

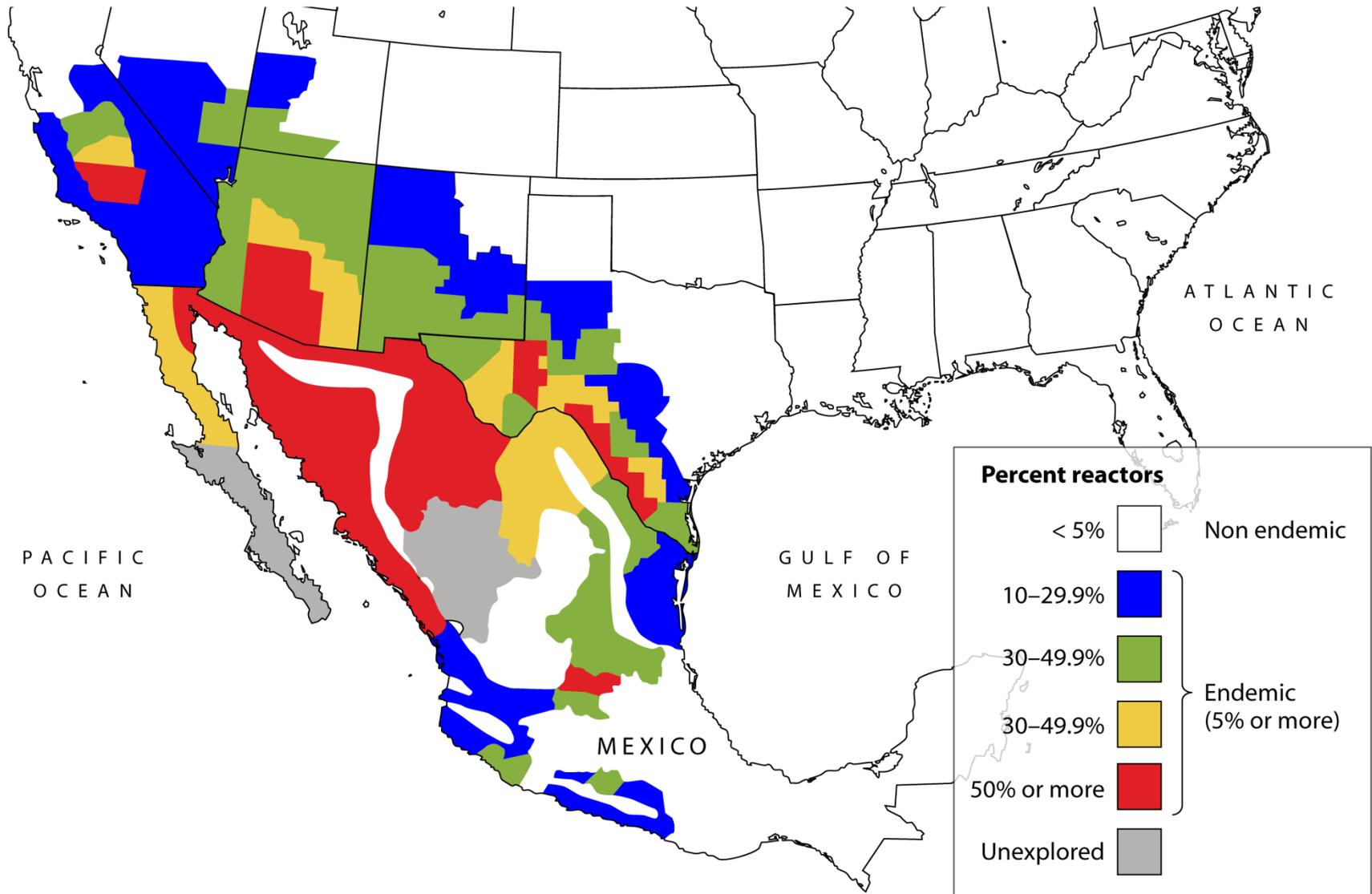
Valley Fever
Think Globally
but
Act Locally

