Epidemiology of Valley Fever in Arizona

November 2022

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The Impact and Control of Valley Fever

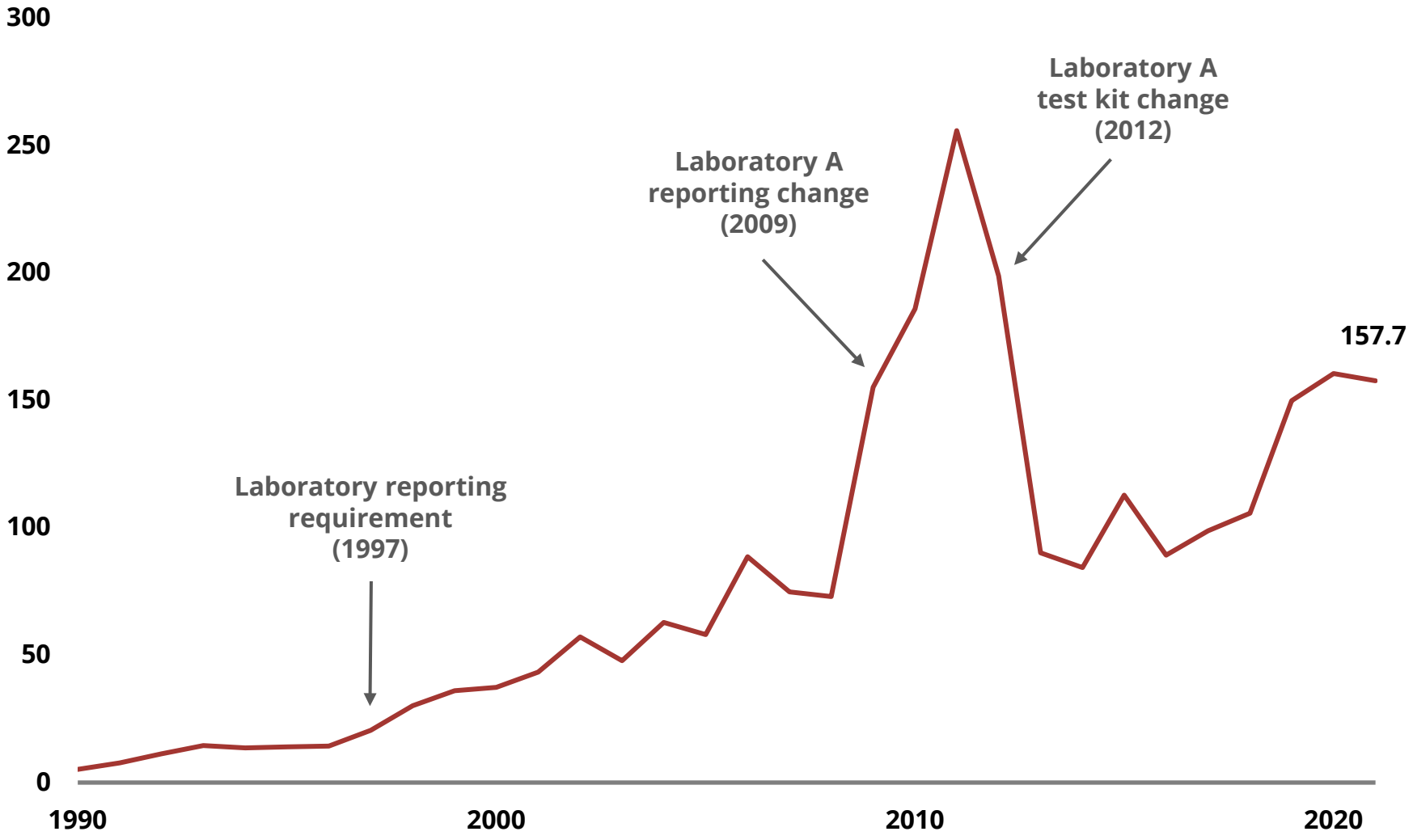
National Academies of Sciences, Engineering, and Medicine

ARIZONA DEPARTMENT
OF HEALTH SERVICES

Health and Wellness for all Arizonans


Epidemiology

Rates* of Valley fever in Arizona, 1990–2021



*Reported cases per 100,000 population


Image by Alan Stark (CC BY-SA 2.0)


BUILT
KOMATSU
PC 240 LC
WARNING
Image by Built Robotics on Unsplash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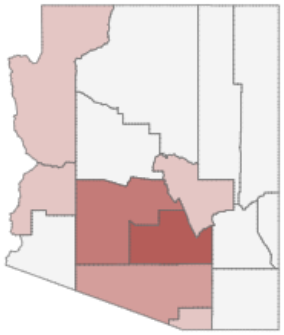
A look at reported cases in Arizona.

Select a year: 2020

Hover over the icon to get more information on the Valley fever data in this dashboard.

Which counties have had the largest burden of Valley fever?

Select a county below to filter the charts.

