**Director’s Message**

**Valley Fever Center for Excellence**

**November 2024**

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



As I write this, we are entering the 22nd Annual Valley Fever Awareness week, November 16th through 24th. From the first, we have scheduled these yearly observances in mid-November, in part because on average Valley cases are more frequent in the late fall before whatever winter rains we receive on the Sonoran deserts and in part also because winter residents start to return to Arizona at this time.

Since no antifungal drug cures Valley fever and there is not yet a vaccine to prevent it, awareness about the symptoms that this infection causes is currently the most effective defense against this public health problem. Fourteen years ago, colleagues at the Arizona Department of Public Health Services published the results of a large enhanced surveillance survey of every tenth person reported to them in 2009. Of those who were contacted, nearly everyone was willing to take the survey because they wanted to share their experience with the illness and how impactful it was. That survey was a landmark study, made possible by Governor Janet Napolitano who explicitly earmarked $300 thousand for the study. Those who are interested can access the full text of this article at <https://pubmed.ncbi.nlm.nih.gov/21029532/>. From that work, we learned many things. For example, the study found that half of those who were newly diagnosed with Valley fever had been a resident within the endemic region for 12 years or less, and the other half for more than 12 years. This gives us the most recent information about the annual risk of getting Valley fever, averaging approximately 4% per year. Another finding was that infections occurred in all segments of the population. Perhaps the most important finding from a public health perspective was that persons who knew about Valley fever **BEFORE** they became ill received a diagnosis sooner than those that did not because **THEY ASKED THEIR DOCTOR TO BE TESTED**. This study finding provides a strong argument for public health workers to be involved with tracking this disease and helping with the awareness effort.

Awareness of the overall impact of Valley fever to those at risk of infection is also very important. Lost productivity has been estimated to be at least $1.5 billion annually within the Valley fever endemic regions of Arizona and California. This impact is concentrated on a population of just 7.5 million people: 5.8 million in Maricopa, Pinal and Pima Counties of Arizona and 1.7 million in Kern, Tulare, King, and San Louis Obispo Counties of California. This calculates to annually roughly $200 per person. These statistics provide a compelling rationale for public funds to be used to control this problem. And, as shown in the table, there are many things that could be done if resources were available to accomplish them.

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| What would successful management of Valley fever look like? | | |
|  | * Arizonans know about VF (many don’t). | |
|  | * Clinicians manage VF correctly. | |
|  | * Precise diagnostics: | |
|  |  | * Sensitive Point-of-Care tests. |
|  |  | * Tell VF from lung cancer without surgery. |
|  |  | * Blood test for genetic risk of severe VF. |
|  | * Drugs that cure VF. | |
|  | * Prevention: risk reduction and vaccines. | |

The Valley Fever Center for Excellence has been working towards all of these solutions for nearly 29 years since it was first approved to be established at the University of Arizona by the Arizona Board of Regents. The Center’s most visible accomplishment thus far has been the discovery of a vaccine to prevent Valley fever. A commercial partner, Anivive Lifesciences, has licensed this invention and is currently pursuing the approval of a veterinary product to prevent Valley fever in dogs with the possibility that it will be available in the second half of next year. Anivive has also secured a contract from the NIH for up to $33 million to advance this vaccine to a first-in-human clinical study. This discovery earned the Valley Fever Center the Inventor-of-the-Year-Academia from the Arizona Technology Council, awarded at the [Governor’s Celebration of Innovation](https://healthsciences.arizona.edu/connect/honors/valley-fever-center-excellence-receives-innovation-award) ceremony earlier this month.

I would like to emphasize that had there not been a Valley Fever Center for Excellence, there would not be a Valley fever vaccine discovery. The co-inventors of the vaccine, Marc Orbach PhD and Lisa Shubitz DVM only came to work together because the Valley Fever Center encouraged them to steer their individual research toward this disease. The Center has existed since 1996 because of the generous support of individual donors. Now more than ever that support is needed to keep the Valley Fever Center able to continue its research and the benefits to Arizona that will come of it.

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