



State of the State

APIC Grand Canyon Meeting

January 24, 2014

Agenda

- 1:30 - 1:40 pm Welcome, announcements, introduction – APIC and Ken Komatsu
- 1:40 - 1:50pm MEDSIS/MU - Teresa Jue/Sara Imholte
- 1:50 – 2:00pm Vaccine Preventable Disease and Flu – Karman Tam
- 2:00 - 2:10pm Cocci – Clarisse Tsang
- 2:10 - 2:20pm HAI - Eugene Livar
- 2:20 - 2:30pm Vector/RMSF – Selam Tecle
- 2:30 - 2:45 pm Foodborne - Rashida Hassan
- 2:45 - 2:55 pm Refugee Health - Zach Holden
- 2:55 - 3:10 pm STD - Jose Mireles
- 3:10 - 3:25 pm HIV Surveillance, Prevention and Care – Amanda White
- 3:25 - 3:40 pm TB - Eric Hawkins
- 3:40 - 4:00pm Questions



MEDSIS Updates & Reminders

Teresa Jue

MEDSIS Program Manager

Office of Infectious Disease Services

MEDSIS

- Medical Electronic Disease Surveillance Intelligence System
- May be used by health care facilities and providers to report communicable diseases
 - Includes TB, HIV, and STDs (since 2013)
- Allows health care facilities to view and print communicable disease reports (CDR) for all cases reported through MEDSIS

MEDSIS Updates

- Merge Functionality was released for Public Health users
 - Healthcare facilities reporting through MEDSIS may see changes/updates to MEDSIS IDs
- Case Line List
 - Previously, if a case was updated with a new reporter, the first reporter was unable to see the case in the Case Line List report
 - With the new release, all cases will display in the case line list for all associated reporters

MEDSIS Reminders

- TB Cases
 - In addition to entering the case into MEDSIS, please contact the local health department if a TB case is suspected or identified, by phone **as soon as possible**
- If facilities are interested in reporting via MEDSIS, please contact your local health dept.
- Please continue to send feedback, issues, or comments to the MEDSIS Help Desk!
 - medsishelpdesk@siren.az.gov

Arizona Department of Health Services (ADHS)

&

Meaningful Use

Sara Imholte

Arizona Department of Health Services

January 24, 2014



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- The Meaningful Use Electronic Health Record incentive program includes 3 objectives for hospitals to work with public health:
 1. Immunization Registry
 2. Electronic Laboratory Reporting
 3. Syndromic Surveillance

Immunization Registry (ASIIS)



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What is ASIIS?

- The Arizona State Immunization Information System (ASIIS) is the state's immunization registry
- Providers are required to report all immunizations administered to ≤ 18 y.o. under ARS 36-135
- Pharmacists are required to report any immunizations administered regardless of patient age under ARS 32-1974
- Enables providers to access a complete immunization record for each child they treat regardless of where immunizations may have been received

ASIIS:

Current Status/Future Plans

- ASIIS currently accepting submissions for MU
- Over 400 providers in production
- Standard protocols and guidelines for testing distributed after receipt of initial interest form
 - available by sending a request to ASIIS_Group1@azdhs.gov

Electronic Laboratory Reporting (ELR)



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What is ELR?

- Labs are required to report a set of test results to ADHS (A.A.C. R9-6-204) (often integrated with Provider reporting from Infection Control)
- Electronic reports are integrated into the state electronic disease surveillance systems
- ELR shortens the time for reporting and initiation of infectious disease control measures
- ELR decreases hospital staff time needed reporting



ELR: Current Status

- ADHS is currently accepting ELR submissions for MU
- About 25 hospitals have tested (3 in production)
- Onboarding additional laboratories based on readiness and following steps outlined at www.azdhs.gov/meaningful-use

Syndromic Surveillance



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What is Syndromic Surveillance?

- Public Health receives reports of demographics and symptoms of patients
- This information is used to identify outbreaks or health events and monitor the health status of a community
- Syndromic surveillance is fast – Public Health can see what's happening in a community before the patients have a confirmed diagnosis or laboratory results

Syndromic Surveillance: Current Status/Future Plans

- Utilizing the national BioSense 2.0 system as the MU Syndromic Surveillance system in AZ
- Start accepting submissions from hospitals in January 2014
- Will require a Data Use Agreement between facility and ADHS

Registration of Intent



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Registration of Intent to Submit data to Public Health

- Stage 2 **requires** Provider registration with the Public Health Agency (ADHS) of intent to initiate ongoing submission
- Deadline: within 60 days of the start of the EHR reporting period

Registration of Intent to Submit to PH

- ADHS is developing a website for Provider registration
 - While the website is in development, please email meaningfuluse@azdhs.gov to start the registration process.
- Once you have registered with ADHS, you will receive information on next steps for each objective you plan to complete

MeaningfulUse@azdhs.gov

www.azdhs.gov/meaningful-use

The screenshot shows the Arizona Department of Health Services website. At the top, there is a navigation bar with the ADHS logo, the text "Health and Wellness for all Arizonans Arizona Department of Health Services", and the "AZ.GOV" logo. Below this is a search bar and a navigation menu with links for "ADHS Home", "About", "News", "A-Z Index", and "Contact". The main content area features a "Meaningful Use Home" section with four icons and descriptions: 1. A syringe icon with the text "Developing the capability to electronically transfer immunization registries." and a link to "AZ State Immunization Info System (ASIS)". 2. A folder and doctor icon with the text "Electronic transmission of reportable lab results to public health agencies." and a link to "Electronic Lab Reporting (ELR)". 3. A microscope icon with the text "Using specific indicators to identify outbreaks, public health events, and monitor health status." and a link to "Syndromic Surveillance". 4. A book icon with the text "Find answers to some of the most frequently asked questions." and a link to "Frequently Asked Questions (FAQs)". A sidebar on the left contains a menu with links to "Division for Planning and Operations Home", "Meaningful Use Home", "Arizona State Immunization Information System (ASIS)", "Electronic Lab Reporting (ELR)", "Syndromic Surveillance", and "Frequently Asked Questions (FAQs)". At the bottom of the sidebar, it says "Meaningful Use 150 N 18th Avenue". Below the main content area, there is a heading "Meaningful Use and Arizona's Public Health Systems".



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Vaccine Preventable Diseases

APIC

State of the State

January 24, 2014

Karman Tam, MPH

Office of Infectious Disease Services

Arizona Department of Health Services

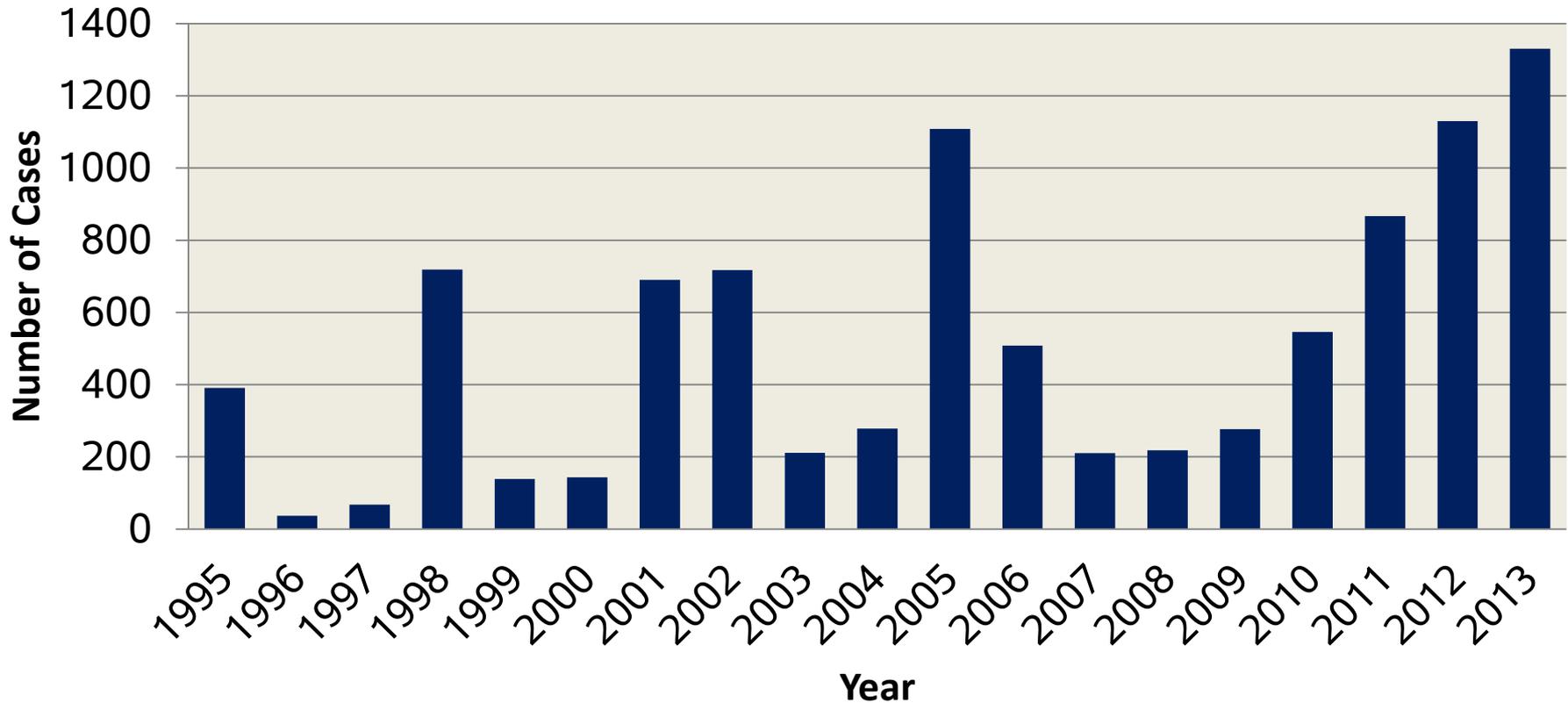


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Confirmed and Probable Pertussis Cases in Arizona 1995-2013 (preliminary data)



Reported NNDSS pertussis cases: 1922-2013*



*2013 data are provisional.

SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System and 1922-1949, passive reports to the Public Health Service

<http://www.cdc.gov/pertussis/images/incidence-graph.jpg>

Pertussis in Arizona

2013 (preliminary)

1,330 cases

1001 confirmed

329 probable

2012

1,130 cases

575 confirmed

555 probable

2011

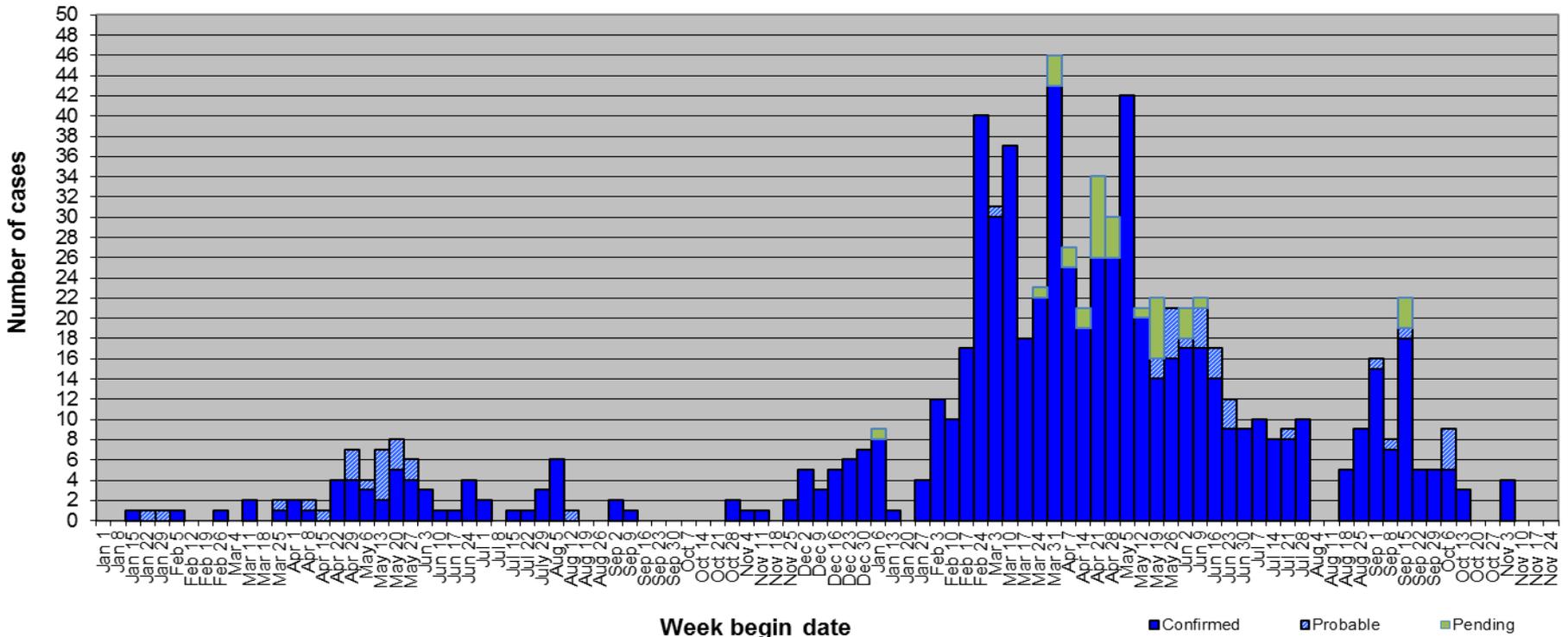
867 cases

160 confirmed

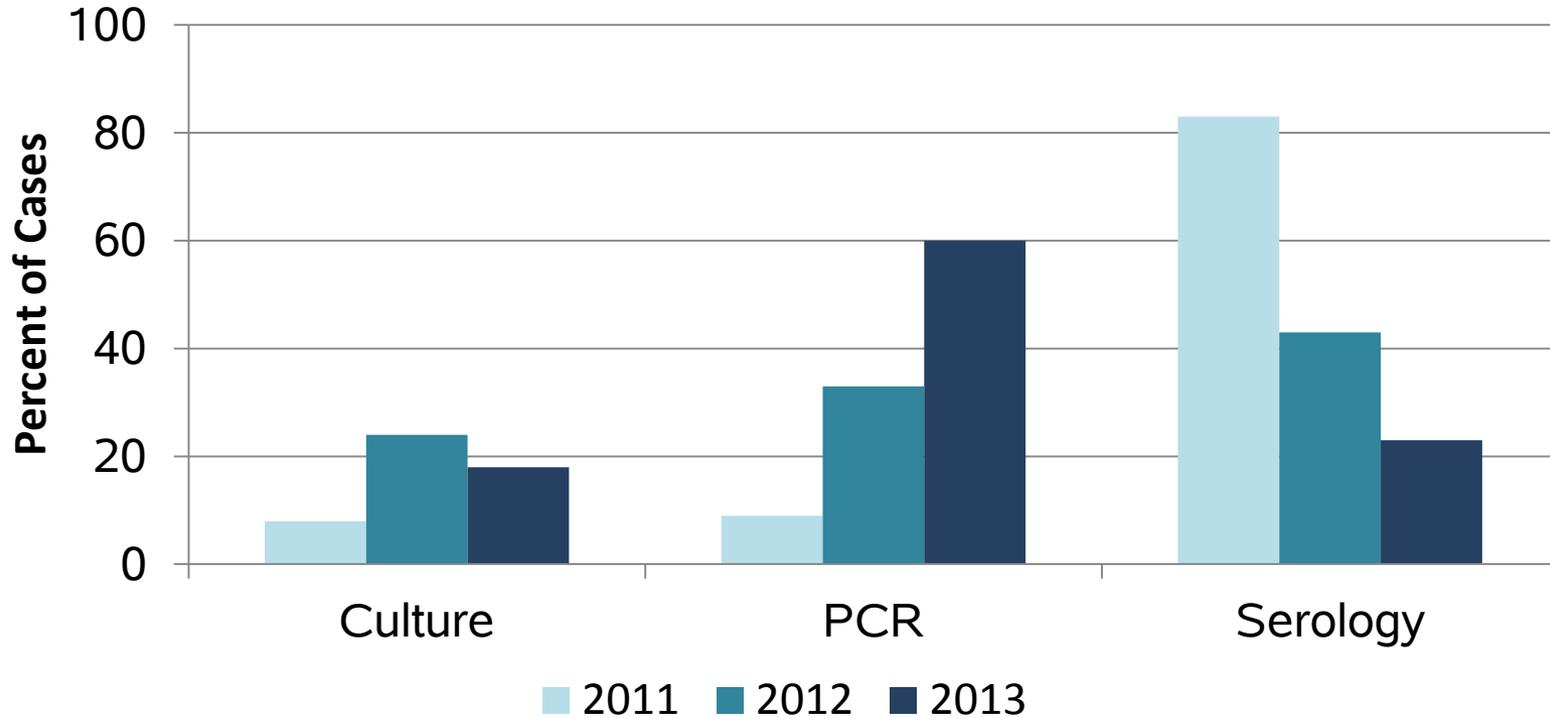
707 probable

Mohave County Pertussis Outbreak

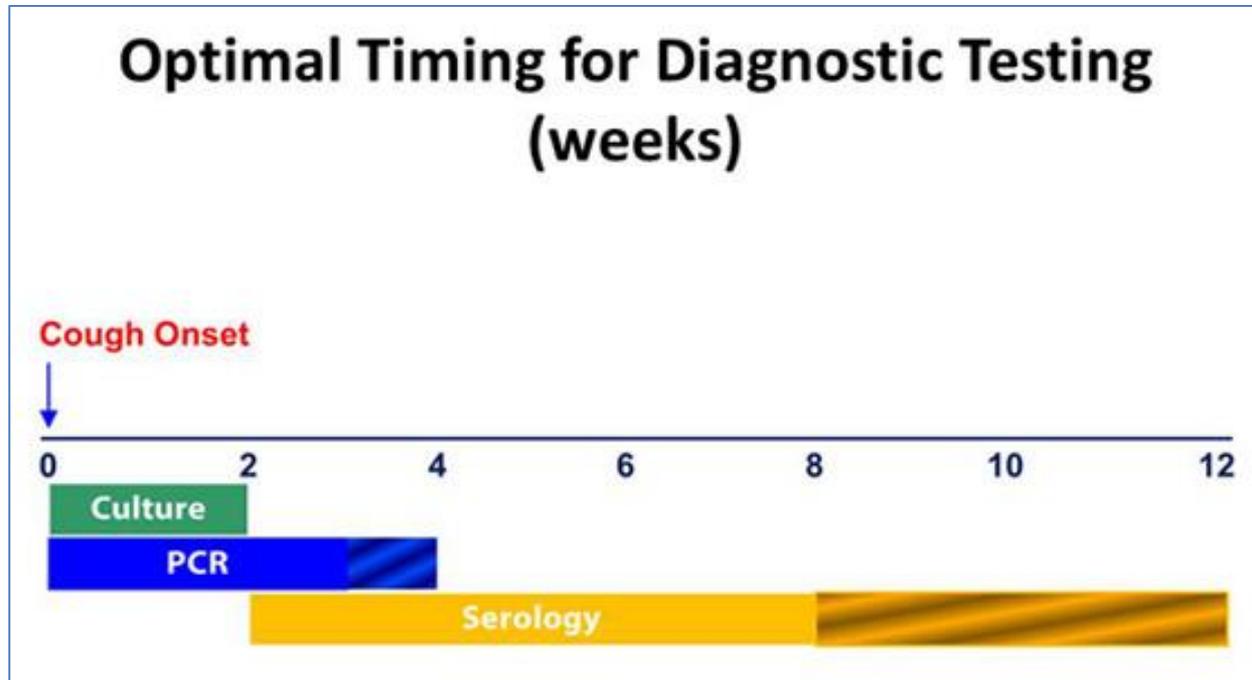
Epi-curve by week, AZ cases
 Confirmed (n=696), Probable (n=47), and Pending Classification (n=35)
 Pertussis, Arizona Strip 2012-2013
 (updated 11/20/13)



Percent of Confirmed and Probable Cases Tested Positive by Culture, PCR, or Serology (2011 vs. 2012 vs. 2013)

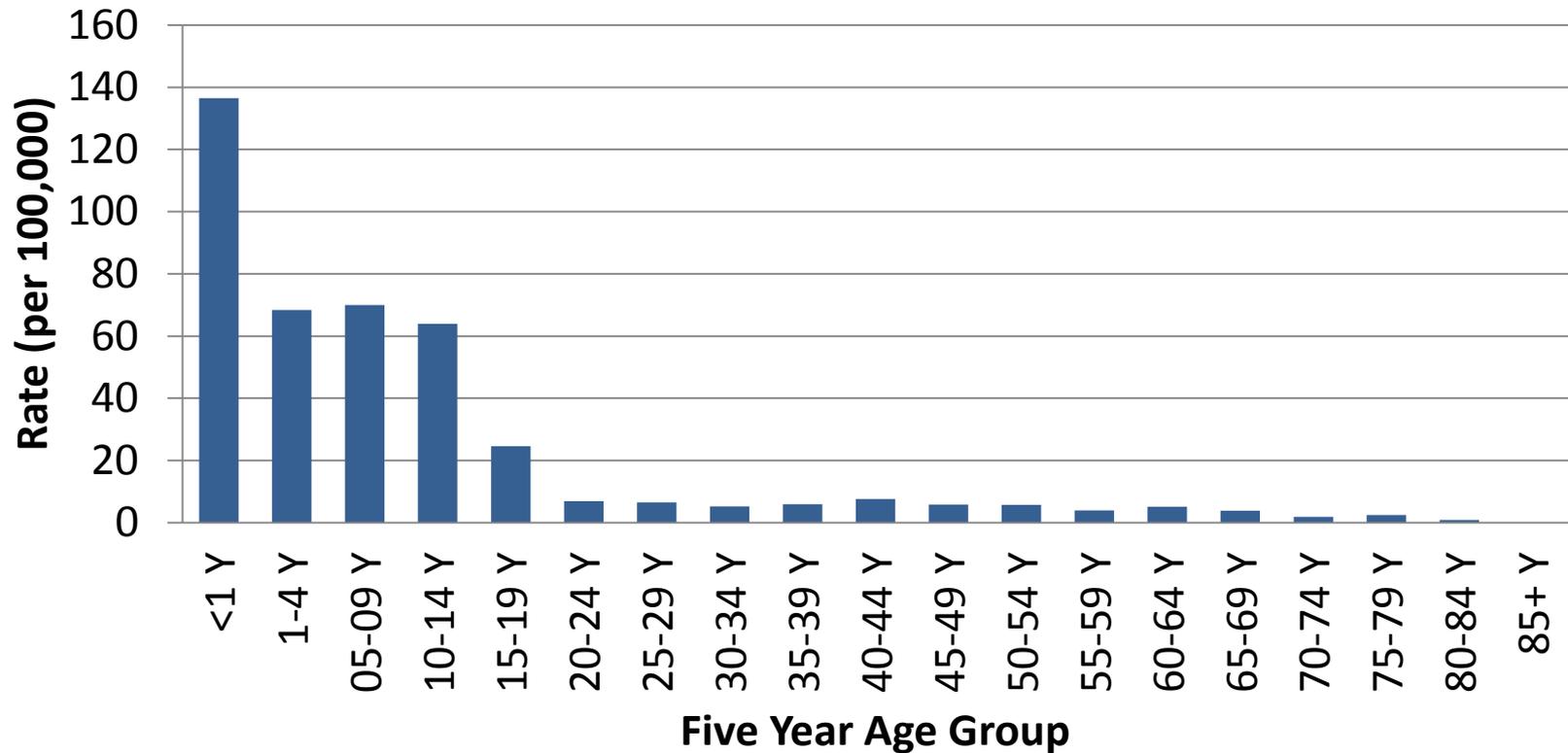


Pertussis Testing

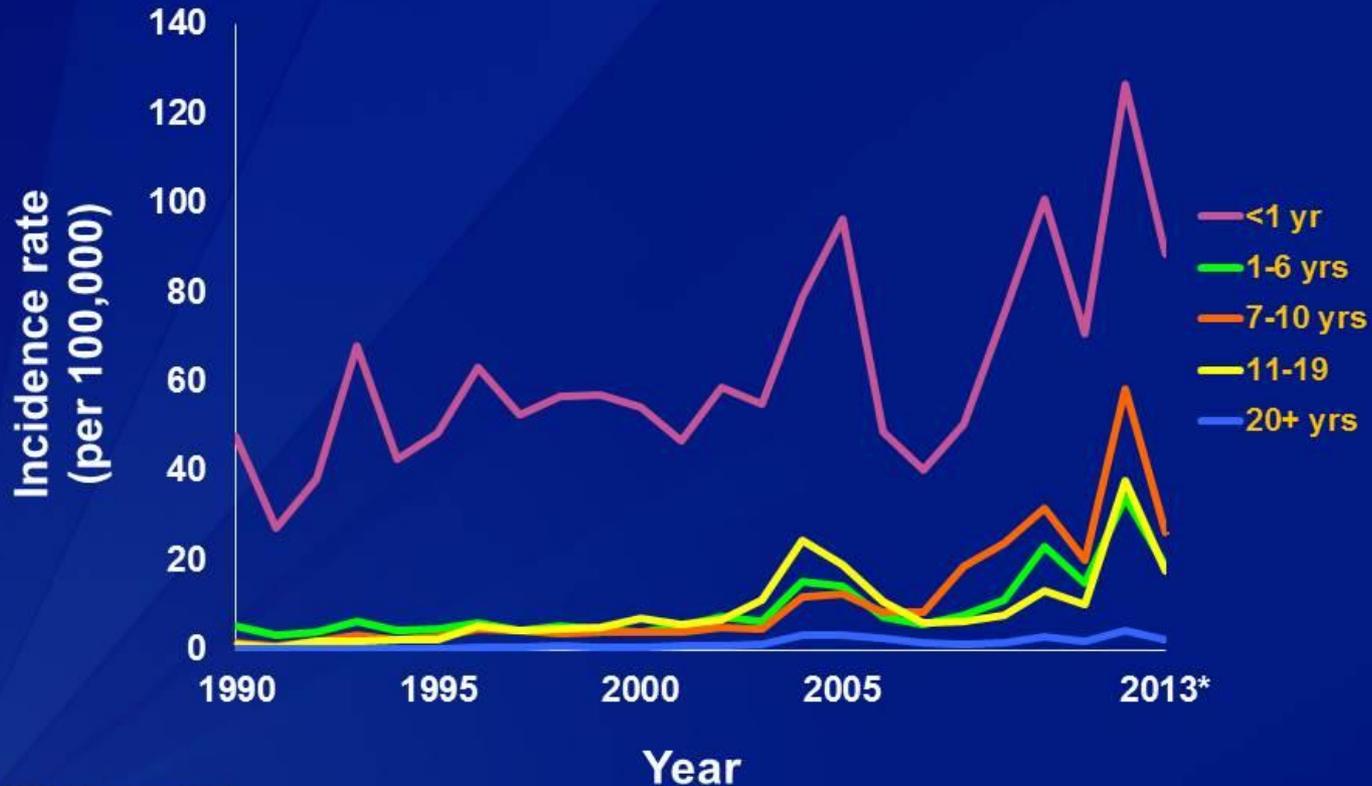


<http://www.cdc.gov/pertussis/clinical/diagnostic-testing/diagnosis-confirmation.html>

Confirmed and Probable Pertussis Cases in Arizona by Five Year Age Group (2013)



Reported pertussis incidence by age group: 1990-2013*



*2013 data are provisional.

SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System

<http://www.cdc.gov/pertussis/images/incidence-graph-age.jpg>

H. flu type B (Hib) in children <5 years

2013

3 confirmed cases

- 1 death in an unvaccinated 1 year old (bacteremia and meningitis)

2012

2 confirmed case

Meningococcal Invasive Disease

2013

12 confirmed cases

3 serogroup B

4 serogroup C

3 serogroup Y

2 serogroup W-135

3 deaths:

- 55 y.o. (serogroup B)
- 42 y.o. (serogroup W-135)
- 93 y.o. (serogroup C)

2012

6 confirmed cases

Meningococcal Invasive Disease

School-related serogroup B outbreaks in the US (2013):

1. Princeton University:

- 8 cases reported since March 2013
- Bring in serogroup B vaccine currently licensed in Europe, Canada, Australia (administered to 5,000+ students in December)

2. UC Santa Barbara

- 4 cases reported since November 2013
- FDA application underway to approve use of serogroup B vaccine

Measles

2013

1 confirmed case

- Unvaccinated 13 month old
- International travel to endemic area
- Symptoms: rash, fever, cough, corzya, conjunctivitis

2012

2 confirmed cases (siblings)

Measles MMWR, September 24, 2013

- Measles elimination declared in US in 2000; however, importations continue to occur
- The median number of cases reported in the United States from 2001–2012 was 60 cases (range: 37–220 cases); median annual number of reported outbreaks was 4 (range 2-16)
- In 2013, 159 cases and 8 outbreaks were reported to CDC as of August 24, 2013
- In 2013, the source of importations was most often the WHO European region, an area where measles continues to circulate
- The majority of cases reported in 2012 were unvaccinated (82%) or had unknown vaccination status (9%)
- In 2011, 220 cases were reported in the US, the largest number of reported cases since elimination in 2000. In 2008, 140 cases were reported nationwide
- In 2013, the largest outbreak since 1996 was reported in New York City, with 58 case

Mumps

2013

0 confirmed cases
1 probable case

2012

3 confirmed cases (siblings)

Resources

2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

<http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>

Guideline for infection control in health care personnel, 1998

<http://www.cdc.gov/hicpac/pdf/InfectControl98.pdf>



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Thank you!