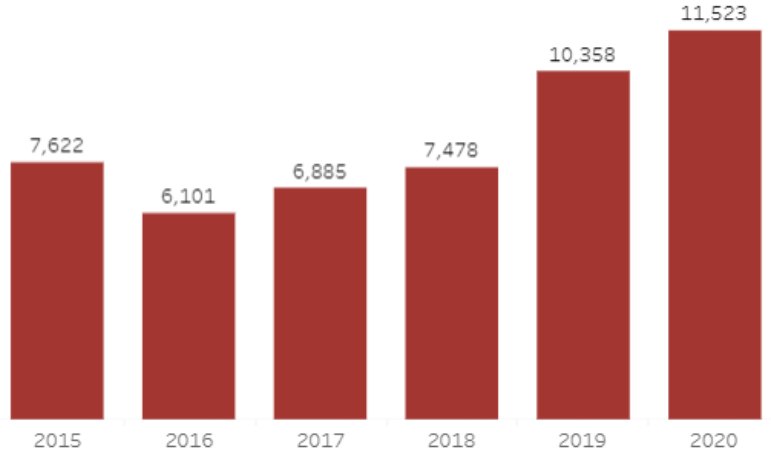


Rates per 100,000 population

25.4 — 258.3

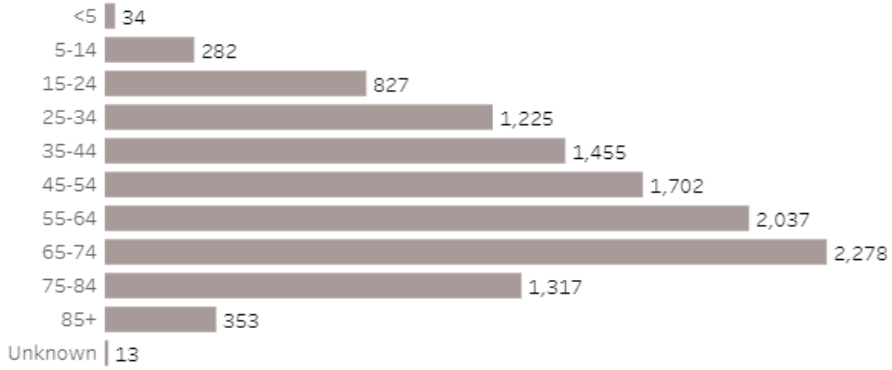
Which years have seen the most Valley fever cases?

County: All



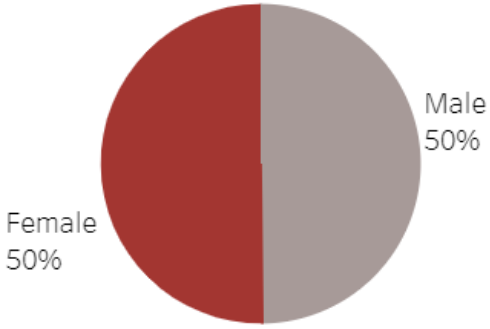
Which age groups are most affected by Valley fever?

All | 2020

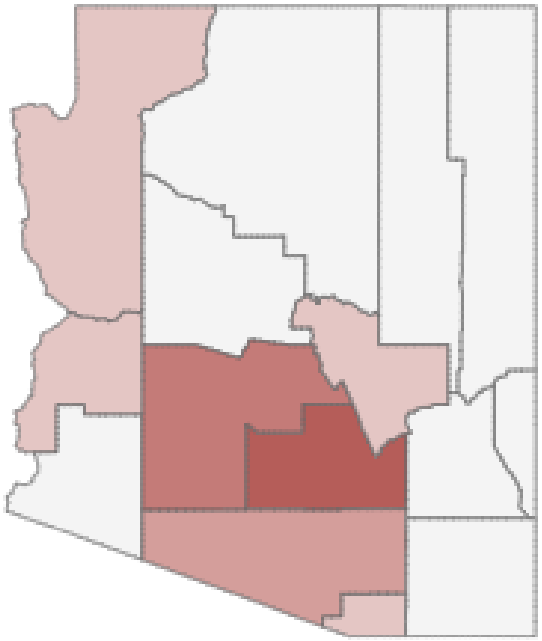


Which gender is most affected by Valley fever?

All | 2020



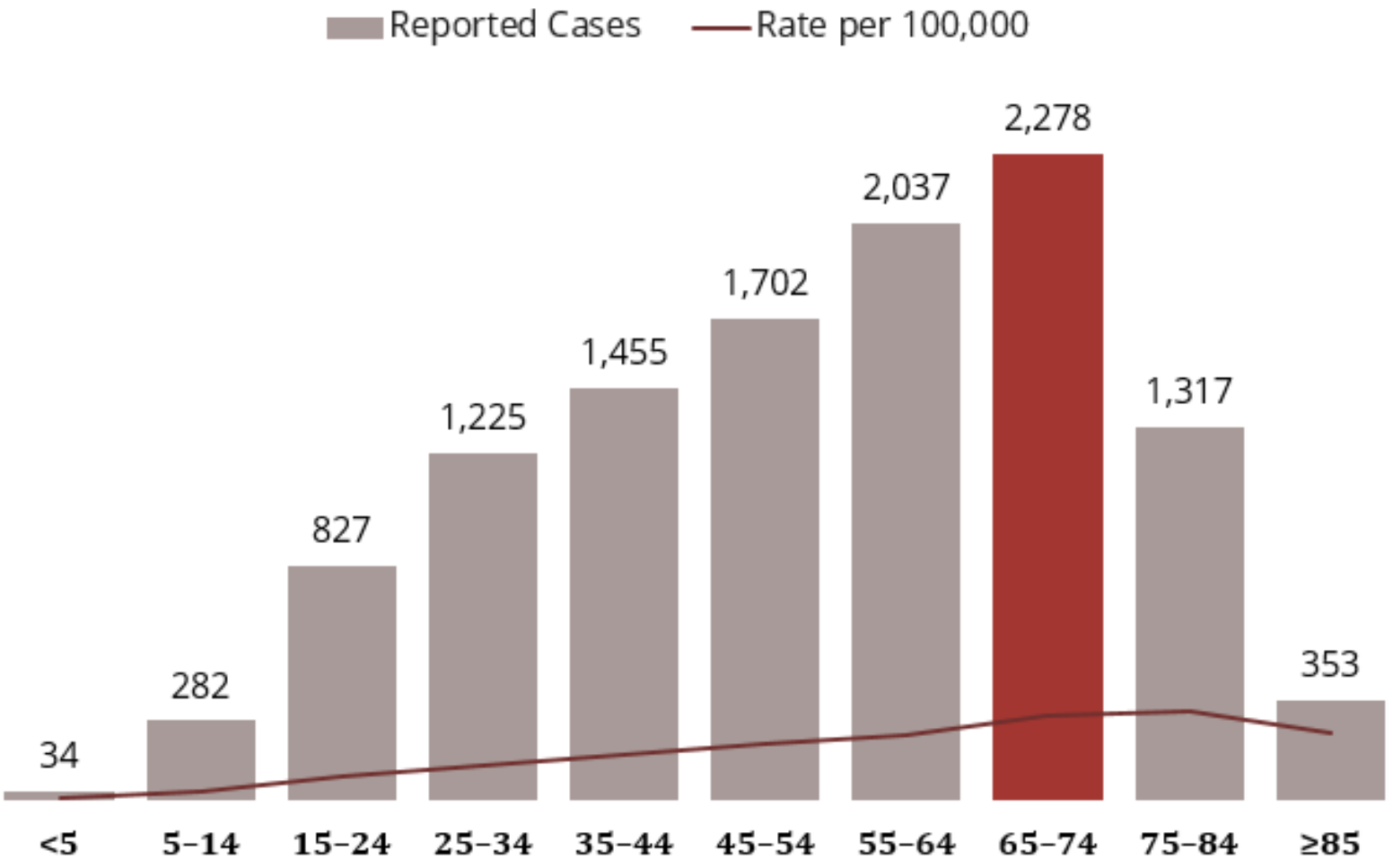
94% of cases reside in 3 counties.