John N Galgiani MD
AzDHS ID Training Conference
July 24, 2013
www.vfce.arizona.edu

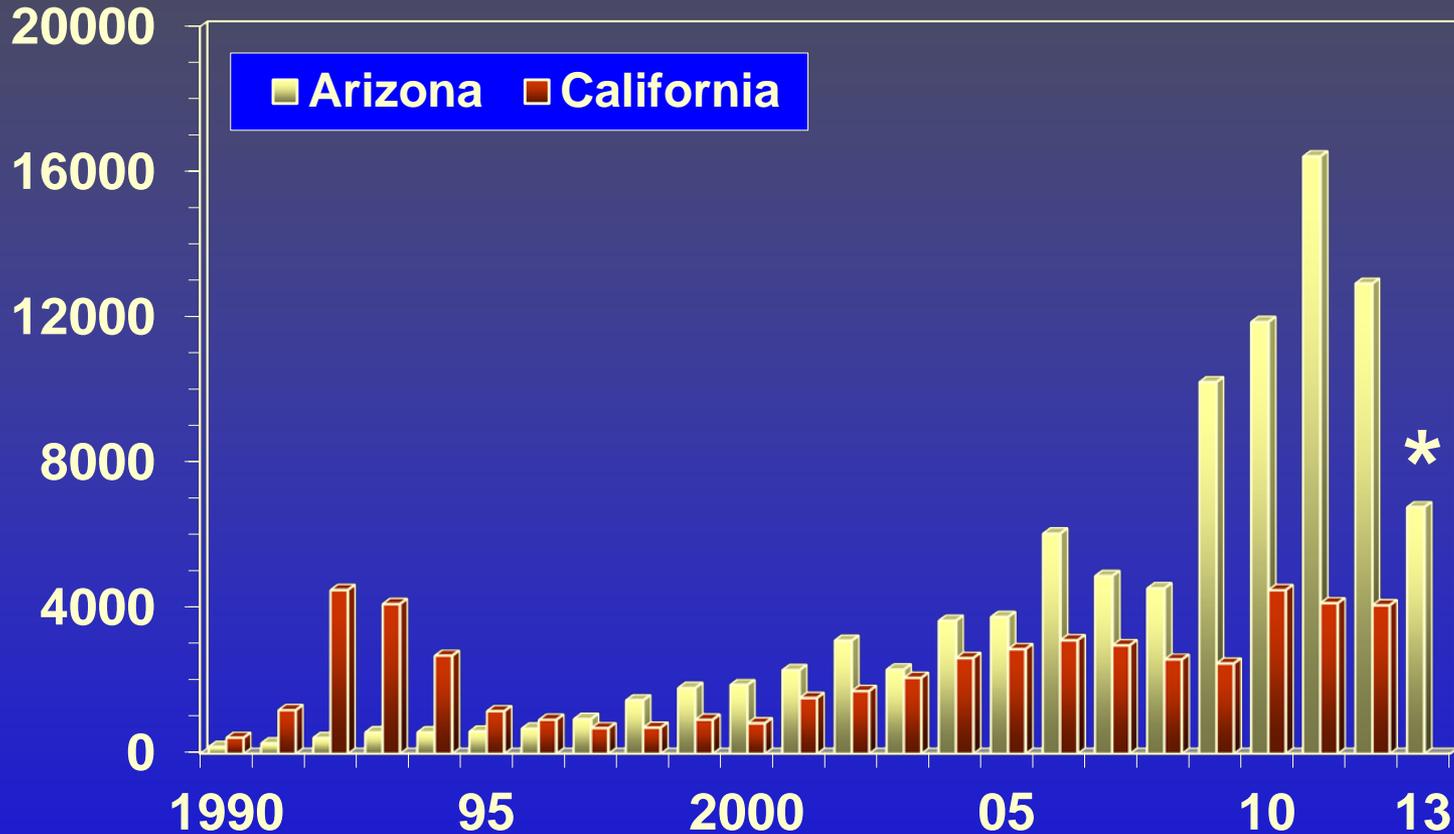
Valley Fever is a Western Hemisphere Disease