Please contact Karman Tam for more information:

karman.tam@azdhs.gov

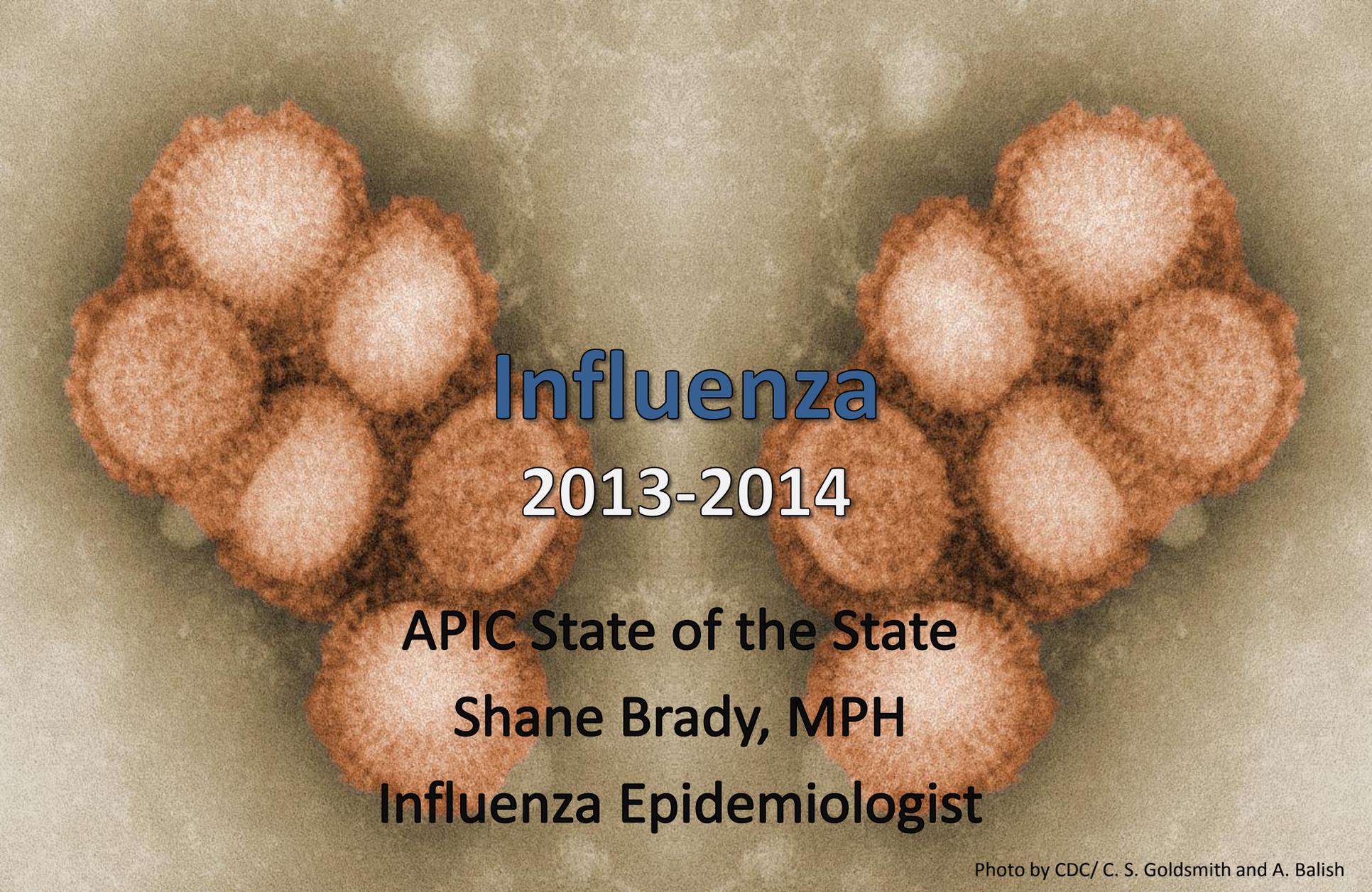
(602) 364-0246



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Influenza

2013-2014

APIC State of the State

Shane Brady, MPH

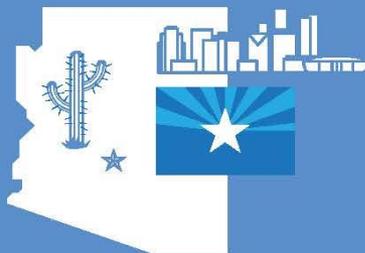
Influenza Epidemiologist

Photo by CDC/ C. S. Goldsmith and A. Balish

the **benefits** of **vaccination**

The estimated number of influenza-associated illnesses prevented by flu vaccination during the 2012-2013 season:

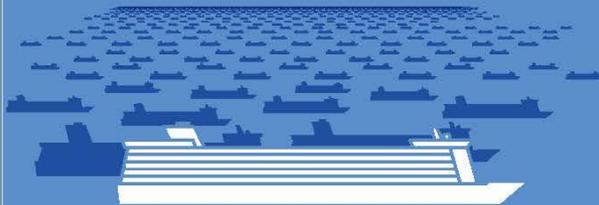
6.6 million



or the population of the state of **Arizona**

The estimated number of flu-associated medical visits prevented by vaccination during the 2012-2013 season:

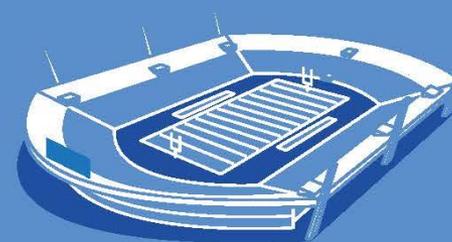
3.2 million



or the passengers of **1,067** mega cruise ships

The estimated number of flu hospitalizations prevented during the 2012-2013 season:

79,000



or all the fans in a **FULL** NFL stadium

get **vaccinated**

DATA: Morbidity and Mortality Weekly Report (MMWR), December 13, 2013.

www.cdc.gov/flu

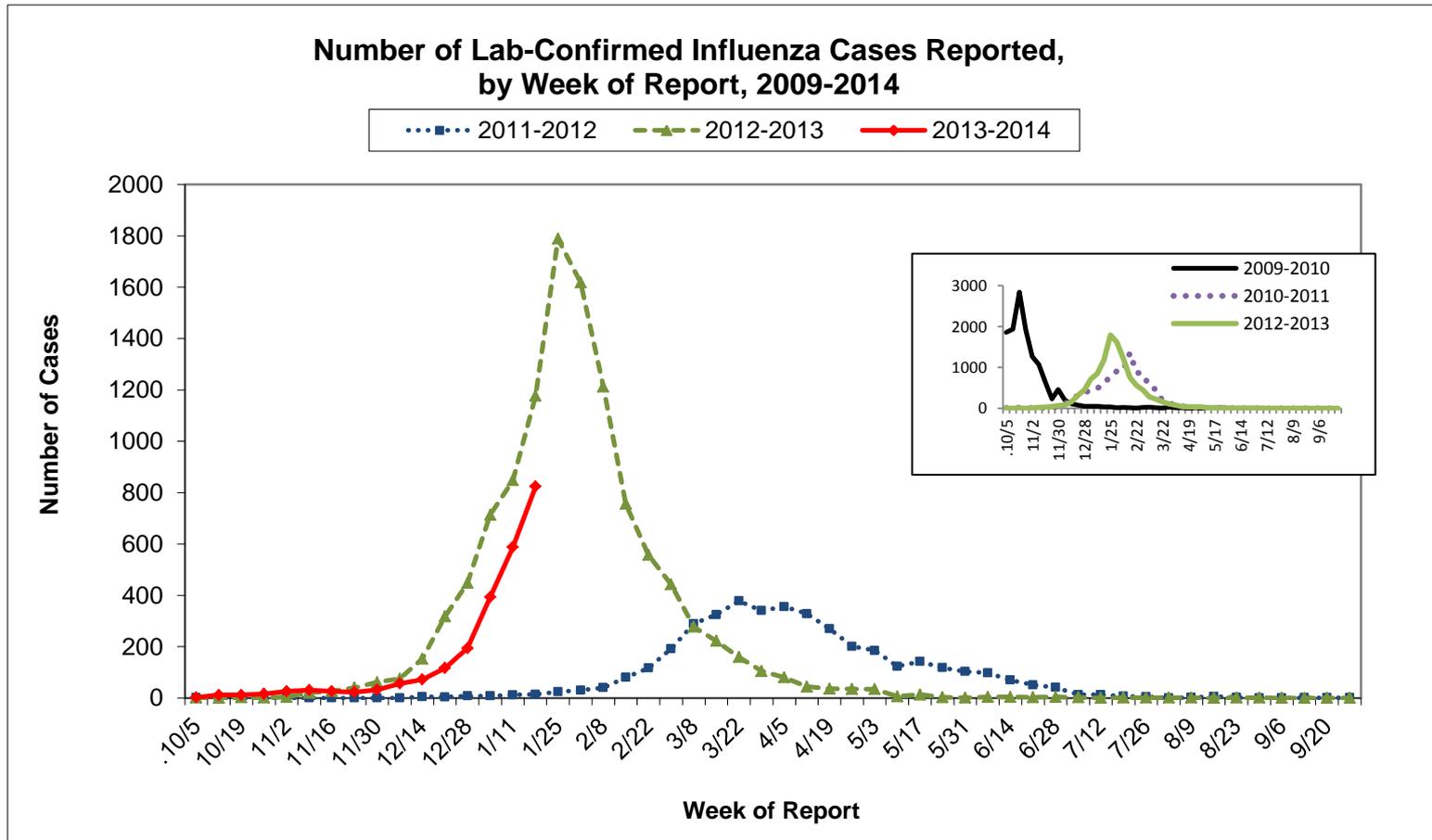


U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

2013-2014 Season

- First case confirmed on October 4th, 2013 with activity intensifying in the last few weeks (Widespread).
- CDC has received a number of reports of severe respiratory illness among young and middle-age adults.
- Vaccine is a good match to circulating strains.
 - Trivalent Vaccine:
 - an A/California/7/2009 (H1N1)pdm09-like virus
 - an A/Texas/50/2012 (H3N2)-like virus
 - a B/Massachusetts/2/2012-like virus (from the B/Yamagata lineage)
 - Quadrivalent Vaccine:
 - a B/Brisbane/60/2008-like virus (from the B/Victoria lineage)

Lab-confirmed influenza cases, 2009-2014



Age Groups by Flu Type

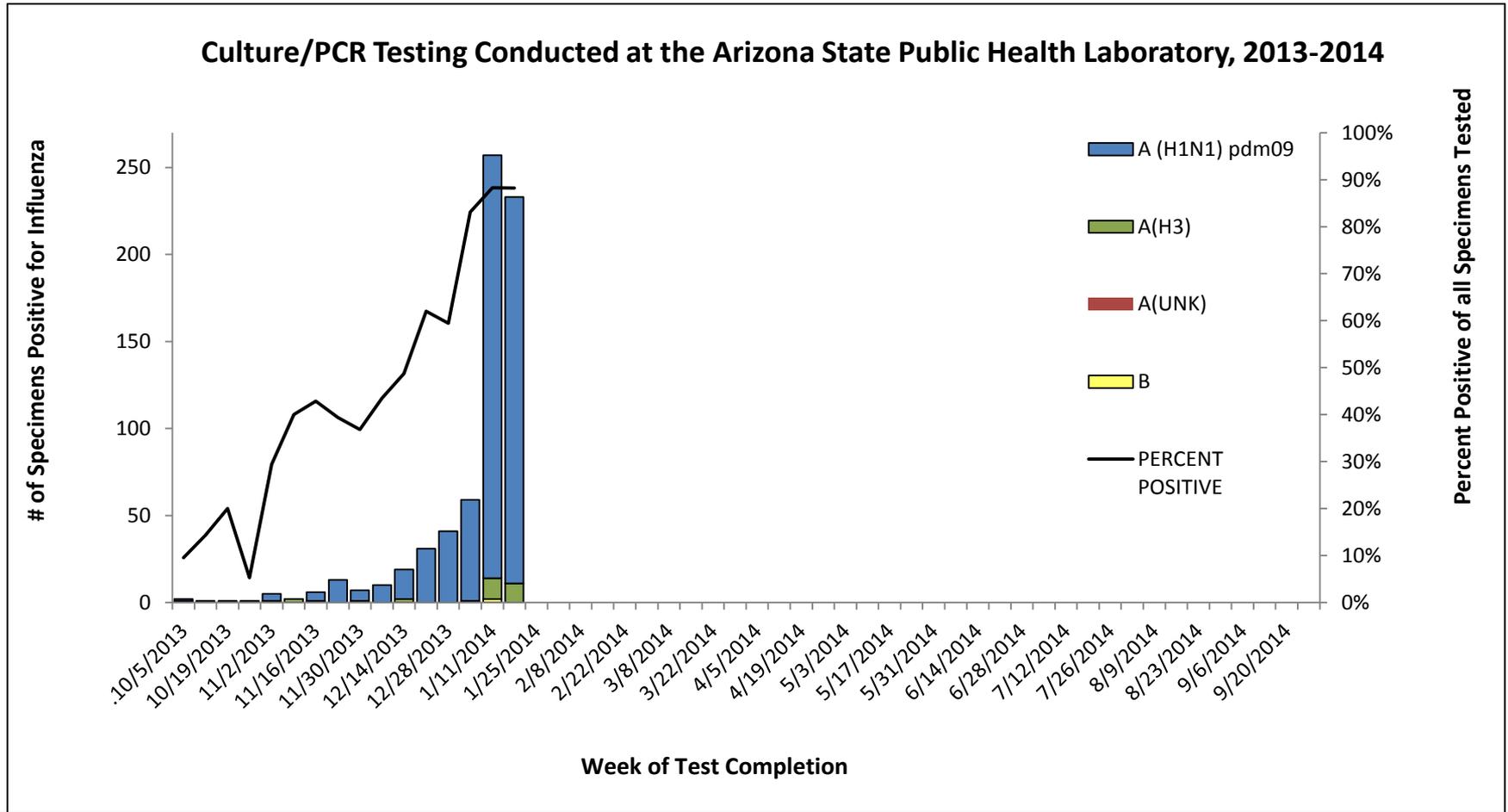
Age Group of Reported Influenza Cases by Type, 2013-2014 Season (Week 3)

Age Group	All Confirmed Cases (N=2,424)	Influenza A (N=2,191)	Influenza B (N=180)	Unknown Type (N=53)
0 to 4 years	433 (18%)	383 (17%)	42 (23%)	8 (15%)
5 to 18 years	427 (18%)	383 (17%)	35 (19%)	9 (17%)
19 to 49 years	991 (41%)	913 (42%)	57 (32%)	21 (40%)
50 to 64 years	337 (14%)	317 (14%)	14 (8%)	6 (11%)
65 years or older	219 (9%)	180 (8%)	30 (17%)	9 (17%)
Unknown age	17 (1%)	15 (1%)	2 (1%)	0 (0%)

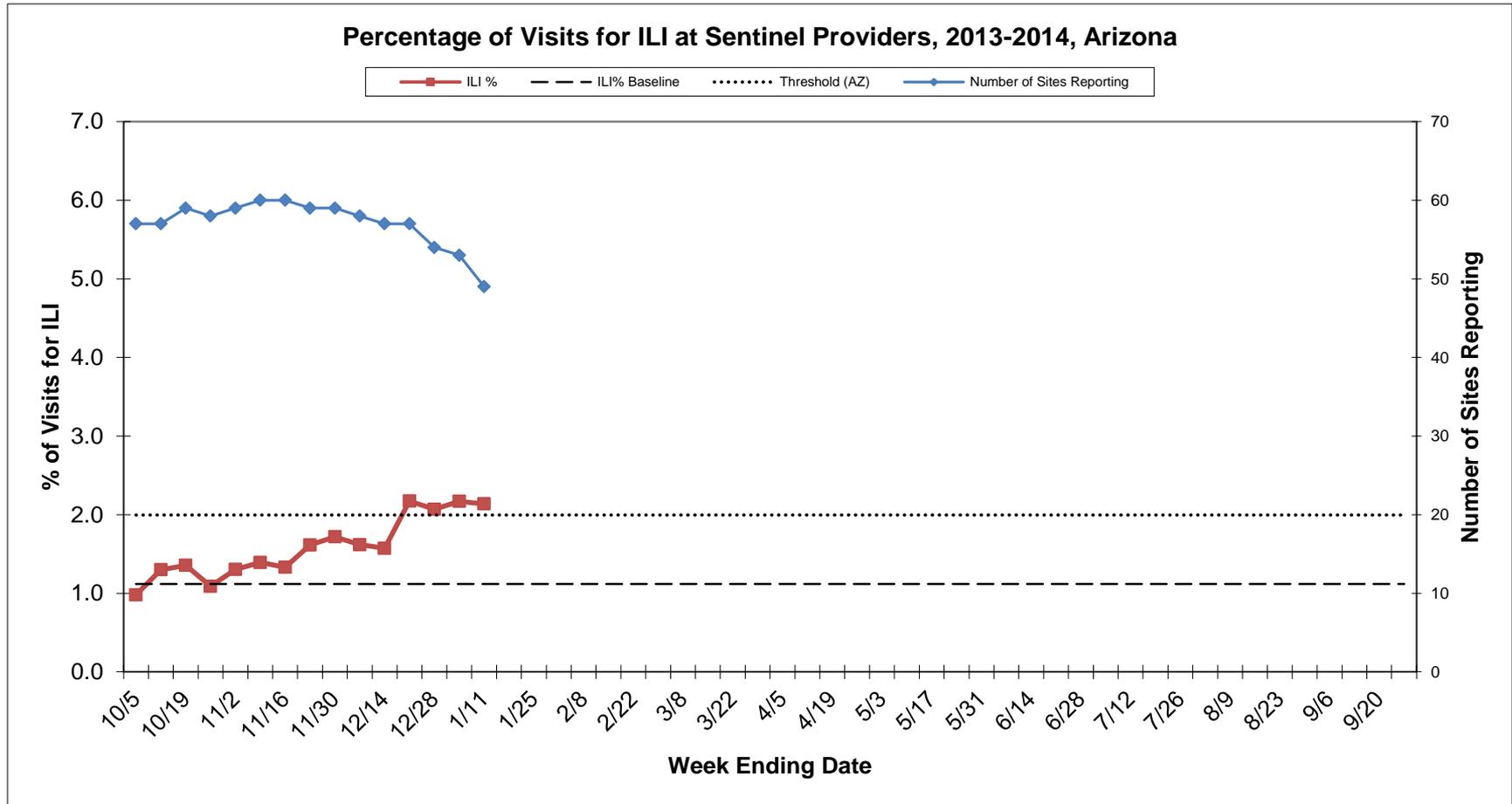
Age Group of Reported Influenza Cases by Type, 2012-2013 Season (Week 3)

Age Group	All Confirmed Cases (N=3,888)	Influenza A (N=2,849)	Influenza B (N=912)	Unknown Type (N=127)
0 to 4 years	692 (18%)	477 (17%)	177 (19%)	38 (30%)
5 to 18 years	948 (24%)	598 (21%)	308 (34%)	42 (33%)
19 to 49 years	1,177 (30%)	903 (32%)	242 (27%)	32 (25%)
50 to 64 years	418 (11%)	319 (11%)	91 (10%)	8 (6%)
65 years or older	625 (16%)	529 (19%)	90 (10%)	6 (5%)
Unknown age	28 (1%)	23 (1%)	4 (.4%)	1 (1%)

State Lab Data: PCR & cultures, 2013-2014

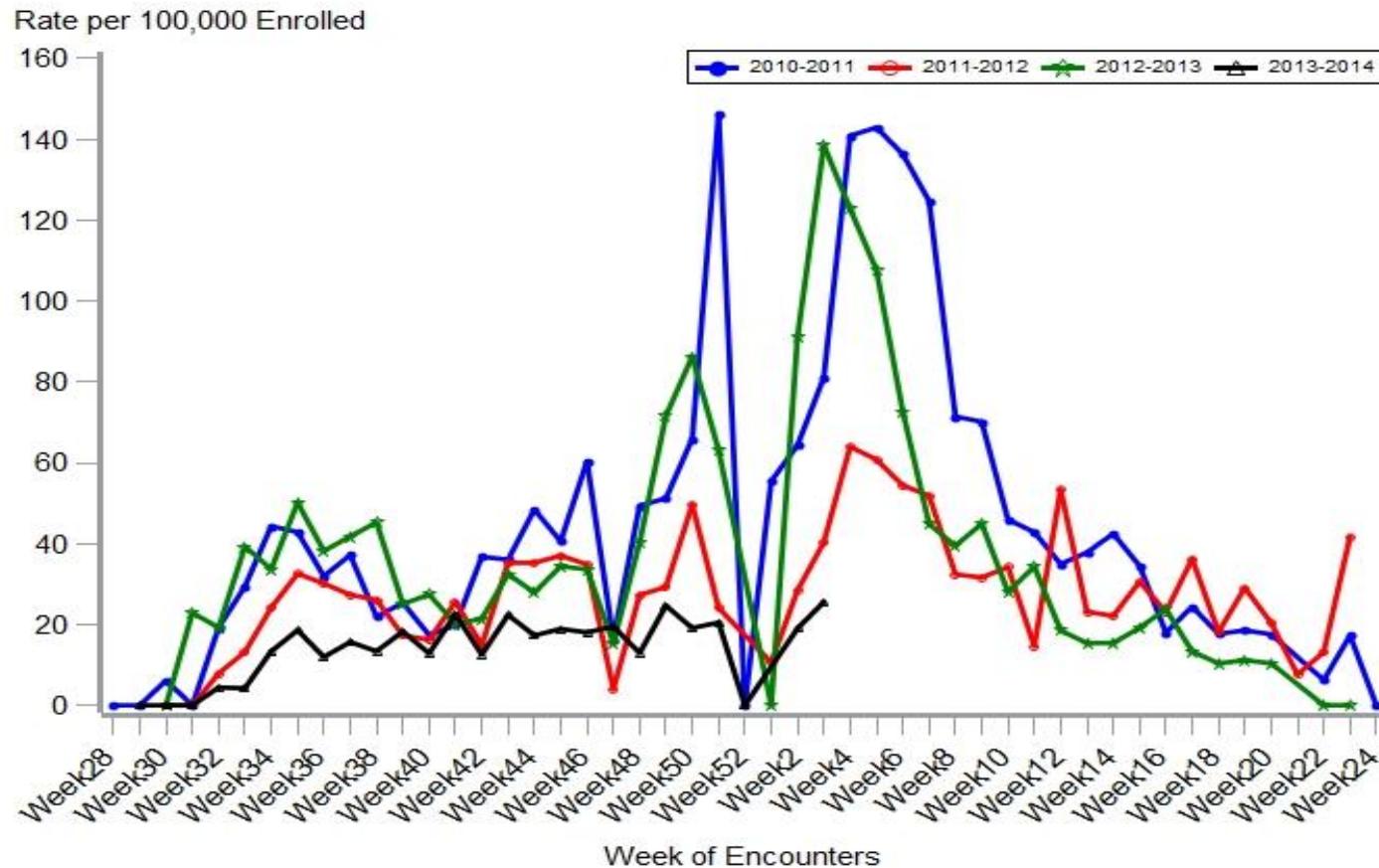


Percentage of Visits for Influenza-like illness at sentinel outpatient providers, 2013-2014



School surveillance

Influenza-Like Illness Per School Enrollment in Arizona (per 100,000)



Antiviral resistance (national)

	Oseltamivir: Resistant Viruses, Number (total tested)	Zanamivir: Resistant Viruses, Number (total tested)
Influenza A (H3N2)	None (85 tested)	None (85 tested)
Influenza B	None (20 tested)	None (20 tested)
2009 Influenza A (H1N1)	13 (1,553* tested)	None (709 tested)

*Includes specimens tested in national surveillance and additional specimens tested at public health laboratories in 16 states (AZ, CO, DE, FL, GA, HI, MA, ME, MD, MI, NY, PA, TX, UT, WA, and WI) who share testing results with CDC.

Neuraminidase inhibitors continue to show very little resistance (e.g., Tamiflu, Relenza).

Resources

ADHS Weekly Activity Reports:

<http://www.azdhs.gov/phs/oids/epi/flu/index.htm>

CDC Flu: <http://www.cdc.gov/flu>



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Thank you!

Shane Brady
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602-364-3523

Photo by CDC/ Brian Judd



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Coccidioidomycosis in Arizona

Clarisse Tsang, MPH

Acting Infectious Disease Epidemiology Program Manager

Office of Infectious Disease Services

APIC: January 24, 2014



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Surveillance: Case Definition

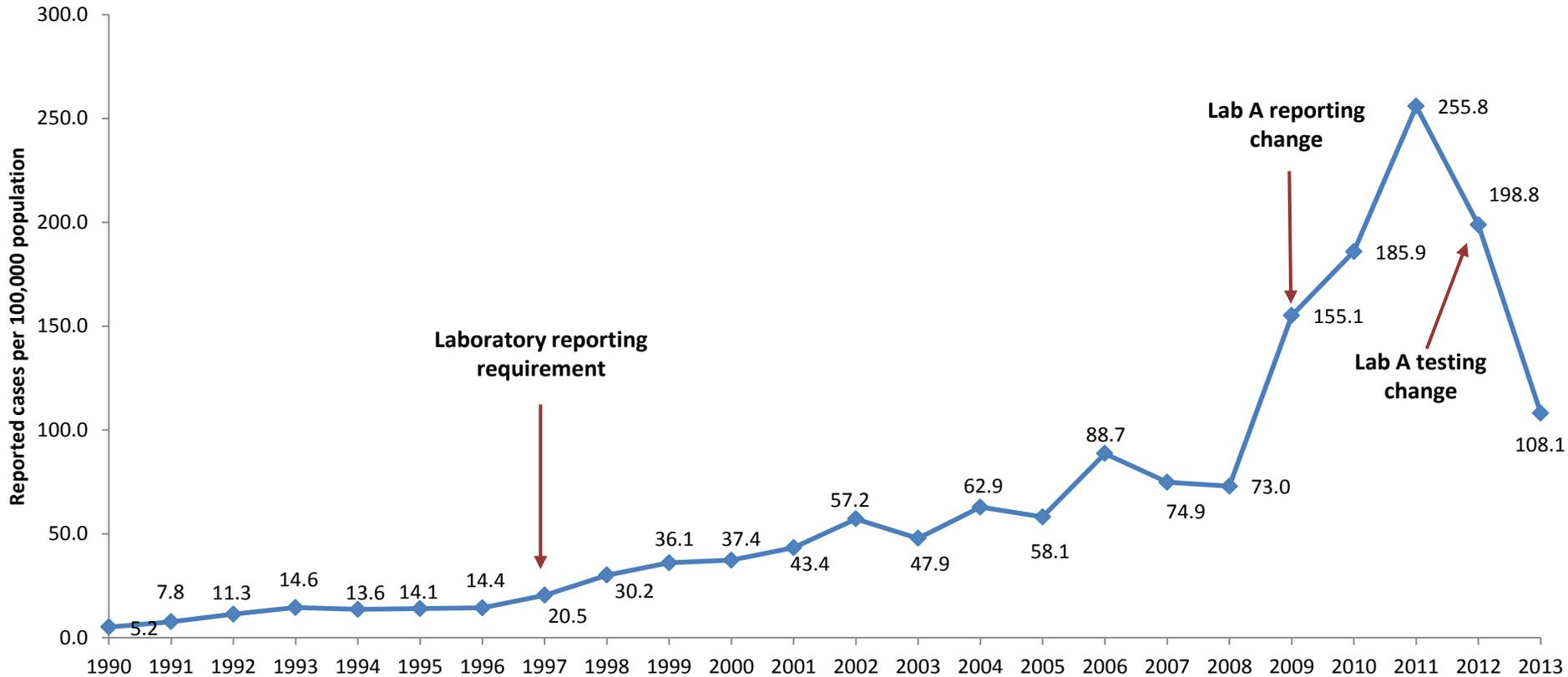
- Council for State and Territorial Epidemiologists (CSTE)
 - Updated in 2007
 - Clinical case definition
 - Lab criteria*
- Arizona Department of Health Services (ADHS)
 - Since 1997
 - No clinical symptoms required
 - Lab criteria*

*Lab criteria for diagnosis includes either detection of IgM by immunodiffusion (ID), enzyme immunoassay (EIA), latex agglutination, or tube precipitin OR IgG by ID, EIA, or complement fixation (CF) OR cultural, histopathologic, or molecular evidence of *Cocci* species

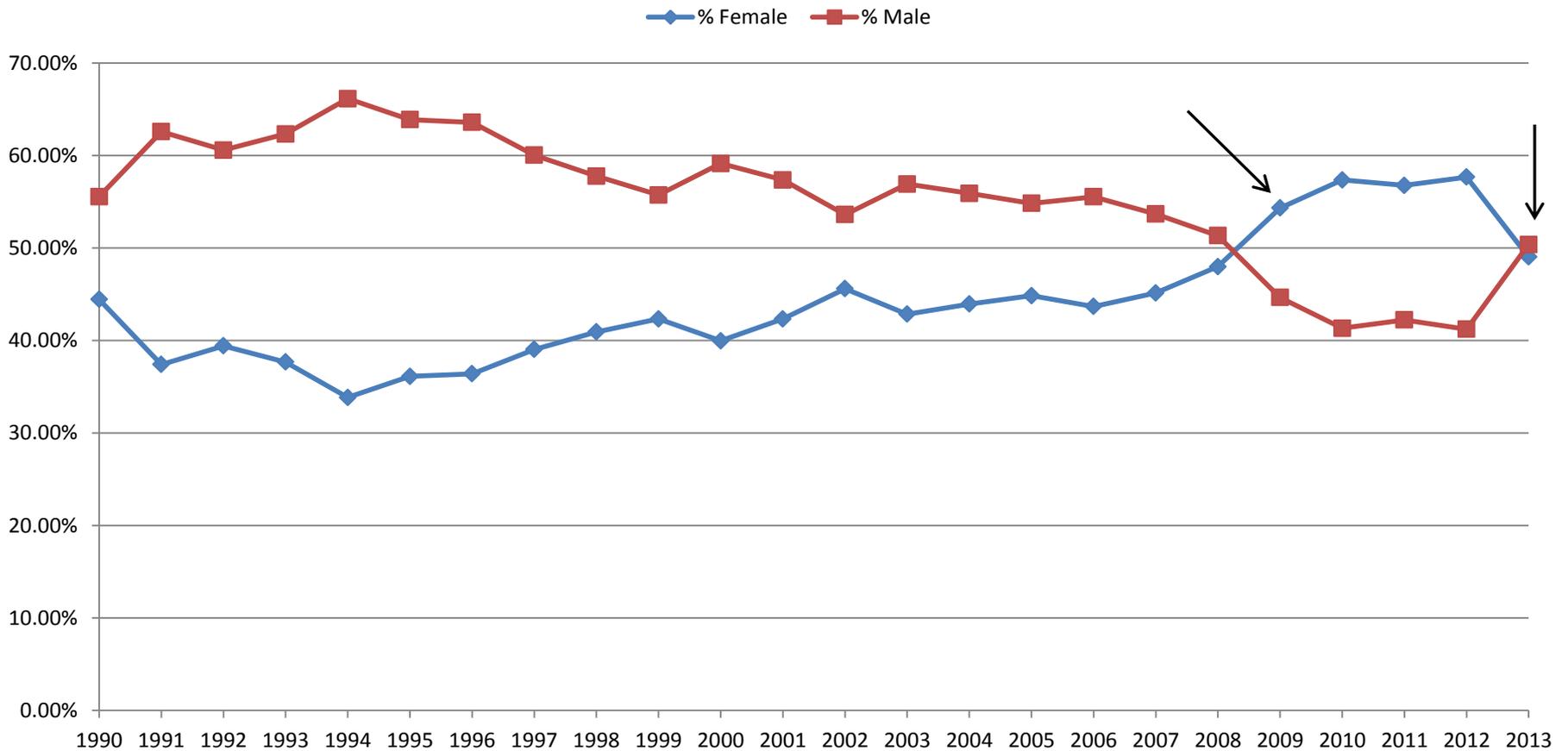
Epidemiology

- 2/3 of US cases reported from AZ
- 2nd most commonly reported infectious disease in AZ
- Causes a substantial proportion of all community-acquired pneumonia in AZ
- Steadily increasing since 1997
- Potential Reasons
 - **Reporting and laboratory test method changes**
 - Changes in population (growth, aging, chronic diseases)
 - Increased recognition and testing
 - Precipitation, dust storms, climate, construction