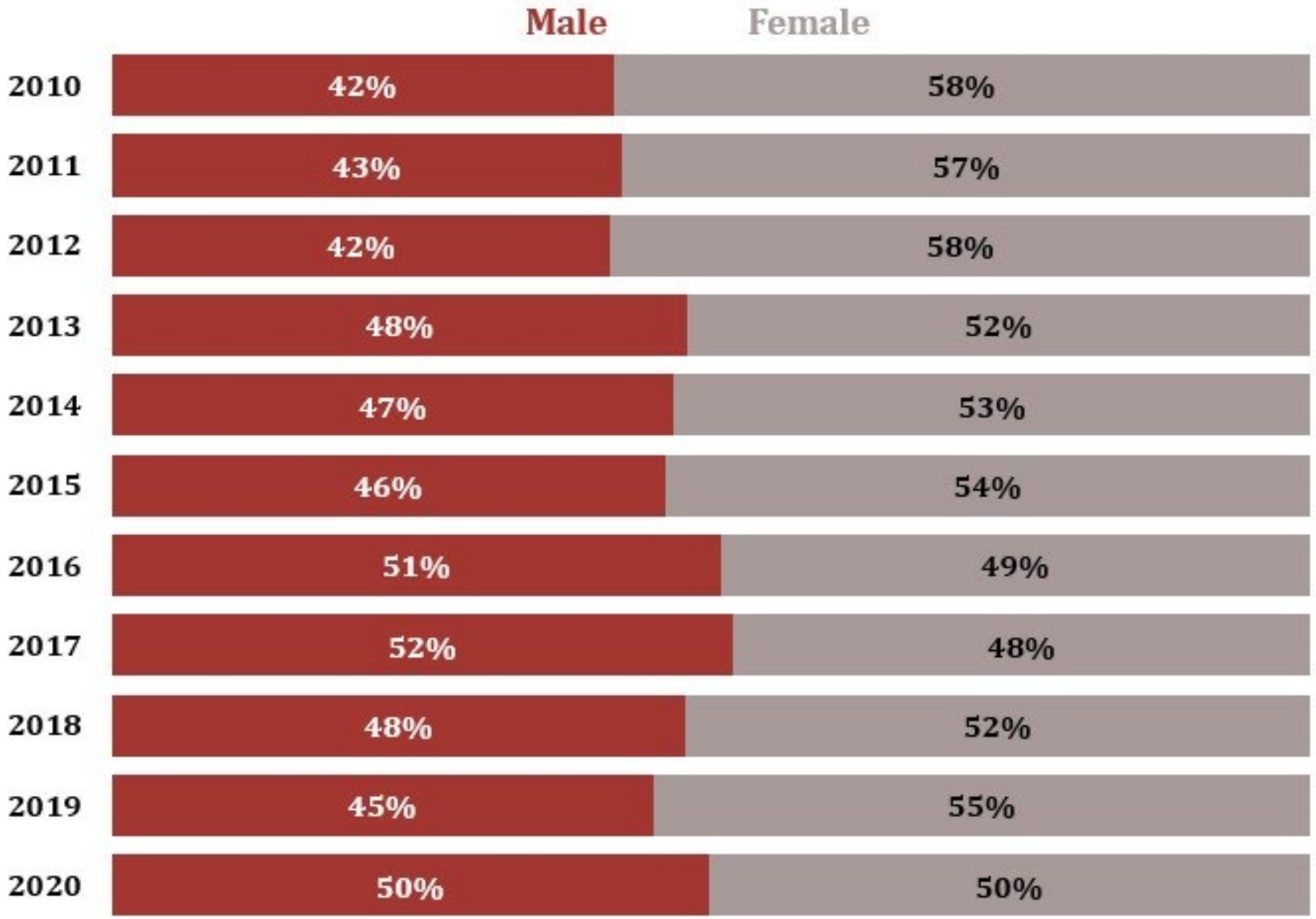
Rates per 100,000 population

25.4 — 258.3

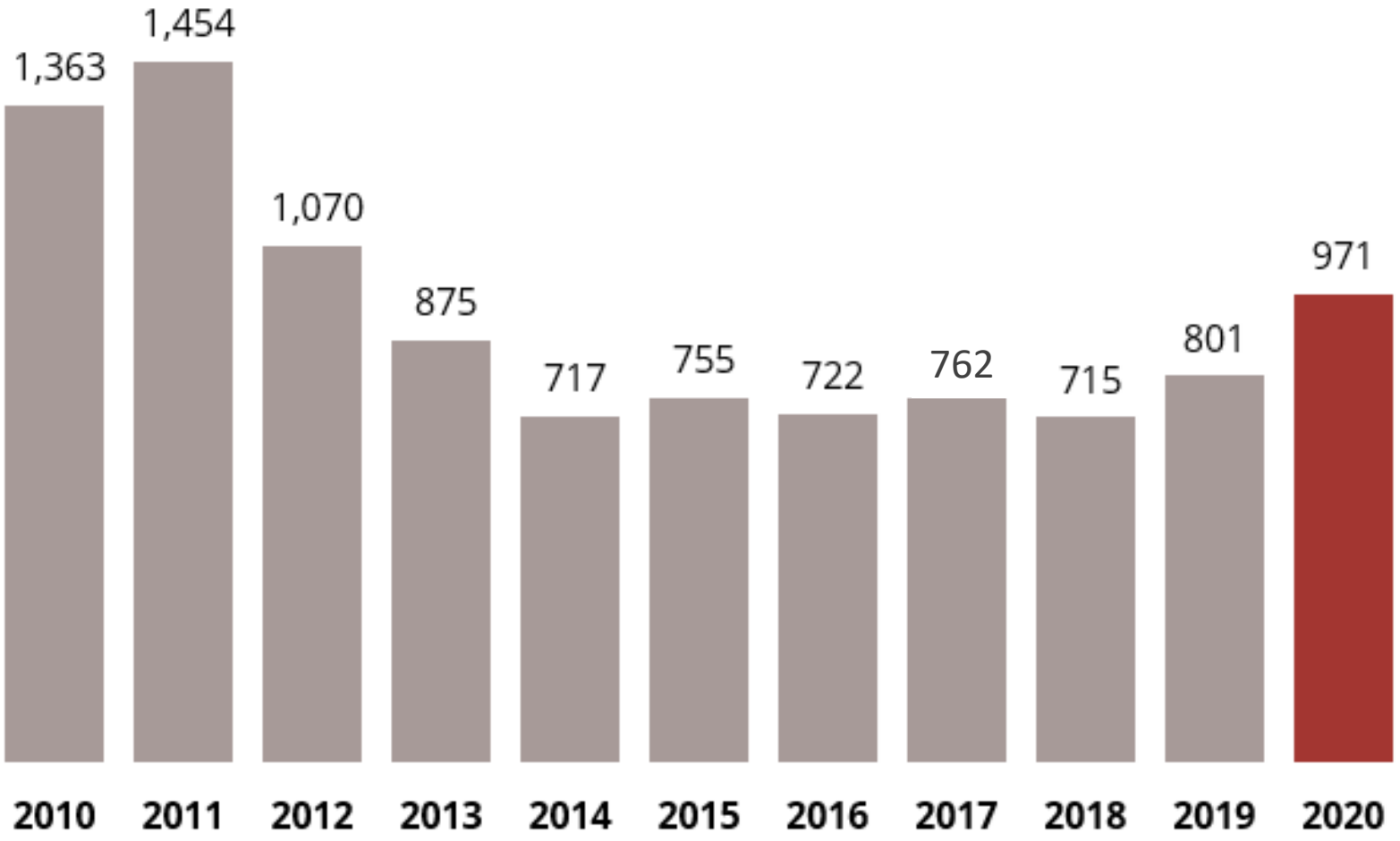
The highest number of cases in 2020 were reported by the **65–74 age group**.



Males accounted for half the reported cases in 2020.



There were **971 hospitalizations** with a primary diagnosis of Valley fever in 2020.

