



Managing Valley Fever for Arizonans.
It All Starts with Awareness
Arizona Telemedicine Program, November 13, 2025

Conflicts of Interest

John Galgiani, Robert Johns, and Banner patient

None to disclose

23rd Valley Fever Awareness Week

November 8-16, 2025



COLLEGE OF MEDICINE TUCSON
Valley Fever Center
for Excellence



Proclamation

WHEREAS, Valley fever cases in Arizona have increased over the last decade, with roughly 56% of all nationally reported cases of Valley fever occurring in Arizona; and
WHEREAS, Valley fever is one of the most commonly reported infectious diseases 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, Valley fever remains an ongoing and costly public health problem, deserving continued attention; and
WHEREAS, the Arizona Department of Health Services, the Arizona Board of Regents, other government agencies, businesses, and community organizations are united to educate the public and healthcare providers about Valley fever in Arizona; and
WHEREAS, through public education and promotion of 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, Katie Hobbs, Governor of the State of Arizona, do hereby proclaim November 8 – 16, 2025, as,

VALLEY FEVER AWARENESS WEEK



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

GOVERNOR

DONE at the Capitol in Phoenix on this sixteenth day of October in the year Two Thousand and Twenty-Five and of the Independence of the United States of America the Two Hundred and Fiftieth.

ATTEST:

SECRETARY OF STATE



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Valley Fever: What's the Problem?

CAUSE

- A soil fungus, *Coccidioides*.
- Inhaling a single spore results in infection.
- CDC estimates 500,00 infections per year across western U.S.¹
- Extreme weather makes it worse.²

ILLNESS³

- Some never get sick.
- Others develop pneumonia and symptoms last weeks to months.
- A few have the infection become chronic and spread to skin, bone, or cause meningitis.
- Valley fever can be fatal.

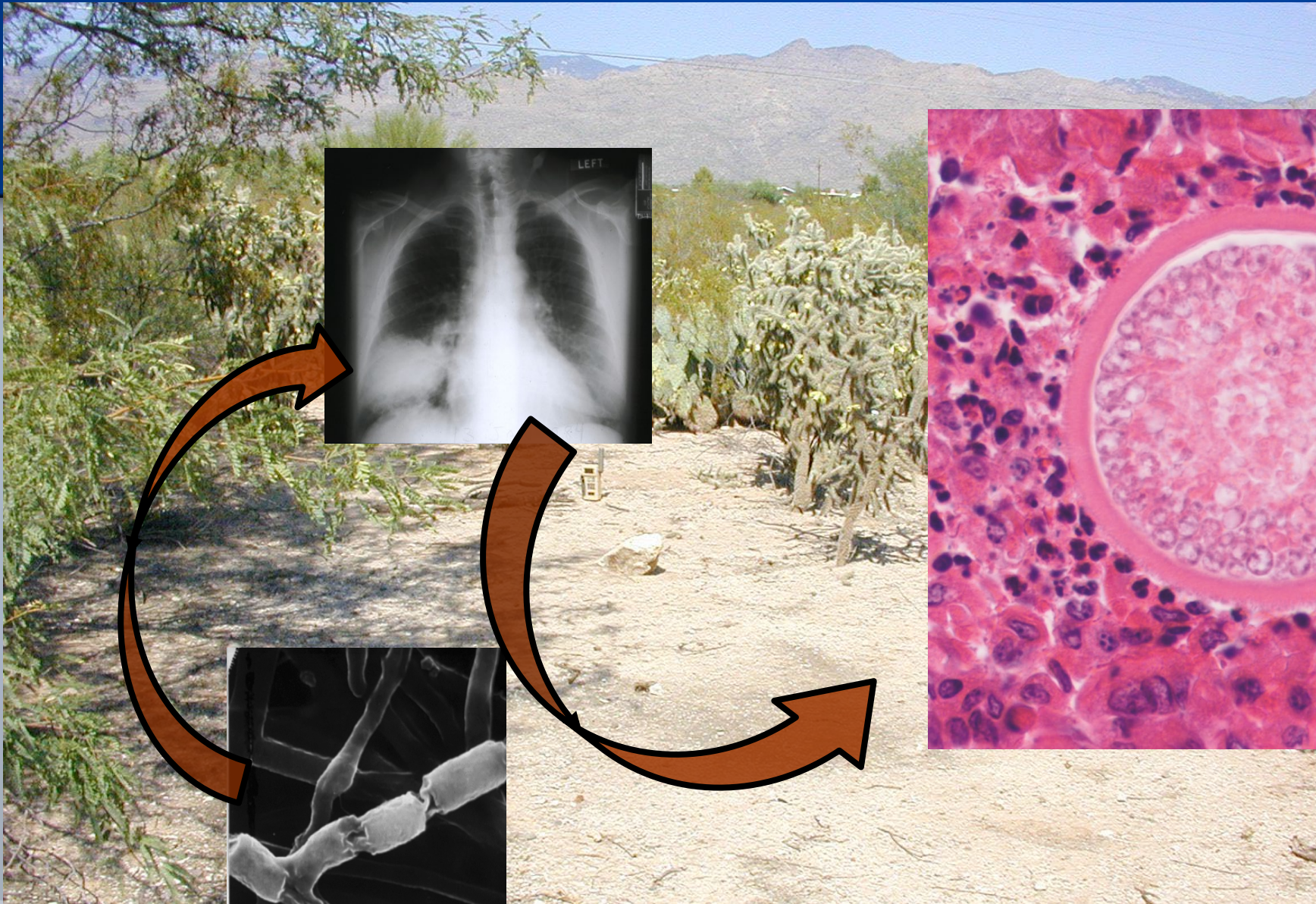
IMPACT

- >\$1.5B annually.^{4,5}
- Worst for:
 - >65 years old
 - People of color
 - Pregnancy
 - Immunosuppressed
- Similar to:
 - Polio
 - Chicken pox
 - Measlesbefore their vaccines.

