting the disease. Valley fever cannot spread from person to person.

Some groups of people, including military personnel, US-Mexico border patrol agents, prison inmates, archaeologists, or construction workers have high levels of exposure to dusty environments where *Coccidioides* is common. Some groups of people are at increased risk for developing more severe forms of valley fever, including African Americans, Asians, women in their third trimester of pregnancy, and people with weak immune systems.

What is CDC doing ?

- Supporting states in endemic areas to track and better understand the impact of valley fever on local communities
- Monitoring the epidemiology of valley fever to understand national trends in disease
- Serving as a reference laboratory and providing training in laboratory diagnosis

What else can be done?

- Increase capability to track illnesses throughout the US and throughout the western hemisphere in areas where valley fever is endemic
- Further research into ways to reduce the severity or duration of illness, including early diagnosis and antifungal treatment
- Expand awareness of valley fever among healthcare providers and the general public in order to minimize delays in diagnosis and treatment
- Support ongoing research into vaccine development

For more information, please contact the
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References
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2 Tsang CA, Anderson SM, Imholte SB, Erhart LM, Chen S, Park BJ, et al. Enhanced surveillance of coccidioidomycosis, Arizona, USA, 2007-2008. Emerg Infect Dis. 2010 Nov;16(11):1738-44. -