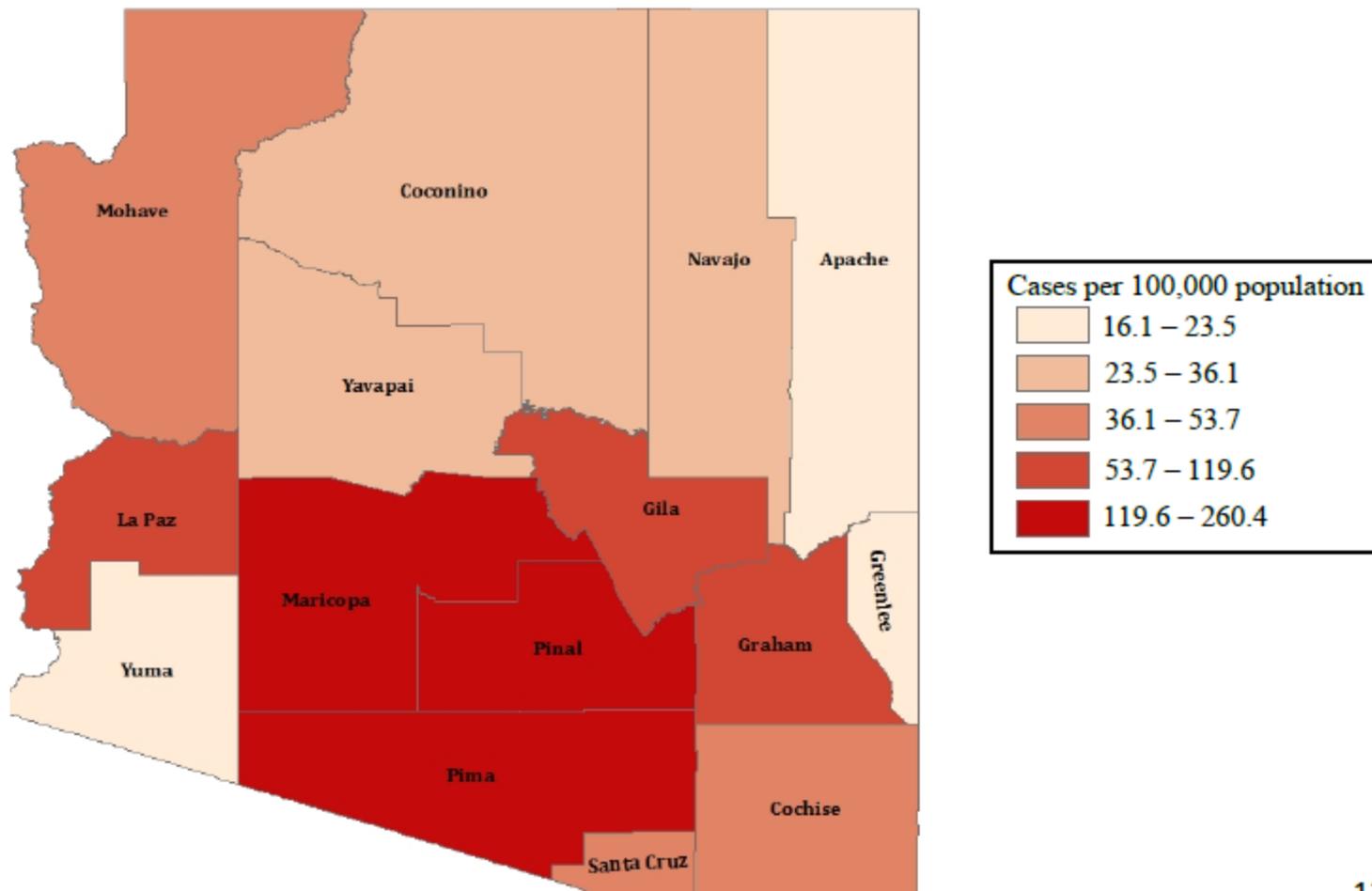
Rates of Reported Cocci, Arizona, 1990-2013*



Impact of Reporting and Testing Changes on the Gender Distribution of Reported VF Cases, 1990 - 2013*



Rates of Reported Cocci by County, 2012



Reported cases and rates by age groups, 2012

Age Group* (Years)	Cases	Cases per 100,000
<5	59	13.3
5-14	499	54.6
15-24	1387	150.6
25-34	1,857	214.5
35-44	2,215	267.3
45-54	2,175	260.0
55-64	1,923	257.0
65-74	1,587	294.6
75-84	866	295.2
85+	299	275.7

*Age could not be ascertained for 53 cases (approximately 0.4% of all cases).

Impact

- 1,000+ hospitalizations per year
 - 2003 – 2012: \$900+ million in charges
- ADHS interview study (2007)
 - Ill for a median of 120 days
 - 75% missed school or work
 - Median 14 days
 - 75% unable to do daily activities
 - Median 47 days
 - 46% went to an ER
 - 25% saw a doctor 10+ times

Delays in Diagnosis (2007 study)

- Median of 11 days (mean 44) before first seeking care
- Time between first seeking healthcare and getting diagnosed: median 23 days, mean 5 months
- Median of 2 (mean 3) provider visits before being tested
- More likely to ask for testing if knew about VF

Public Education Campaign

- Valley Fever Awareness Week
- Outreach
 - Radio PSAs
 - Billboard ads
 - Social media
 - New website
- New partnerships with community organizations
 - High risk groups



Janice K. Brewer
Governor

Office of the Governor

*** VALLEY FEVER AWARENESS WEEK ***

WHEREAS, Valley Fever infections have tripled in Arizona over the last decade, with 60 percent 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, government agencies, businesses, and community organizations are united to educate the public and healthcare providers about Valley Fever in Arizona; and

WHEREAS, research released by the Centers for Disease Control and Prevention and the announcement of a Congressional Task Force brought national attention to Valley Fever; 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 9 -17, 2013 as

*** VALLEY FEVER AWARENESS WEEK ***

in recognition of the outstanding treatment and research conducted by the Valley Fever Center for Excellence at the University of Arizona, its new clinical center at St. Joseph's Hospital in Phoenix, 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



Janice K. Brewer
GOVERNOR

DONE at the Capitol in Phoenix on this twelfth day of September in the year Two Thousand and Thirteen, and of the Independence of the United States of America the Two Hundred and Thirty-eighth.

ATTEST:

Ken Blumeth

Secretary of State

COUGH
HEADACHES
FEVER
ACHING
JOINTS
EXHAUSTED
NIGHT
RASH SWEATS



© The Arizona Republic

Valley Fever



COUGH
HEADACHES
FEVER
ACHING
JOINTS
EXHAUSTED
NIGHT
RASH SWEATS



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Valley Fever and Pregnancy



VALLEY FEVER

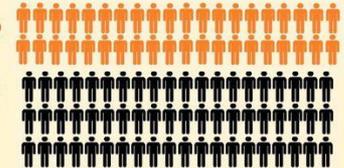
Valley Fever is an infection caused by breathing in fungal spores found in hot, dry places like Arizona



MORE THAN 10,000 PEOPLE IN ARIZONA ARE INFECTED WITH VALLEY FEVER EVERY YEAR

40 OF EVERY 100

infected people become sick with symptoms such as cough, fever, fatigue, rash, and night sweats.



5 will have severe pneumonia and need treatment

In less than 1 in 100, the disease spreads outside the lungs and can cause serious symptoms

People who become sick with Valley Fever:

- can be ill for weeks or months
- can miss two weeks of work or school



In 2012:

- more than 1,000 people were hospitalized with Valley Fever
- these hospitalizations cost more than \$68 million

**COUGH? FEVER? EXHAUSTED?
 ASK YOUR DOCTOR TO TEST YOU
 FOR VALLEY FEVER**



VALLEYFEVERARIZONA.ORG

azdhs.gov



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VALLEY FEVER

COUGH HEADACHES LACK OF APPETITE SORE
RASH CHILLS EXHAUSTED THROAT
WEIGHT LOSS CHEST PAIN ACHING JOINTS
MUSCLE ACHES FEVER SHORTNESS OF BREATH
WHEEZING NIGHT SWEATS STIFF NECK

KNOW THE SIGNS



WWW.VALLEYFEVERARIZONA.ORG



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COUGH? FEVER? EXHAUSTED?

Photo courtesy of The Arizona Republic, June 7, 2006



ASK YOUR DOCTOR TO TEST YOU FOR VALLEY FEVER



Arizona Department of Health Services | Office of Infectious Disease Services | 150 N. 18th Ave, Suite 140 | Phoenix, Arizona 85007 | (602) 364-4562 | www.valleyfeverarizona.org



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Physician Outreach

- 2007: Recommendation to test all CAP patients in Arizona for Valley Fever
- Annual free CME course with VFCE
 - In-person and online
- Maricopa County Medical Society Honor Roll
- Upcoming clinician KAP survey





WHAT CAN YOU DO?

- Order Cocci serology on CAP cases
- Manage Valley fever cases
 - Inform patient of diagnosis
 - Report the case to public health
 - Consider treatment with anti-fungal drugs if the patient is at risk for severe disease

For more information on treatment guidelines, visit www.idsociety.org/pg

Resources

Arizona Department of Health Services
Office of Infectious Disease Services
150 N. 18th Ave, Suite 140
Phoenix, Arizona 85007
(602) 364-4562
www.valleyfeverarizona.org

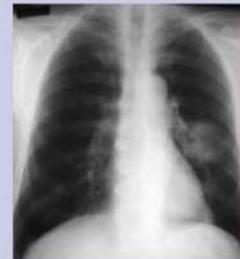
Valley Fever Center for Excellence
Mail Stop 1-111NF
3601 S. 6th Avenue
Tucson, Arizona 85723
Hotline: (520) 629-4777
<http://www.vfce.arizona.edu/>

When you suspect

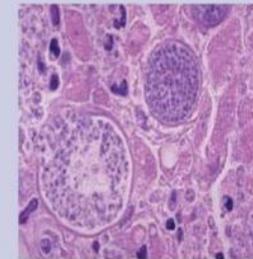
Community Acquired Pneumonia

Order a

Coccidioidomycosis Serology



=



For more information, visit www.valleyfeverarizona.org



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Thank you! Questions?



Courtesy of Mike Olbinksi

Clarisse Tsang

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602-364-3685



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Healthcare-Associated Infections Program: A Review of 2013



Eugene Livar, MD

HAI Program Manager
Office of Infectious Disease Services
Arizona Department of Health Services

Healthcare Associated Infection (HAI) Program

- Facilitate the HAI Advisory Committee and its corresponding subcommittees as they identify and support HAI prevention priorities for the state.
- Coordinate intra-agency HAI prevention activities.
- Monitor and expand current HAI surveillance activities.
- Build and participate in partnerships and collaborations to assist HAI efforts throughout the state.
- Upon request, provide infection prevention technical assistance.

Technical Assistance

- County health departments
- Intra-agency
- Dialysis facilities
- Outpatient clinics
- Arizona State Board of Pharmacy
- Arizona State Board of Dental Examiners

HAI Program & Investigations



2013 HAI Investigations

- 84 outbreak investigations in HCFs in 2013
 - (including hospitals, LTCFs, and assisted living facilities)
 - 69% GI
 - 12% lice & mites
 - 12% respiratory (0% VPDs though)

What are some examples of the other 7%?

How is our role expanding?

Pima County Dental Facility

- Received notification from a dentist concerning possibly compromised dental compressor used and sold in Arizona
- Misconnection of a “T” adapter was identified within the compressor and lines
- This allowed possible exposure of infectious material and fluids to a patient’s oral mucosa or wounds

Pima County Dental Facility

- CDC's DHQP and Division of Oral Health was contacted
 - helped determine there a reasonable risk to the exposed patients
- Compromised compressor was sold by auction to dentist in a different county
- County and ADHS worked to identify possibly exposed patients and develop a plan of action

Pima County Dental Facility

- 176 possible exposed patients identified
- BBP testing recommended
- Patient notification plan and letter developed
- FAQ and resources identified
- County hotline setup to address public concern and calls
- Regular communication established between county, ADHS, and DHQP for updates and need assessment

Pima County Dental Facility

- Outcomes
 - No HCV, HBV, or HIV cases identified related to exposure
- Issues identified
 - Need for relationship and collaboration with Arizona Board of Dental Examiners
 - Regulatory entity of private dental practices and facilities
 - Intra-agency communication of possible infection control reports and complaints

Compounding Pharmacy

- Intra-agency communication concerning a HCF notification of possible contaminants in vials
 - Vials prepared by an Arizona compounding pharmacy
- HCF immediately identified and sequestered associated lots
- *Bipolaris* species identified as possible contaminant
- 106 possible exposures identified
- Action plan developed with CDC, FDA, ASBP, ADHS, count health department, and HCF

Compounding Pharmacy

- First time ADHS collaborated and provided technical assistance with the Arizona State Board of Pharmacy (ASBP)
- Compounding site visit with ASBP and FDA
- Documentation, sterility and infection control lapses identified
- Able to verify that none of the compounded vials in question had been shipped out of state

Compounding Pharmacy

- Outcome
 - Preliminary recall of compounded medication, later expanded
 - HCF, county and ADHS coordination to address public and media concerns
 - No injuries identified or reported at this time
- Issues identified
 - Oversight of compounding pharmacies
 - Need for communication algorithm between state agencies
 - Restriction of communication between federal and state agencies at times
 - Review and familiarity with
 - ASBP rules and statutes
 - USP 797 Standards and Guidelines for pharmaceutical compounding

HAI Advisory Committee and Subcommittees





HAI
Advisory
Committee

- Infection Prevention and Control Advisory Committee (IPCAC) created by Senate Bill 1356 in 2008
- IPCAC evolved in to HAI Advisory Committee in 2010
- Comprised of various state stakeholders and partners
- Steers HAI subcommittee activities and projects
- Bi-monthly meeting
- Chaired by State HAI Coordinator



www.preventHAiaz.gov

HAI Subcommittees

- [Antimicrobial Stewardship Subcommittee](#)
- [Education and Training Subcommittee](#)
- [Prevention Strategies Subcommittee](#)
- [Surveillance Subcommittee](#)
- [Long Term Care Subcommittee](#)
- [End-Stage Renal Disease Subcommittee](#)

60 Minutes For Change



- APIC members are great resources for our HAI Subcommittees!
- Subcommittee meetings occur monthly and average 60 minutes in length
- Voluntary and open participation by members
- Attendance through physical presence or provided conference line

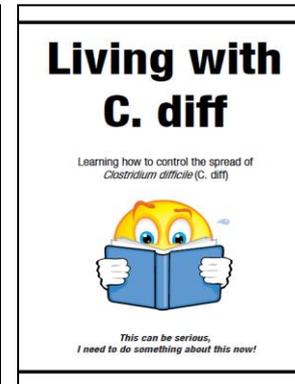
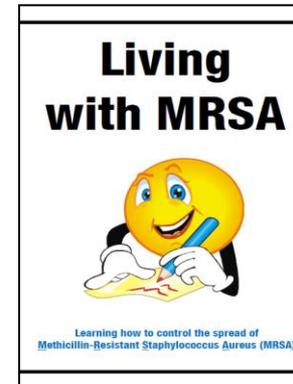
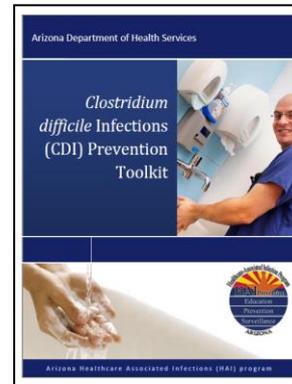
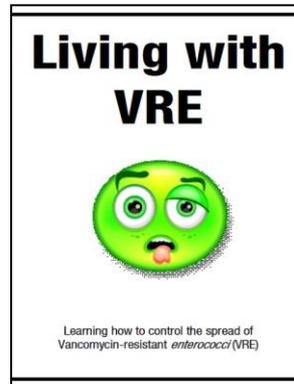
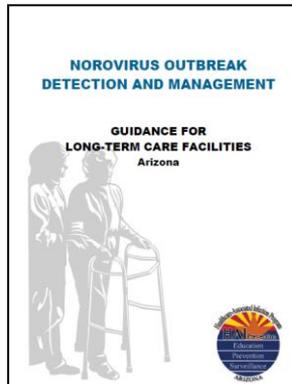
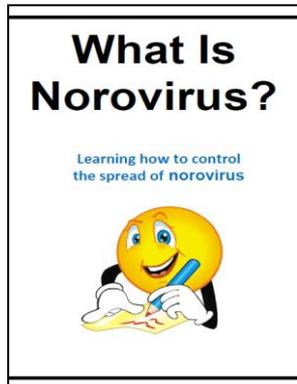
Could you give 60 minutes a month to improve our statewide efforts to address emergent HAI issues?

Thank you

Eugene.Livar@azdhs.gov

(602) 364-3522

www.preventHAaz.gov



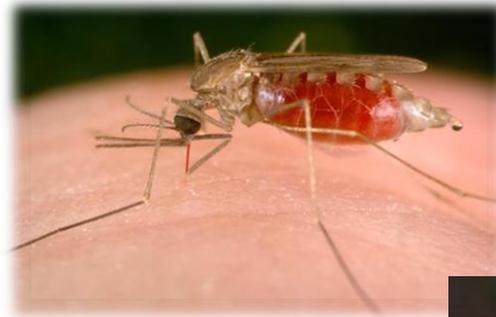
Health and Wellness for all Arizonans



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Vector-borne and Zoonotic Disease Update

- Brucellosis
- Hantavirus
- Plague
- Psittacosis
- RMSF
- Rabies
- West Nile Virus



2013 Brucellosis Update

- 2 human cases
 - Maricopa residents
 - 16 y.o. male, 14 y.o. female
 - Hispanic
 - *Brucella melitensis*
 - Consumed unpasteurized dairy products from Mexico months prior



Brucellosis should be considered if:

- Symptoms: intermittent fever, chills, malaise, sweating, joint pain, weakness, headache, anorexia/weight loss, fatigue
- Recent out-of-county travel (esp. to Mexico)
- Consumed unpasteurized dairy products (e.g. raw milk, queso fresco, goat cheese)
- Physicians should **ALWAYS** document “Suspect or Rule-Out Brucella”



Brucellosis & Lab Exposures

- Most lab exposures occur because “R/O BRUCELLA” was not indicated by MD
- Brucellosis is the most commonly reported lab-acquired bacterial infection
- Follow up: PH to evaluate risk levels of all lab staff (high vs. low risk)
 - High risk staff should receive PEP and recommend serial blood draws (baseline, 2, 4, 6, and 24 wks)

Testing: Brucellosis

- Culture positive from hospital lab ➡ report to public health immediately
 - ASPHL will perform confirmatory tests: PCR (rapid) and *Brucella* speciation (approx. 5-7 days)
- Serologic testing
 - Tube agglutination is gold standard
 - Brucella antibody IgM/IgG tests are commercially available – false positives are common
 - F/U confirmation testing at ASPHL/CDC is recommended



2013 Hantavirus Update

- 6 cases (3-Apache, 2-Coconino, 1-Graham)
 - Median age: 42 (26-75 y.o.);
 - 50% female
 - 2 fatal cases
 - 3 summer cases (May-Aug),
3 fall cases (Sept-Dec)
- Common Sx: fever (67%), myalgias, GI symptoms, SOB, respiratory distress, thrombocytopenia (100%)
- Varying severity – 67% intubated/critical care

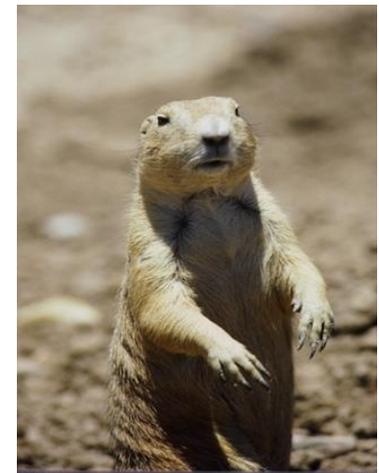


Hantavirus

- 5/6 cases reported from Northern Arizona but can occur anywhere in the state
- 5/6 reported rodent exposure in the previous months before onset
- Testing: commercial labs for rule outs, **high suspect cases should be tested at ASPHL**
 - False positives common at commercial labs
 - Contact PH for testing/reporting high suspect cases

2013 Plague Activity Update

- In August, 5 feral cat deaths in Navajo County – 2 tested positive for plague
 - Living cat with bubo on neck also found
- PHS staff collected fleas from inactive prairie dog colonies → tested positive for *Y. pestis* at NAU
- Pest/flea control
- No human cases



2013 Psittacosis Activity

- In August, a peach-faced lovebird die-off was reported in residential area near Mesa, AZ
- Sample of the dead birds tested positive for *Chlamydophila psittaci*
- A resident with a bird feeder/bird bath originally reported the die-off and had a respiratory illness
- Advised to seek medical care



Psittacosis case

- 50 y.o. female Maricopa resident
- Sx: fever, sore throat, night sweats, cough, congestion, history of asthma
- Seen at urgent care early Sept; Rx – amoxicillin
- Prescription not effective
- Reported bird-die off and cleaned a good amount of bird droppings prior to onset – had potential for aerosolization/inhalation

Psittacosis should be considered if:

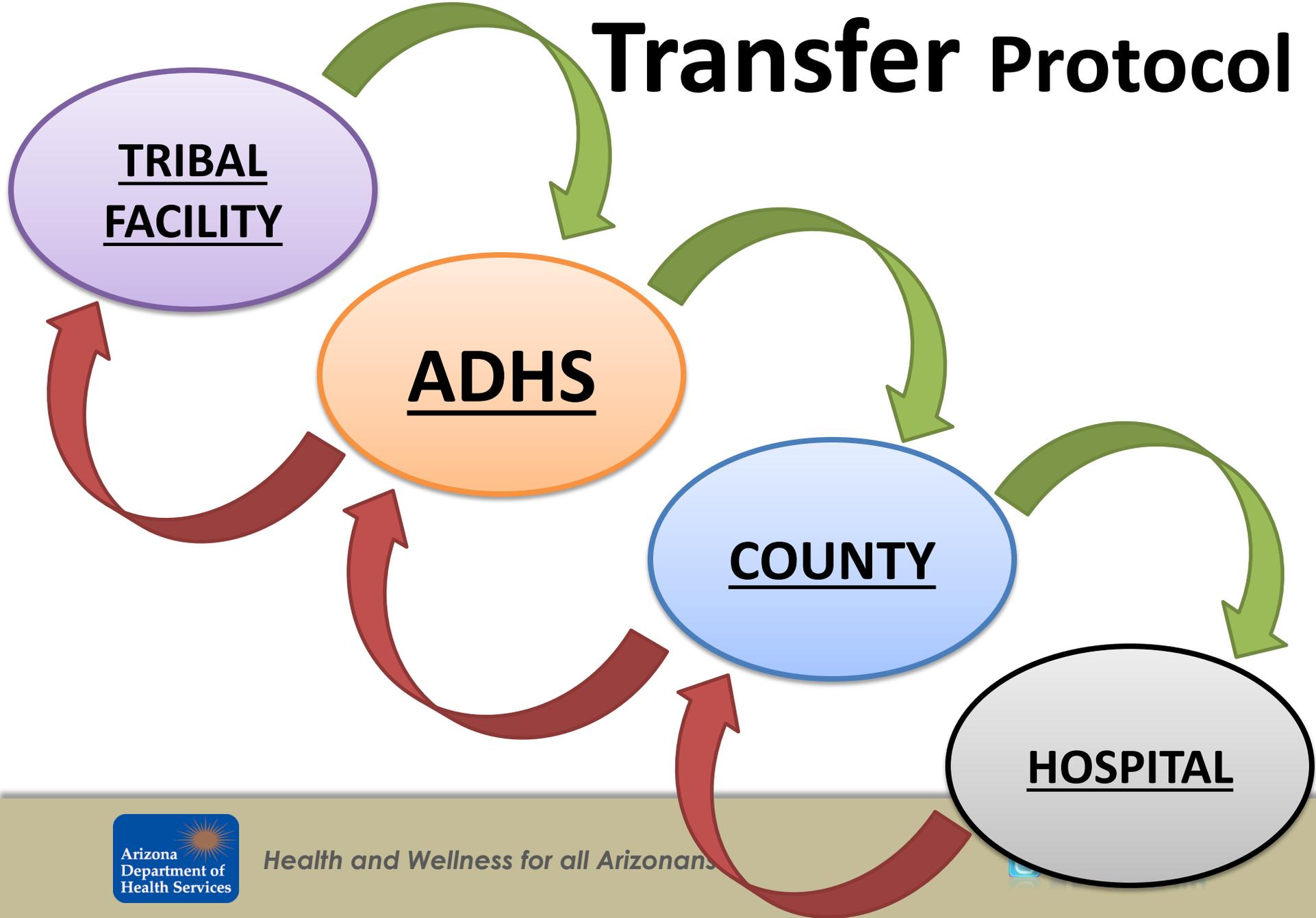
- Fever, chills, headache, muscle aches, dry cough.
Pneumonia often evident on x-ray.
 - Typically presents as flu-like symptoms and can progressive to severe pneumonia or even death
- Bird owner, pet shop employee, veterinarian OR exposure to dried bird droppings
- Treatment: Doxycycline or other tetracycline for 10-14 days after fever subsides

2013 Rocky Mountain Spotted Fever Update

- 45 cases reported in AZ (55 cases in 2012)
 - 1 fatal case (3 fatal cases in 2012)
 - 91 suspect cases still under investigation
- Common Symptoms:
 - fever (100%), headache (47%), myalgia (40%), N/V/D (38%)
- Not-so-common:
 - rash (<10%), reported tick exposure (24%)
- All endemic cases associated with tribal lands
- 2 NEW tribal lands in Arizona areas identified



Transfer Protocol



RMSF Control Efforts: ADHS

- Developed and implemented RMSF transfer protocol
- Outreach to counties
- Develop surveillance tools for emergence of RMSF in new areas
- Assist in Epi-Aids and prevention projects
- Statewide Tribal RMSF Stakeholder meetings
- Provide tick control supplies
- Ongoing surveillance for cases and laboratory testing

2013 Rabies Update

- 69 total positive animals
 - 42 bats
 - 18 skunks
 - 4 foxes
 - 4 bobcats
 - 1 coyote
- 19 human exposures
- 40 domestic animal exposures



2013 West Nile Virus Update

- 61 human cases (6 deaths) reported in Arizona
 - Greenlee, La Paz, Maricopa, Navajo, Pima, Pinal, and Yavapai
 - 87% of reported cases in Maricopa County
 - 77% of reported cases were neuroinvasive
 - Median age: 56 (range 12-93 y.o.)
 - 43% female



Questions??