**INFECTION PRODUCES
LIFELONG PROTECTION**

**A VACCINE COULD DO
THE SAME THING**

¹Williams, 2025 ²Gorris, 2021
³Galgiani, 2024 ⁴Wilson, 2019
⁵Grizzle, 2021

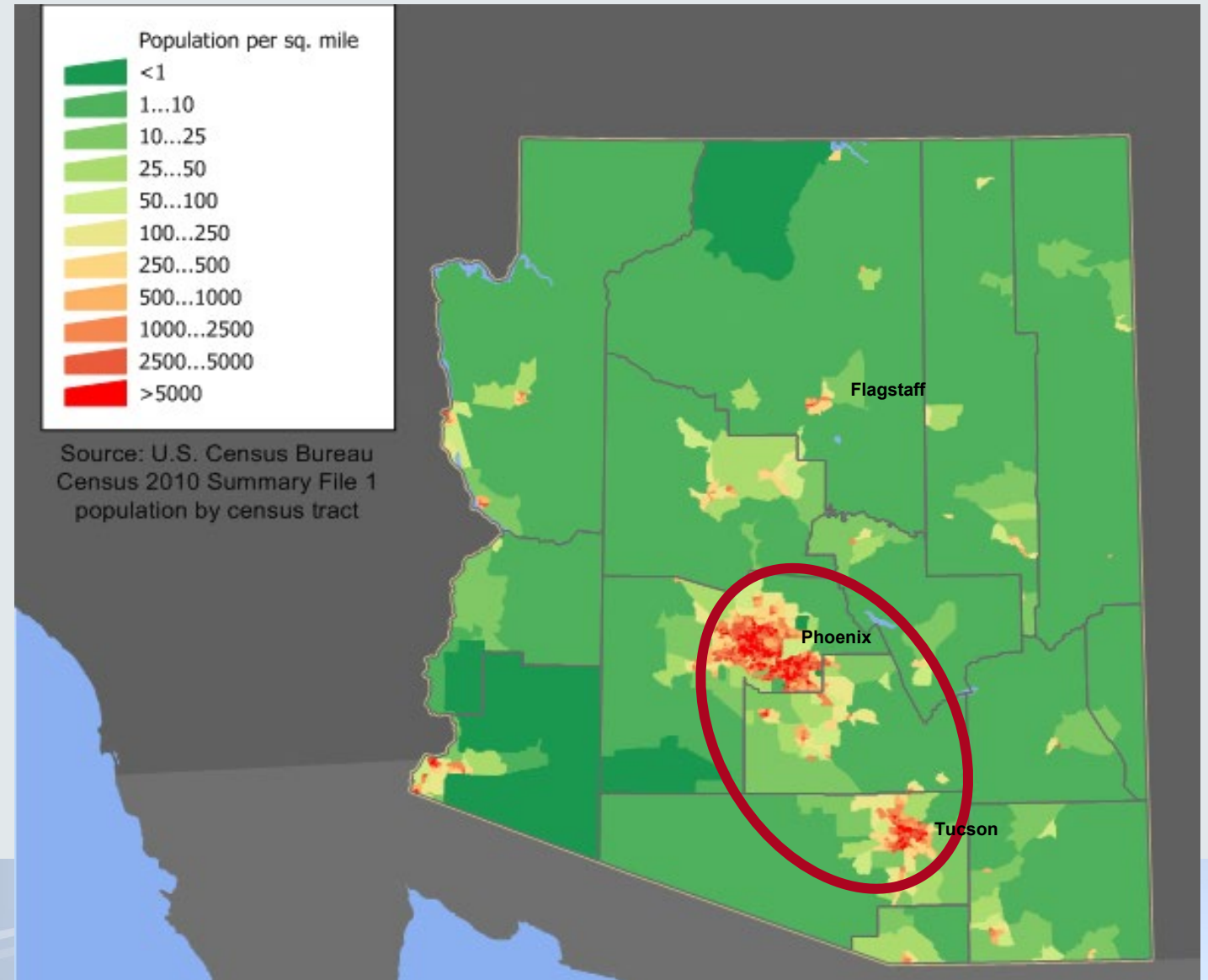


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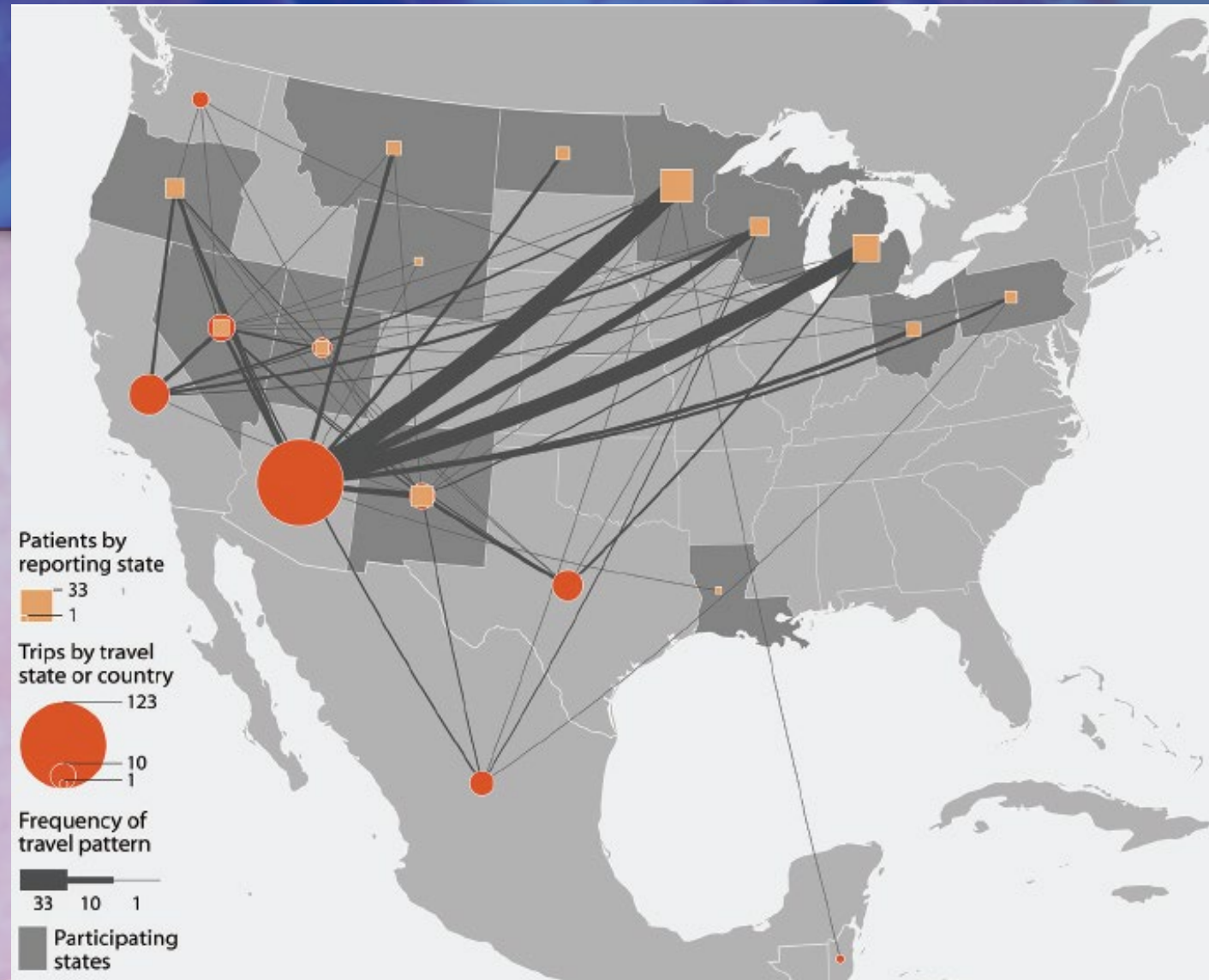
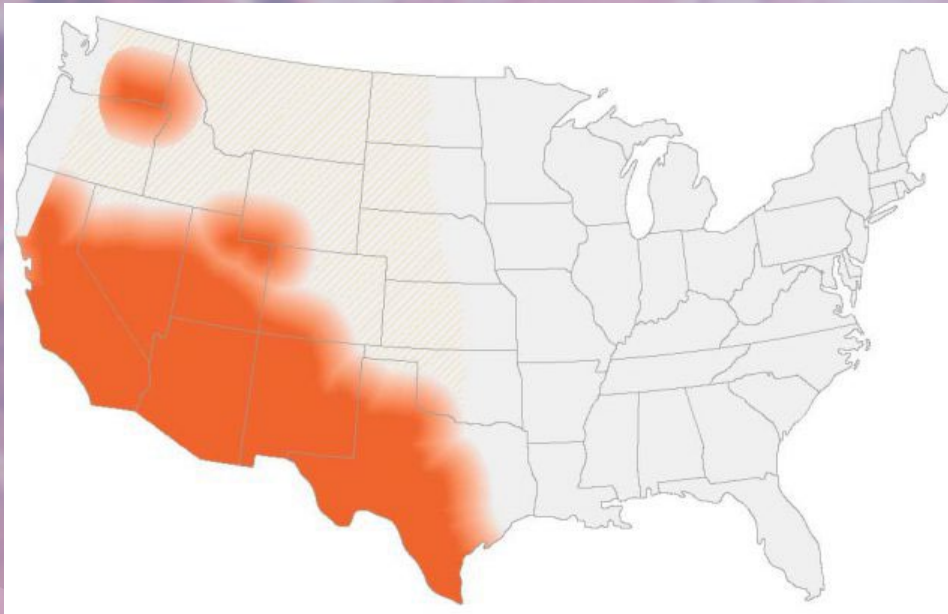
The Valley Fever Corridor

2/3 of all U.S.
disease occurs in
Arizona



Travel Makes Valley Fever a National Problem

CDC Valley fever Map



Benedict et al. EID 2018

Woods' ills caused by Valley Fever

By SUSAN CARROLL, Citizen Staff Writer

Loren Wood's lamented absence from the NCAA Tournament, his two back surgeries and upcoming months of physical therapy are being blamed on one culprit: valley fever.

TUCSON CITIZEN: May 5, 2000



The Associated Press

Loren Woods held a news conference yesterday to discuss his health and playing status. His absence from the NCAA Tournament is being blamed on valley fever.

Former Arizona Wildcats linebacker Sterling Lewis dies at 32 from valley fever

Justin Spears Feb 28, 2020 Updated Mar 6, 2020



19 UA Football-p3 dk : University of Arizona linebacker Sterling Lewis (STERLING LEWIS), right, defends David Roberts (DAVID ROBERTS), left, during practice at the Rincon Vista Practice Complex on August 18, 2009 in Tucson, Ariz. Photo by Dean Knuth/Arizona Daily Star *NO MAGS/NO SALES/MANDATORY CREDIT* Ref # 146181 Dean Knuth

