



VALLEY FEVER

Coccidioidomycosis



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CLOVIS FIELD OFFICE
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Flu, cough,
fever, more
than a
week?



Resident of
and/or
travelled in
California?



Exposed to
dust?



Ask your
doctor to
test for
Valley Fever



Coccidioidomycosis

[kok-sid-ee-oi-doh-my-koh-sis]

AKA: Valley Fever, Cocci, San Joaquin Valley Fever, Desert Rheumatism



Lung infection by breathing in fungal spores in soil, *Coccidioides spp.*



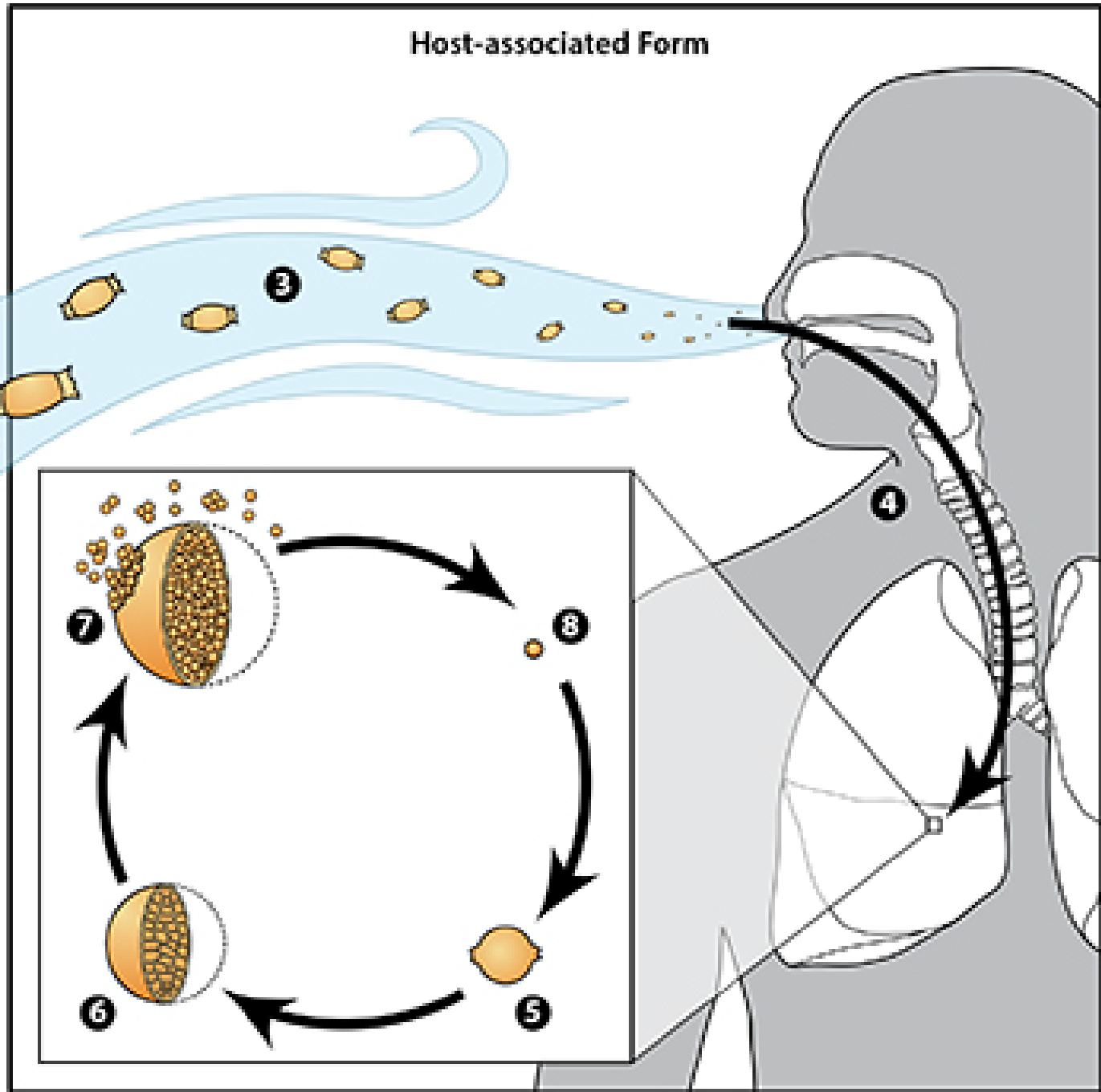
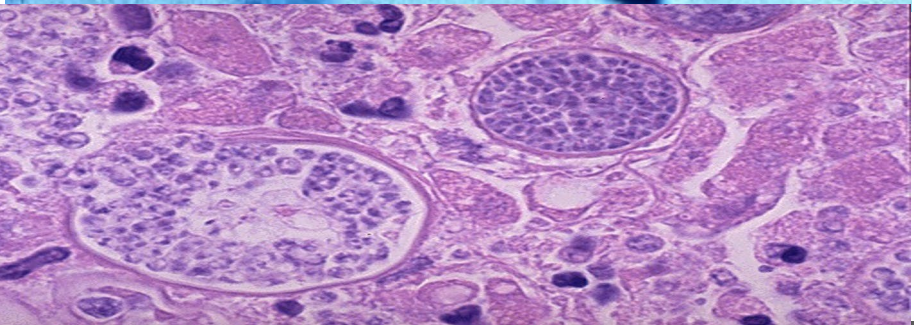
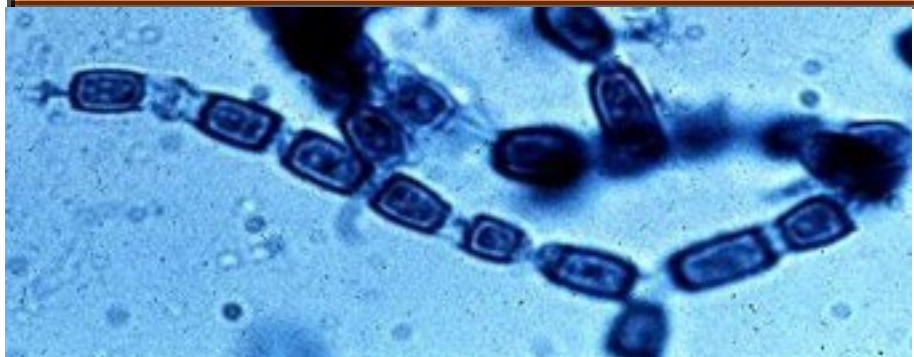
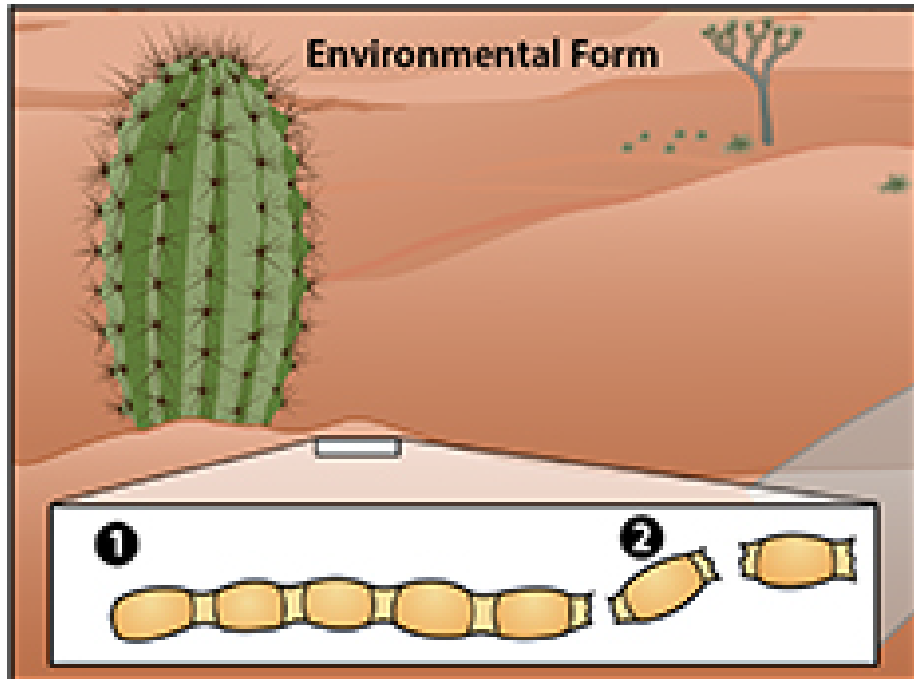
First described in 1892 Argentina
1893 first documented case in U.S., California