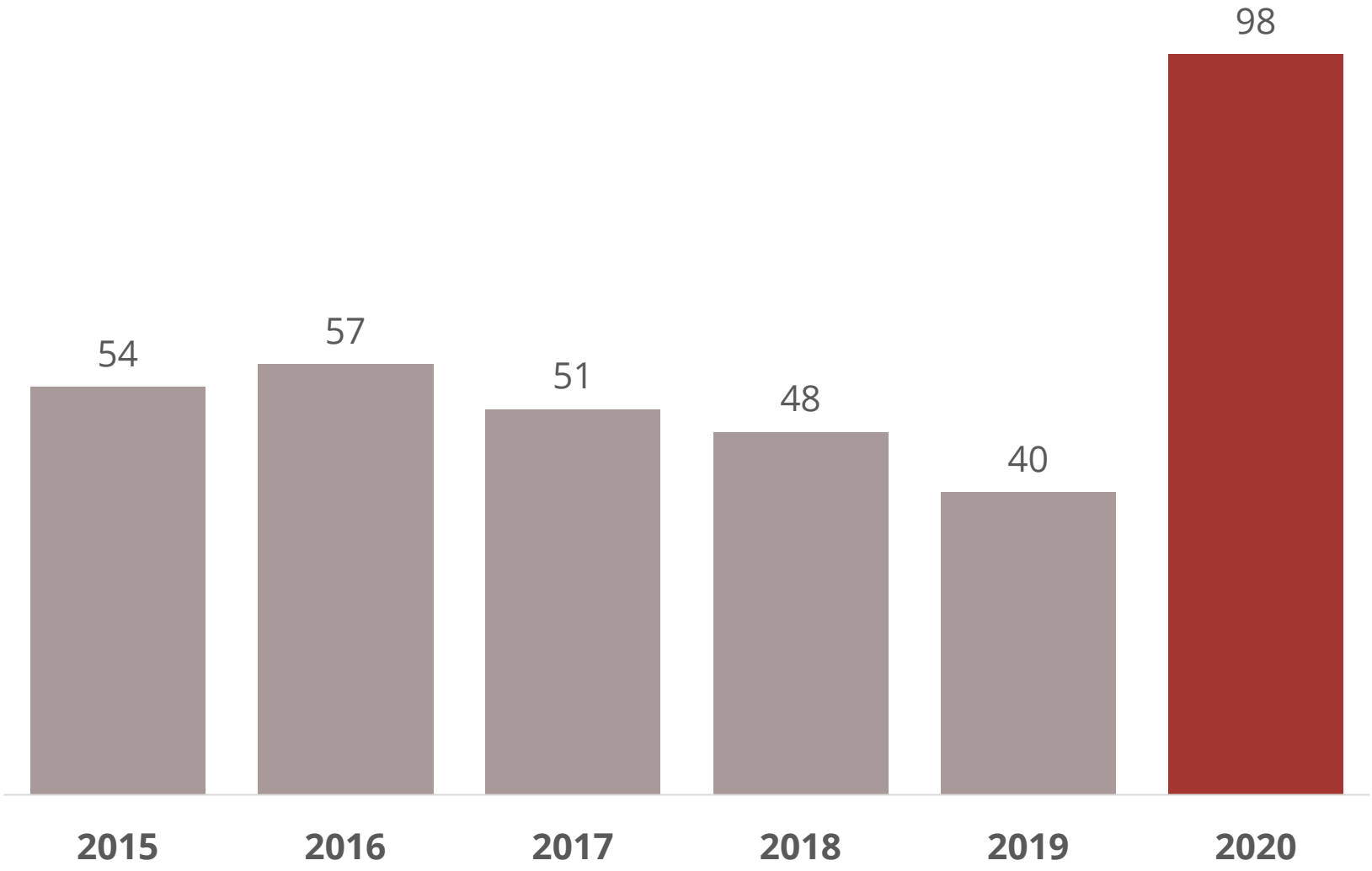


Hospitalization Charges in 2020

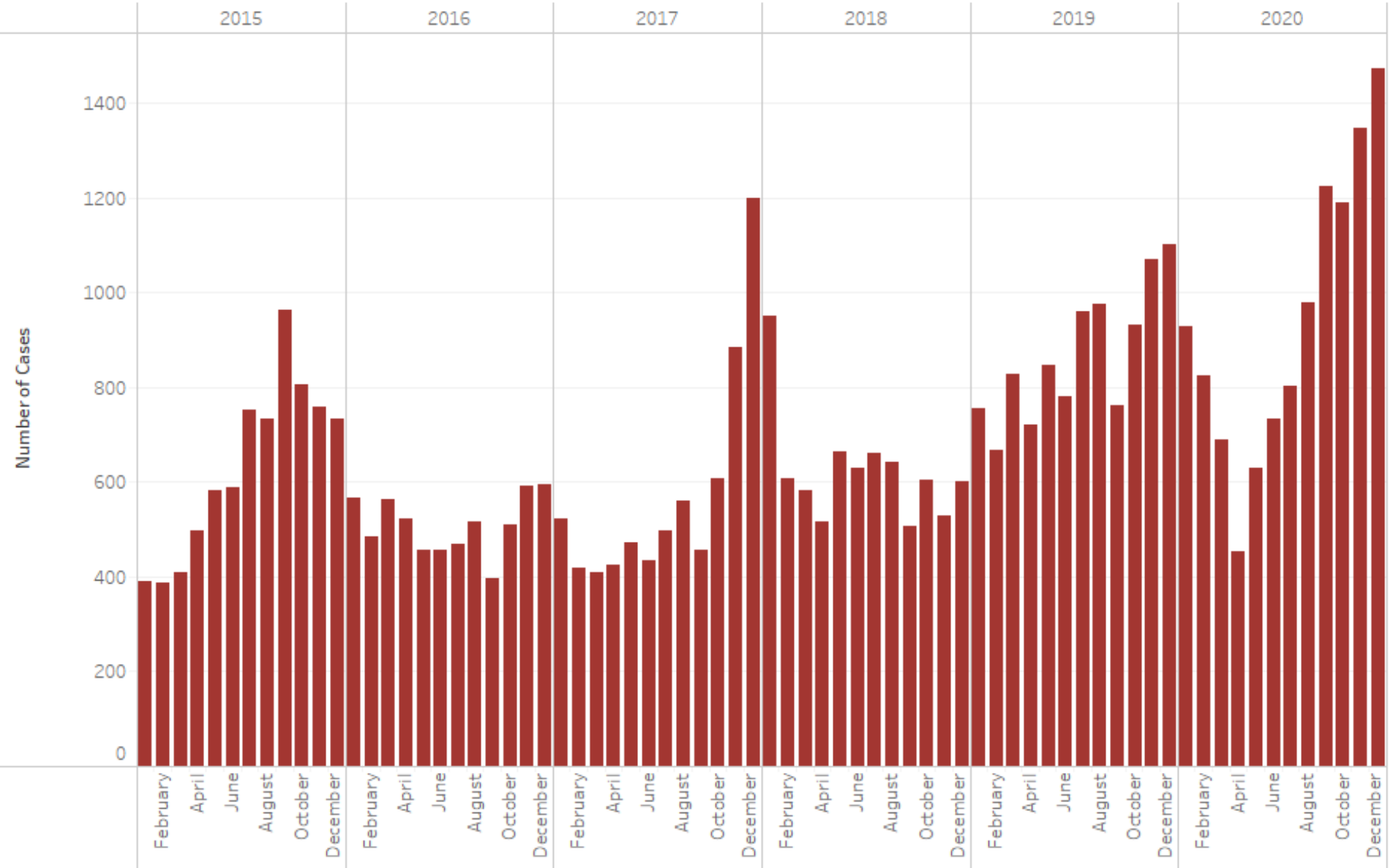
- **$75.4 million** in total hospitalization charges for Arizonans with a primary diagnosis of Valley fever.

- **$50,339** was the average charge per hospitalization with a primary diagnosis of Valley fever.