MICHAEL BATES

***WANTS YOU TO KNOW ABOUT
VALLEY FEVER***



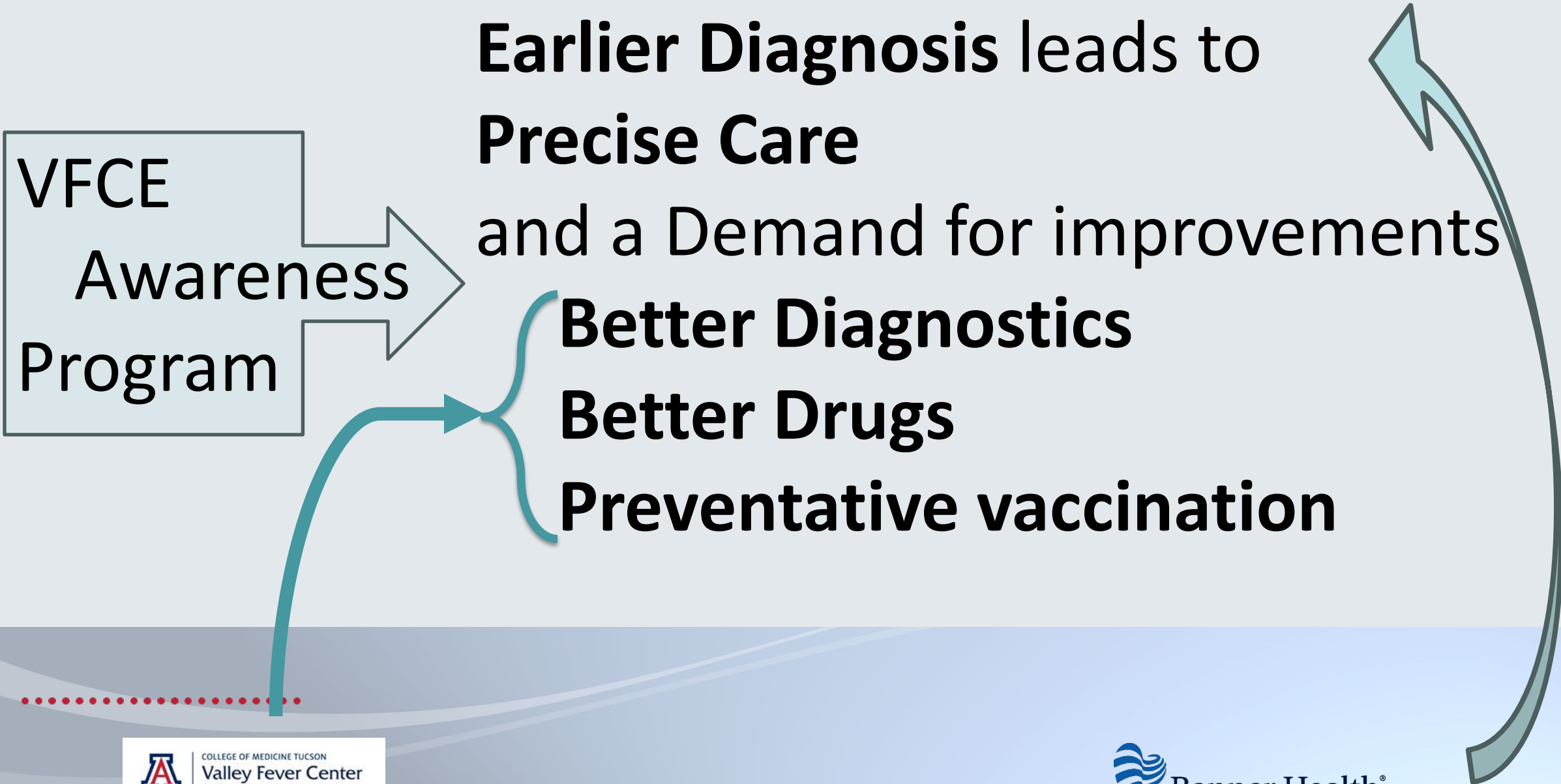
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**Earlier Diagnosis leads to
Precise Care**
and a Demand for improvements

- Better Diagnostics**
- Better Drugs**
- Preventative vaccination**

The diagram illustrates a process flow. On the left, a light blue box labeled 'VFCE Awareness Program' has a white arrow pointing right towards the main text. A teal bracket groups the three outcomes listed below the main text. A teal arrow points from the bottom of this bracket down to a red dotted line on a grey wavy background. A large, light blue curved arrow on the right side of the slide points from the bottom back up towards the top right.

VFCE
Awareness
Program

It all Starts with Awareness: Patients

“Persons who knew about coccidioidomycosis before seeking healthcare were more likely to request coccidioidomycosis testing and were more likely to receive a diagnosis earlier than those who were not familiar with the disease.”

AzDHS, Emerg. Inf. Dis., 2010

It all Starts with Awareness: Clinicians

Arizona CAP patients tested for coccidioidomycosis (CM)

- Medical Clinics (2003-4): 2%-13%¹
- Emergency Departments (2014): 2.8%²
- Urgent Care Clinics (2019): 2.0%³

Kaiser SoCal outpatient CAP (2011): 6.0%⁴

Failure to diagnose CM has consequences^{5,6}

- Overuse of antibacterial drugs
- Additional diagnostic tests and procedures
- Otherwise unnecessary hospitalization
- Delays cost \$175 per day (CDC, 2025. Open Forum I.D.)

¹Chang 2008 ²Khan 2018

³Galgiani 2024 ⁴Tartof 2018

⁵Donovan 2019 ⁶Pu 2021

Example of Delayed Valley Fever Diagnosis

February 28: First symptoms

Medical Visits:

- March 15
- April 1
- May 13
- June 4
- July 8

July 11: Valley fever test was positive

Systems Solution to Improve CM testing

2015: UArizona physicians affiliated with Banner Health.

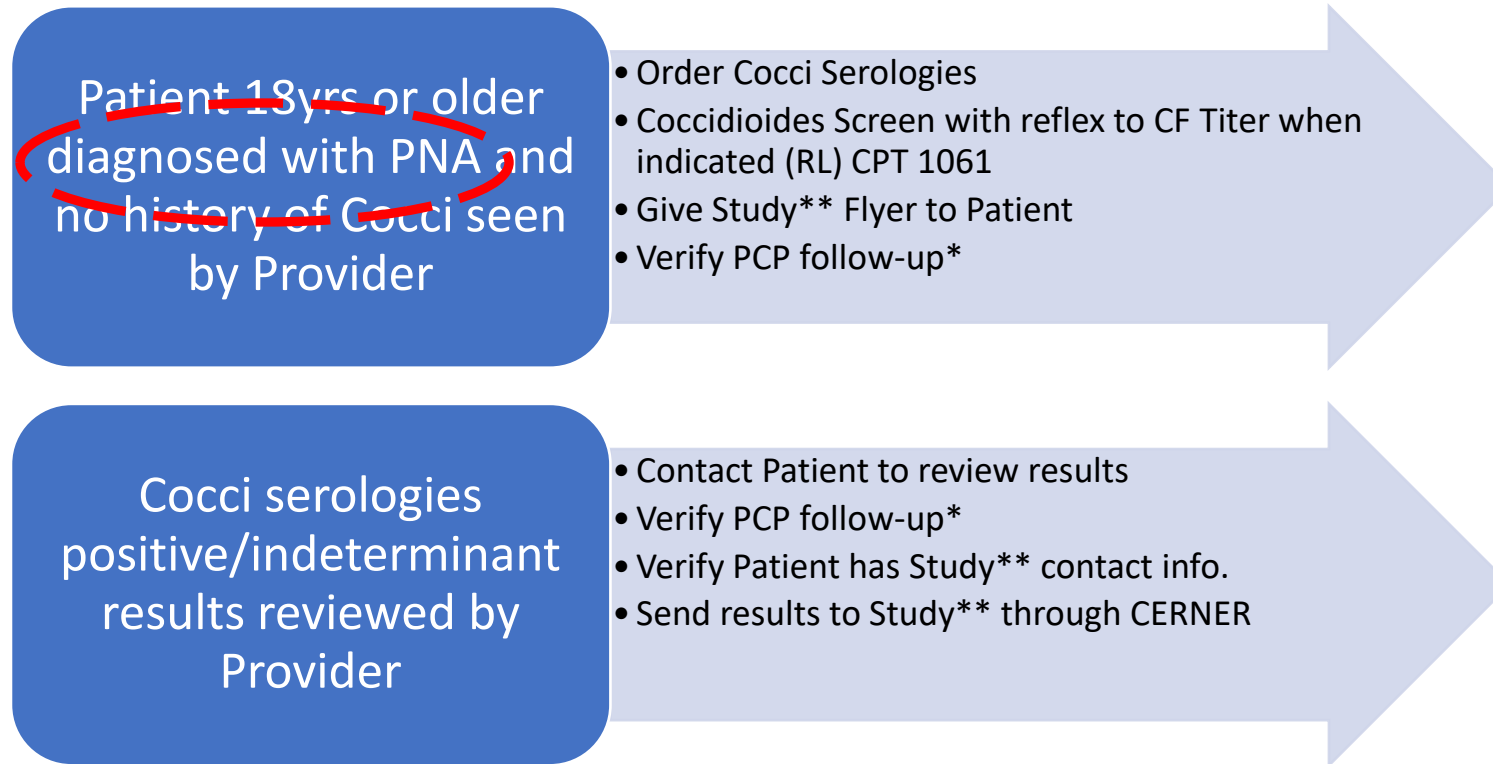
2018: Banner established a clinical practice for recognition and management of CM in ambulatory patients.