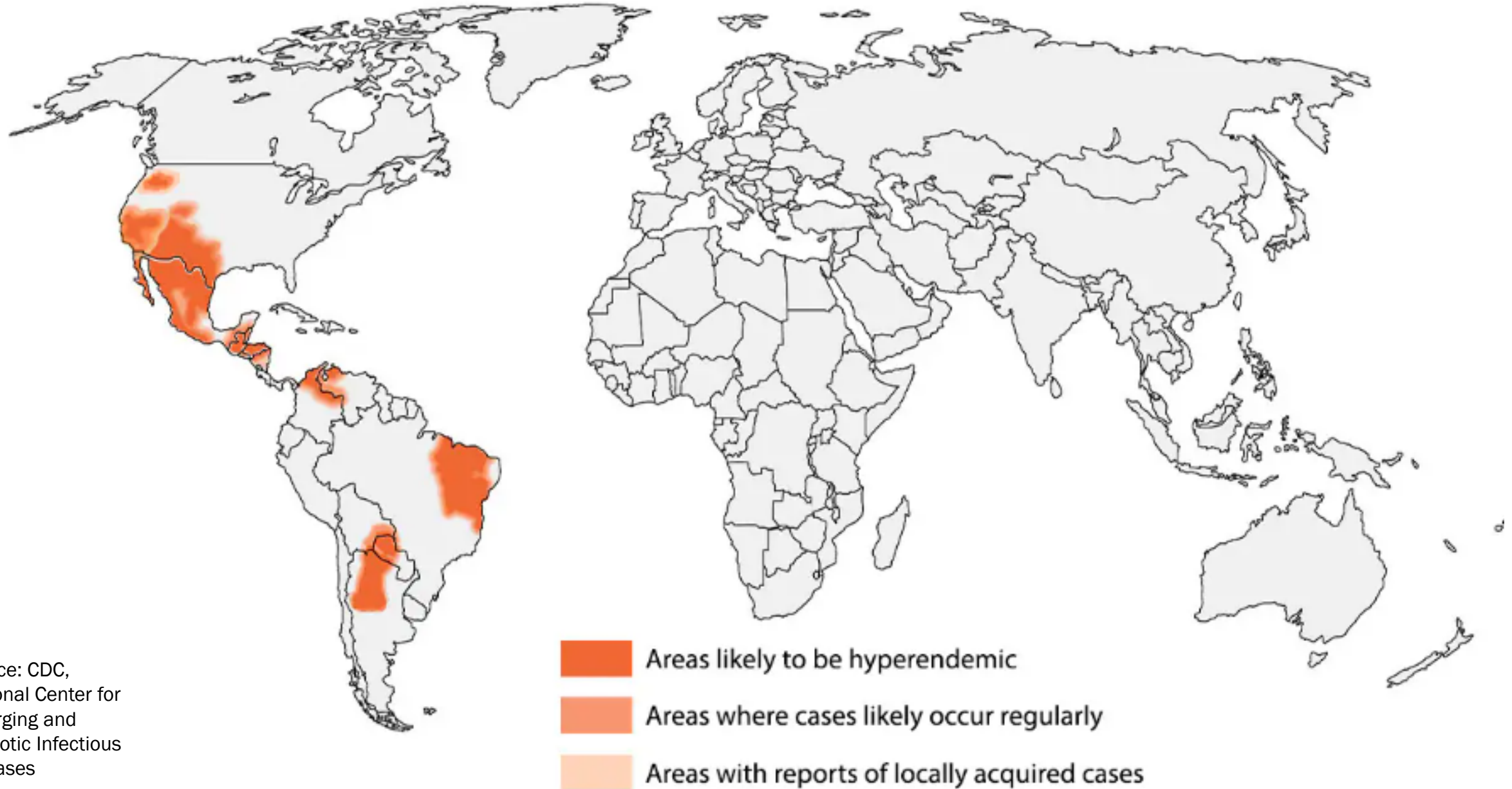
Most U.S. cases: Arizona (~70%), California (~30%);
Increasing climate changes = increasing # of cases



Not contagious; does not spread between people or animals – Often misdiagnosed/undiagnosed