Valley Fever is a Western Hemisphere Disease

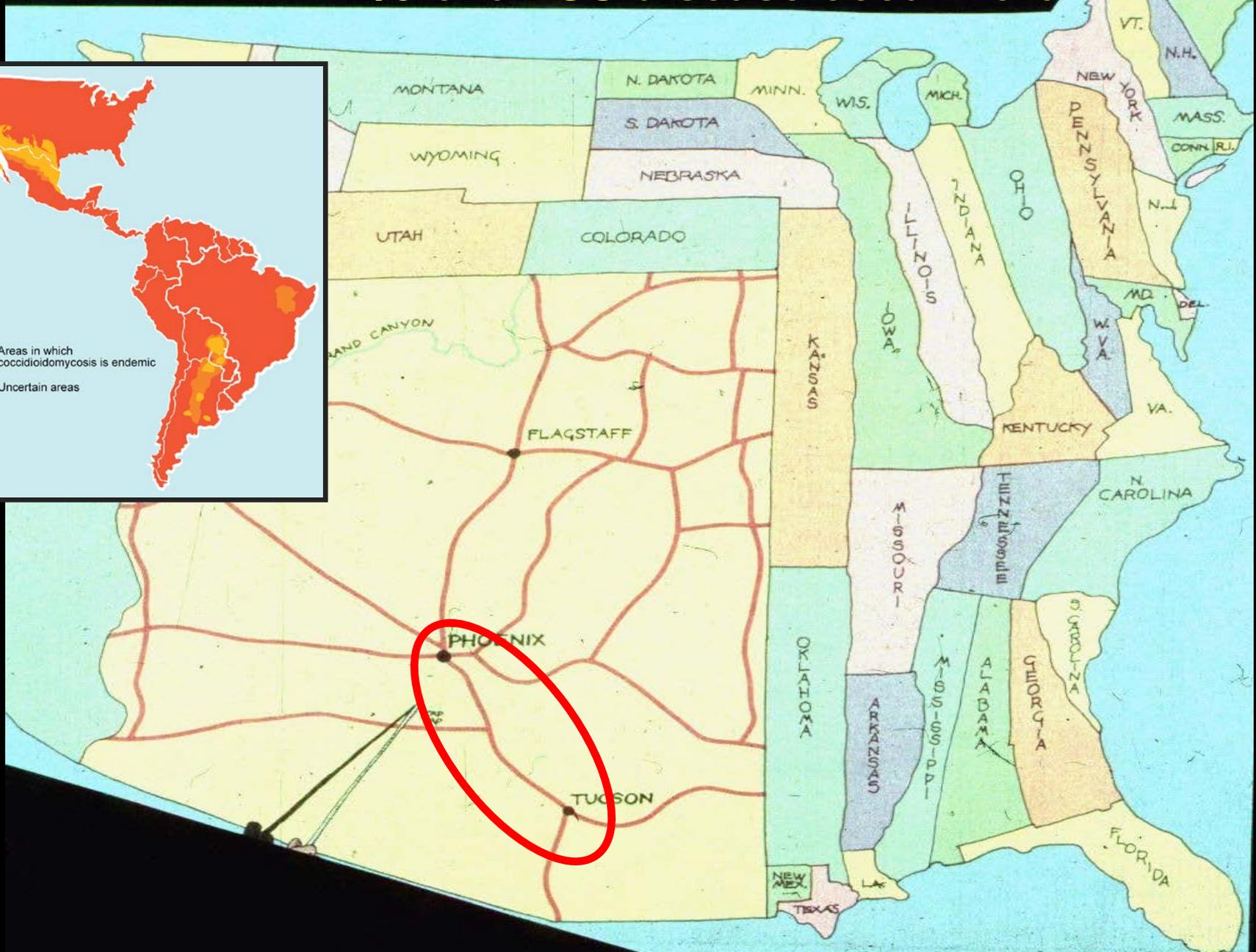


Reported Valley Fever



*Extrapolated from
Jan-June of 2013

The Valley Fever Corridor: 2/3 of all US disease occur here



Coccidioidomycosis Spectrum of Disease



THE ARIZONA REPUBLIC

Founded in 1890 ■ A Gannett newspaper ■ Incorporating The Phoenix Gazette

EUGENE C. PULLIAM
1889-1975 ■ Publisher, 1946-1975

JOHN ZIDICH
President and Publisher

EDITORIALS REPRESENT the opinion of the newspaper, whose Editorial Board consists of: John Zidich, Joanna Allhands, Monica Alonzo-Dunsmoor, Steve Benson, Phil Boas, Jennifer Dokes, Cindy Hernandez, Kathleen Ingley, Robert Leger, Randy Lovely, Doug MacEachern, Robert Robb, Bob Schuster, Linda Valdez and Ken Western

THE ISSUE: VALLEY FEVER



MICHAEL CHOW/THE ARIZONA REPUBLIC

Left fielder Conor Jackson dives for a double during an April game at Chase Field. The D-Backs are not sure when he will return.

MYSTERY DISEASE BRINGS HOME NEED FOR ACTION

When a mysterious disease puts a Major League Baseball player on the disabled list, people tend to notice.

Conor Jackson has valley fever. The case took months to diagnose. There's no cure or vaccine. The D-Backs outfielder, who has been too weak for workouts, could spend the season recuperating.

managing the disease.

The initiative, called the Valley Fever Corridor Project, has raised a third of the \$60,000 budget for the coming fiscal year. Surely, Arizonans can come up with the rest and drum up support for the rest of the five-year program.

Then, let's get serious about the bigger picture. Valley fever usually causes nothing worse than flulike

“The case took months to diagnose. There’s no cure or vaccine. The D-Back’s centerfielder, who has been too weak for workouts, could spend the season recuperating.”

-June 8, 2009 -

Common “Mild” Valley Fever

- Manifestations:
 - Cough, chest pain, fever, weight loss
 - Fatigue
 - Bone and joint pains (a.k.a. Desert Rheumatism)
 - Skin rashes (painful or intense itching)
- Course of illness:
 - Weeks to months
 - 1 of 4 college students are sick for > 4 months
 - 4-fold more drop a semester for Valley Fever than for Mononucleosis