2019: Banner Urgent Care Services (BUCS) identified as infrequently testing CAP patients for CM.

2020: Clinicians were reminded to do this when first hired and at quarterly medical updates.

2023: To improve further, a CM dashboard was constructed, and this is the basis for the current presentation.

Valley Fever Protocol for BUCS



*If Patient doesn't have a PCP make them an appointment with BMG for follow up.

** **Sands-PPC Valley Fever Study** For referrals, please contact Marleny Munoz, Study Coordinator, at 602-521-3003 or marlenymunoz@email.arizona.edu

Percent Testing of CAP for Valley Fever

Test and Positivity Rate Over Time

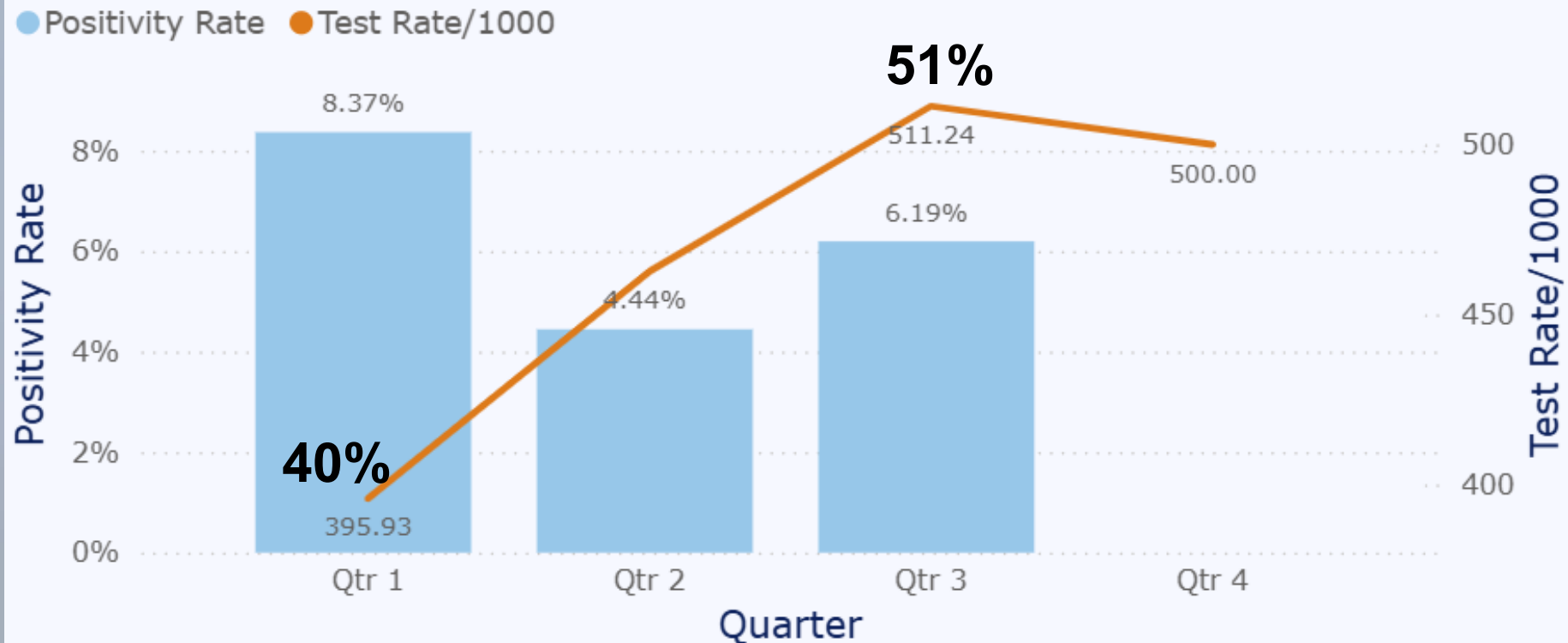