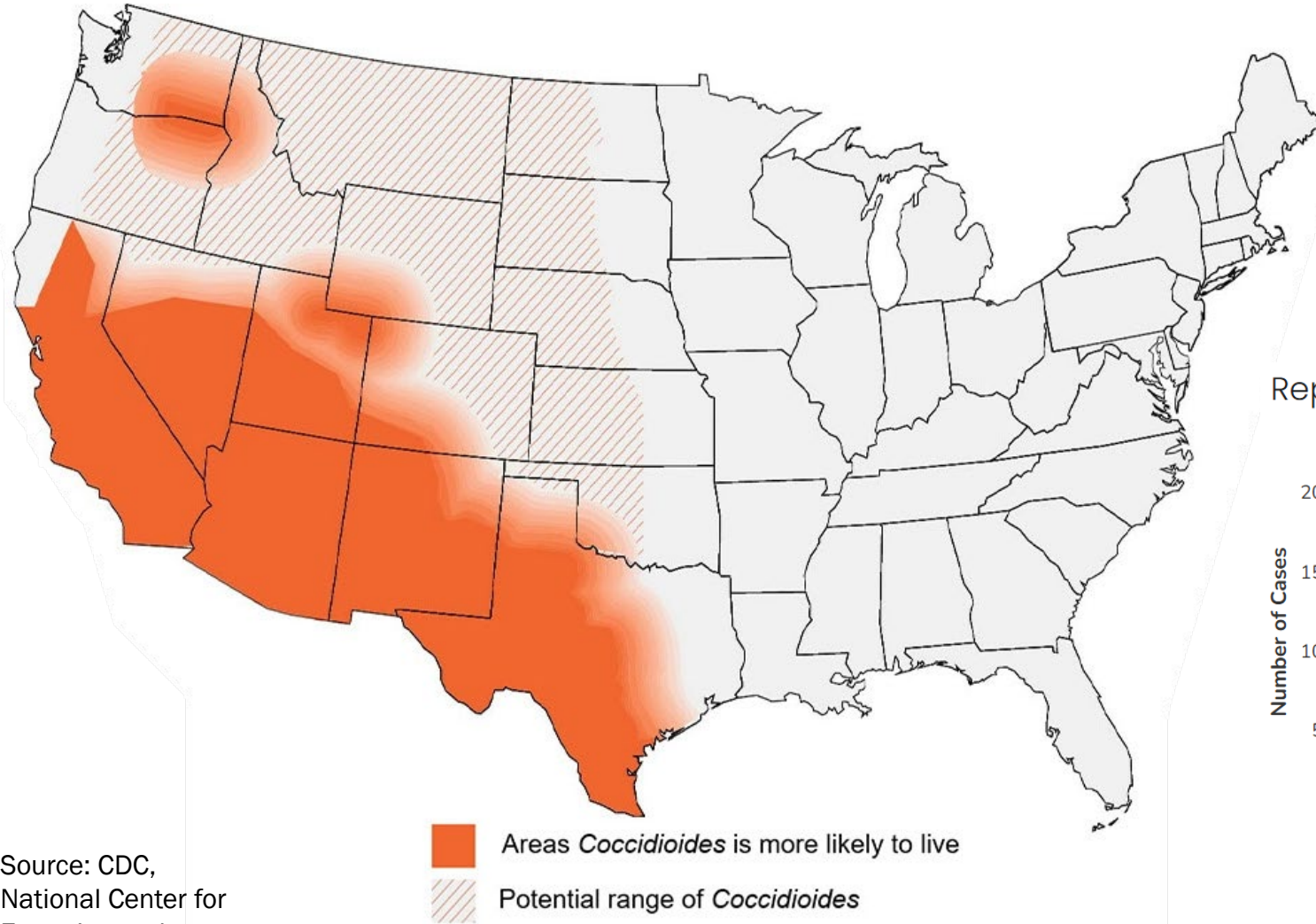


Estimated Areas for *Coccidioides* Worldwide



Source: CDC,
National Center for
Emerging and
Zoonotic Infectious
Diseases

Estimated Areas for *Coccidioides* in U.S.