In Southern Arizona A third of all pneumonia is Valley Fever

Visitors to Arizona have the same risk
soon after returning home

1,300/yr Az tourists with Valley Fever

Valdivia et al, Emerg. Inf. Dis, 2006

Valley Fever in Arizona

Findings from an AzDHS telephone survey
10% of reported cases in 2007

Impact on People

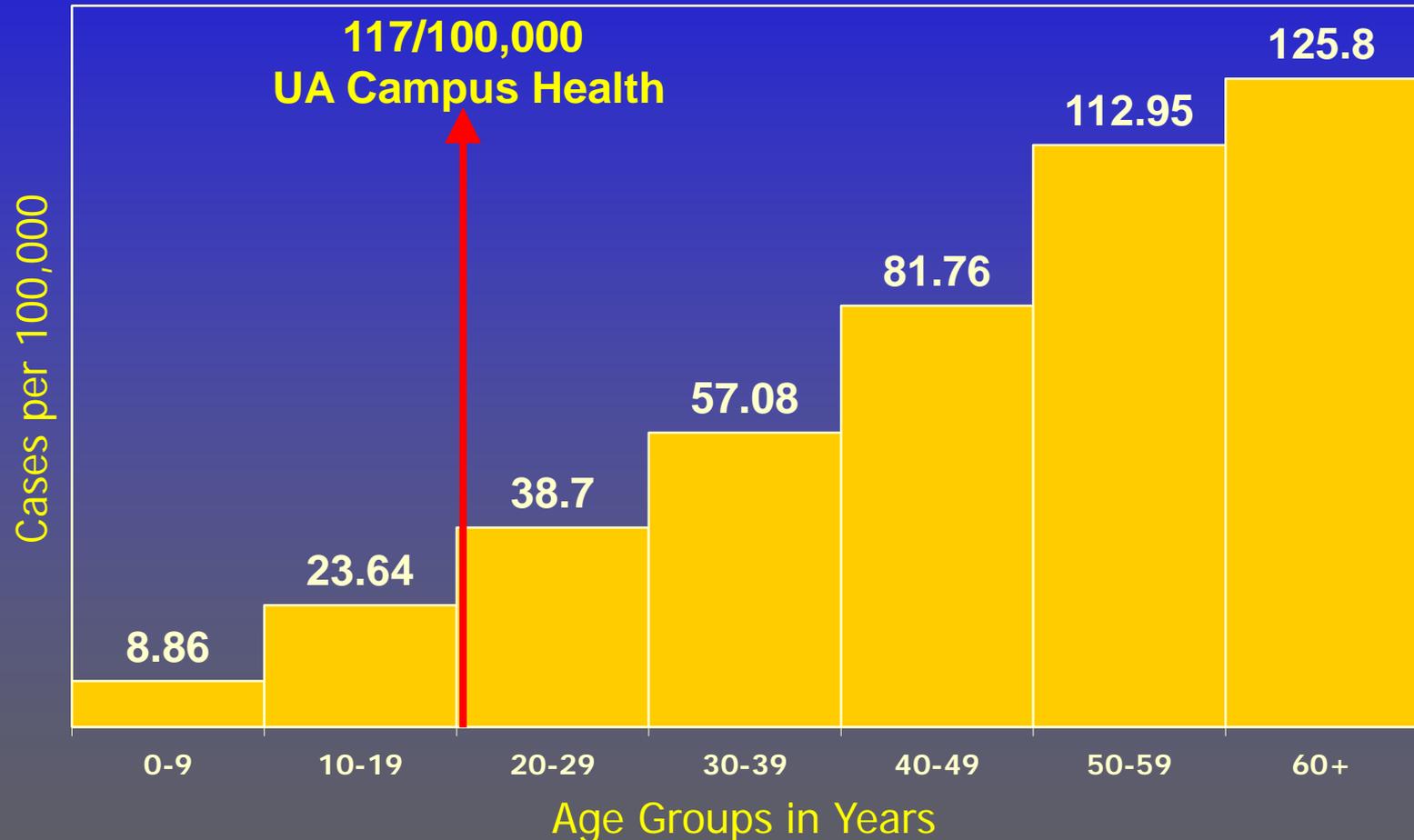
- Illness lasted an average of 6 months
- 75% of workers off for over 1 month

Impact on Health Care

- 25% needed more than 10 doctor visits
- 40% hospitalized (\$86 million in 2007)

Patients who knew about Valley Fever were diagnosed sooner than those that didn't

Age Specific Rates of Reported Coccidioidomycosis in Arizona, 2004*



N Stern Emerg. Inf. Dis. 2010

Valley Fever at UA Campus Health 1998-2006

<u>Patient group</u>	<u>Cases per 100,000</u>	
	<u>Incidence</u>	<u>95% CI</u>

Scholarship Athletes:

475 per yr 374 192-639

Non-Athletes:

35,525 per yr 90 79-103

Chi square, $p < 0.00001$

Valley Fever at UA Campus Health 1998-2006

<u>Patient group</u>	<u>Percent Tested</u>	
	<u>Tested</u>	<u>95% CI</u>
<u>Athletes:</u>		
197 tests	4.6%	3.9%-5.4%
<u>Non-Athletes:</u>		
2,558 tests	0.8%	.77%-.84%

Chi square, $p < 0.000001$

Organizing around Valley Fever in Arizona

1978: Galgiani arrives in Arizona

1995: Galgiani goes on a sabbatical

1996: Valley Fever Center for Excellence
created.