Contact Information:

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selam.tecele@azdhs.gov

o: (602) 364-3890





Foodborne Disease Outbreaks in Arizona

Rashida Hassan, MSPH
Outbreak Capacity Epidemiologist
Arizona Department of Health Services

Foodborne Illness in the US

Every year:

- 48,000,000 illnesses
- 128,000 hospitalizations
- 3,000 deaths
- Estimated \$152,000,000,000 annual burden
- **Reducing foodborne illness by 10% would keep about 5 million Americans from getting sick each year**



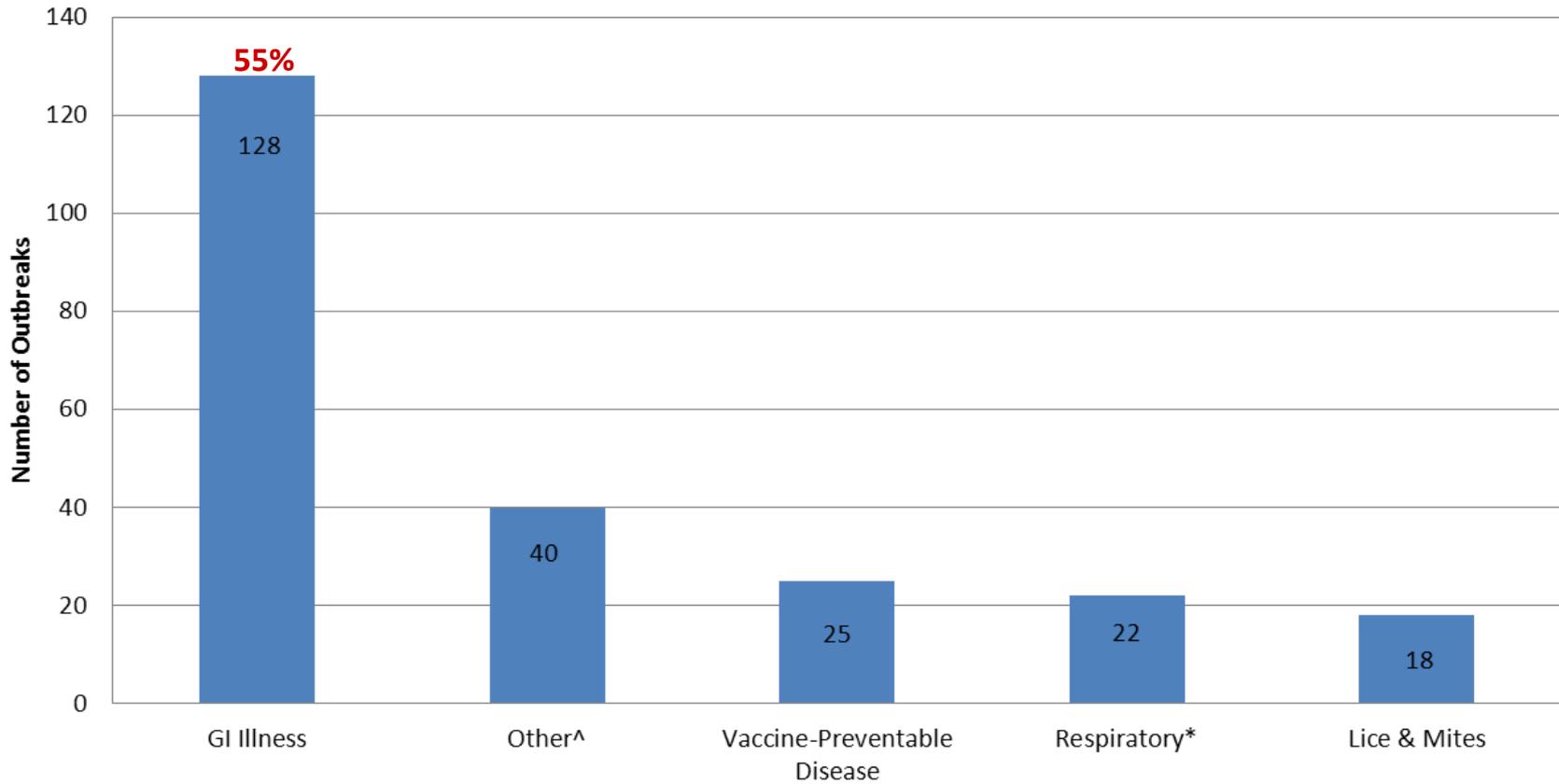
Scallan E, Griffin PM, Angulo FJ, Tauxe RV, Hoekstra RM. [Foodborne illness acquired in the United States—unspecified agents](#). Emerg Infect Dis. 2011;17(1):7-15



Additional CDC Findings:

- *Salmonella* – leading cause of hospitalizations and deaths
 - Responsible for ~28% of deaths and 35% of hospitalizations due to known pathogens transmitted by food
- About 90% of estimated illnesses, hospitalizations and deaths were due to 7 pathogens:
 - *Salmonella*, norovirus, *Campylobacter*, *Toxoplasma*, *E. coli* O157, *Listeria* and *Clostridium perfringens*
- Nearly 60% of illnesses was caused by norovirus

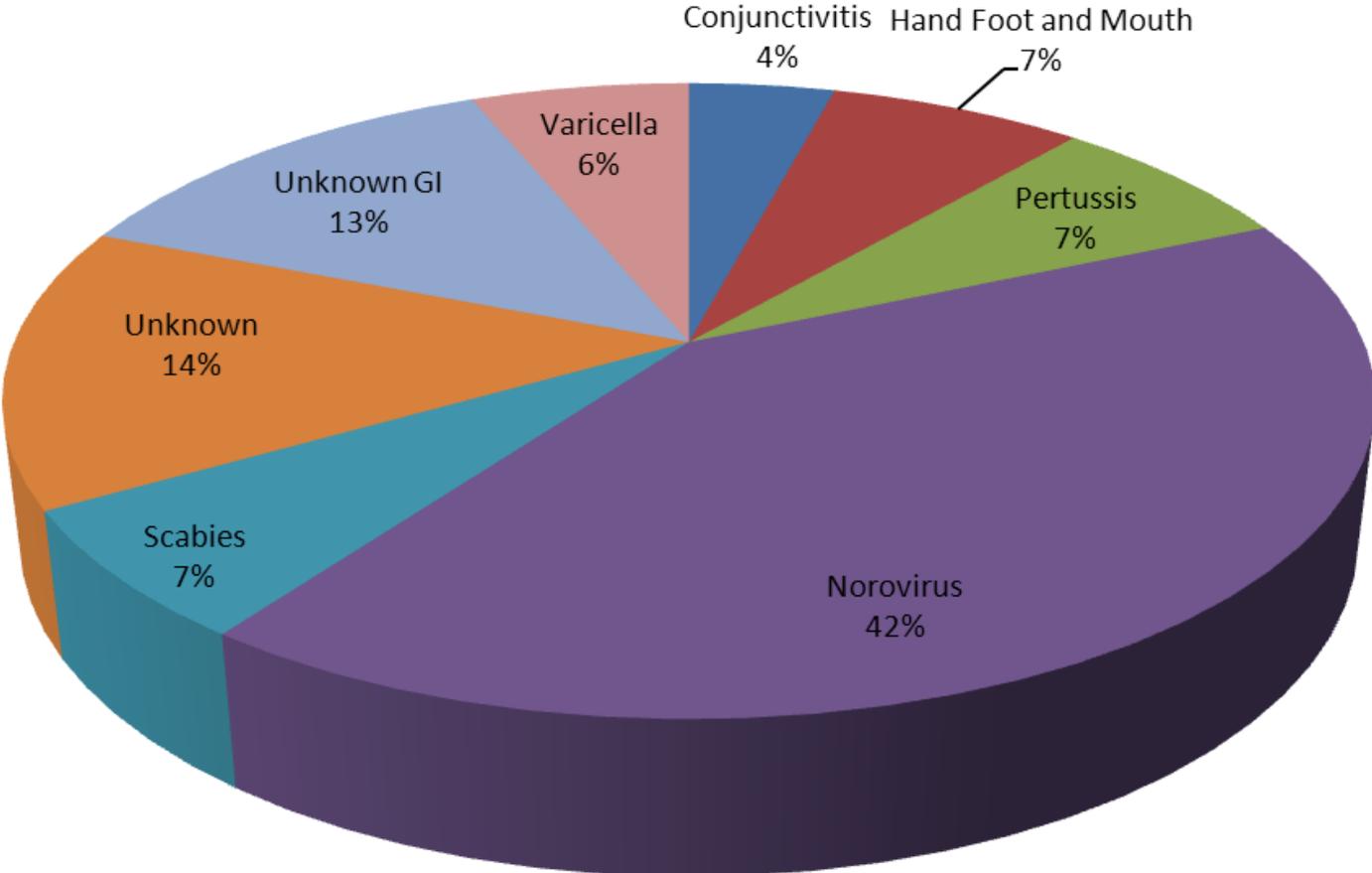
Figure 7. Reported Outbreaks by Infectious Disease Category - Arizona 2012



^Other includes conjunctivitis, certain rash illnesses, MRSA, and agents/symptom presentations that do not fit in the other categories.

*Respiratory includes upper and lower respiratory illness, influenza, and influenza-like illness unless classified elsewhere.

Figure 8. Leading 6 Reported Infectious Agents Causing Outbreaks - Arizona 2012



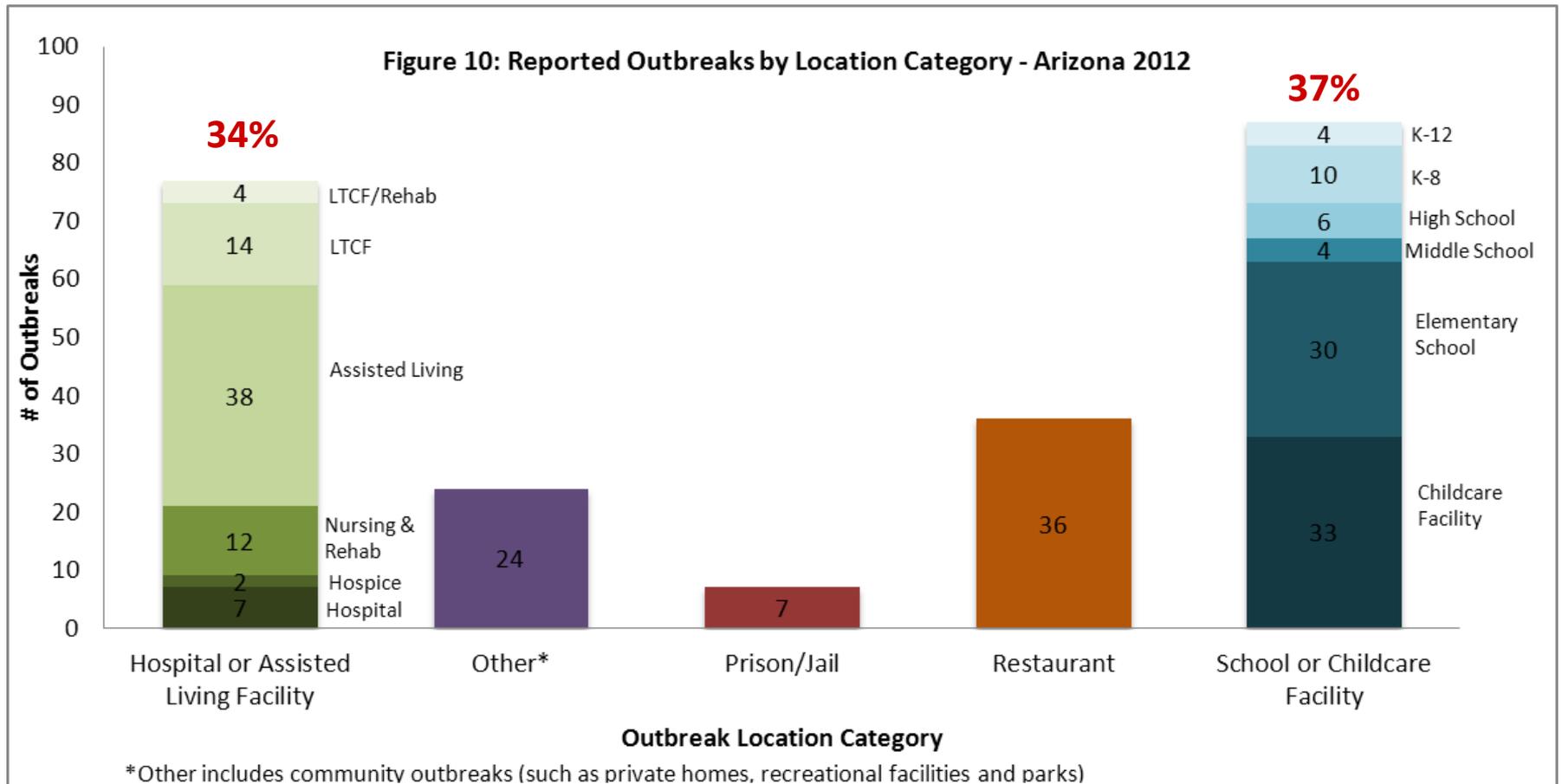
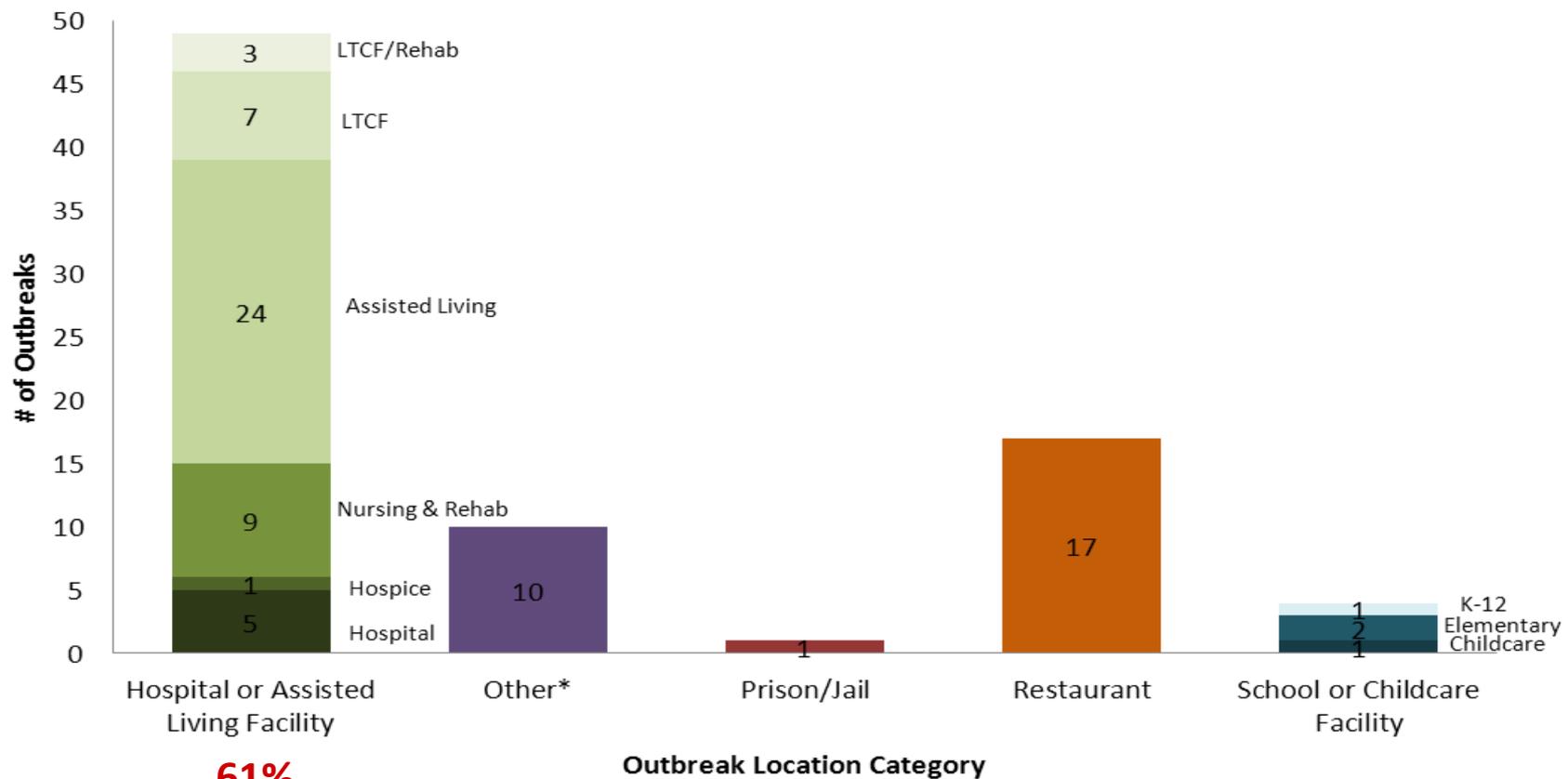
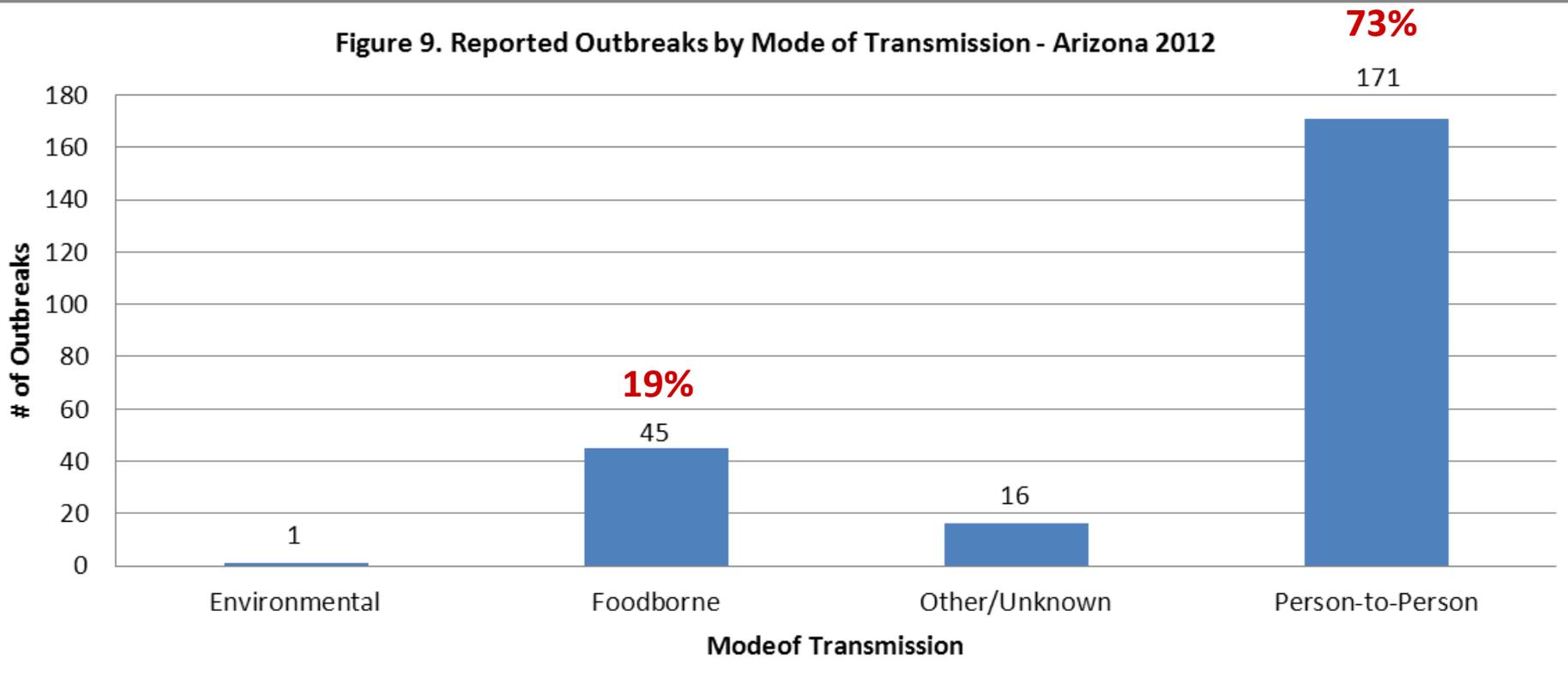


Figure 11: Norovirus Outbreaks by Location Category - Arizona 2012

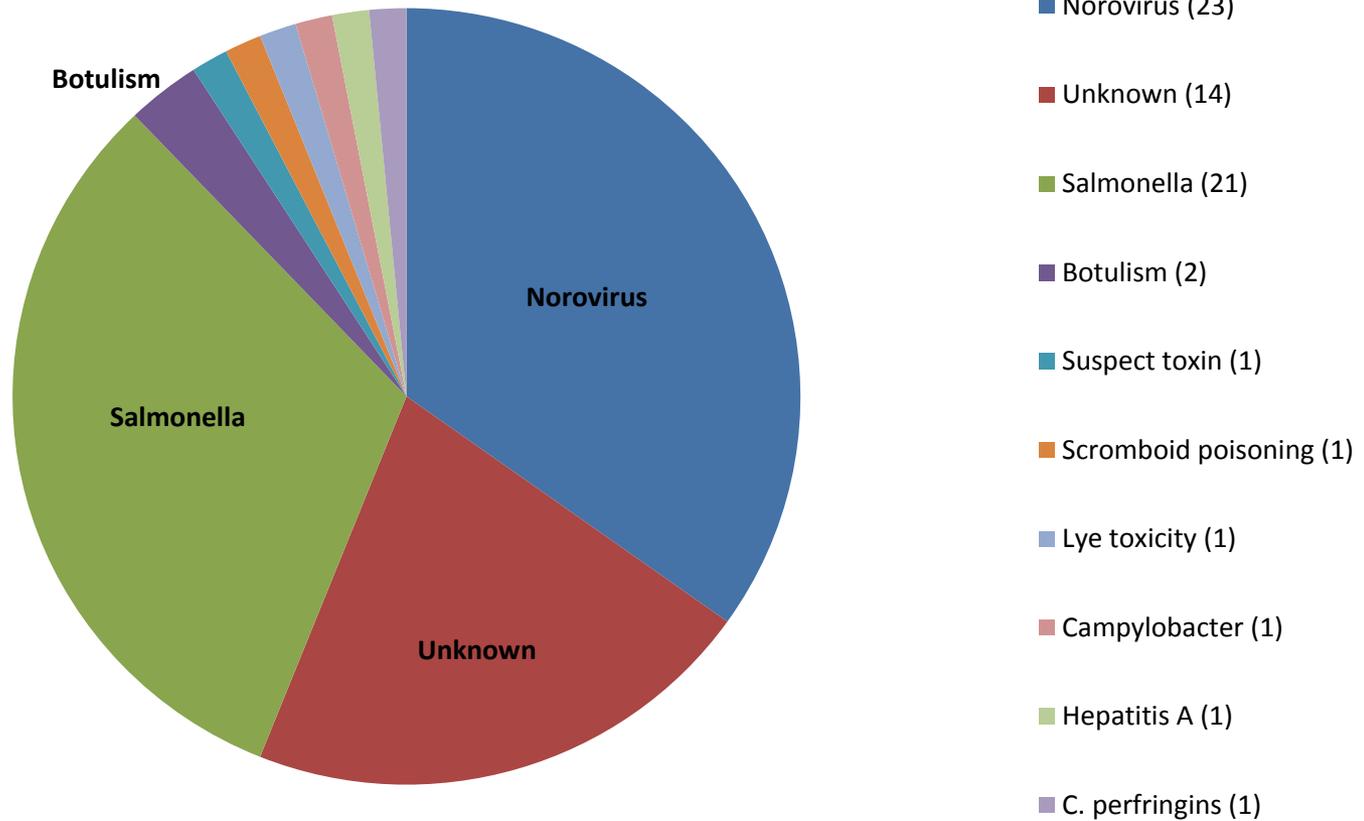


*Other includes community outbreaks (such as private homes, recreational facilities and parks)

Figure 9. Reported Outbreaks by Mode of Transmission - Arizona 2012



Foodborne Disease Outbreaks in Arizona, 2012



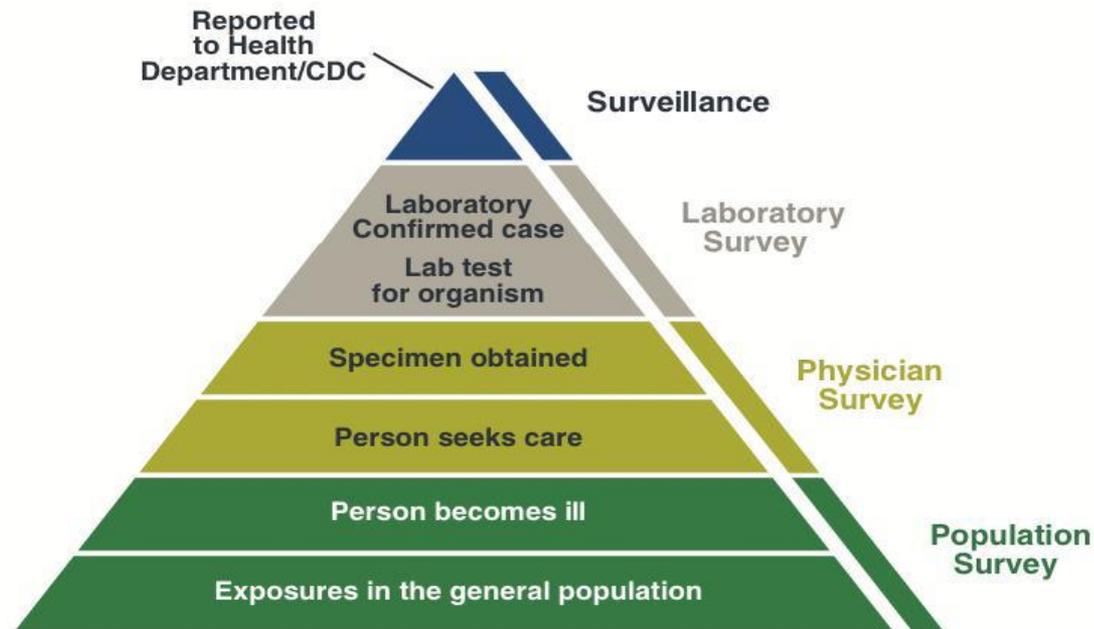
How Do We Identify an Outbreak?

- Calls from public
 - Group of people from wedding reception ill at same time
- Calls from doctors/clinics
 - Physician seeing more than the usual number of patients with the same illness
- Laboratory reports



Burden of Foodborne Illness: The Tip of the Iceberg

FIGURE 1:
CDC's FoodNet Surveillance, Burden of Illness Pyramid



Source: CDC. National Center for Infectious Diseases.
http://www.cdc.gov/foodnet/surveillance_pages/burden_pyramid.htm

Which Enteric Diseases are Mandated as Reportable by Providers/Labs in Arizona?

- Amebiasis
 - **Botulism***
 - Brucellosis
 - Campylobacteriosis
 - Cholera
 - Cryptosporidiosis
 - *Cyclospora*
 - Cysticercosis
 - **Enterohemorrhagic *E. coli****
 - **Enterotoxigenic *E. coli****
 - Giardiasis
 - Hepatitis A and E
 - **Listeriosis***
 - Salmonellosis
 - Shigellosis
 - **Typhoid Fever***
 - *Vibrio* infection (including cholera)
 - Yersiniosis
 - **AND outbreaks of diarrhea, nausea or vomiting**
- * = 24 hour reportable disease

Laboratory Data

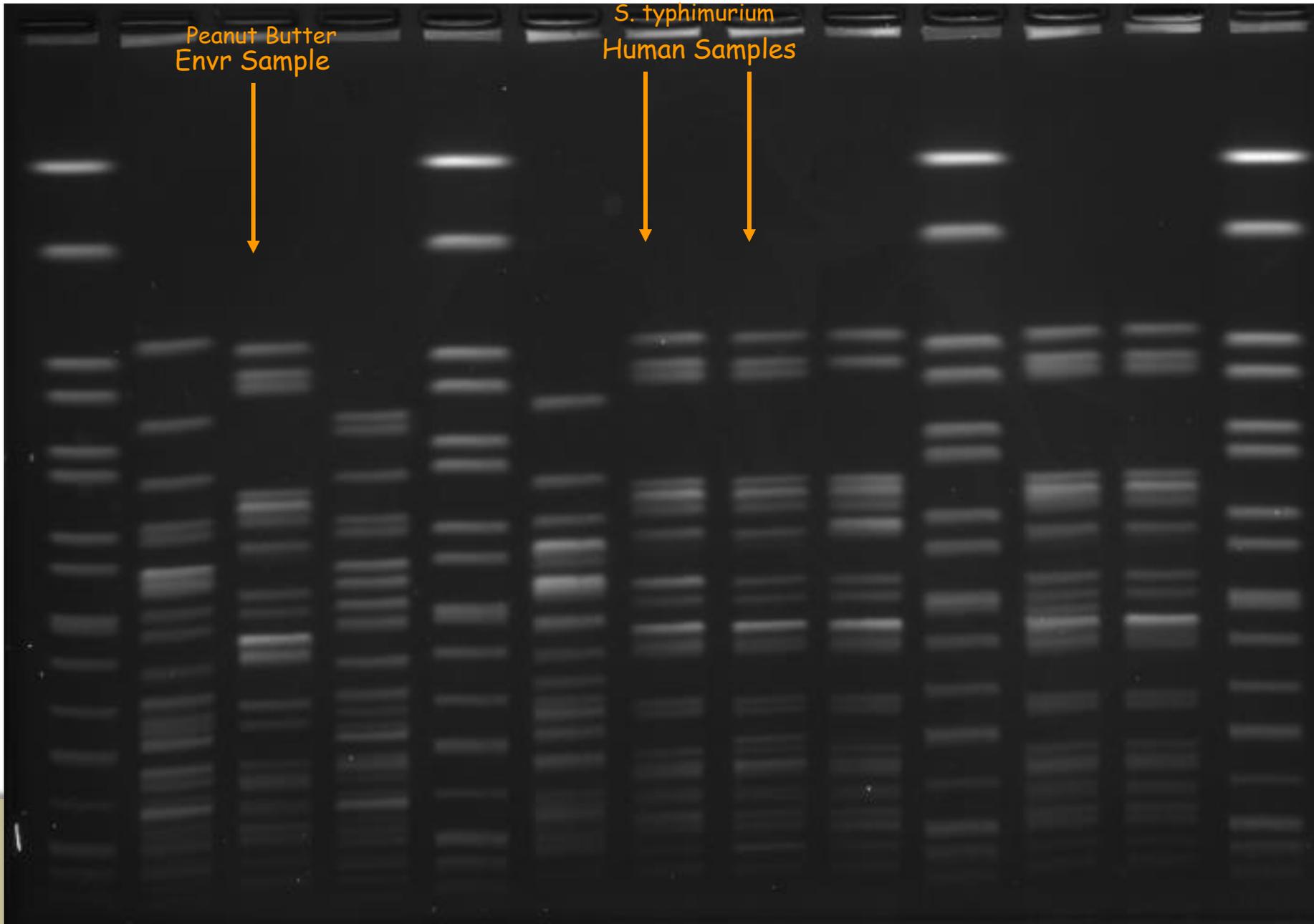
- By law all positive specimens are forwarded to the State Lab
 - *Salmonella*
 - *Shigella*
 - Enterohemorrhagic *E. coli*
 - *Listeria*
 - *Vibrio*
- Specimens serotyped to tell which type of species (i.e. *Salmonella* saintpaul, tennessee, typhimurium, etc.)
- Intense testing down to DNA fragments of the bacteria using Pulsed Field Gel Electrophoresis (PFGE)
 - Data entered into national database: PulseNet
 - Monitored by CDC



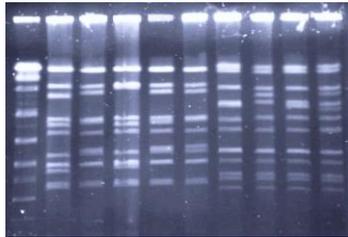
What is PulseNet?