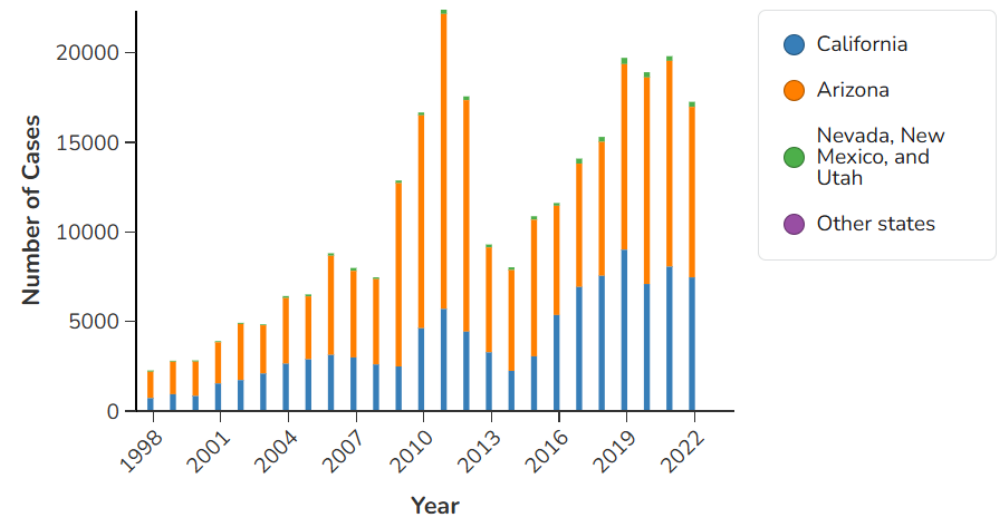


Source: CDC, National Center for Emerging and Zoonotic Infectious Diseases

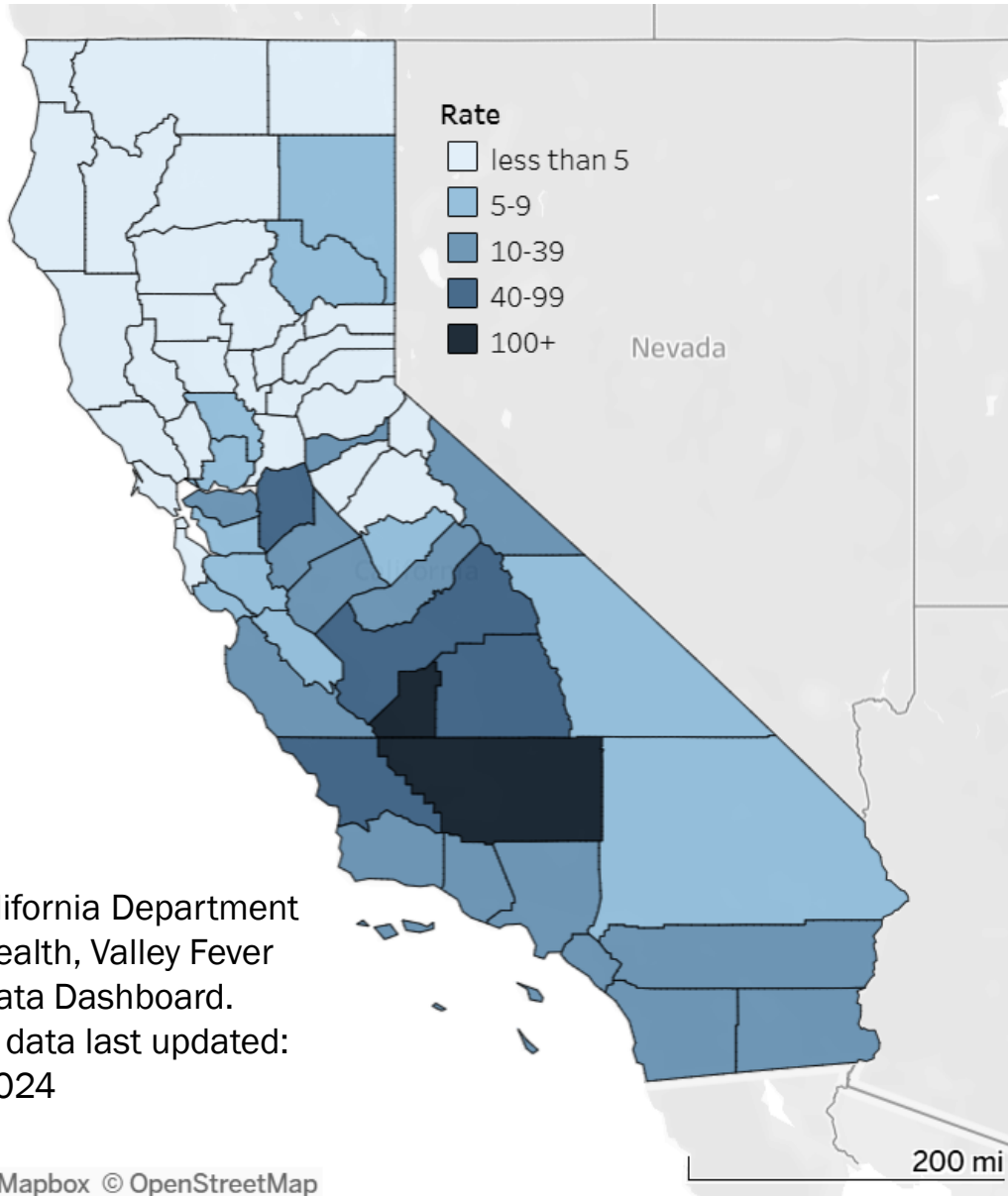
~10,000-20,000 Valley Fever cases/year

~200 VF-related deaths/year, 1999-2021

Reported Valley fever cases, 1998-2022



Valley Fever Incidence Rates by LHJ, California, 2023



Source: California Department of Public Health, Valley Fever Year-end Data Dashboard.
Dashboard data last updated: June 18, 2024