There was a large increase in deaths in **2020**.



There are consistently large increases in the **fall/winter**.



Enhanced Surveillance

- Population-based enhanced surveillance of 2007–2008 and 2012 cases.

- Contacted a random sample of cases by phone and interviewed them with a standardized questionnaire.

Enhanced Surveillance: 2007–2008 (n=493)

- Symptomatic for a median of **4 months**
- **41%** hospitalized (median 6 days)
- **46%** visited an ER
- **26%** saw a provider 10+ times

Enhanced Surveillance: 2007–2008 (n=493)

- **75%** missed work (median 2 weeks)
- **75%** unable to do activities of daily living (median 6 weeks)

Enhanced Surveillance: 2012 (n=612)

- **18%** hospitalized
- **28%** visited an ER
- **28%** diagnosed with pneumonia
- **43%** prescribed antibiotics (**30%** 2+ times)
- **39%** prescribed antifungals

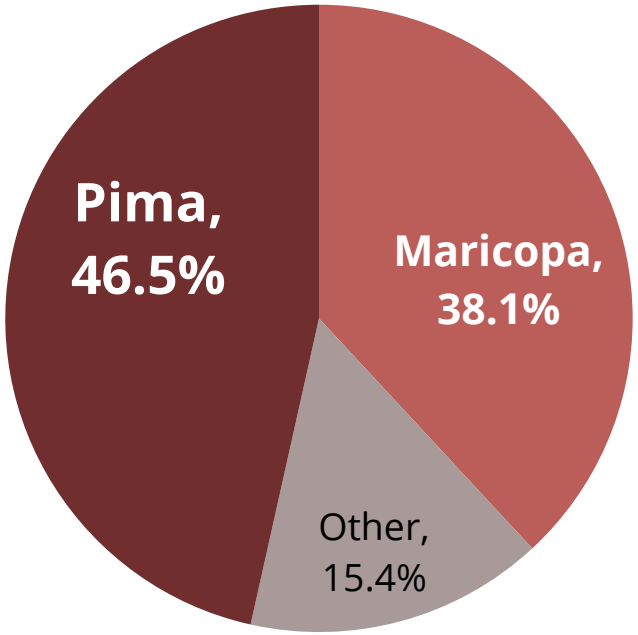
Enhanced Surveillance: Delays in Diagnosis

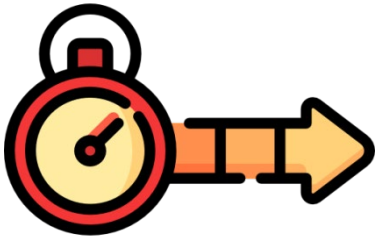
- Median time between first healthcare visit and diagnosis: **23 days**
- More likely to receive an earlier diagnosis if aware of disease
- More likely to ask for testing if patient knew about Valley fever prior to illness

Patients tested for Valley fever in Emergency Departments (EDs)

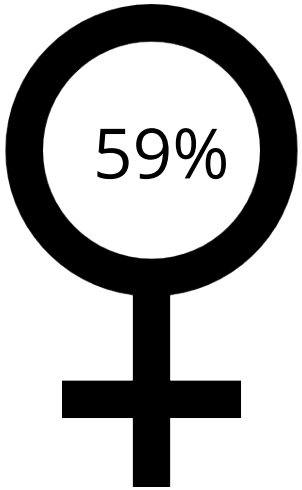
2,672 ED visits with a CPT code for Valley fever testing