- National network of over 75 public health and regulatory labs
- Molecular sub-typing of bacteria that cause foodborne disease
 - PFGE to create DNA fingerprints
- Share these fingerprints electronically and are kept in a database at CDC
- CDC searches for similar patterns within last 2-4 months and notifies epidemiologists if a cluster is identified

PFGE Gel Example:



Epidemiology Investigates Clusters



ADHS Epidemiology



Case 1:
JEGX01.0004



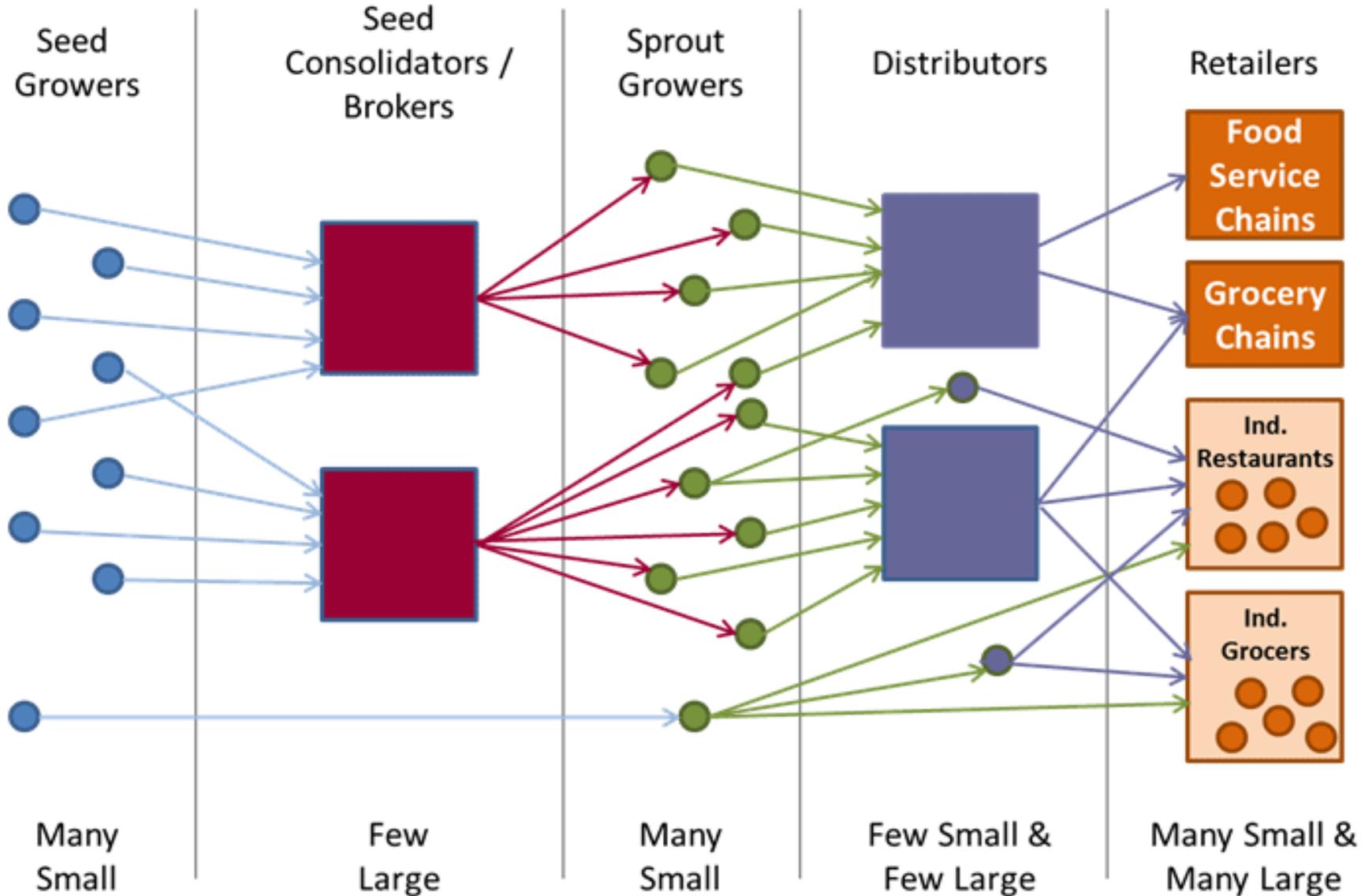
Case 2:
JEGX01.0004



Case 3:
JEGX01.0004



Product Supply Chain Traceback



2013 Foodborne Outbreak Investigations



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Hepatitis A Outbreak

- 162 hepatitis A cases in 10 states: Arizona (23), California (79), Colorado (28), Hawaii (8), New Hampshire (1), New Jersey (1), New Mexico (11), Nevada (6), Utah (3), and Wisconsin (2)
 - 90 (56%) female
 - Age range 1 – 84 years
 - 94 (58%) of those ill were between 40 – 64 years of age.
 - Onsets dates 3/31 – 7/26
 - 71 (44%) hospitalized



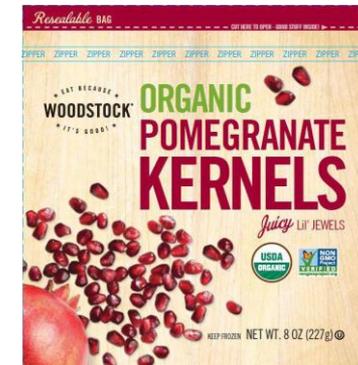
Hepatitis A Outbreak – Arizona Cases

- 23 confirmed cases
 - 15 (65%) female
 - Age range 24 – 69 years
 - Onsets dates 5/1 – 7/1
 - 10 (43%) hospitalized
 - 22 reported consuming the Townsend Farms product
 - 1 secondary case was a contact of 3 confirmed cases



Product Actions

- Costco removed product from shelves on 5/30/2013
 - Robo-calls to 250,000+ people
- Recalls:
 - June 4, 2013: Townsend Farms, Inc. voluntarily recalled certain lots of its frozen Organic Antioxidant Blend
 - June 28, 2013: Townsend Farms expanded its recall to additional lots
 - June 26, 2013: Scenic Fruit Company voluntarily recalled certain lots of Woodstock Frozen Organic Pomegranate Kernels



Trace-Back Investigation

- Most likely vehicle: common shipment of pomegranate seeds
 - Import alert on pomegranate seeds from Goknur Foodstuffs Import Export Trading in Turkey



E. coli 0157 Outbreak at a Mexican Style Restaurant

- OB reported by the Infection Preventionist (IP) at a children's hospital on 7/30
 - 3 cases of bloody diarrhea in teenage girls on the same volleyball team
- Cases were hospitalized — STEC strongly suspected
- Initial investigation focused on common exposure to a restaurant or other venue during team activities
 - Team attended multiple camps in the weeks leading up to illness onset
- Suspect restaurant mentioned in early reports

Case Definitions

- Confirmed Case (n=59)
 - History of eating at Restaurant X from July 18–31, with **any one** of the following criteria:
 - Onset of bloody diarrhea within 10 days of meal
 - *E. coli* 0157:H7 positive culture result
 - Shiga-toxin positive test result
 - Hemolytic Uremic Syndrome (HUS)
- Probable Case (n=35)
 - History of eating at Restaurant X from July 18–31 with onset of diarrhea (non-bloody) within 10 days of meal
- **94 total cases identified**

Demographics (n=94)

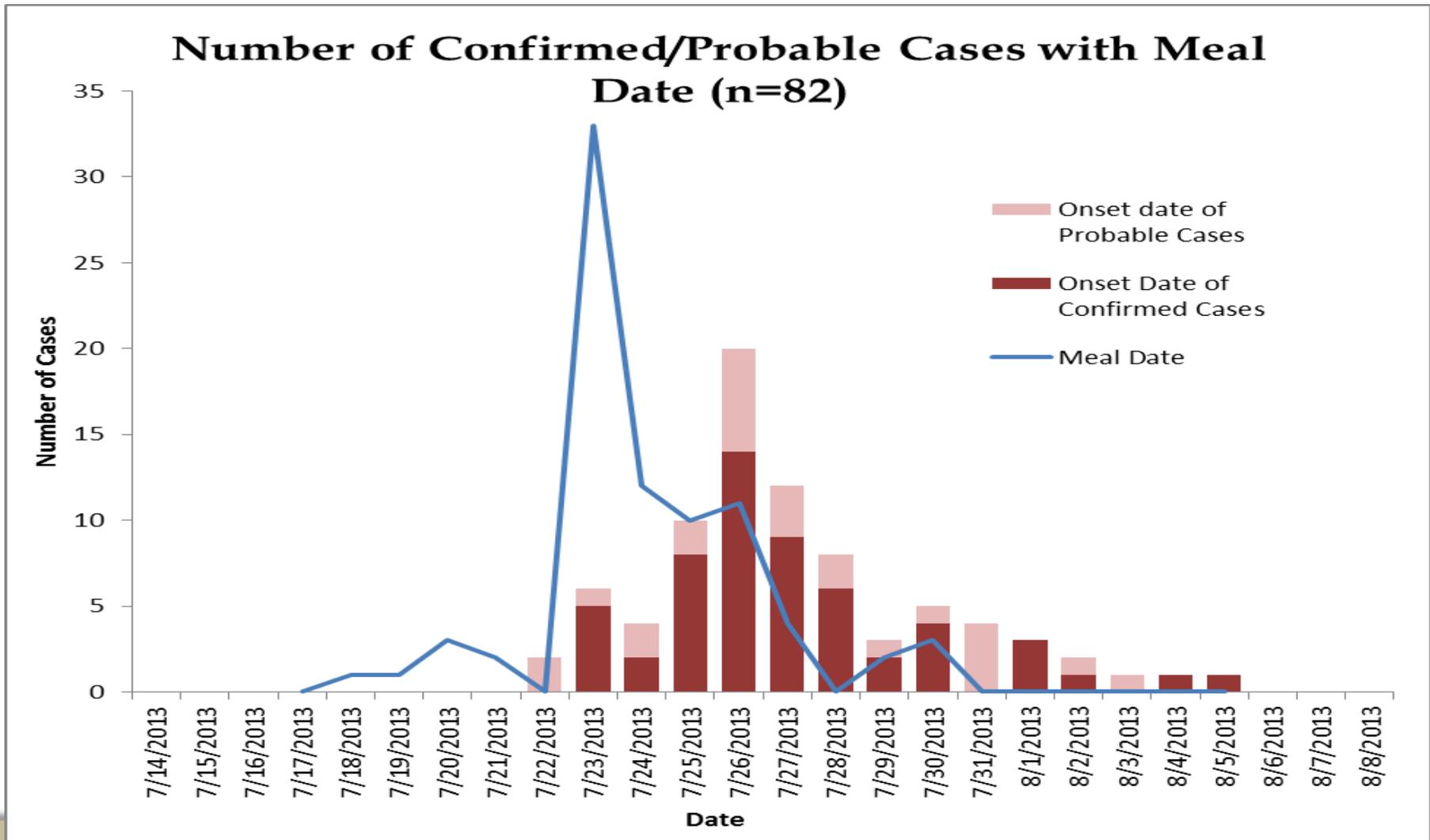
- 53 (56.4%) female
- Age range 2–88; median 32 years
- 24 (25.5%) children <18 years; 70 (74.5%) adults

- At least 33 (35.1%) sought medical care
 - 22 hospitalized
 - 11 visited ED or urgent care

- 2 (2%) developed hemolytic uremic syndrome (HUS) — both children

- All survived

Epi Curve: Disease Onset and Meal Date



Case-Control Results

- Interviewed 180 persons with detailed food questionnaire
 - 81 cases
 - 99 controls
- Analyzed over 43 food items from Restaurant X
- Shredded lettuce was the highest risk food item in all analyses



Any Questions?

Rashida Hassan, MSPH

Outbreak Capacity Epidemiologist

Rashida.hassan@azdhs.gov

602-364-3671





(Photo by UNHCR)

2013 REFUGEE HEALTH SNAPSHOT

Arizona Department of Health Services – Jan, 2014

Zachary Holden, MPH
Refugee Health Coordinator

Health
and
Wellness
for
ALL
Arizonans

Who are refugees?

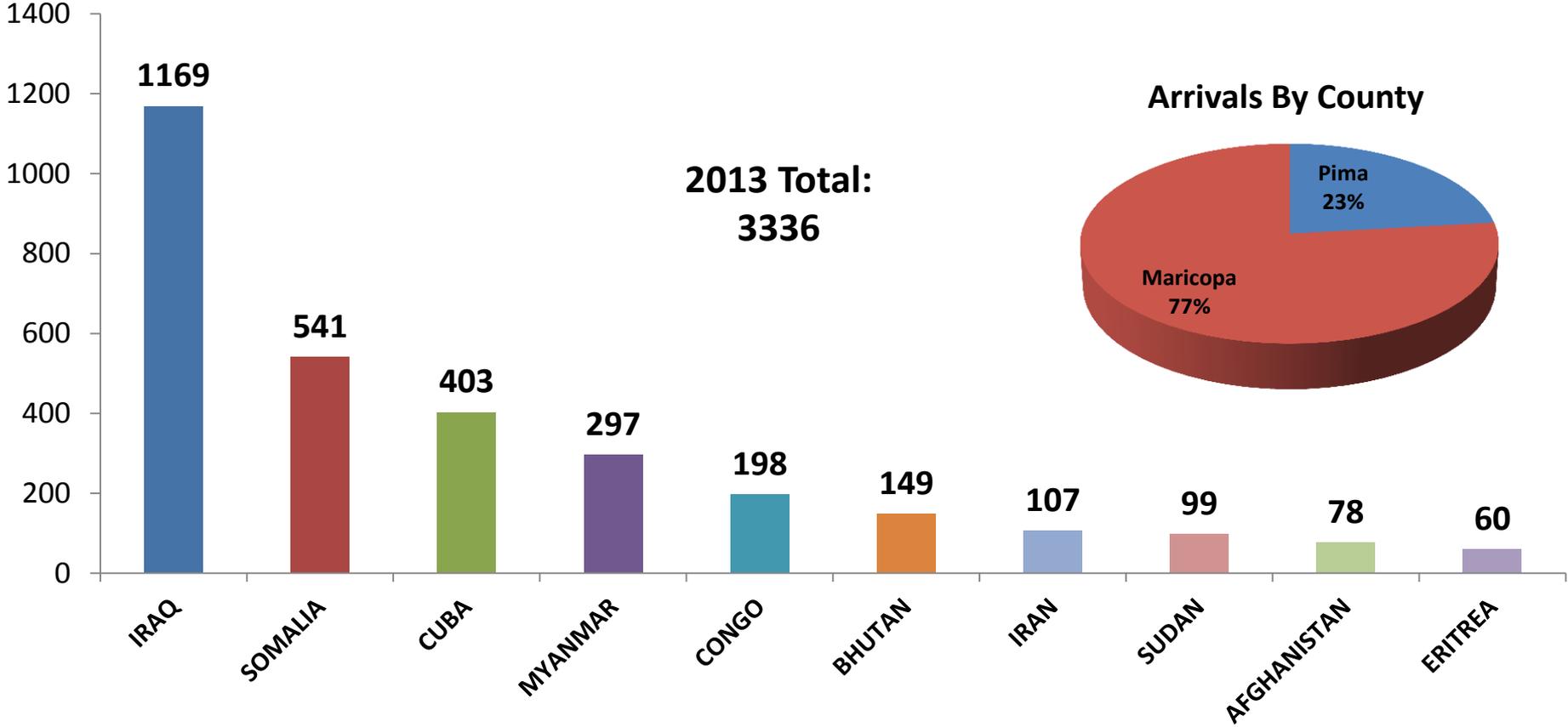
A refugee is a person who is outside his or her home country and is unable or unwilling to return due to persecution, or well-founded fear of persecution on account of

- race,
- religion,
- nationality,
- gender,
- membership in a particular social group,
- or political opinion.



- 15.4 million refugees worldwide
- 70,000 resettle to the US every year
- AZ is the #5 resettlement state

Refugee Arrival Stats



62,000 arrivals since 1980 from 106 countries speaking 115 languages and dialects

Refugee Screening Clinics 2013

	Maricopa	Pima	Total
Latent TB	317	203	520
Ova & Parasites	301	87	388
Hepatitis B	63	21	84
Syphilis	28	4	32
HIV	15	10	25
Chlamydia	10	5	15
Gonorrhea	3	1	4

All refugees are screened within 90 days of arrivals to AZ

MEDSIS Reported ID 2013

HEPATITIS B	113
COCCIDIOIDOMYCOSIS	57
TUBERCULOSIS	18
SALMONELLOSIS	7
MALARIA	5
CAMPYLOBACTERIOSIS	3
CRYPTOSPORIDIOSIS	2
MRSA	2
E. COLI ENTEROHEMORRHAGIC (SHIGA TOXIN)	1
GIARDIASIS	1
HEPATITIS A	1
SHIGELLOSIS	1
STREPTOCOCCAL GROUP A, INVASIVE	1
STREPTOCOCCUS PNEUMONIAE, INVASIVE	1
TYPHOID FEVER	1
VARICELLA (CHICKENPOX)	1

Hep B

Chronic	110
Acute	2

MYANMAR
SOMALIA
SUDAN

Valley Fever

BOSNIA
SUDAN
VIETNAM

TB

BHUTAN
SOMALIA
IRAQ

Treating Refugees

- Understand the refugee experience
- Sensitivity to cultural and religious beliefs
- Meeting language needs (Title VI)
- Engender trust

Zachary Holden

602-364-3592

www.AZRefugeeHealth.org



Arizona Department of Health – STD Update

Joe R. Mireles MPH

APIC MEeting

January 24, 2014

Health Services Advisory Group



Health and Wellness for all Arizonans

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Objective

- Provide a review of the epidemiology of sexually transmitted diseases throughout the state of Arizona
- Participants will be able to identify sexually transmitted disease case count/rate trends in Arizona

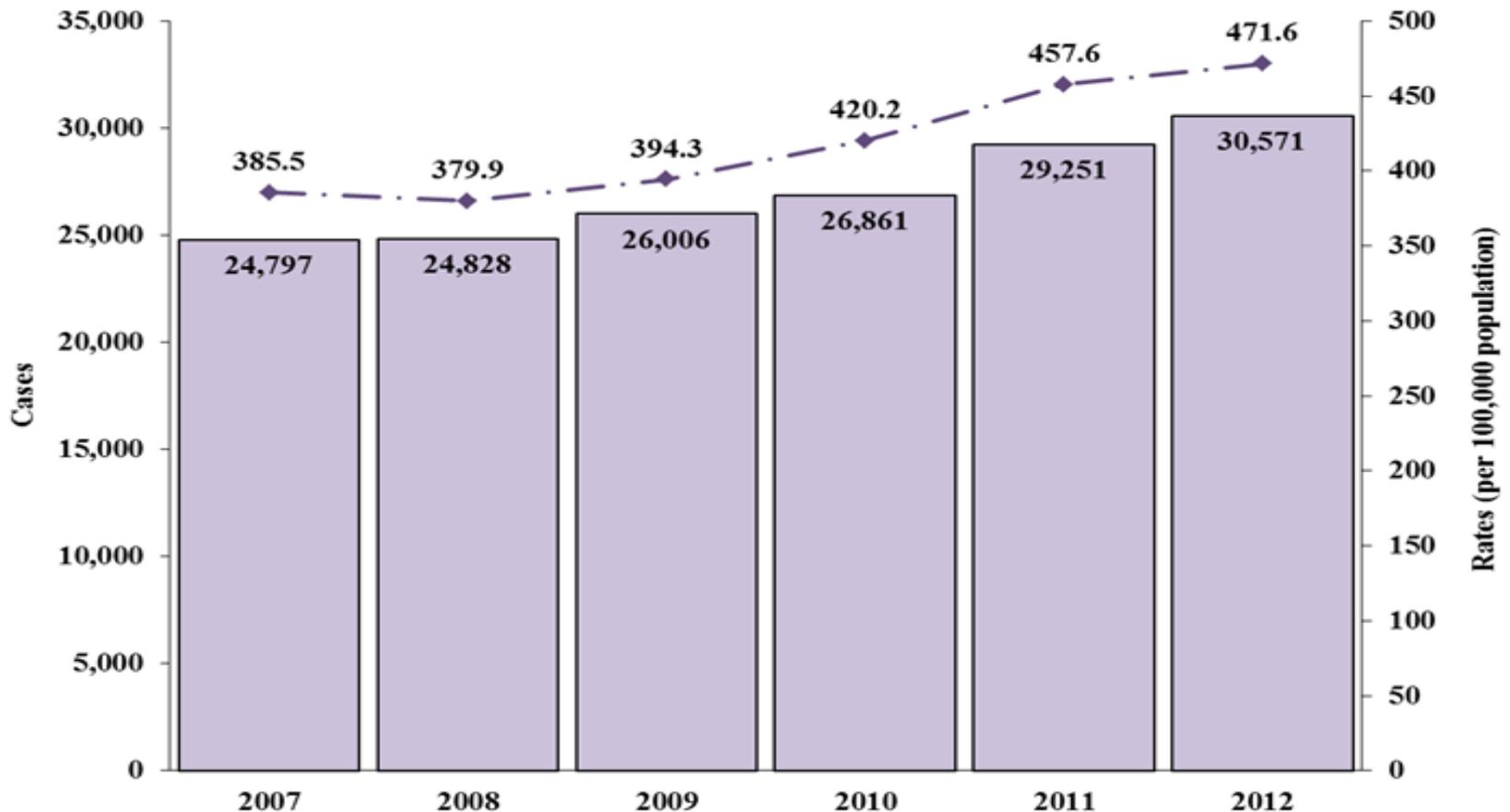
Topics

- Chlamydia
- Gonorrhea
- Gonorrhea and Chlamydia – Arizona Hospitals
- Syphilis
- Congenital Syphilis

Chlamydia

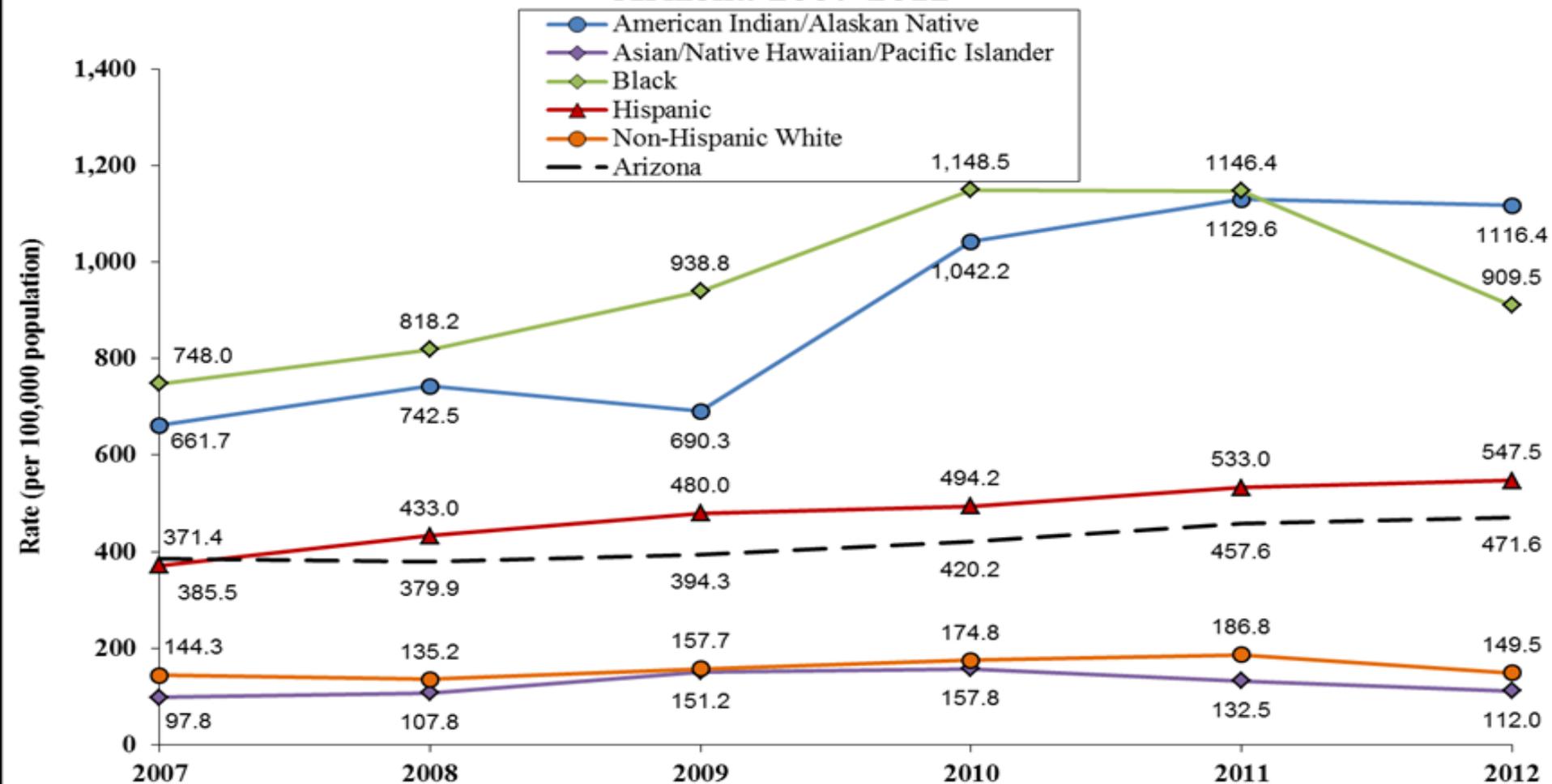
- State wide cases and rates
- Rates by race/ethnicity

Figure CT 1. Reported Chlamydia Cases and Case Rates, Arizona 2007-2012



Data is provisional and subject to change.
 *2011 CDC bridged data used for 2012 case rate population denominators.

Figure CT 3. Reported Chlamydia Case Rates by Race/Ethnicity, Arizona 2007-2012



Data is provisional and subject to change.
 *2011 CDC bridged data used for 2012 case rate population denominators.

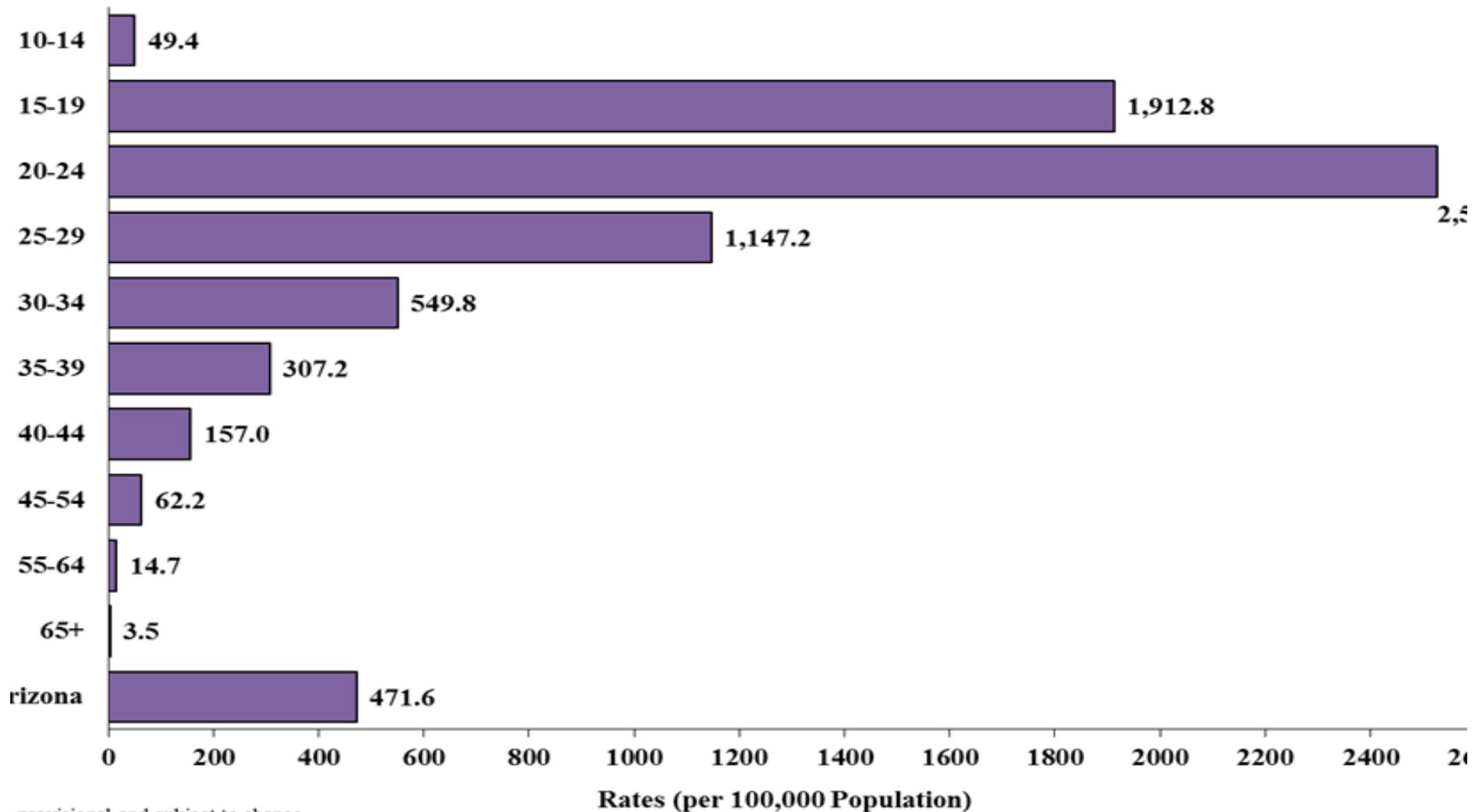


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Reported Chlamydia Rates by Age Group, Arizona 2012



provisional and subject to change.