***The denominator of positivity rate is patients with test resulted.

Percent Testing of CAP for Valley Fever

Test and Positivity Rate Over Time

Year-to-Date Oct 2, 2025



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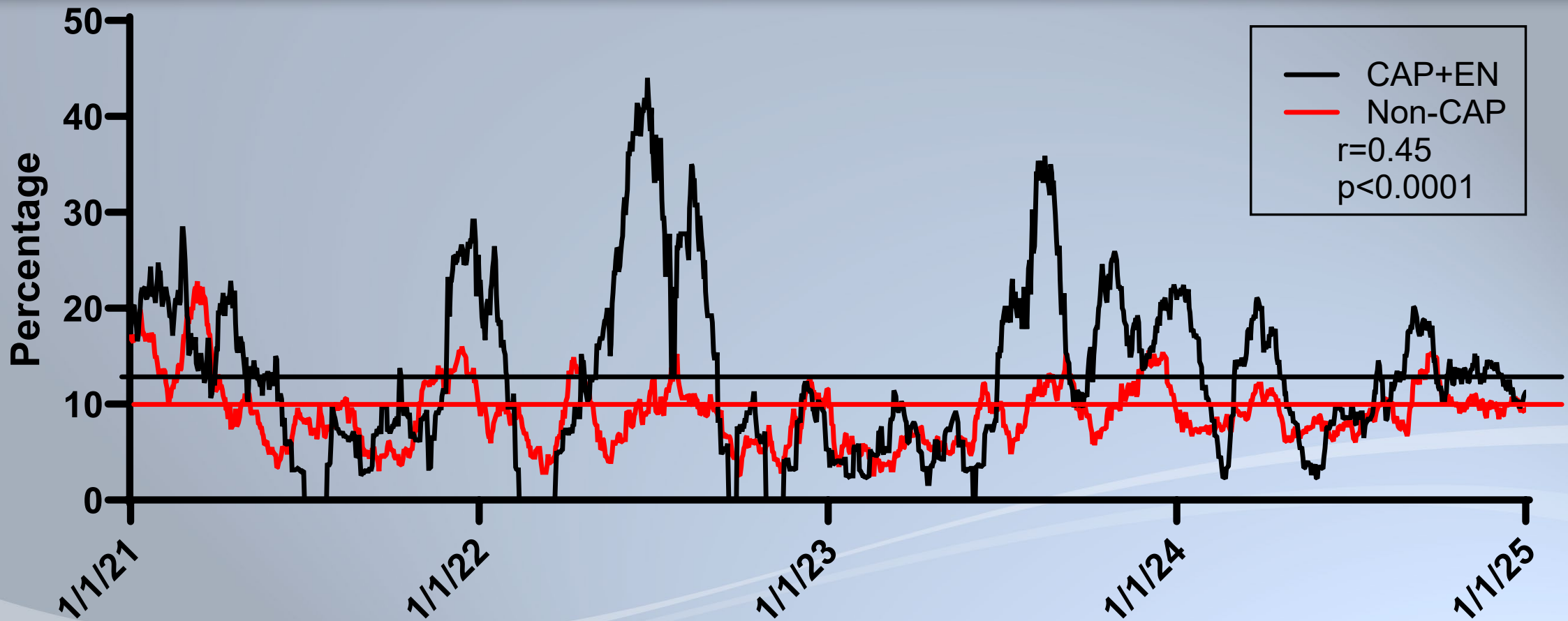
Testing of E. nodosum for Valley Fever

Test and Positivity Rate Over Time



Percentage Positive of Valley Fever Tests

BUCS, Maricopa County, 2021-2024



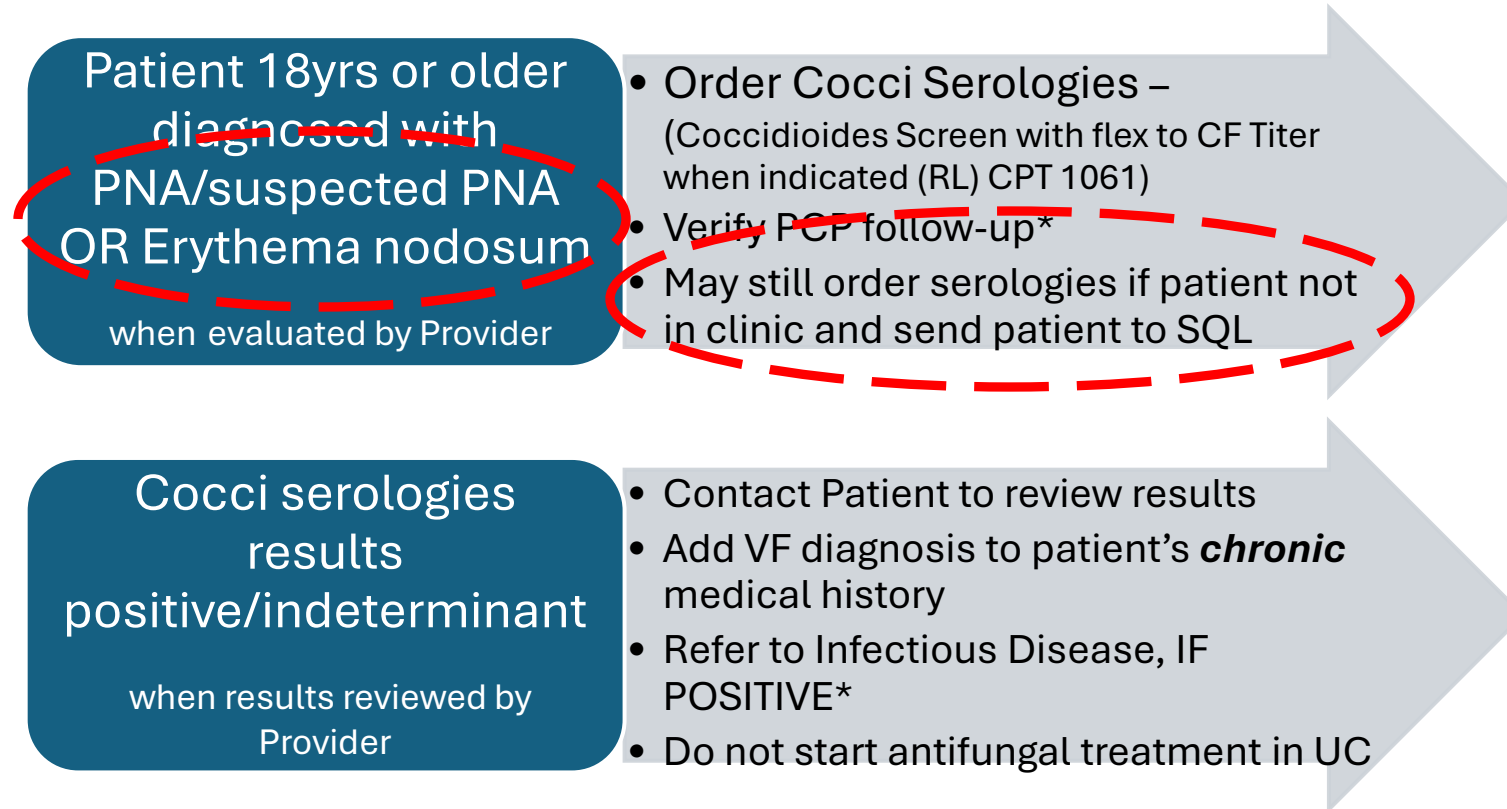
Non-CAP Valley fever syndromes

- Respiratory complaints not leading to a diagnosis of pneumonia.
- Aches and pains.
 - myalgias, arthralgias, headaches
 - “Desert Rheumatism”
- Rashes other than Erythema nodosum.
- Profound fatigue.