County Residence



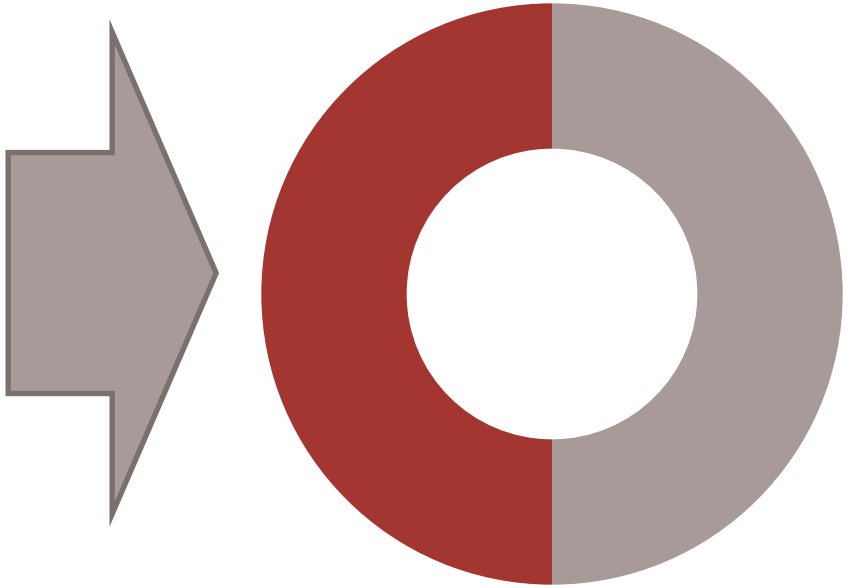


45 years



99%

Patients tested for Valley fever in EDs



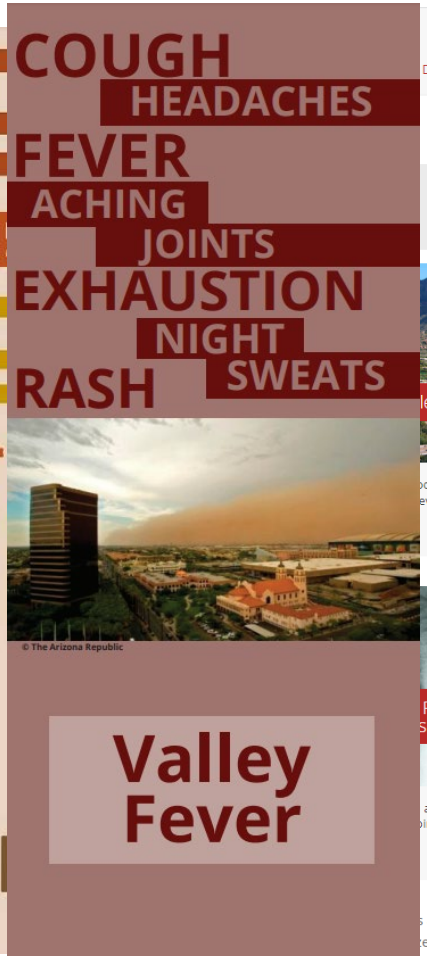
Assessing Clinician Awareness

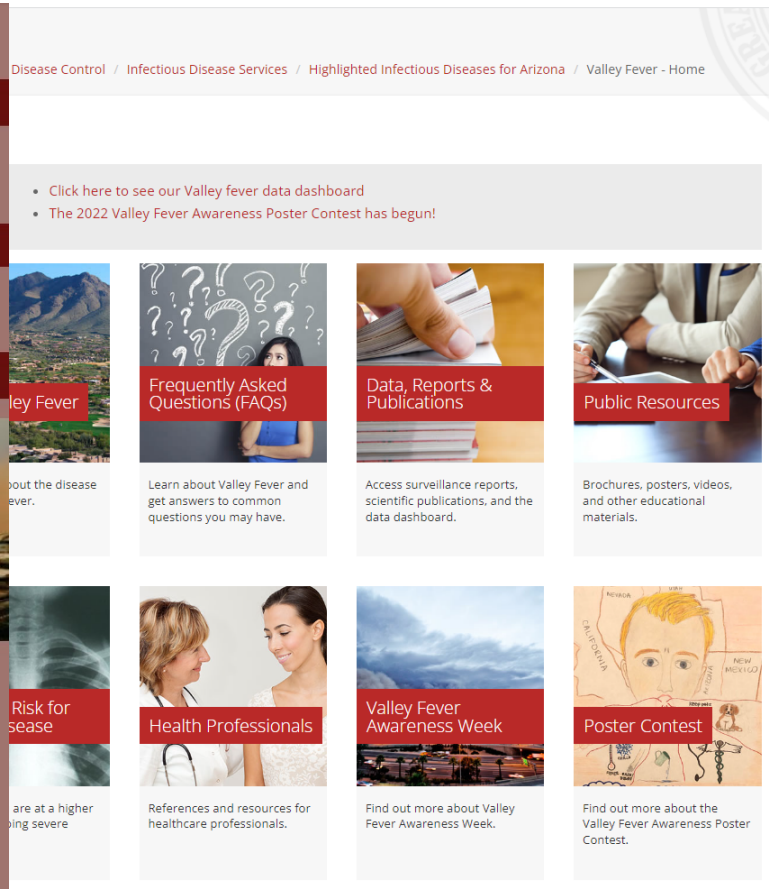
- 2014 and 2007 Knowledge, Attitudes, and Practices (KAP) Survey of physicians and NPs
- **84%** – Reported confidence in ability to treat
  - **50%** in 2007
- **60%** – Working knowledge of different laboratory tests
- Received CME in past 3 years were more likely to:
  - Counsel patients about Valley fever
  - Test CAP patients
  - Offer treatment to immunosuppressed patients
  - Test asymptomatic patients with underlying conditions

Assessing Public Awareness

- 2016 and 2008 Behavioral Risk Factor Surveillance System
- **3%** had never heard of Valley fever compared to **20%** in 2008
- **39%** identified at least one symptom but only **5%** correctly identified fever, cough, and fatigue as symptoms.
- **30%** of respondents knew someone who had Valley fever.


VALLE
COUGH
RASH
CHILLS
WEIGHT LOSS
CHEST
MUSCLE ACHES
WHEEZING
FEV
KNOW
WWW.VALL
ARIZONA DEPARTMENT
OF HEALTH SERVICES


COUGH
HEADACHES
FEVER
ACHING
JOINTS
EXHAUSTION
NIGHT
RASH
SWEATS
© The Arizona Republic
Valley
Fever


Disease Control / Infectious Disease Services / Highlighted Infectious Diseases for Arizona / Valley Fever - Home
Click here to see our Valley fever data dashboard
The 2022 Valley Fever Awareness Poster Contest has begun!
ley Fever
Frequently Asked Questions (FAQs)
Data, Reports & Publications