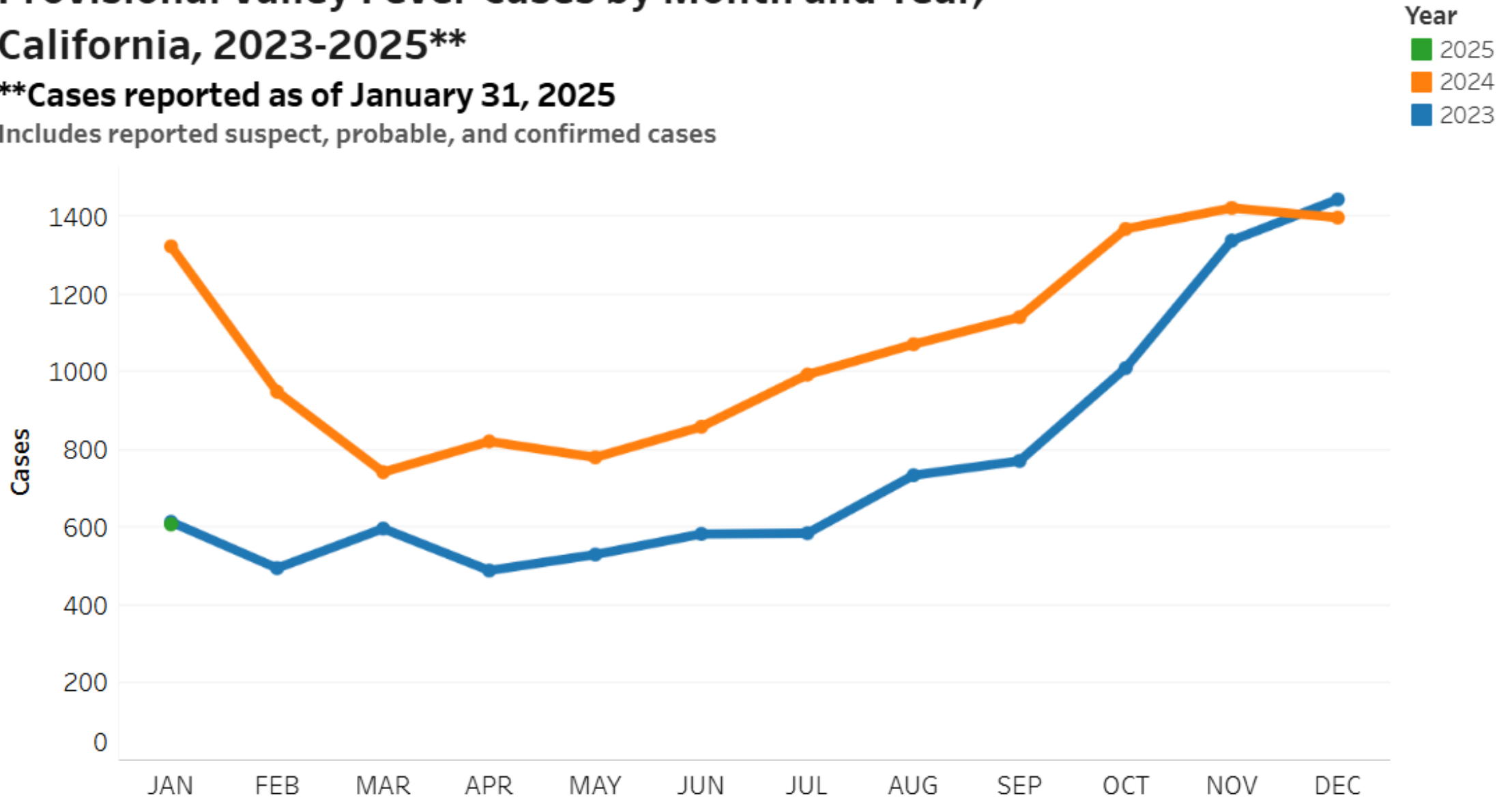
County	Incidence Rate per 100,000
• Kern	330.9
• Kings	176.6
• Tulare	94.7
• San Luis Obispo	84.7
• Fresno	55.8
• San Joaquin	44.4

Valley Fever cases have been reported in all CA counties. Majority of cases are in the central valley and central coast regions.