Non-CAP/EN patients with Valley Fever

Diagnosis	ICD10	# Patients
Cough	R05.9	129
Acute URI	J06.9	62
Bronchitis	J40	37
Acute bronchitis	J20.9	30
Chronic cough	R05.3	27
Acute pharyngitis	J02.9	26
Shortness of breath	R06.02	16
Chronic sinusitis	J32.9	13
Viral infection	B34.9	10
Acute sinusitis	J01.90	10
Rash	R21	37
Coccidioidomycosis	B38.9	30
Fever	R50.9	26
Fatigue	R53.83	15

Valley Fever Protocol for BUCS 2025



*If Patient doesn't have a Primary Care Provider, use the Referral AMB order to request PCP follow up AND, IF POSITIVE, order a referral to Infectious Disease.

Primary Care of Coccidioidomycosis

Consider

the diagnosis

Order

the right tests

Check

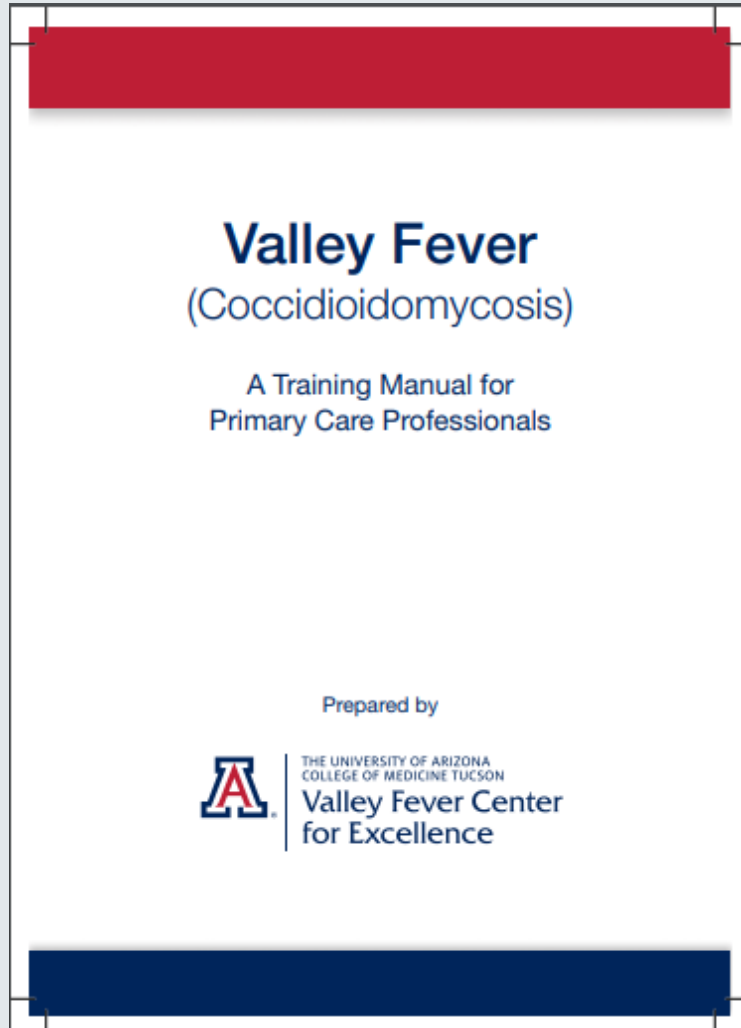
for risk factors

Check

for complications

Initiate

management



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Clinical High Accountability
Reliability Group for
Excellence

◆————◆
“Clinical Practice for
Diagnosing and Managing
Coccidioidomycosis”

Check for Risk Factors

Pulmonary Complications

- Diabetes mellitus
- Cardio-pulmonary or other co-morbidities (Evidence: “common sense”).

Disseminated Infection

- Major and critical
 - Cell immunodeficiency
 - Pregnancy
- Minor and small effect
 - Males > Females
 - Racial background
 - Adults > Children

Check for Complications

- Most complications are focal
- **A review of systems and physical examination will usually detect or exclude the possibility of complications.**
- New focal findings warrant either evaluation or referral for Infectious Diseases or Pulmonary consultation.