Public Resources
out the disease ever.
Learn about Valley Fever and get answers to common questions you may have.
Access surveillance reports, scientific publications, and the data dashboard.
Brochures, posters, videos, and other educational materials.
Risk for sease
Health Professionals
Valley Fever Awareness Week
Poster Contest
are at a higher ing severe
References and resources for healthcare professionals.
Find out more about Valley Fever Awareness Week.
Find out more about the Valley Fever Awareness Poster Contest.
s a fungal infection of the southwestern United States caused by breathing in spores of the fungus Coccidiodes (kok-
e). Two-thirds of all cases in the nation are reported from Arizona. Reported cases of Valley Fever in Arizona have

Education

Valley Fever Awareness Week

GOVERNOR DOUGLAS A. DUCEY

STATE OF ARIZONA

PROCLAMATION

WHEREAS, Valley fever infections in Arizona have increased over the last decade, with most years 65 percent of all nationally reported cases of Valley fever occurring in Arizona; and

WHEREAS, Valley fever is one of the 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, 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, Douglas A. Ducey, Governor of the State of Arizona, do hereby proclaim November 12 – 20, 2022 as

VALLEY FEVER AWARENESS WEEK

in recognition of the outstanding treatment and research supported by the Valley Fever Center for Excellence at all three Arizona Universities, and for 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