2003: First Arizona Valley Fever
Awareness week.

Janice K. Brewer
Governor

Office of the Governor

*** ARIZONA VALLEY FEVER WEEK ***

WHEREAS, Valley Fever infections have increased significantly in Arizona over the last decade, with 60% of all reported cases of Valley Fever in the U.S. occurring in Arizona; and

WHEREAS, Valley Fever is the second most commonly reported infectious disease in Arizona; and

WHEREAS, enhanced surveillance of Valley Fever cases demonstrates the serious impact Valley Fever has on the health of our citizens and on Arizona's healthcare system; and

WHEREAS, the Arizona Department of Health Services, governmental entities, corporations, and organizations are united to educate the public and healthcare providers about Valley Fever in Arizona; and

WHEREAS, through public education and promoting early diagnosis, the number of individuals impacted by Valley Fever may be reduced; and

WHEREAS, Arizona is the focal point of quality clinical care and research for Valley Fever.

NOW, THEREFORE, I, Janice K. Brewer, Governor of the State of Arizona, do hereby proclaim November 2-10, 2011 as

*** ARIZONA VALLEY FEVER WEEK ***

in recognition of the outstanding treatment and research conducted by the Valley Fever Center for Excellence at the University of Arizona and of the advances in Valley Fever education and public health by the Arizona Department of Health Services.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona



Janice K. Brewer
GOVERNOR

DONE at the Capitol in Phoenix on this twelfth day of October in the year Two Thousand and Eleven, and of the Independence of the United States of America the Two Hundred and Thirty-sixth.
ATTEST

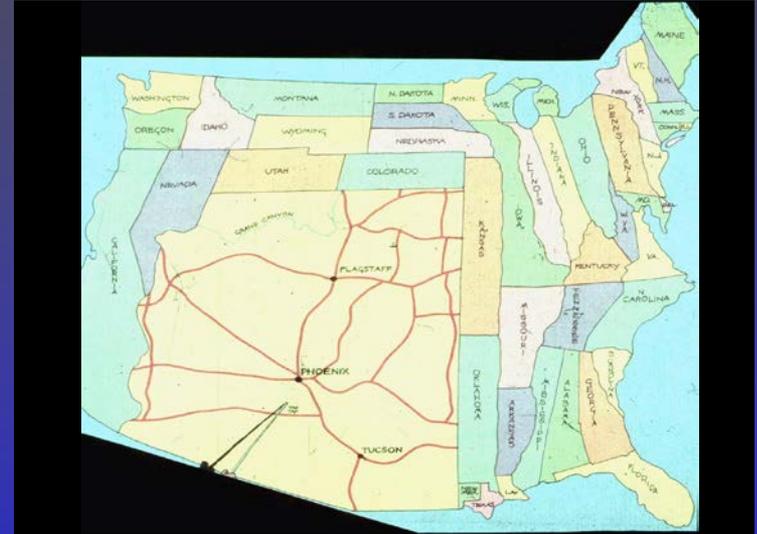
Kim Blumenthal

Secretary of State

**11th Annual
Valley Fever
Awareness
Week
November
9th – 17th
2013**

Valley Fever Corridor Project

- Started in 2008
- Goals
 - Increase understanding
 - Assist clinical research
 - Improve patient care (VFAAC)



Valley Fever Alliance of Arizona Clinicians (VFAAC)