Fibro-cavitary Coccidioidomycosis



Complex



Thin-walled

Disseminated Coccidioidomycosis



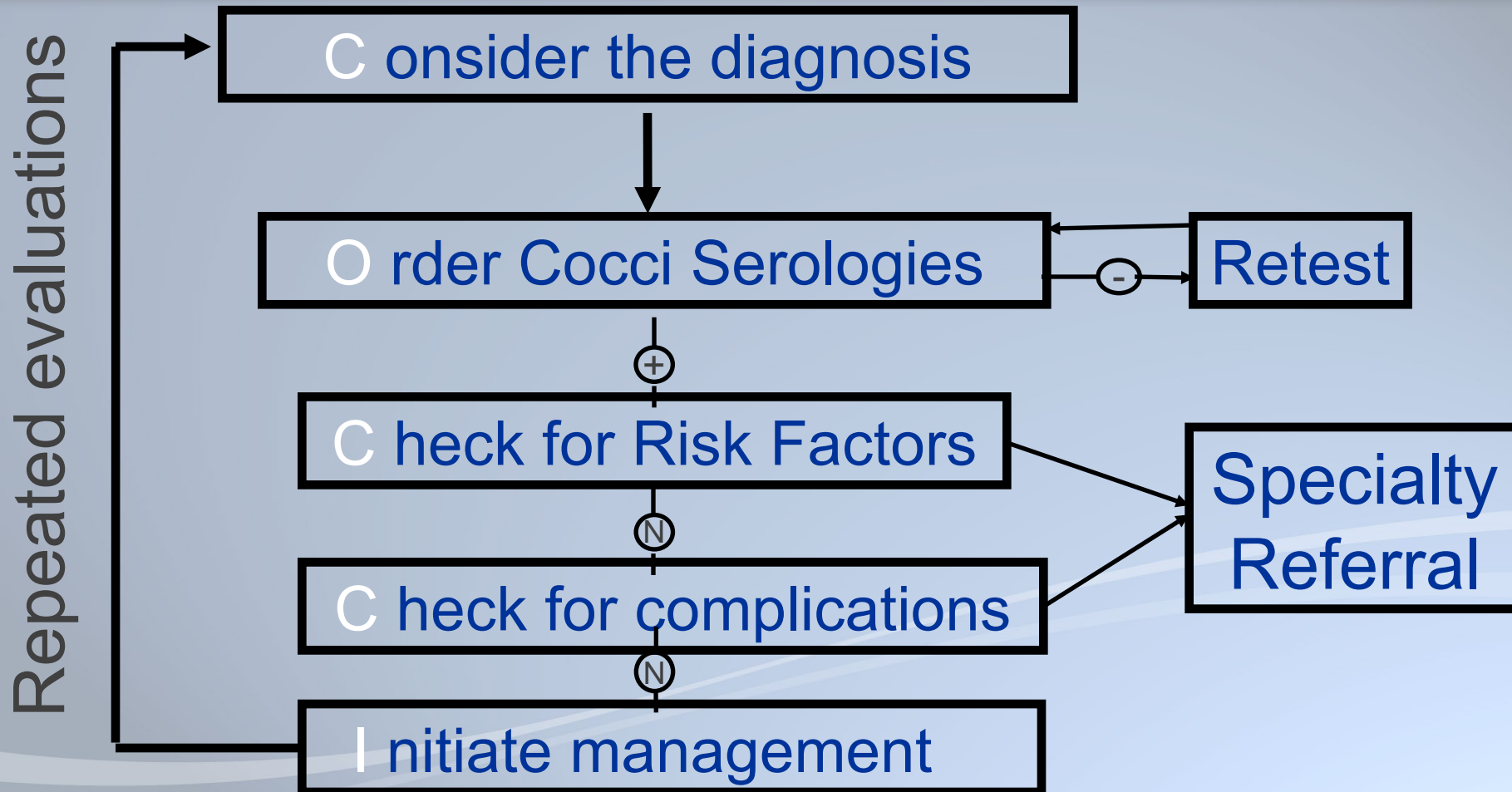
Disseminated Coccidioidomycosis



Disseminated Coccidioidomycosis



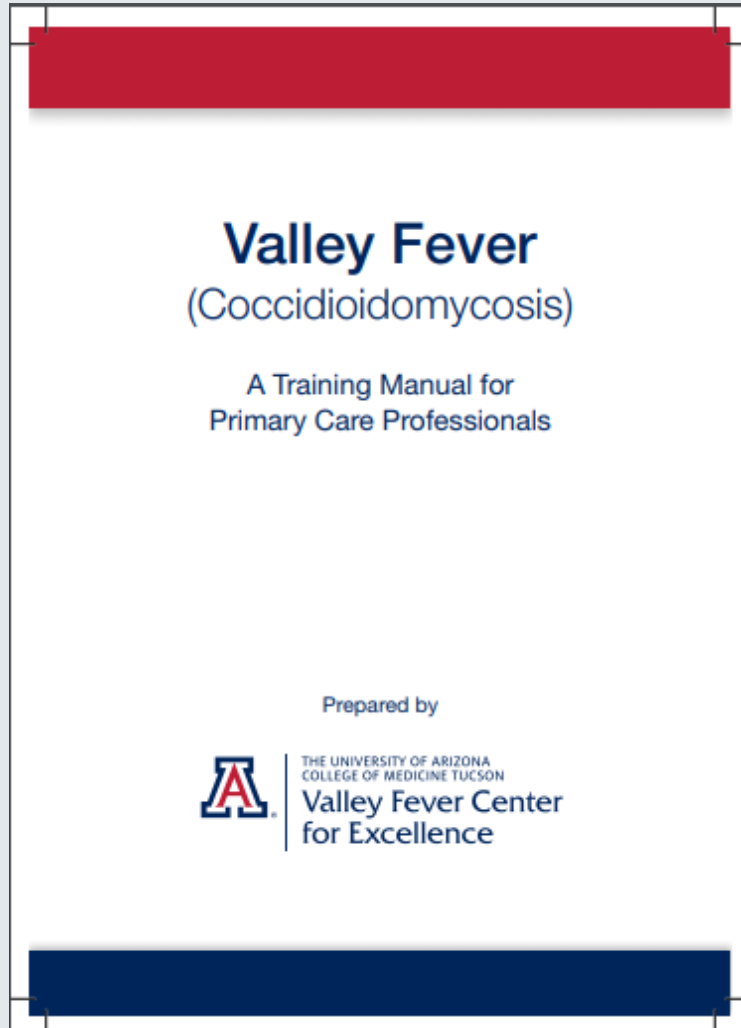
Primary Care of Coccidioidomycosis



Management

Low Risk, Simple Early Infection

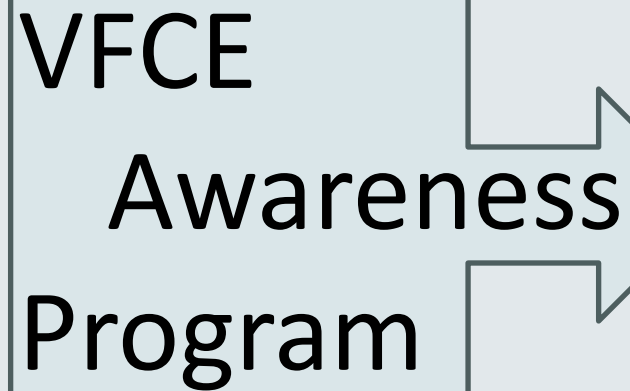
- Follow-up office visits
- Serial body weights
- Check for new symptoms or signs
- Repeat coccidioidal antibody testing
- Repeat Chest PA and Lateral X-rays
- Most patients do not need therapy



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“Clinical Practice for
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Questions & Discussion