Douglas A. Ducey

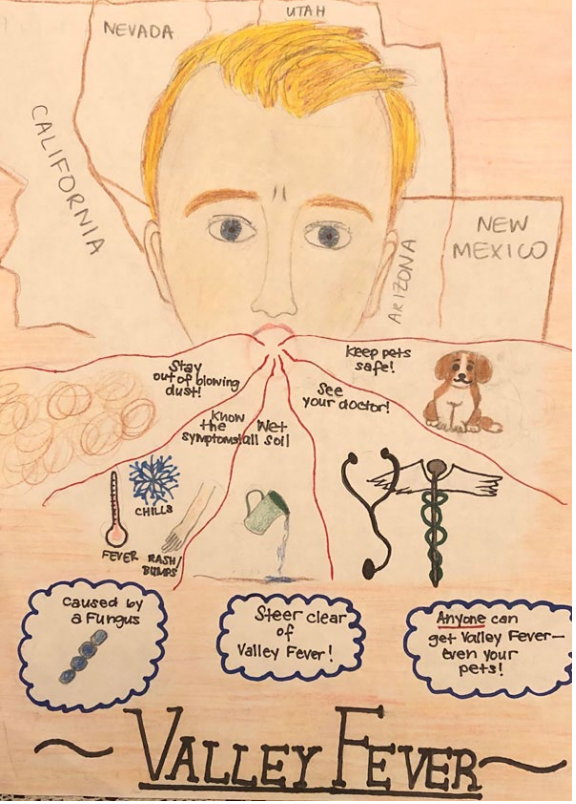
GOVERNOR

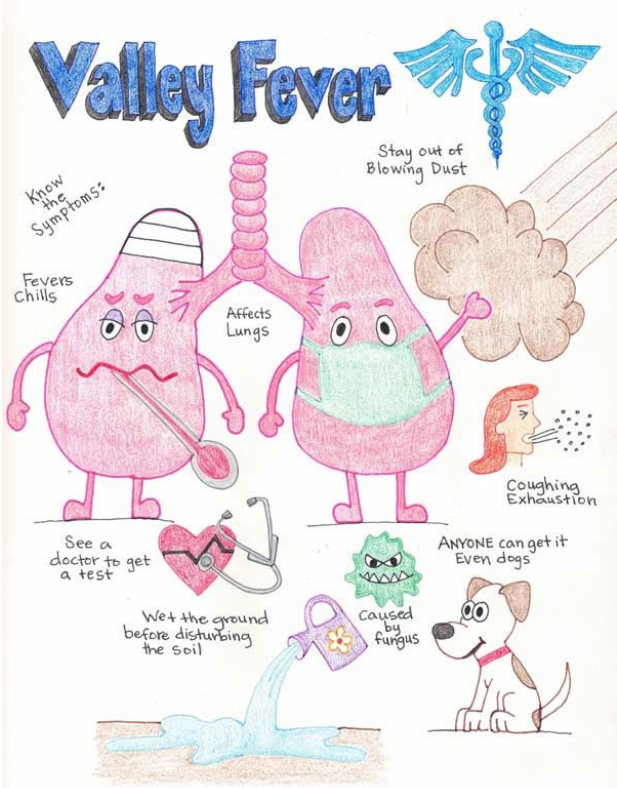
DONE at the Capitol in Phoenix on this nineteenth day of September in the year Two Thousand and Twenty-Two and of the Independence of the United States of America the Two Hundred and Forty-Seventh.

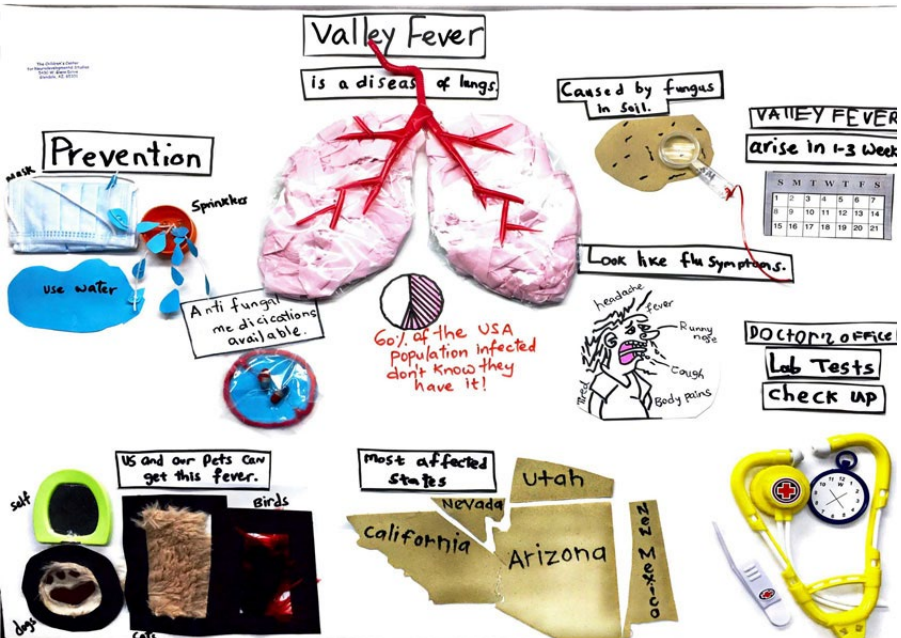
ATTEST:

SECRETARY OF STATE

Valley Fever Awareness Poster Contest







Acknowledgements

- ADHS Valley Fever Team
  - Guillermo Adame
  - Mohammed Khan
  - Ken Komatsu
- CDC Mycotics Branch
- Valley Fever Center for Excellence
- TGen North
- County health departments
- Reporting laboratories and providers

ARIZONA DEPARTMENT OF HEALTH SERVICES

VALLEY FEVER CENTER FOR EXCELLENCE

ValleyFeverArizona.org

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