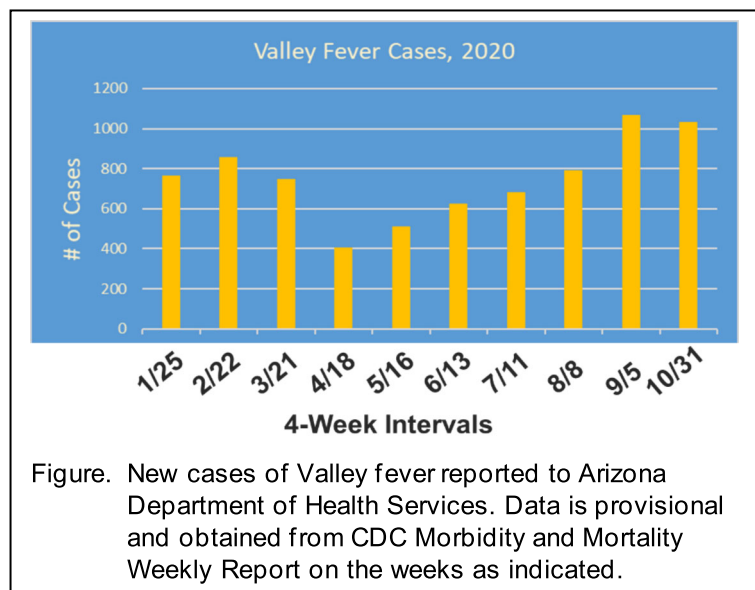


Welcome to the Valley Fever Center for Excellence’s website. Here we try to provide reliable and timely information about coccidioidomycosis, the medical name for Valley fever.

We are now more than one year into the SARS-CoV-2 pandemic which has had such a disastrous impact upon the United States. Arizona and California have been two of the states hardest hit. As of this writing in late February 2021, new COVID-19 illnesses have been decreasing as the seasons holidays are over and vaccinations in this country are being delivered at an increasing pace. With the focus on COVID-19, diagnoses of other respiratory infections that produce very similar symptoms have been diverted and diagnosed less frequently. In part this may be the result of some of the same public health measures – masks and social distancing, implemented to prevent SARS-CoV-2 transmission. Influenza cases are very few to date, maybe for this reason. However, Valley fever is not contagious from person to person, those who are wearing masks these days usually do so only when around others, and therefore it is less likely that COVID-19 precautions would affect the rates of Arizonans contracting Valley fever. Even so, the Arizona Department of Health Services noted, last spring, that as COVID-19 cases were increasing rapidly, there was an unseasonal decrease in reported Valley fever cases (**Figure**). I think it is useful to view this observation as a window into the general question of knowing the full impact of Valley fever on the state in general.



Public health reportable diseases are generally obtained not by systematic prospective testing of the state’s residents but rather by “passive surveillance,” the collection of diagnoses made incidentally in the course of standard medical care. For passive surveillance to identify a new infection several things all must occur: i) a patient with a new infection must seek health care, ii) the health care has to include specific testing for the infection, iii) the test has to be diagnostic, and iv) the new diagnosis has to be reported to public health. In Arizona, positive test results are reported directly by the clinical lab to public health which is very efficient and avoids missing cases for lack of reporting. That Valley fever blood tests are often falsely negative is a known problem [1] but is consistent from month to month. However, the first two steps, patients seeking care and physicians ordering the necessary diagnostic tests, are not nearly as predictable and have the obvious potential for underestimating the number of new infections actually occurring in the state.

Understanding the unexpected decrease in reported new cases of Valley fever shown in the figure may involve both patient and physician behavior. With the SARS-CoV-2 pandemic, people reduced their utilization of medical care to only the most essential. This would have the effect of decreasing the number of patients with Valley fever seeking care unless their illness was particularly impacting their daily lives. Also, the medical community was pre-occupied with diagnosing COVID-19. Patients with respiratory infections frequently sought the specific test for that infection, and when the COVID-19 test was returned as negative, no further evaluation was done. In Banner Health, tests ordered to diagnose Valley fever decreased by 27% from January through April 2020 (Jie Pu, Banner Data Analytics), reflecting the same pattern shown in the figure. While there may actually have been a real drop in new Valley fever infections in the early months of last year, it seems probable that at least some and perhaps most of the lower numbers are the result in patients not seeking care and the needed testing not being done.

Even when we are not in a pandemic, the evidence is that cases of Valley fever are greatly underestimated because standard medical care in Arizona often does not do the needed testing that results in a case report to public health. In one study, two Maricopa County primary care groups were found to test patients with community acquired pneumonia only 2% and 13% of the time [2]. In Arizona emergency rooms, testing for Valley fever in such patients was only 2.8% [3], and in Banner Health urgent care clinics only 10 new Valley fever diagnoses were recorded for the years 2017 through 2019 combined [4]. Consequently, many Valley fever infections are either going undiagnosed completely or diagnoses are delayed for many weeks [4-6]. Recent analyses of the economic impact that Valley fever has on Arizona and California calculated those costs to be \$736 million and \$700 million, respectively [7,8]. If the unreported Valley fever infections were included in those estimates, the cost estimates would be even higher.

In partnership with Banner Health, the Valley Fever Center for Excellence is seeking to improve the rate of early diagnosis of Valley fever by providing resources to frontline clinicians in primary, urgent, and emergency care units, enabling them to identify appropriate patients for Valley fever testing and what to do when new infections are diagnosed. These materials are also available to the entire medical community on our [website](#).

This service to raise awareness of Valley fever within the profession is made possible by the generous donations to the Center by its supporters for which we are very grateful. Any who wish to join in that support can do so by contacting the Center or contributing [online](#).

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