Patient
Needing
Help

Another
Subspecialist

Primary
Care
Clinician

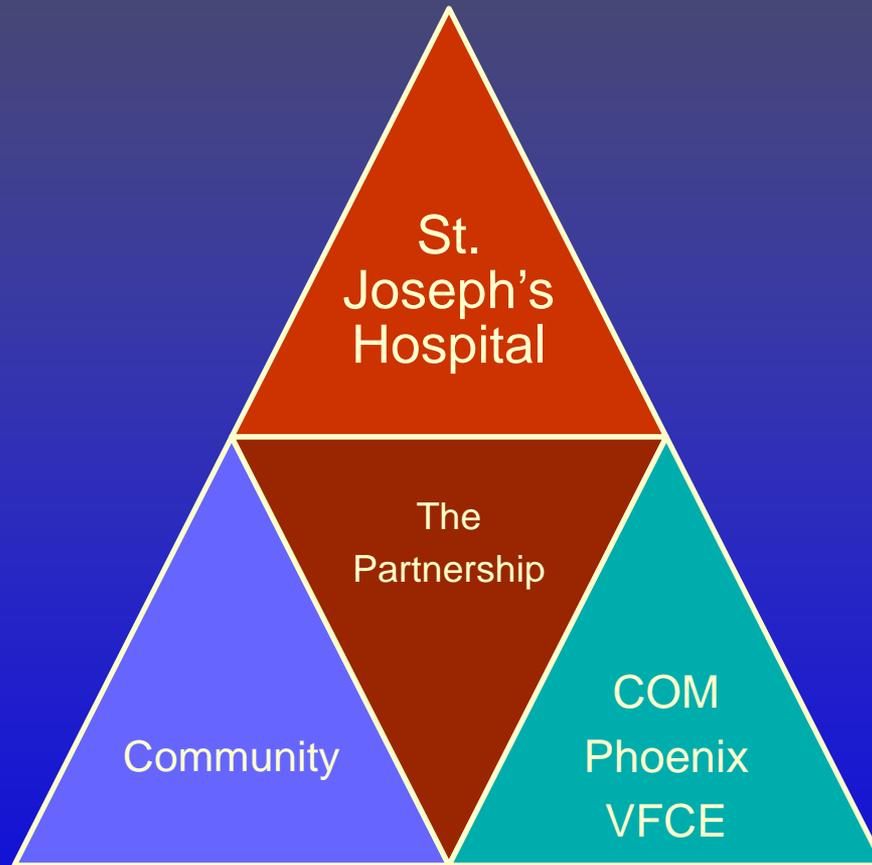
Subspecialist



Valley Fever Center to open in Phoenix

by Ken Alltucker - Oct. 5, 2011 12:00 AM
The Arizona Republic

Valley Fever Center in Phoenix: June, 2012



Valley Fever Center in Phoenix

First Year Summary

Source of 420 Inquires

- 61% Arizona
 - Maricopa (86%)
 - Pima/ Pinal (9%)
- 13% California
- 3% each WA, TX
- 2% each UT, CO, NY
- ≤1% each of 22 states
- Also
 - Canada, Australia, Italy,
 - Spain, Argintina

