Special Audio Report Transcript:

Headline:	Public Health Agencies Under Pressure To Curb Valley Fever in California
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California has been home to valley fever since the days of the Old West. While modern medicine has capped some of its deadly potential, the fungal infection has maintained its reputation as a "silent killer" for thousands of people around the state. This is a special report for *California Healthline*, a daily news service of the California HealthCare Foundation. I'm Deirdre Kennedy.

It goes by pseudonyms like "Desert Rheumatism" and "California Fever" but most people know it as valley fever. Victims get infected by breathing in spores from a fungus called *Coccidioides immitis*, which lie dormant in the soil during hot, dry weather. When the top layer is disturbed, spores break off and carry the infectious agent on the wind. Spores *can* travel hundreds of miles under certain conditions.

Most of California's reported cases have been in hot dry areas like the Central Valley and southern California. But Ventura County health officer Robert Levin says it's a mistake to assume that the so-called "cocci" spores are rare in coastal counties like San Luis Obispo, Los Angeles, Orange and Ventura – where cases have been on the rise.

(Levin) "It is endemic here. It's believed by some people though, based on very little information, that the further you get to the actual coastline, the less intense the presence of cocci in the soil."

Human activities like agriculture or construction are often blamed for unearthing the spores. But Levin says cases have also been spiked by wildfires and earthquakes like the 6.7 Northridge quake.

(Levin) "With the earthquake the soil was obviously shaken and in some places it actually liquefies. That does a real good job of breaking these spores loose from the earth. And then the wind comes up and carries them off."

(Rutherford) "Dust storms in particular are massive earth-disturbing events -- far in excess of the things we see from agriculture or construction or archeological digs.

That's George Rutherford, professor of epidemiology at UC-San Francisco.
He says 30 years ago, a massive dust storm blew cocci spores from the southern San Joaquin Valley more than 200 miles north causing a huge outbreak in the San Francisco Bay Area where it is not normally found.

(Rutherford) "It's a classic event that exposes lots and lots of people to valley fever."

The most common symptom is pneumonia. The Office of Statewide Health Planning and Development tallied the average in-hospital treatment at more than $102,000. But in about 2 percent of patients, cocci can spread to the bones, skin and central nervous system.

(Rutherford) "So if you have the pneumonic form of the disease, some of it is treatable with relatively straightforward anti-fungal agents. It's when it becomes disseminated and it's causing meningitis or fistulae or a host of other problems that it becomes very difficult to treat."

Rutherford is studying why different groups of people can have vastly different immune responses to *Coccidioides.* Millions of people who are exposed to it will develop lifelong immunity without getting sick -- while certain groups have virtually no defense against it.

(Rutherford) "Once you're exposed, everybody has an equal chance of getting infected. The question is who gets infected and handles the infection and who gets infected and doesn't handle it. I think we're pretty clear now that there are certain genetic features that are not yet well delineated that puts certain people at risk for disease – Those people tend to be of African ancestry and people of pacific island ancestry. "

There is no vaccine for valley fever and Rutherford says there's no prospect of developing one soon.

(Rutherford) "Nobody has ever made a vaccine for an organism this size. I think we will learn from TB and malaria and other large organisms, but it's a ways away, it's a long row to hoe."

Valley fever has become a big problem among the California inmate population – costing the Department of Corrections and Rehabilitation $25 million a year to treat. And over the past decade, at least 36 inmates have died from advanced disease. The department says [rather than moving thousands of inmates] it's working to reduce exposure to the fungus by upgrading ventilation filters and treating the soil around prisons to contain the spores.

The Department of Corrections also supports a low cost skin test that could be on the market later this year, pending an FDA fee waiver.

Officials from the Centers for Disease Control and Prevention have agreed to attend a symposium in Bakersfield later this summer. No date has been set for it. They plan to meet with public health officials and local advocates to increase awareness among clinicians and the community about treatments and risks of valley fever.

This has been a special report for California Healthline, a daily news service of the California HealthCare Foundation. If you have feedback or other issues you'd like to have addressed, please email us at CHL@CHCF.org. I'm Deirdre Kennedy, thanks for listening.