Provisional Valley Fever Cases by Month and Year, California, 2023-2025**

****Cases reported as of January 31, 2025**

Includes reported suspect, probable, and confirmed cases



Source: California Department of Public Health
Last updated: Feb.19, 2025

Valley Fever Symptoms

60% No symptoms

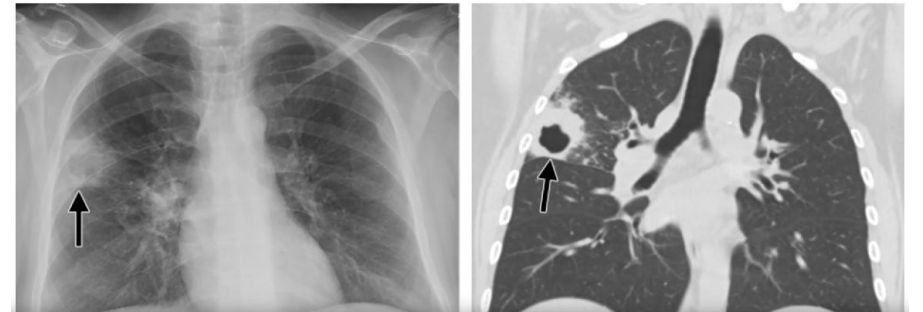
40% Flu-like symptoms

Onset: 1-3 weeks

Duration: weeks to months

5-10% Severe or
long-term lung
disease

1%
Disseminated
disease



Symptoms include: Fatigue, cough, fever and headache, shortness of breath, night sweats, muscle aches or joint pain, rash on upper body or legs. ***If symptoms last for more than a week, contact doctor.***

Valley Fever is often misdiagnosed or undiagnosed.



VALLEY FEVER AWARENESS
PUBLIC HEALTH ENCOURAGING GETTING SKIN TEST



CURRENTS HEADLINES AS CHURCH GUNMAN ESCAPED MENTAL HEALTH FACILITY IN 2

5:00 69°

1% of cases – Disseminated Valley Fever

- Very rare – high risk groups
- Occurs when infection spreads (disseminates) from the lungs to other parts of the body:
 - Skin, bones, joints, liver, kidneys, brain, heart, meninges, etc.
- Symptoms – depends on part of body effected
 - Nodules, ulcers, skin lesions, painful swollen joints, painful lesions in the skull, spine, other bones, etc.
 - VF in brain = fatal if untreated
- Antifungal treatment required, may require hospitalization



High Risk Groups

Exposure risk factors, in endemic areas

- Construction workers
- Agricultural workers
- Archeologists
- Wildland firefighters
- Military personnel
- Mining, quarrying, etc.
- Prisoners

Risk factors for severe or disseminated VF

- Aged 60 years or older
- Pregnancy
- Immunocompromised
- Diabetes
- African Americans
- Filipinos
- Prisoners

Treatment & Health Outcomes

- Most recover w/o medication within months
- After diagnosis – contact doctor/ER if:
 - Trouble breathing, vision or hearing changes, stiff neck, blood in your spit
- Antifungal medication for severe cases,
 - May be hospitalized, may take years to recover
- Meningitis from VF is *fatal* if not treated
- No vaccine, no cure; research is ongoing
- Usually, infection → lifelong immunity
- In rare cases, reactivation/re-infection can occur in immunocompromised



Rick's Story



- 2013, prospecting gold in Mojave, CA, inhaled some dirt
- Became fatigued, developed a cough, had lung pain, chills
- Doctors in Torrance, CA refused to test him
- Initially diagnosed with TB, pneumonia, lung cancer
- Parker demanded valley fever tests; results = positive
- Despite the high infection rate in Kern County, California, and throughout Arizona, there's no mandate for doctors to undergo training on valley fever and how to diagnose it.



Dawn's Story

- In Arizona, Dawn's illness started with a terrible cough. An ERT specialist diagnosed her with laryngitis
- She asked another specialist to test for Valley Fever, but they refused.
- For the next 3 years, her cough and hoarseness continued. Until one day she was struggling to breathe.
- She went to an urgent care, where doctors thought her x-ray showed TB. They sent her to the ER.
- A scan showed her lungs had a hollow cavity that was over 3 in. wide and filled with fluid.
- The drained fluid tested positive for Valley Faver.

Laura's Story



- In June 2020, Arizona, Laura believed she had COVID-19 but tested negative.
- Other tests showed she had pneumonia, but she was not responding to antibiotics.
- She asked to test for Valley Fever, but the results were negative.
- A second test revealed she was positive for Valley Fever.
- Sometimes, first blood test results can be negative, even though they really do have the infection.