DC bridged data used for 2012 case rate population denominators. *Ages 0-9 not shown, Arizona rate reflects all ages



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Chlamydia Treatment

Recommended Regimens

Azithromycin 1 g orally in a single dose

OR

Doxycycline 100 mg orally twice a day for 7 days

Alternative Regimens

Erythromycin base 500 mg orally four times a day for 7 days

OR

Erythromycin ethylsuccinate 800 mg orally four times a day for 7 days

OR

Levofloxacin 500 mg orally once daily for 7 days

OR

Ofloxacin 300 mg orally twice a day for 7 days

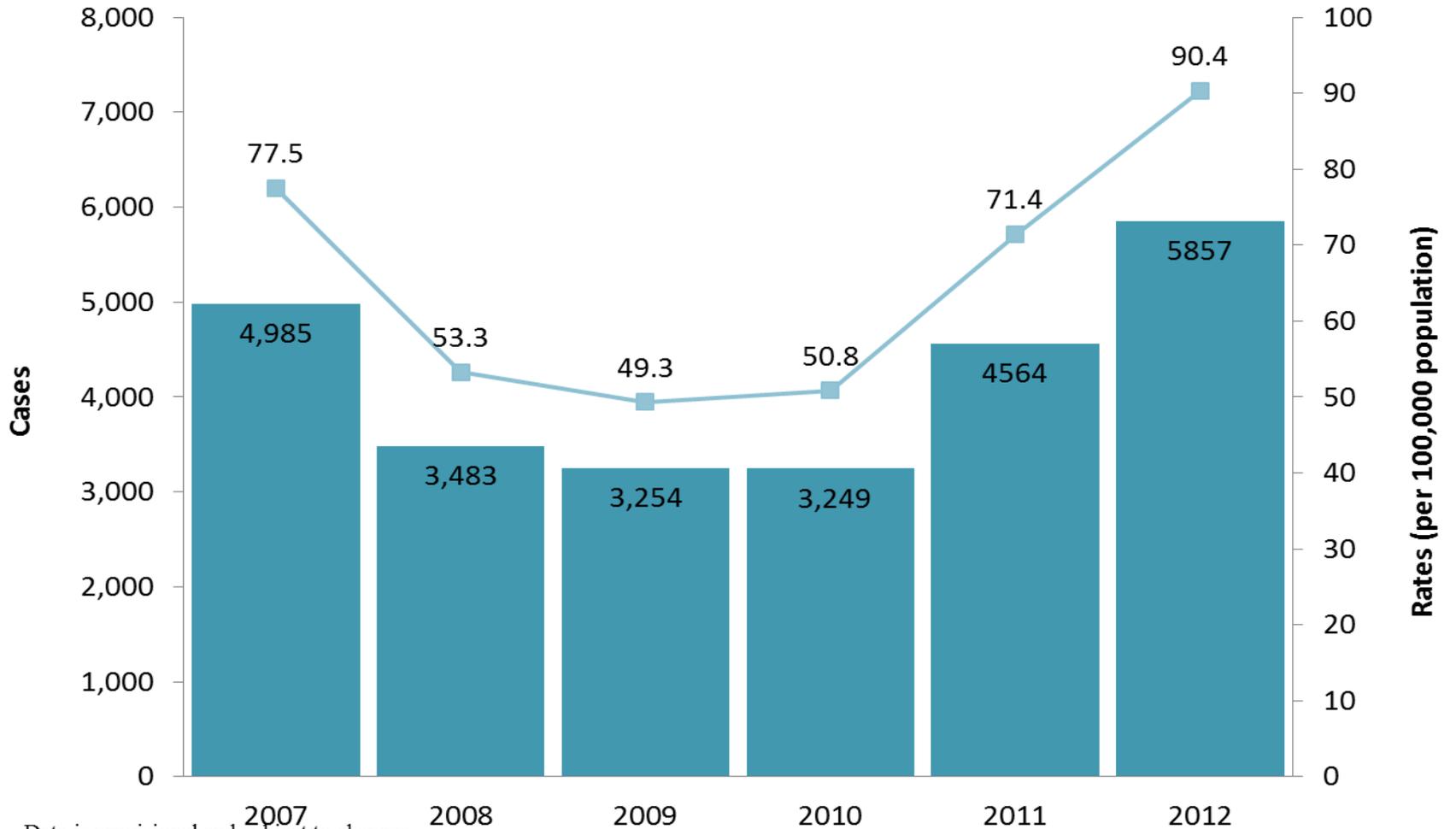
Review

- Number of reported chlamydia cases continue to increase statewide
- Percent increase in cases from 2010 to 2011: 8.9%
- Percent increase in cases from 2011 to 2012: 3.1%

Gonorrhea

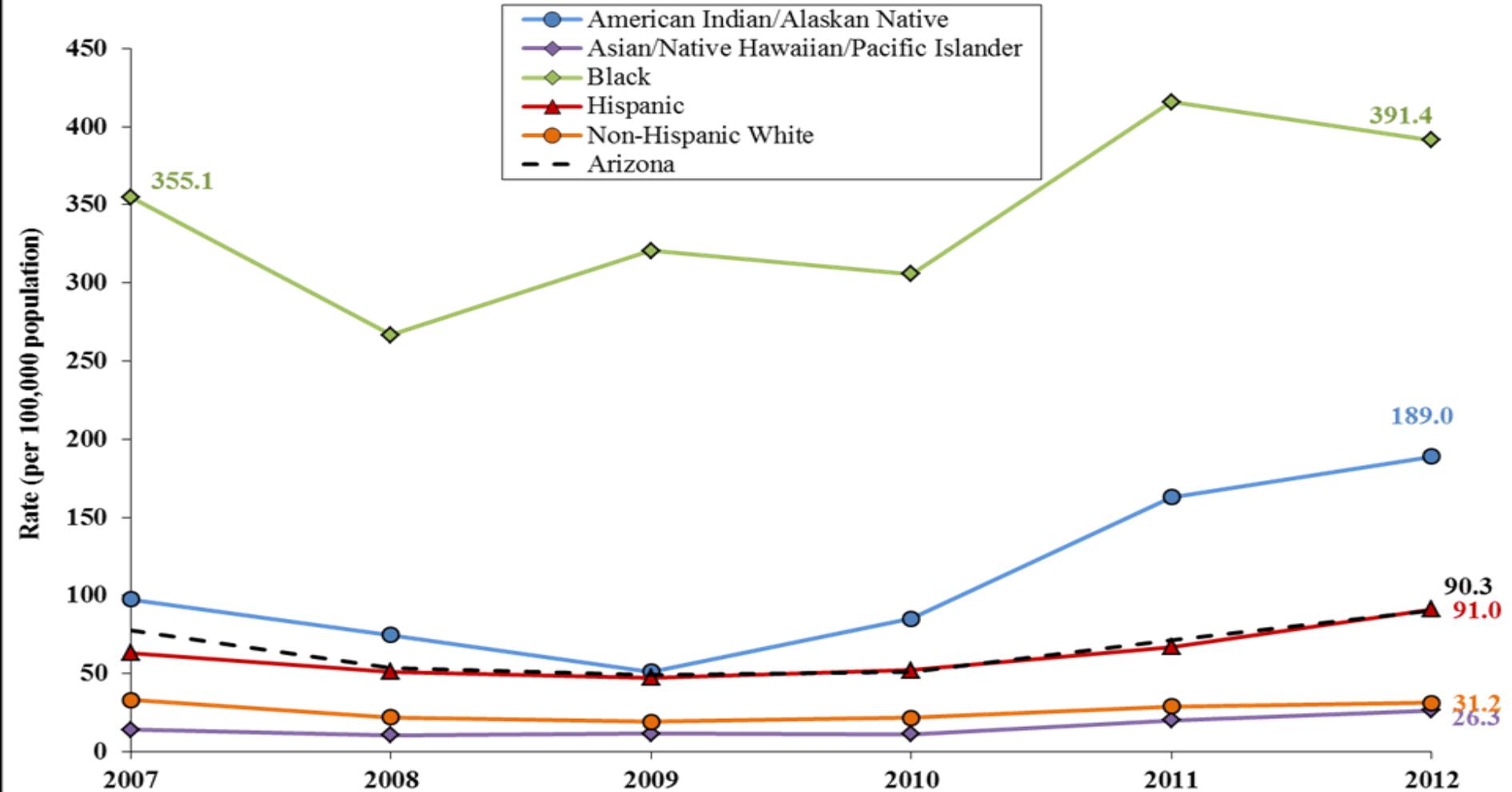
- State wide cases and rates
- Rates by race/ethnicity

Reported Gonorrhea Cases and Rates, Arizona 2007-2012



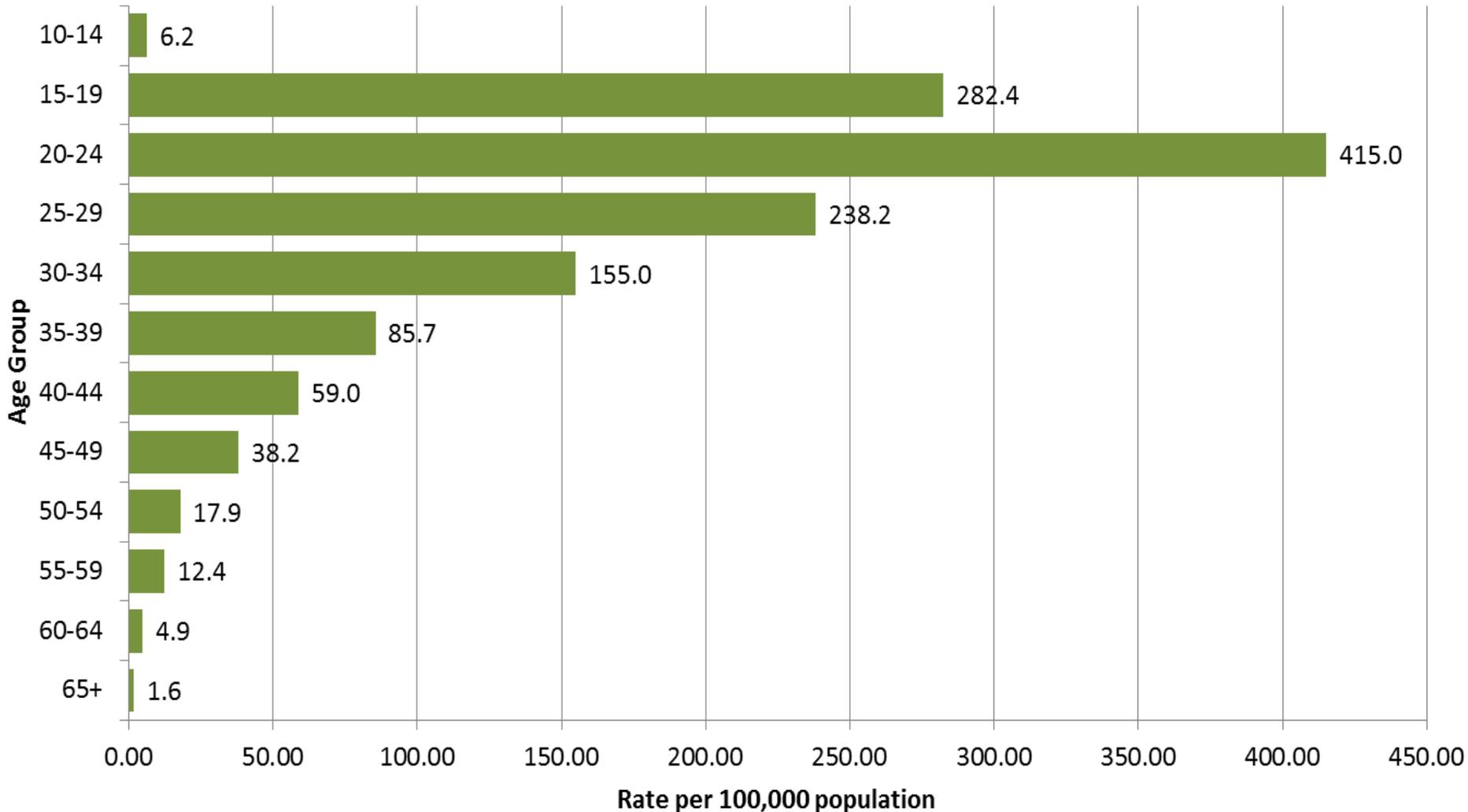
Data is provisional and subject to changes,
*2011 CDC bridged data used for 2012 case rate population denominators.

Figure GC 3. Reported Gonorrhea Case Rates by Race/Ethnicity, Arizona 2007-2012



Data is provisional and subject to changes, *2011 CDC bridged data used for 2012 case rate population denominators.

Reported Gonorrhea Rates by Age Group, Arizona 2013



Summary

- Counts and rate of gonorrhea continue to increase in Arizona

Gonorrhea Isolate Surveillance Project

- Short Overview
- Quick review of Antimicrobial Susceptibility Testing of Arizona specimens

Gonococcal Isolate Surveillance Project (GISP)

- US sentinel surveillance
- Monitors trends in NG antibiotic susceptibility
- 26–29 STD clinic sites
- Urethral NG isolates obtained from first 25 men per site each month
- Susceptibility testing by 4–5 regional labs
- Confirmatory testing by CDC
- Minimum inhibitory concentrations (MICs) by agar dilution

GISP sites and regional laboratories — United States, 2000–2010



* Did not participate for entire time period

Source: Robert Kirkcaldy, MD, MPH - CDC/NCHHSTP/ Division of STD Prevention
 NCSD Annual Meeting – November 2, 2011

Cephalosporin Susceptibility MICs

- MICs of cephalosporin-resistance not defined
 - Don't know what MIC is predictive of clinical treatment failure
 - Surveillance of cephalosporin MIC trends, rather than “resistance”
- Cefixime and ceftriaxone susceptibility: $\leq 0.25 \mu\text{g/ml}^*$
- “Decreased susceptibility”: $\geq 0.50 \mu\text{g/ml}$

* Clinical and Laboratory Standards Institute (CLSI), 2010

Source: Robert Kirkcaldy, MD, MPH - CDC/NCHHSTP/ Division of STD Prevention
NCSA Annual Meeting – November 2, 2011



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Gonorrhea Treatment

Uncomplicated Genital/Rectal Infections

Ceftriaxone 250 mg IM
in a single dose

PLUS*

OR, if not an option:

Cefixime 400 mg orally
in a single dose

Azithromycin
1 g orally
or
Doxycycline
100 mg BID x
7 days

CDC 2010 STD Treatment Guidelines
www.cdc.gov/std/treatment

* Regardless of CT test result

Gonorrhea Treatment

Oropharyngeal Infections

Ceftriaxone 250 mg
IM in a single dose

PLUS

Azithromycin
1 g orally
or
Doxycycline
100 mg BID x
7 days

IN CASE OF SEVERE ALLERGY:

- ❖ Azithromycin 2 g orally once

CDC 2010 STD Treatment Guidelines
www.cdc.gov/std/treatment

- "In instances where ceftriaxone is not available, CDC recommends cefixime 400 mg orally, plus either azithromycin 1 g orally or doxycycline 100 mg orally twice daily for seven days," Kirkcaldy says. "For patients with a severe allergy to cephalosporins, CDC recommends a single 2-g dose of azithromycin orally. In both of these circumstances, CDC recommends a test of cure for these patients one week after treatment." – Robert Kirkcaldy MD, MPH

Gonorrhea and Chlamydia – Arizona Hospitals



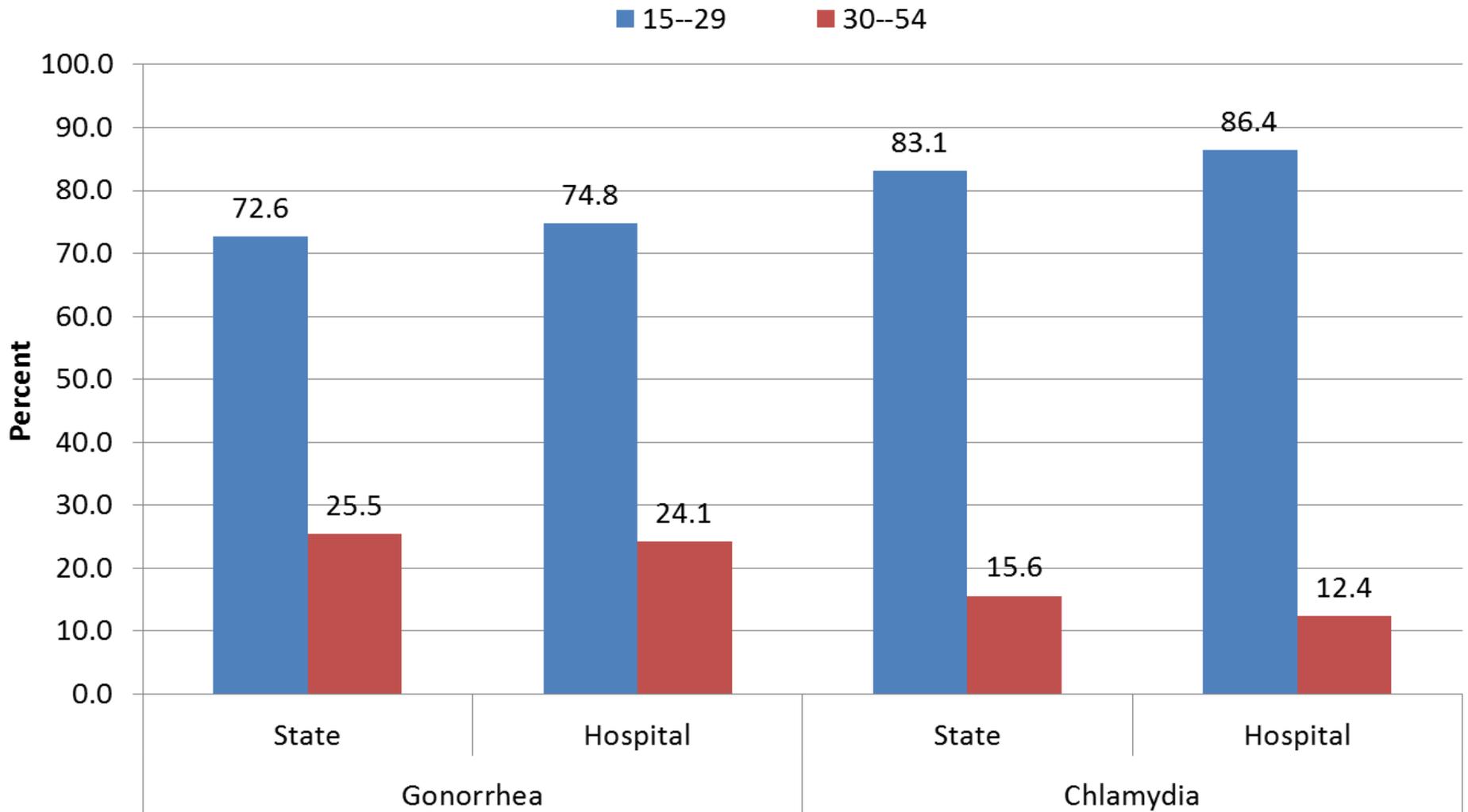
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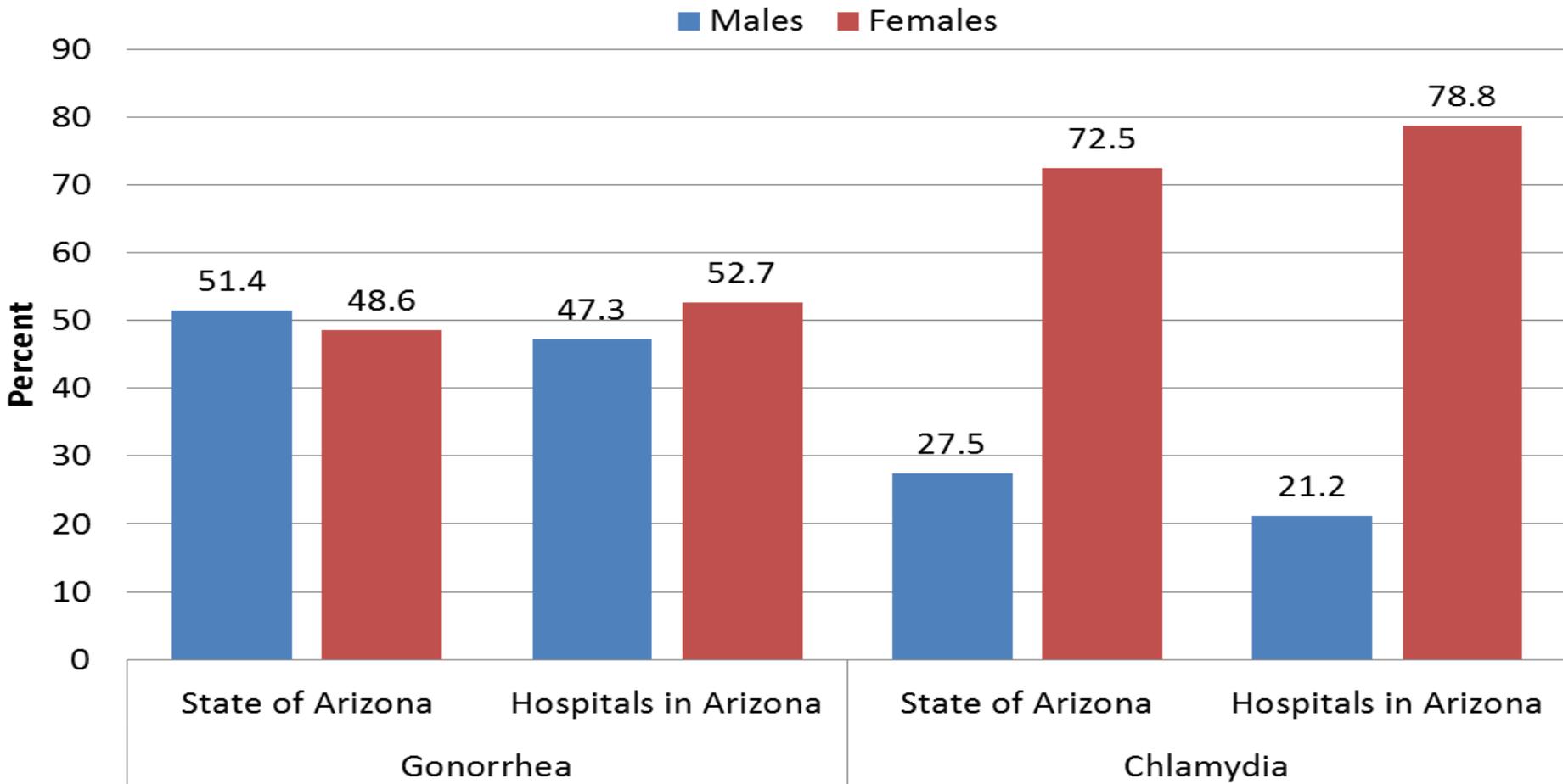


- Chlamydia – 30,571 cases reported state wide in 2012.
- STD Prevention and Control Program recorded 3,097 (10.1%) as being reported from state hospitals
- Gonorrhea – 5,857 cases reported state wide in 2012
- STD Prevention and Control Program recorded 1,015 (17%) as being reported from state hospitals

Gonorrhea and Chlamydia Cases by Age Group, Arizona 2012



Gonorrhea and Chlamydia Cases by Gender, Arizona 2012



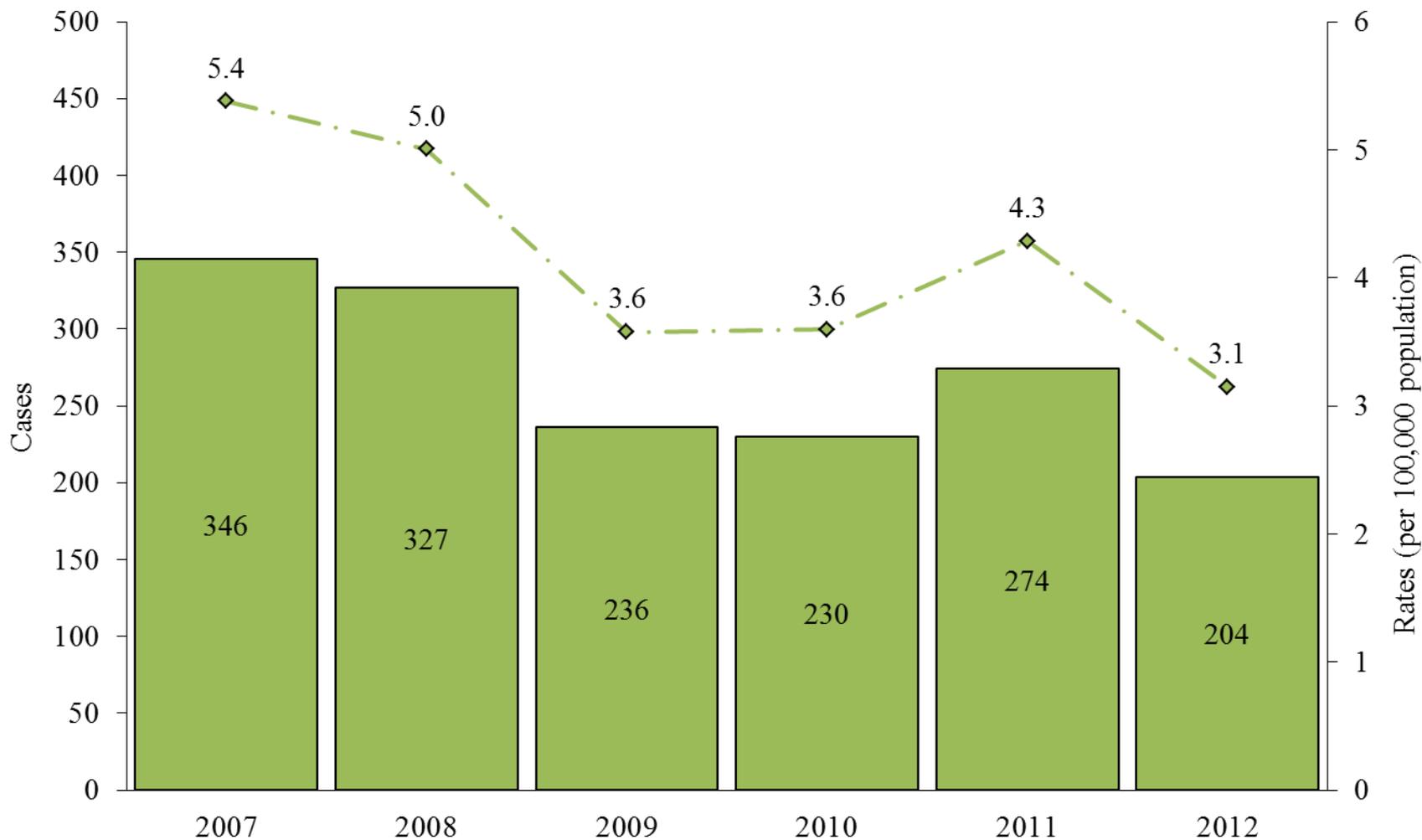
Summary

- Large number of cases from state hospitals.
- MEDSIS reports will be electronically imported to STDCP surveillance system (PRISM)
- Complete and accurate information is important.

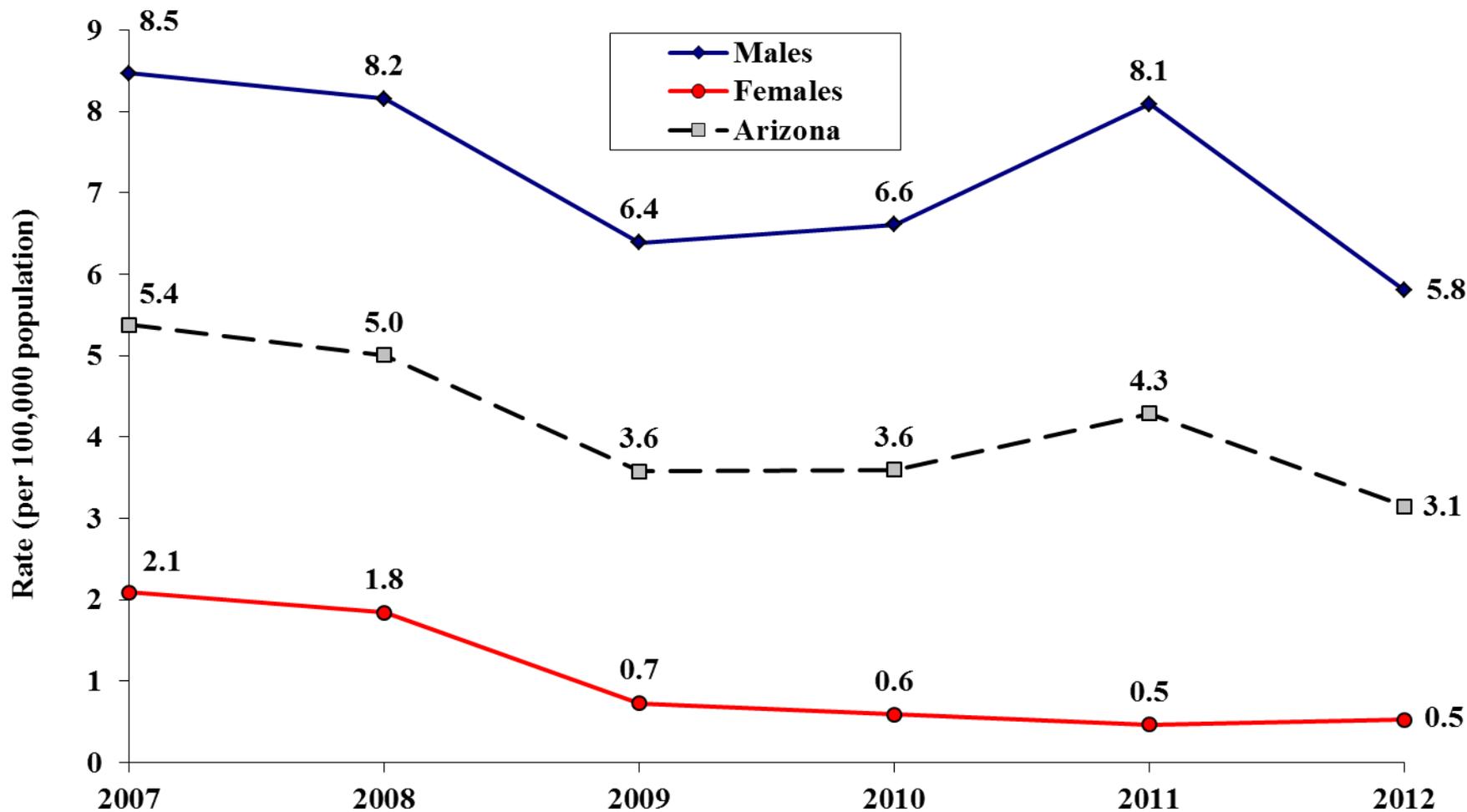
Syphilis

- State wide cases and rates
- Selected demographic information

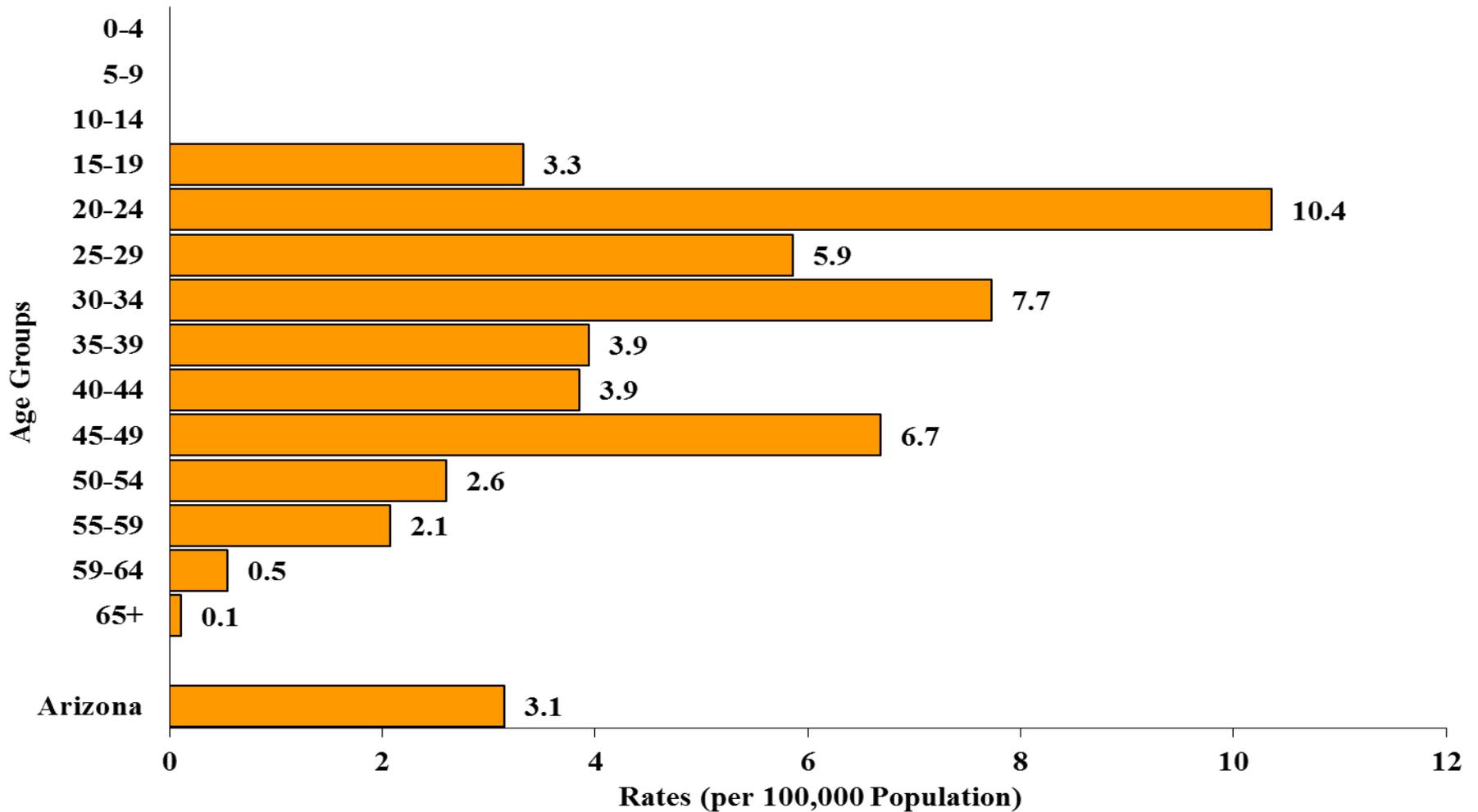
Reported Primary and Secondary Syphilis Cases and Case Rate, Arizona 2007-2012