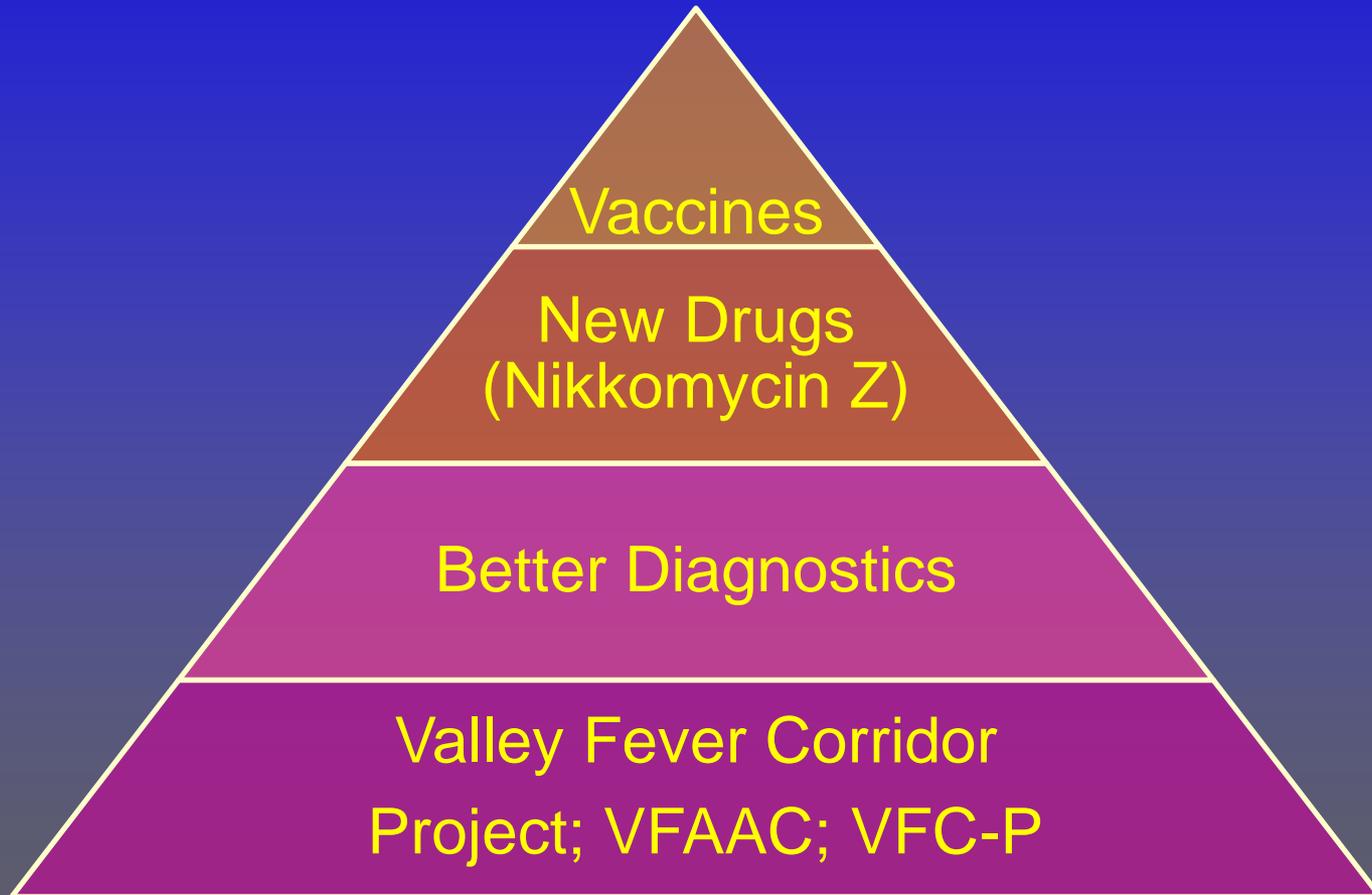
Types of Problems (132 patients)

- 25% Valley Fever
 - unlikely or inactive
- 36% “Mild” Valley Fever pneumonia
- 22% Complicated Valley Fever pneumonia
- 15% Disseminated Valley Fever

Benefits from a VFC in Phoenix

- Build on existing expertise in Arizona
 - Doctors across Arizona can be a part of VFC/P.
 - All clinicians share a common EMR (MobileMD)
- Provide integrated management plans tailored to the specific needs of each patient.
- Provide case management services to ensure that planned care is provided.

Clinical Network and Research



Valley Fever Costs to Arizona

Educate Arizona patients
and doctors

\$100 thousand/year

Referral network and case
management

\$300 thousand/year

Diagnostic test
development

\$1.5 million

Nikkomycin Z development

\$40-\$60 million (if things
go well)

Vaccine development

\$40 million **before**
clinical trials could begin

Doing nothing

**\$86 million per year
just for hospital costs**

Thank-you

Valley Fever Center for Excellence



College of Medicine