VF Outbreak – Construction of Solar Power Farm, Monterey County, 2016-2017

- 9 – confirmed cases
 - 6 – diagnosed coccidioidomycosis pneumonia
 - 5 – visited ED (1–4 times); 1 – hospitalized; 0 – died
 - 7 missed work (median: 14 days; range: 1–320 days)
- 8 interviewed
 - Reported frequent high dust levels on worksite; unable to be controlled
 - No respirator fit testing; infrequent/no use of respiratory protection
 - Only 3 knew what to do if they had symptoms
 - Biologist, paleontologist, electrician, truck driver, iron worker, general laborer
- Incidence rate among solar farm workers *significantly higher* than rates in surrounding counties
 - Suggesting illness was work-related

Cal/OSHA cites 6 employers for exposing workers to Valley Fever

\$241,950 in penalties

Violations included failure to:

- Address Valley Fever as a hazard in the IIPP
- Control dust exposure
- Provide and ensure use of respirators
- Report hospitalized cases

True burden?

- Valley Fever often misdiagnosed/unreported
- Difficult to track out-of-state; out-of-county



NEWS RELEASE

News Release No.: 2017-108

Date: November 20, 2017

Cal/OSHA Cites Six Employers over \$240,000 for Exposing Workers to Valley Fever

Bakersfield — Cal/OSHA has cited six employers \$241,950 for workplace safety and health violations after reports that workers contracted Valley Fever on a solar project construction site in Monterey County.

The employers at the California Flats Solar Project in Cholame Hills were cited for serious violations that included failure to control employee exposure to contaminated dust at the worksite, and failure to provide and ensure use of appropriate respiratory protection. One employer, Papich Construction, Inc., was [cited in 2013 for some of the same violations](#).

"Employers who work in areas endemic to Valley Fever must take preventative measures to protect workers who may be exposed," said Juliann Sum, Chief of Cal/OSHA.

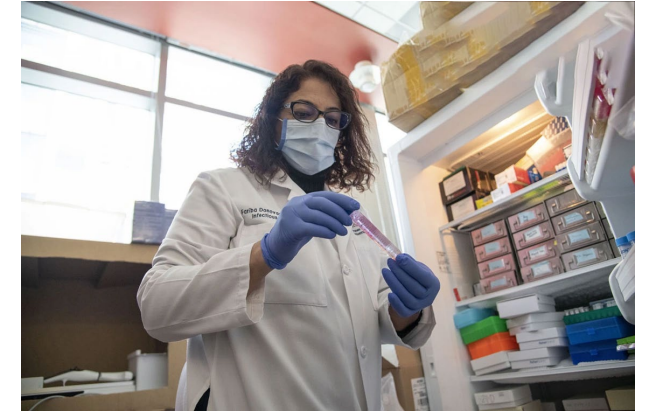
Employers cited include:

Employer	Type	Violation Classification	Proposed Penalties
McCarthy Building Companies, Inc.	General contractor	Serious – 2, General – 2	\$46,540
Papich Construction Co., Inc.	Subcontractor	Repeat Serious – 1, Serious – 1, General – 2	\$68,900
Granite Construction Co., Inc.	Subcontractor	Serious – 2, General – 2	\$46,590
Sachs Electric Company	Subcontractor	Serious – 2, General – 2	\$46,400
Dudek	Subcontractor	Serious – 1, General – 2	\$23,620
Althouse and Meade, Inc.	Subcontractor	Serious – 1	\$9,900

Valley Fever is caused by a microscopic fungus known as *Coccidioides immitis*, which lives in the top two to 12 inches of soil in many parts of the state. When soil is disturbed by digging, driving, or high winds, fungal spores can become airborne and may be inhaled by workers. While the fungal spores are more likely to be present in the soils of the Central Valley, they may also be present in other areas of California. Cal/OSHA's

Ongoing Research

- Vaccine development
- Climate change affects
- Geographic range of endemic areas
- Better soil testing
- Better diagnostic tests
- Better treatment
- Research registries



Prevention and Awareness



Chance of infection highest during the dry season following a rainy season



Avoid very dusty areas, e.g., construction sites, etc.



Stay inside during dust storms



Wear an N-95 respirator when working in dusty environments



Use air filtration measures indoors



Wash hands, change clothes, clean/disinfect surfaces, after being exposed to dust



Address VF hazard in Injury & Illness Prevention Program, respiratory protection plan, employee training



Vaccine available for dogs and horses



If experiencing symptoms for more than a week, ask doctor to test for Valley Fever

- CA DEHS staff available for technical assistance, awareness training, development of awareness materials, safety plans, etc.

Questions?

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