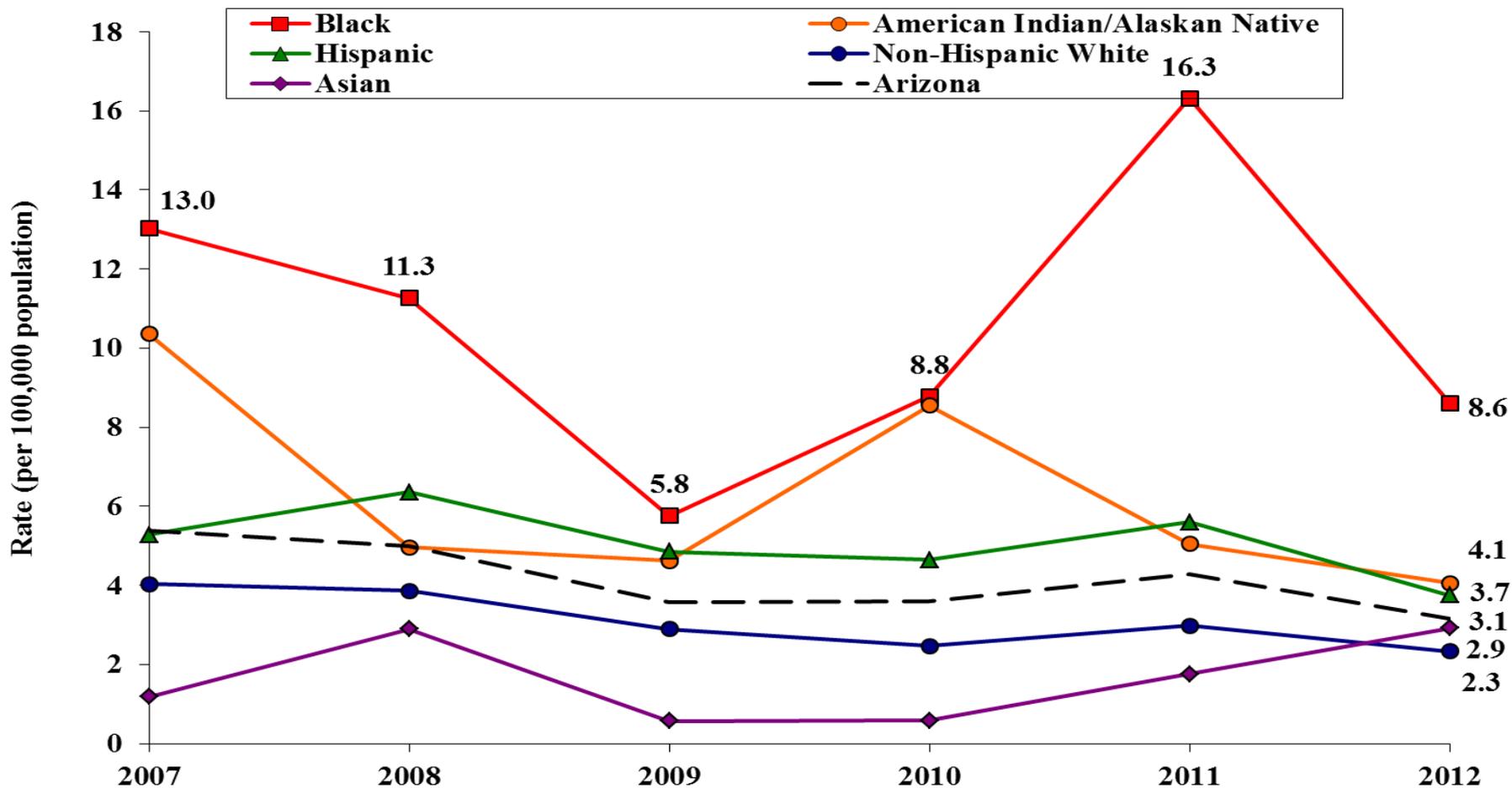
Reported Primary and Secondary Syphilis Case Rates by Gender, Arizona 2007-2012



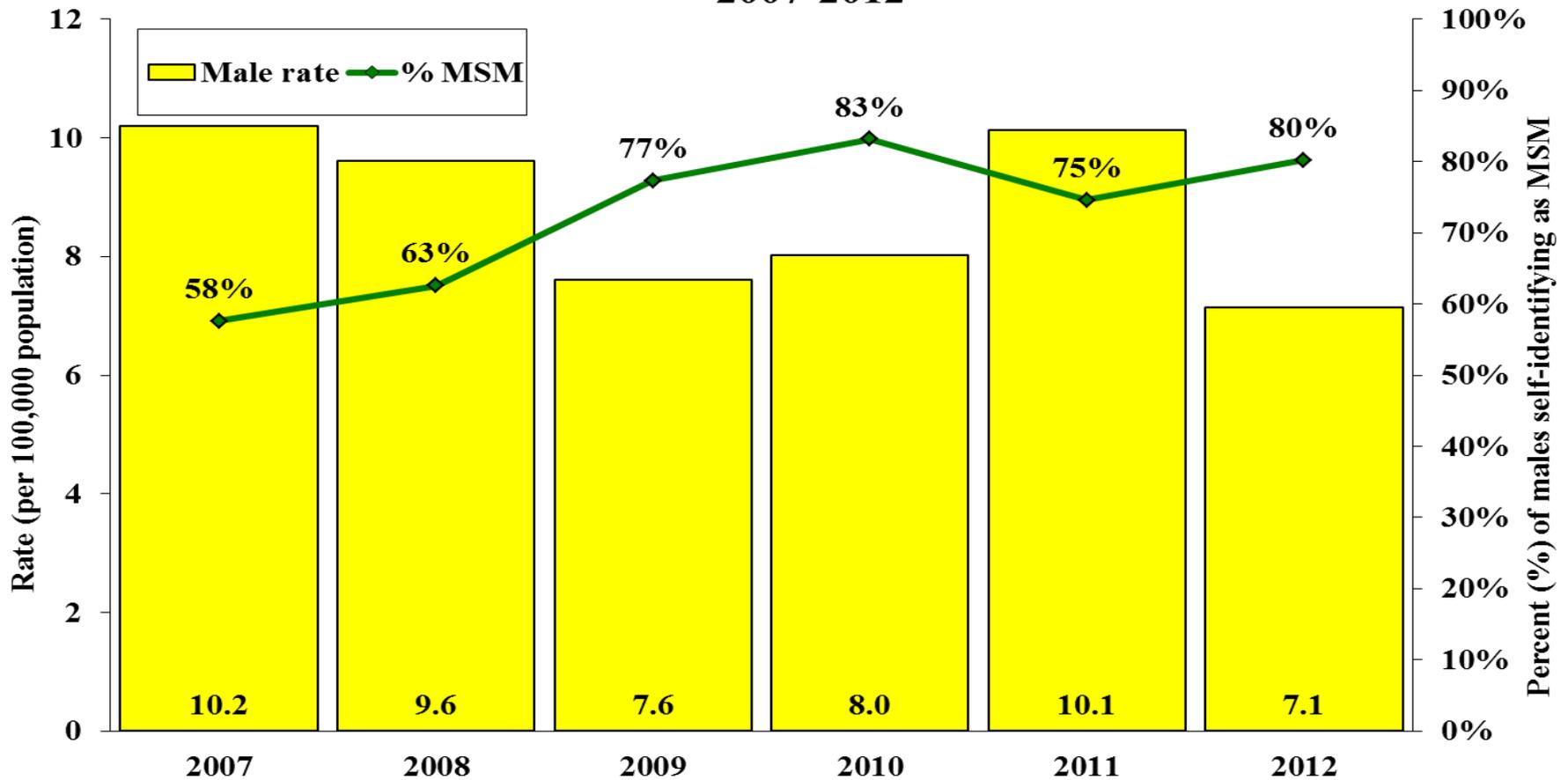
Reported Primary and Secondary Syphilis Rates by Age Group, Arizona 2012



Reported Primary and Secondary Syphilis Case Rates by Race/ Ethnicity, Arizona 2007-2012



Reported Primary and Secondary Syphilis Case among All Males and the Percentage of Male Cases that Self-Identify as Men who Have Sex with Men (MSM), Maricopa and Pima Counties, 2007-2012



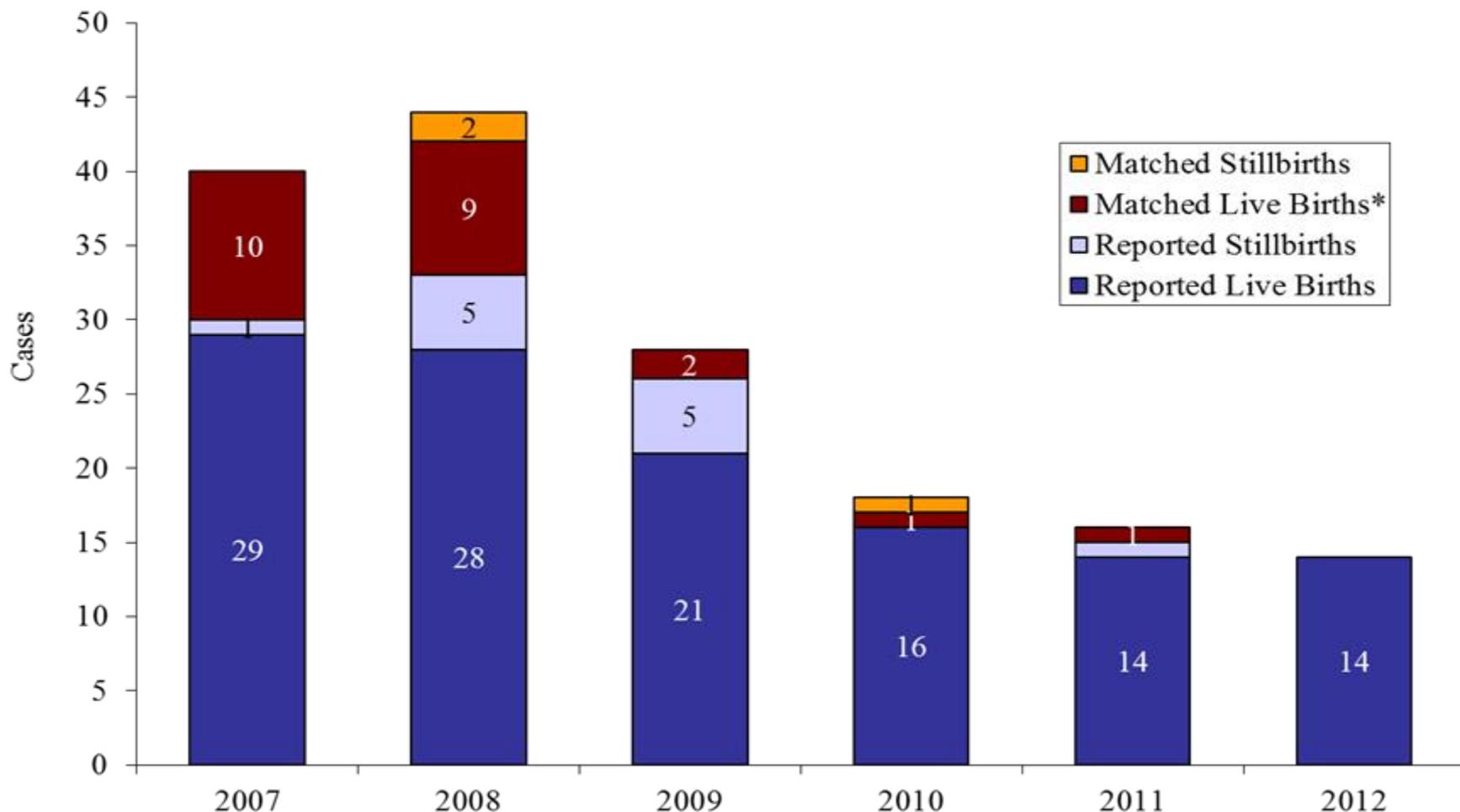
Summary

- Counts and rate of primary and secondary syphilis show an overall decline for the previous 5 years
- Large percentage of Primary and Secondary syphilis cases in men are among MSM

Congenital Syphilis

- Statewide cases

Figure S9. Reported and Matched Congenital Syphilis Cases (by Birth Year) in Arizona by Live Birth and Stillbirth, 2007-2012



*The congenital syphilis crossmatch procedure uncovered one child that met the surveillance definition for congenital syphilis.

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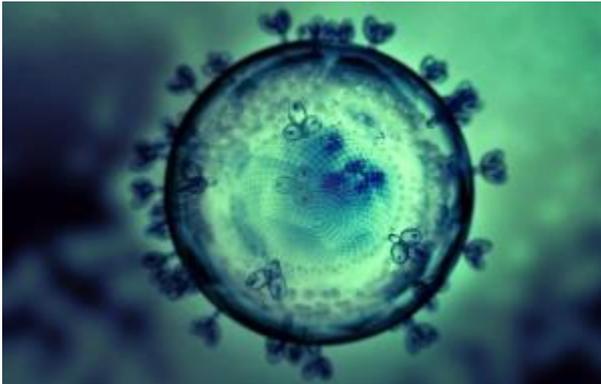
HIV EPIDEMIOLOGY IN ARIZONA



Amanda White, MPH

ADHS

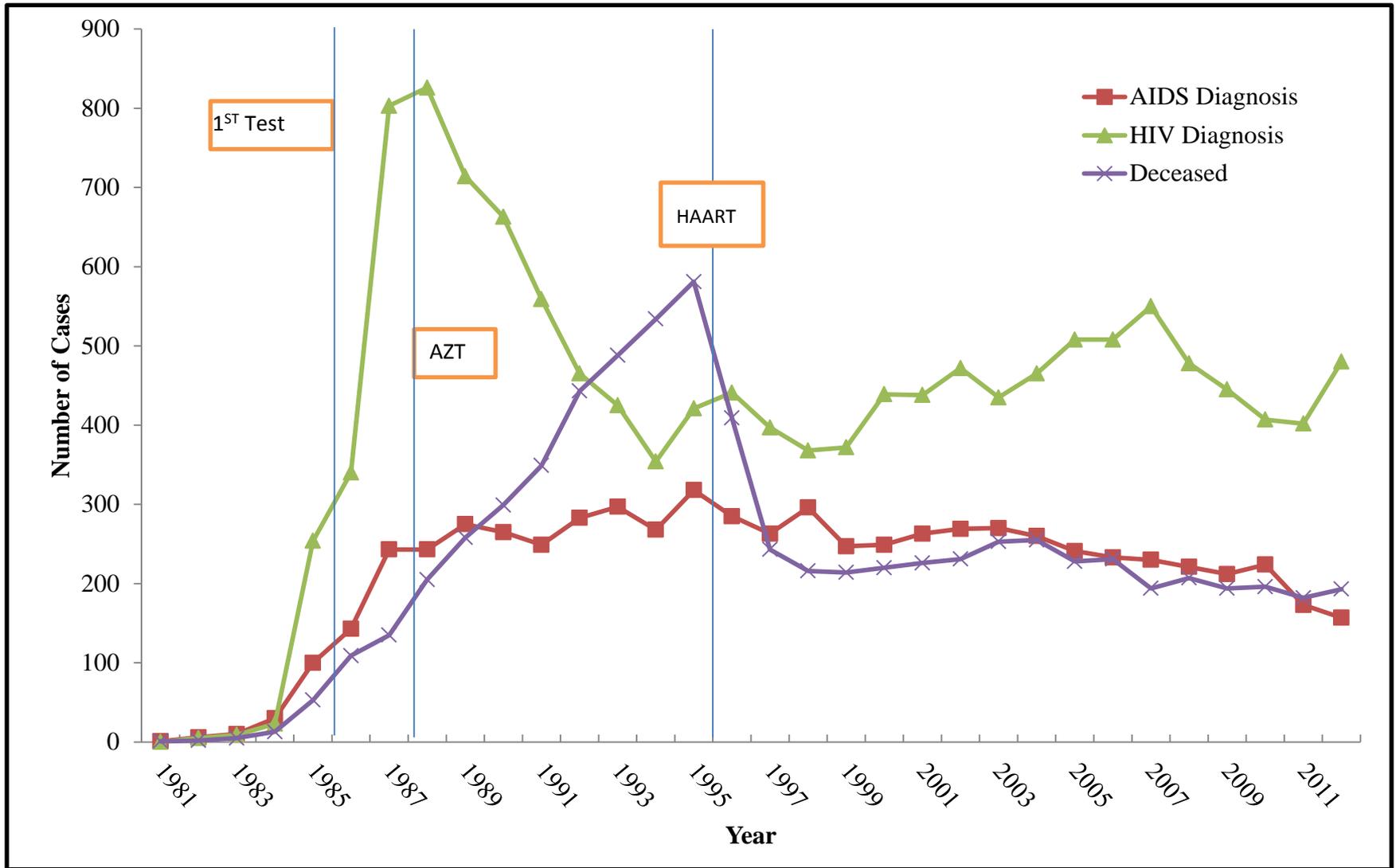
1/24/2014



Overview

- HIV Surveillance and Epidemiology data
 - All information from eHARS, data through 2012
 - Emergent cases- Cases reported in a specific year not necessarily infected in that year
- Spectrum of Care Cascades
- HIV Prevention Program
- ADAP-AIDS Drug Assistance Program

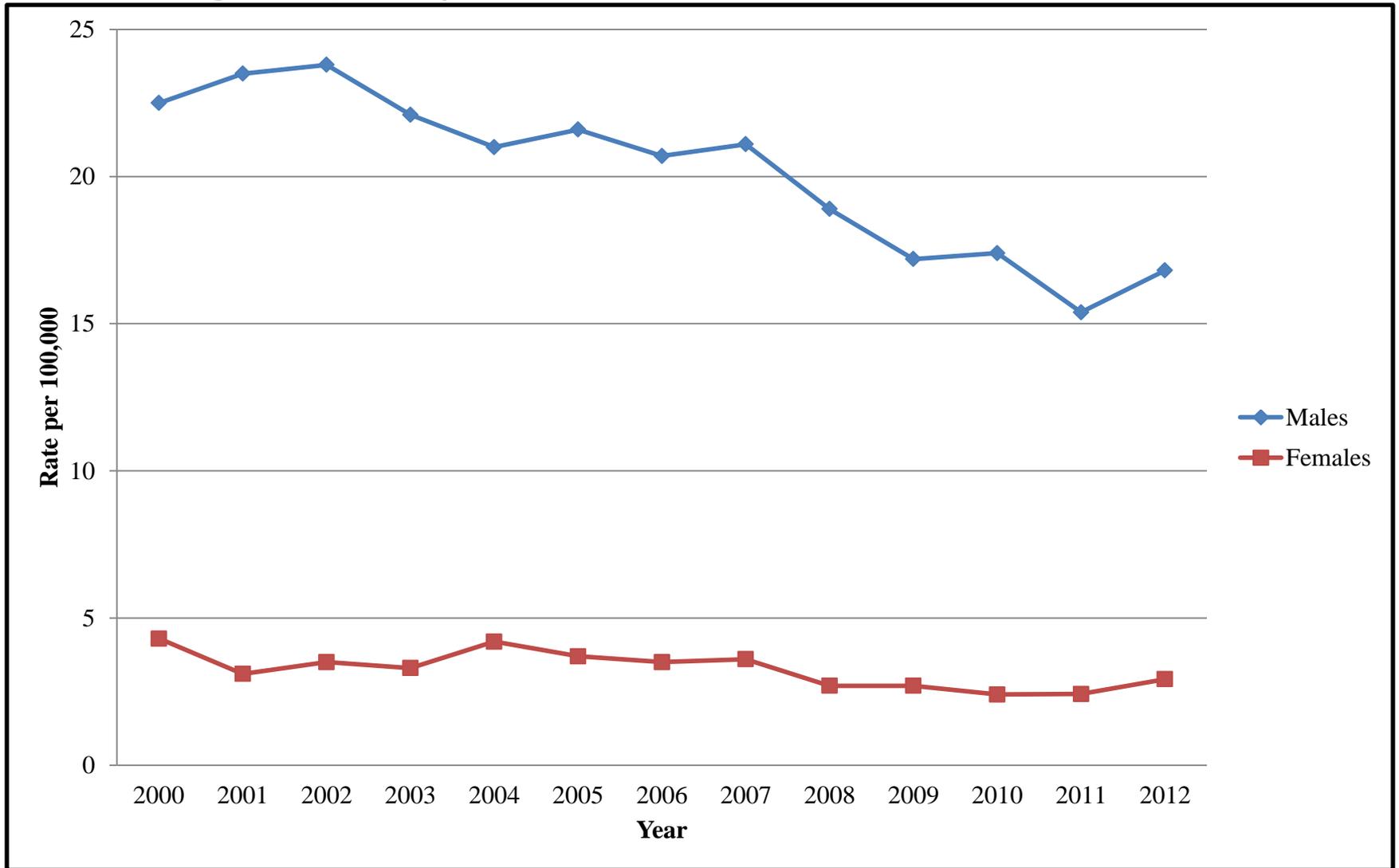
Arizona HIV/AIDS Events Per Year, 1981-2012



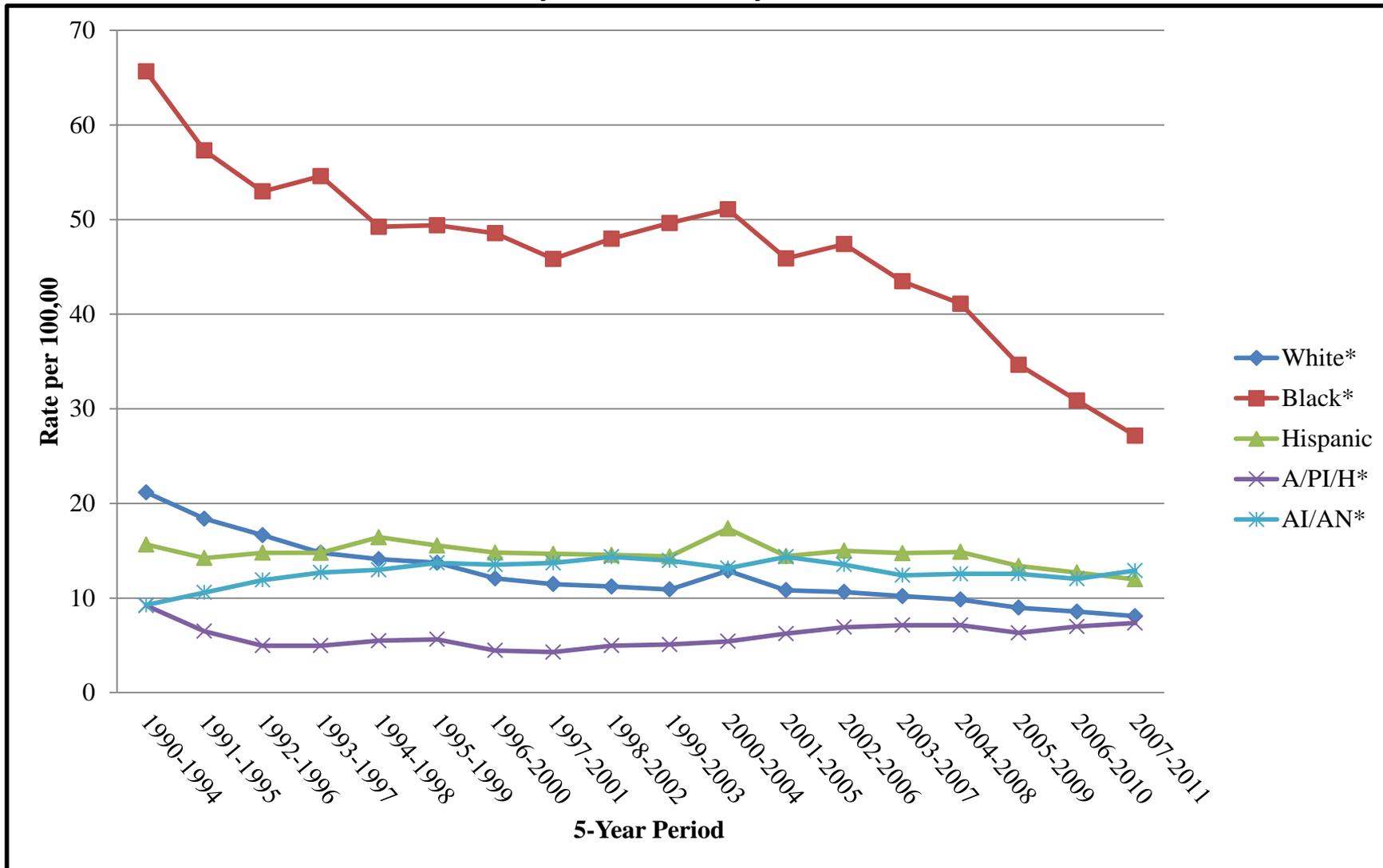
Arizona Prevalent HIV, AIDS, and HIV/AIDS cases, December 2004 – December 2012



Arizona Emergent HIV/AIDS by Gender, 2000-2012



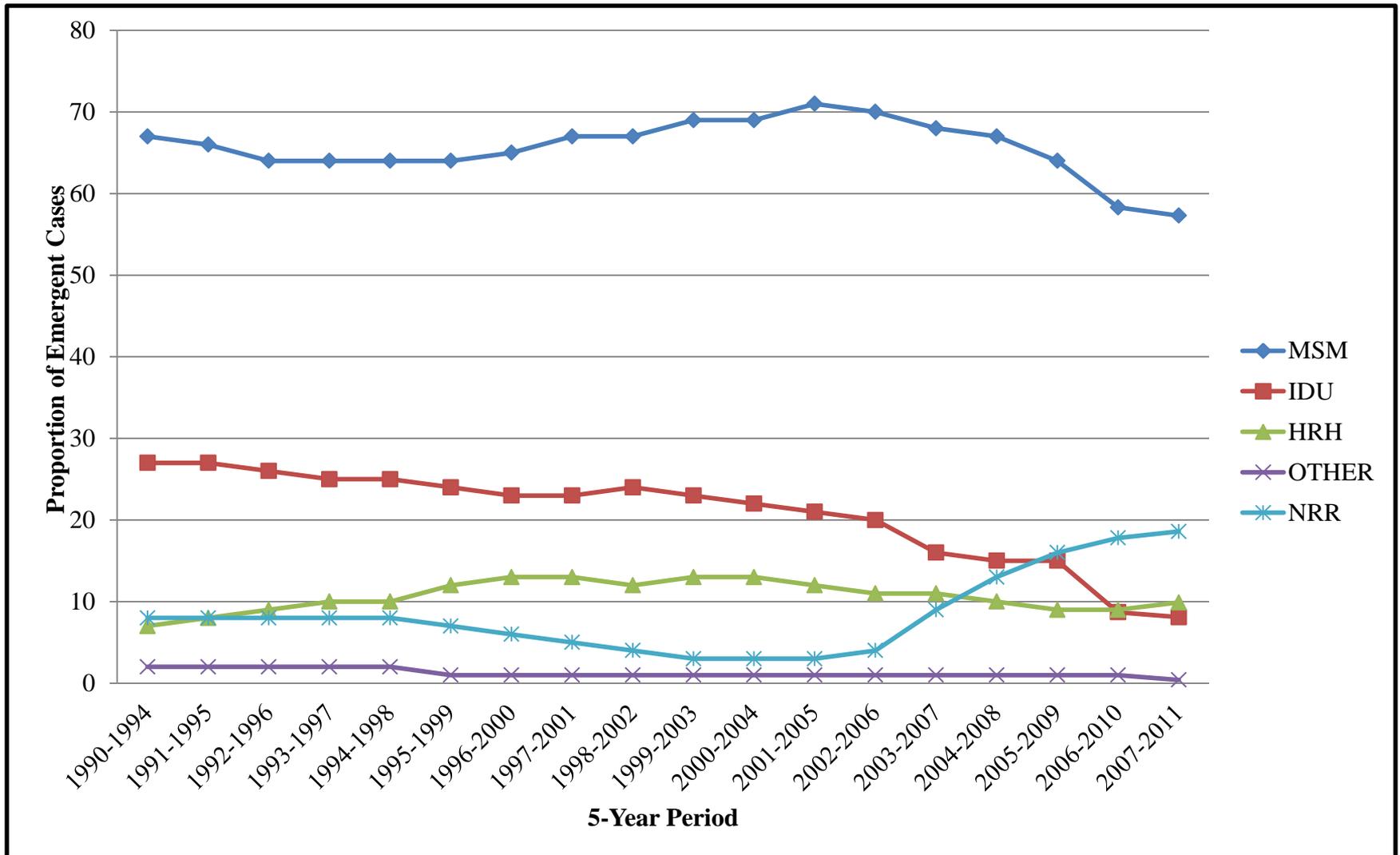
Arizona 5-Year New HIV/AIDS Rate by Race/Ethnicity, 1990-2011



*Non-Hispanic, A/PI/H=Asian/Pacific Islander/Native Hawaiian, AI/AN=American Indian/Alaska Native

