We compiled a coccidioidomycosis (Valley fever) case database for three states in the southwestern United States (US). Currently, county-level, monthly case counts are available from 2000–2015 for Arizona, California, and Nevada. We collected these data from each respective state public health agency. The Valley fever case database is available on GitHub, at https://github.com/valleyfever/valleyfevercasedata. This database may be used to examine relationships between the number of Valley fever cases and hypothesized explanatory variables such as environmental conditions, social determinants, human behavior, occupational activities, public policies, or other risk factors. We aim to provide regular updates to this database and include more states as data become available.

Keywords: Coccidioidomycosis; Valley fever; Coccidioides; epidemiology; mycoses; infectious disease

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1. Overview

Introduction/Study Description

Coccidioidomycosis, also known as Valley fever, is an infectious disease endemic to parts of North, Central, and South America [1]. Humans contract Valley fever when they inhale spores of the fungal genus Coccidioides. In the US, the Centers for Disease Control and Prevention (CDC) estimates Valley fever is currently endemic to southwestern states and arid regions in the Pacific Northwest [2].

We compiled county-level Valley fever case data by month from 2000–2015 in Arizona, California, and Nevada. We collected data from each respective state health agency.

This database will allow researchers and health officials to access aggregated US Valley fever case numbers, foregoing the time it takes to contact each state health agency individually. Access to Valley fever case numbers will accelerate research aiming to study the relationships between Valley fever case numbers and other explanatory variables.

We have previously used this database in a study by Gorris et al. 2018 to examine the relationships between climate dynamics and Valley fever incidence throughout the southwestern US [3] and as a basis for projections of Valley fever in response to climate change [4].

Data for New Mexico are available but were not permitted to be released. These data may be obtained by contacting the New Mexico State Department of Health:

New Mexico Department of Health
1190 St. Francis Drive, Runnels N1361
Santa Fe, New Mexico 87502
https://nmhealth.org/
Epidemiology and Response Division phone number: 1-800-879-3421
Data for Utah are available but were not permitted to be released. These data may be obtained by contacting the Utah Department of Health:

Bureau of Epidemiology  
Utah Department of Health  
PO Box 142104  
Salt Lake City, UT 84114-2104  
http://health.utah.gov/epi/  
Bureau of Epidemiology phone number: 1-801-538-6191  
epi@utah.gov

2. Context

Spatial coverage  
**Description**  
Valley fever case data are available at the county level from the states of Arizona, California, and Nevada in the United States. Counties within the US are assigned a unique Federal Information Processing Standards (FIPS) code for identification.

Temporal coverage  
Data are currently available at the monthly level from 2000/01 to 2015/12. We used the data format (yyyy/mm).

Species  
The data are the number of reported coccidioidomycosis cases caused by the fungi *Coccidioides* spp. and contracted by humans (*Homo sapiens*) in each given month.

3. Methods

Steps  
We collected monthly, county-level data from 2000/01 to 2015/12 by means of personal contact from the following state health agencies:

- Arizona Department of Health Services  
  150 N 18th Ave, Ste 140  
  Phoenix, AZ 85007

- California Department of Public Health  
  PO Box 997377, MS 0500  
  Sacramento, CA 95899

- Nevada Department of Health and Human Services  
  4126 Technology Way  
  Carson City, NV 89706

Quality Control  
Quality control of the data was completed by the respective state health agency and varies by agency.

Constraints  
There are multiple considerations to take when analyzing Valley fever case data. First, techniques for reporting Valley fever cases have changed through time and may have led to increased numbers of Valley fever cases [5].

Second, each Valley fever case was dated corresponding to the month and year which the diagnosing health institution submitted the official Valley fever case report. However, there may be a lag between when someone was infected with *Coccidioides* spp., when symptoms occurred, and when the individual was diagnosed with Valley fever. This lag has been estimated to be between 1 and 1.5 months [6–8].

Third, the location of infection may have not occurred where the official case report was filed. For example, someone may have been exposed to *Coccidioides* spp. during travel.

Privacy  
This data includes Valley fever case numbers only, excluding any personal identifying or demographic information.

Ethics  
Data was collected according to standard ethical principles.

4. Dataset description

**Object name**  
coccidioidomycosis_m2000_2015_v0.1.csv

**Data type**  
Secondary data

**Format names and versions**  
CSV, Version 0.1

**Creation dates**  
Creation of this database began 2015/10

**Dataset creators**  
Morgan E. Gorris, Linh Anh Cat, and Melissa Matlock

**Language**  
English

**License**  
CC-BY 4.0

**Repository location**  
https://github.com/valleyfever/valleyfevercasedata

**Publication date**  
(2019/03/01)

**To contribute data**  
To share data, please submit a pull request. See the GitHub link under Repository location for further instructions.

5. Reuse potential

Valley fever cases in the US have been increasing, causing concern (Figure 1) [3]. The number of Valley fever cases fluctuate by region and through time (Table 1).

This database may be used to examine relationships between the number of Valley fever cases and any hypothesized explanatory variable. Some examples include environmental conditions, social determinants, human behaviour, occupational activities, public policies, or other health risk factors. The data can be used by epidemiologists to compare disease trends across the southwestern
US. It can also be used to educate health care providers on the historical amounts of Valley fever in their region.

The data can be aggregated to examine case number at the state level. The data can also be aggregated to examine data on the annual time-scale. We aim to provide regular updates to this database and include more states as data become available.

Additional File

The additional file for this article can be found as follows:

- **Dataset 1.** Coccidioidomycosis (valley fever) case data. DOI: https://doi.org/10.5334/ohd.31.s1

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Competing Interests

The authors have no competing interests to declare.

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