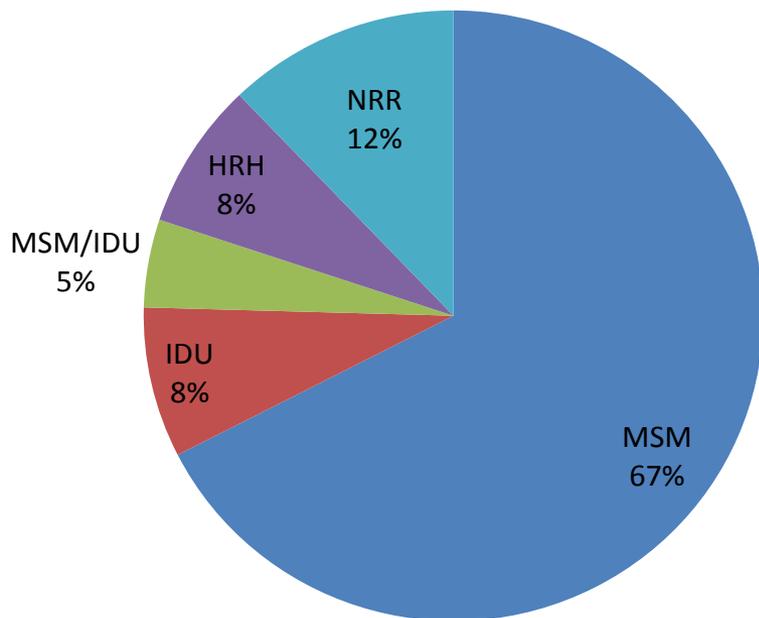


Arizona Relative Percentage of Emergent Cases by Reported Risk Behavior, 1990-2011

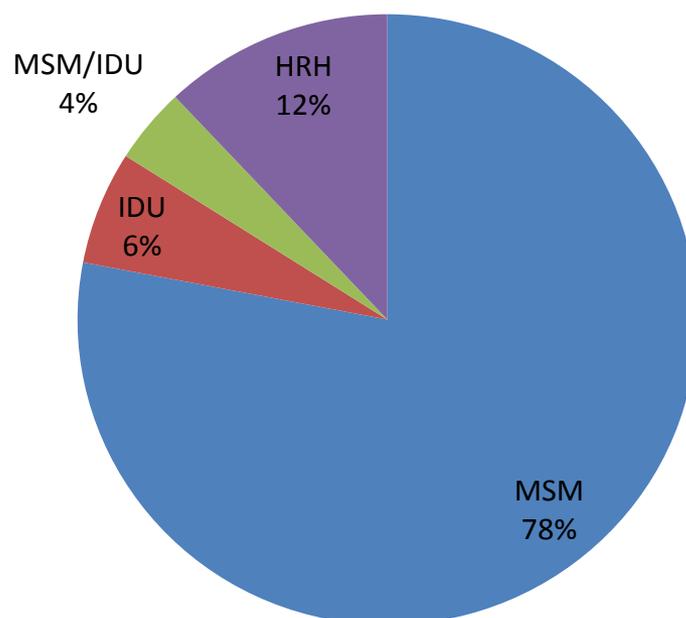


Male United States and Arizona Estimates of New HIV Infections, By Transmission Category

AZ Males (2012)



US Males (2011)



MSM =Men Who Have Sex with Men

IDU = Injection Drug User

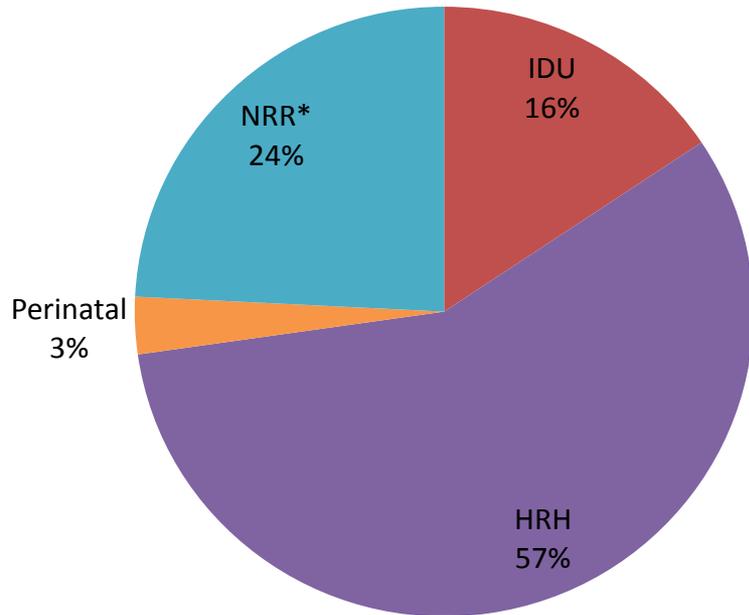
HRH= High-Risk Heterosexual

NRR =No Risk Reported

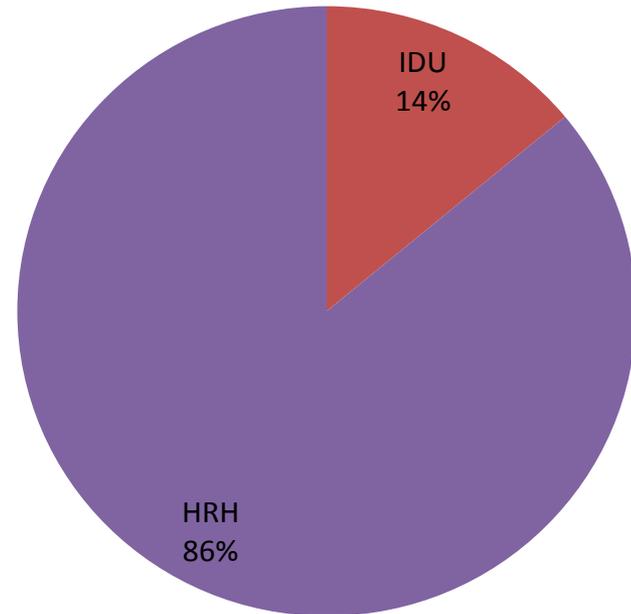
The United States estimate does not include an NRR category

Female United States and Arizona Estimates of New HIV Infections, By Transmission Category

AZ Females (2012)



US Females (2011)



MSM =Men Who Have Sex with Men

IDU = Injection Drug User

HRH= High-Risk Heterosexual

NRR =No Risk Reported

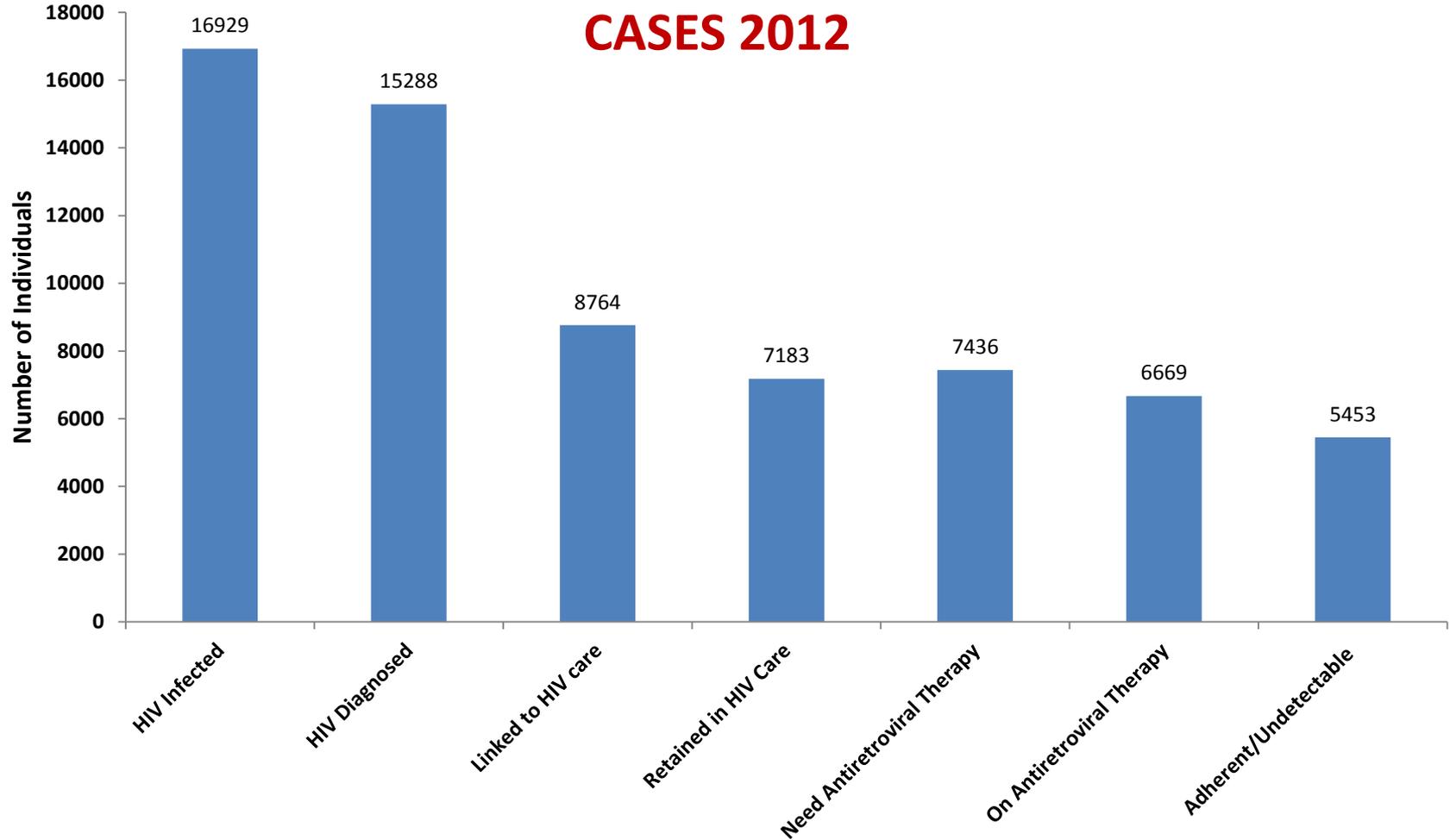
The United States estimate does not include an NRR category

* 23% NRR are Presumed Heterosexual

SPECTRUM OF CARE- CASCADE

- 2012 spectrum of care cascades created using data from eHARS, Unmet needs, and ADAP.
 - 2012 Arizona prevalent cases (alive through 2012)
- Total HIV infected is an estimate based on the CDC's national estimate of the percent of people who are unaware they are HIV positive – 18.1%

SPECTRUM OF CARE ENGAGEMENT-ARIZONA PREVALENT CASES 2012

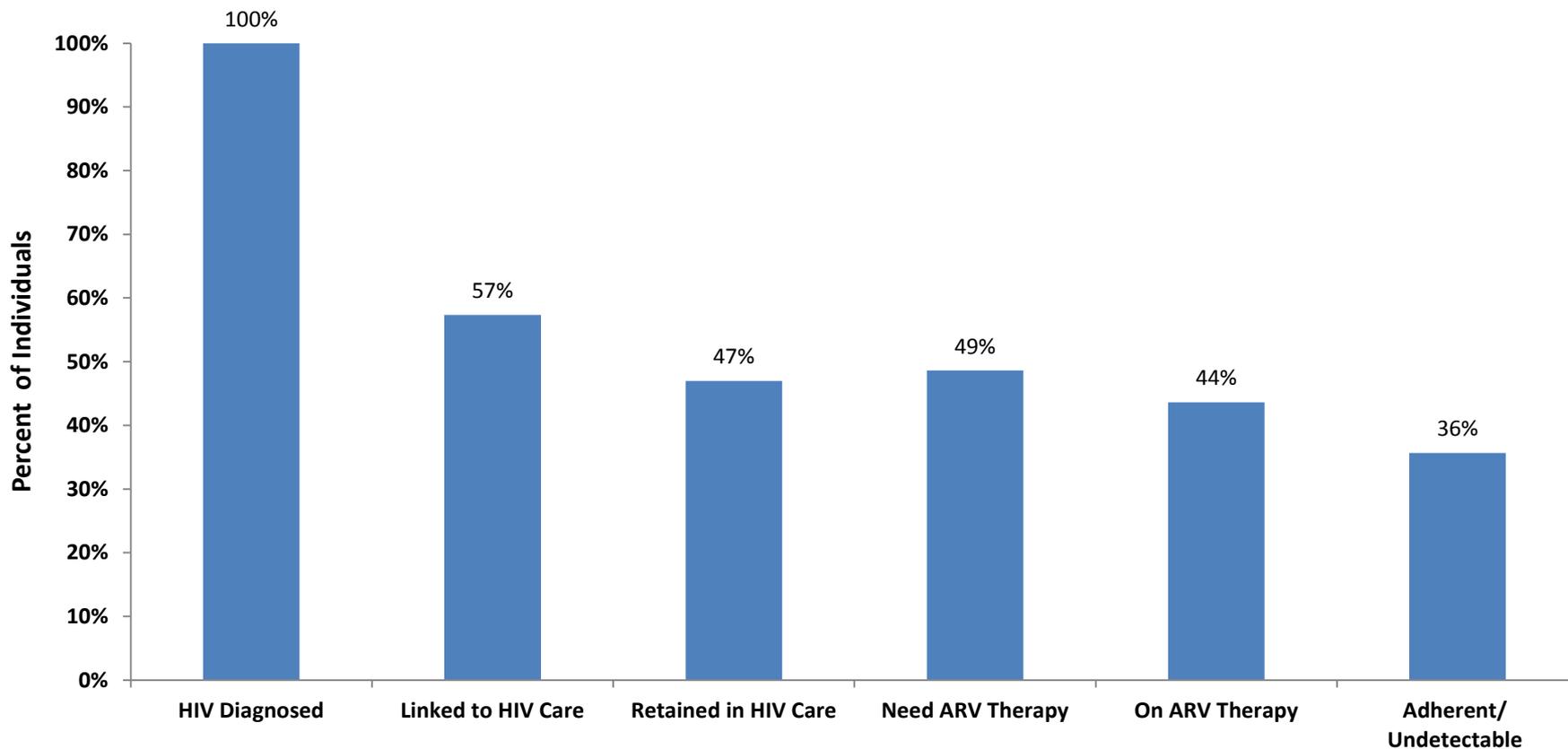


Note: HIV infected is derived using CDC's national infection estimation guidelines

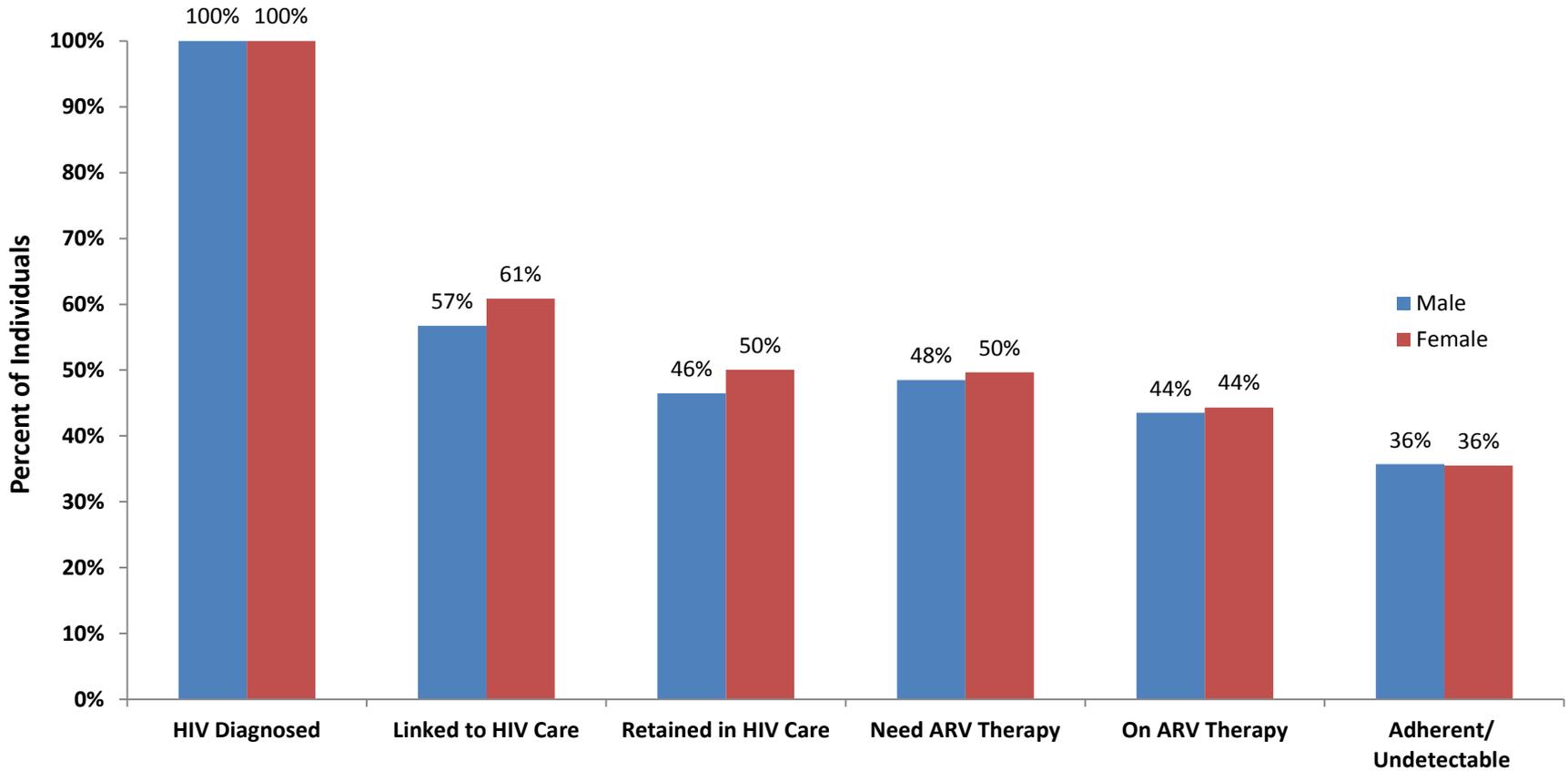


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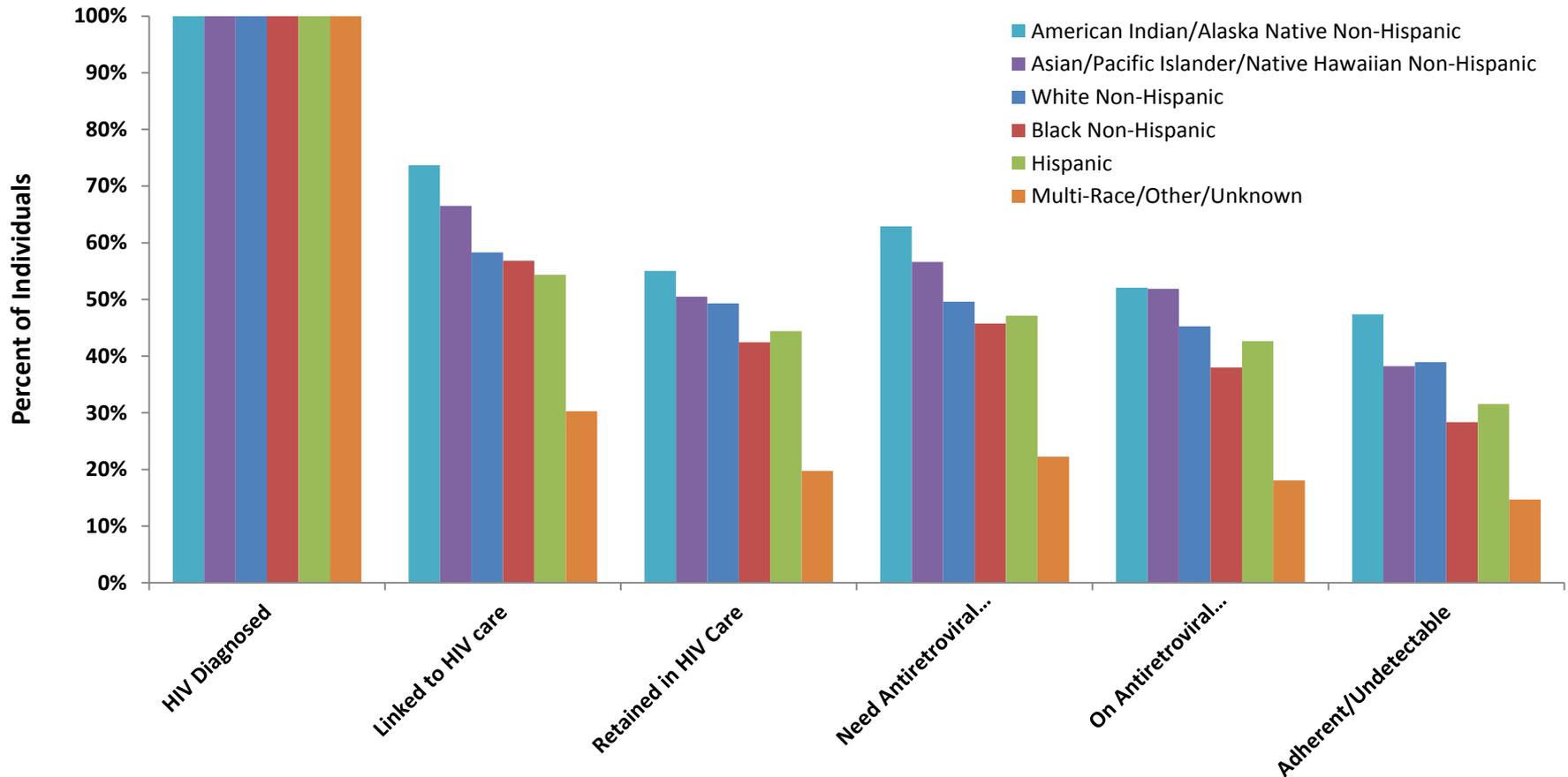
SPECTRUM OF CARE ENGAGEMENT-ARIZONA PREVALENT CASES 2012



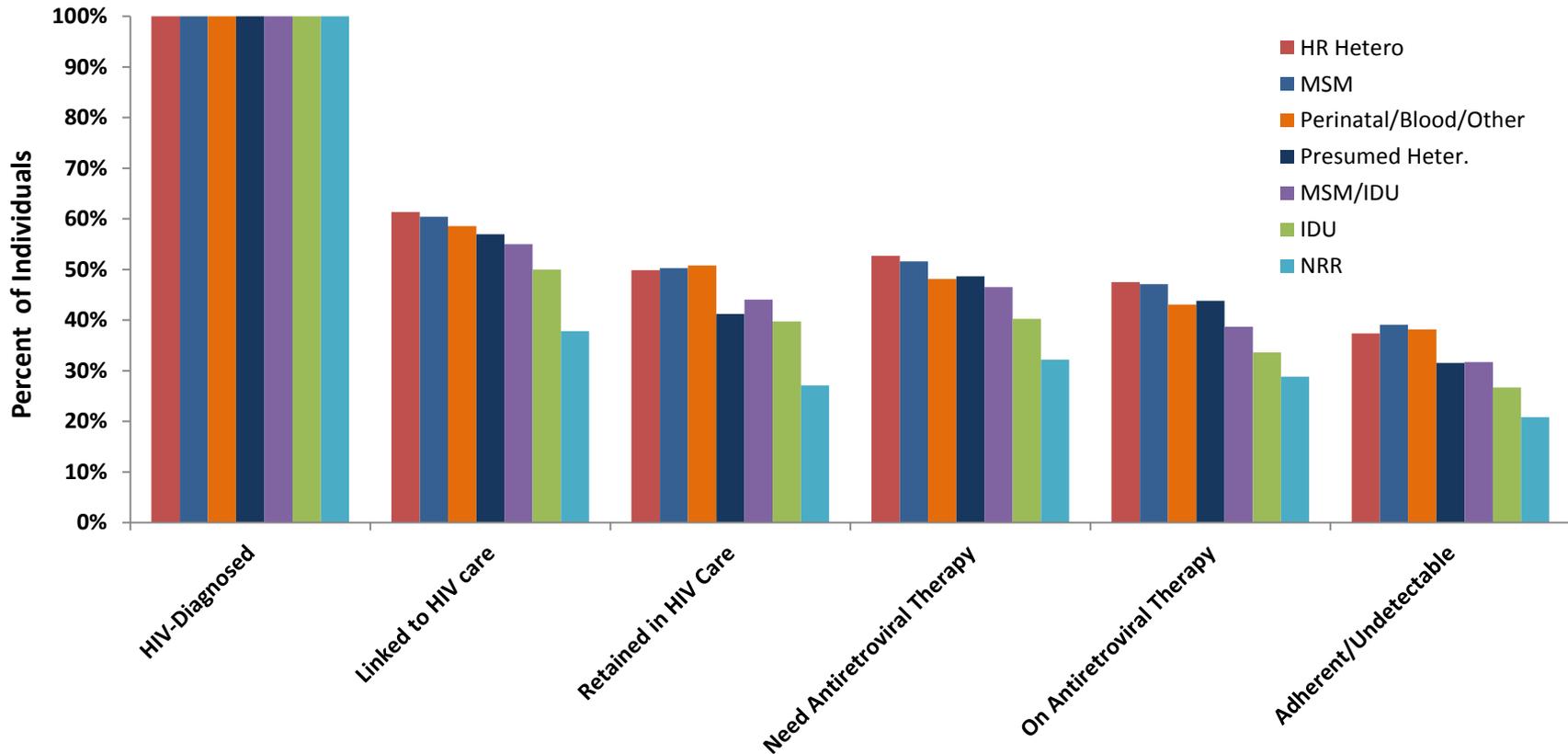
SPECTRUM OF CARE ENGAGEMENT- AZ PREVALENT CASES BY SEX 2012



SPECTRUM OF CARE ENGAGEMENT- AZ PREVALENT CASES BY RACE/ETHNICITY 2012



SPECTRUM OF CARE ENGAGEMENT- AZ PREVALENT CASES BY RISK 2012



HOW YOU CAN HELP HIV EPIDEMIOLOGY

- What we need:
 - Negative test reporting, including undetectable viral loads and CD4, which are not reportable by state law
 - Risk, Race, Address, 1st Positive
 - HIV Medication History

HIV PREVENTION REQUIRED COMPONENTS

HIV Testing

Healthcare Opt-Out Screening
Urban and Rural programs
Partner Services
Linkage to Care
4th Generation testing
Acute Case Identification

Comprehensive Prevention with Positives

Partner Services to all Positives
(initial and ongoing)
Linkage to Care and Re-engagement
Referral and linkage to other medical and
social services
Evidence Based Interventions
Behavioral Risk Screenings

Policy Initiatives

Opt-Out Testing and removal of written
consent
Sharing of Epidemiologic Data
Testing in Emergency Departments who
currently do not offer testing

Condom Distribution

Ryan White Providers and Case Managers-RW
Parts A and B
ADAP Pharmacies- paired with medication
delivery
Prevention funded programs
Targeted Community Partners
IDU services and Needle Exchange

HIV PREVENTION

REQUIRED PROGRAM ACTIVITIES

HIV Prev Planning

Prevention Planning Group of Arizona
(HPG)
Jurisdictional Plan
Engagement Process

Program Planning M&E, QA

Comprehensive Program Plan
Data Quality
Program monitoring
Site Visits and Communication
Materials Review
Surveillance data use for allocations

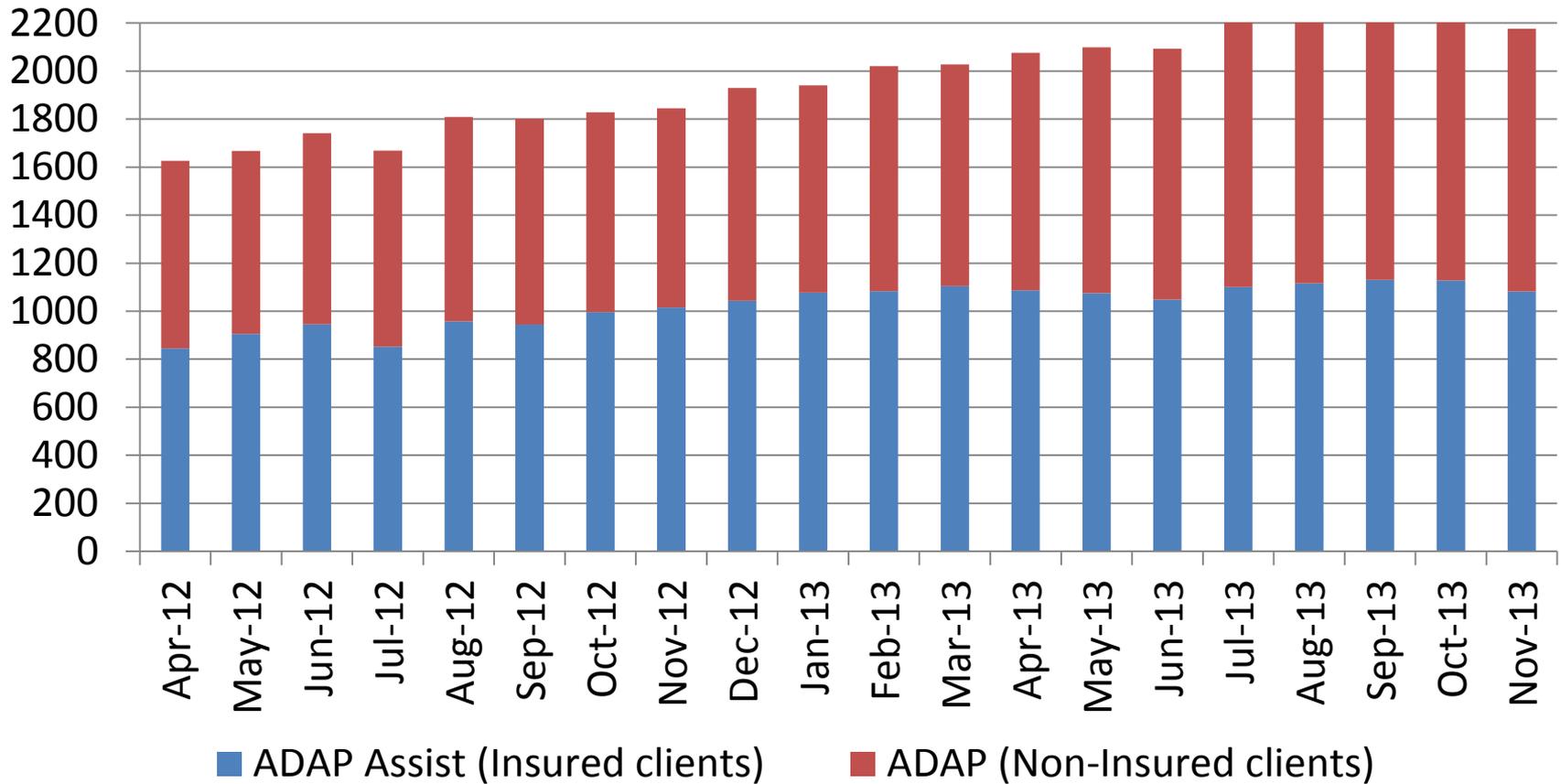
Capacity Building & TA

Contractors' Meeting, Training and CRIS Requests for CDC Assistance
TA- all areas including: Social Determinants of Health, Health Disparities,
Cultural competency, data quality, security and sharing
Develop collaborations, referral networks
Training to Medical Providers referred to AZ AIDS Education and Training Center

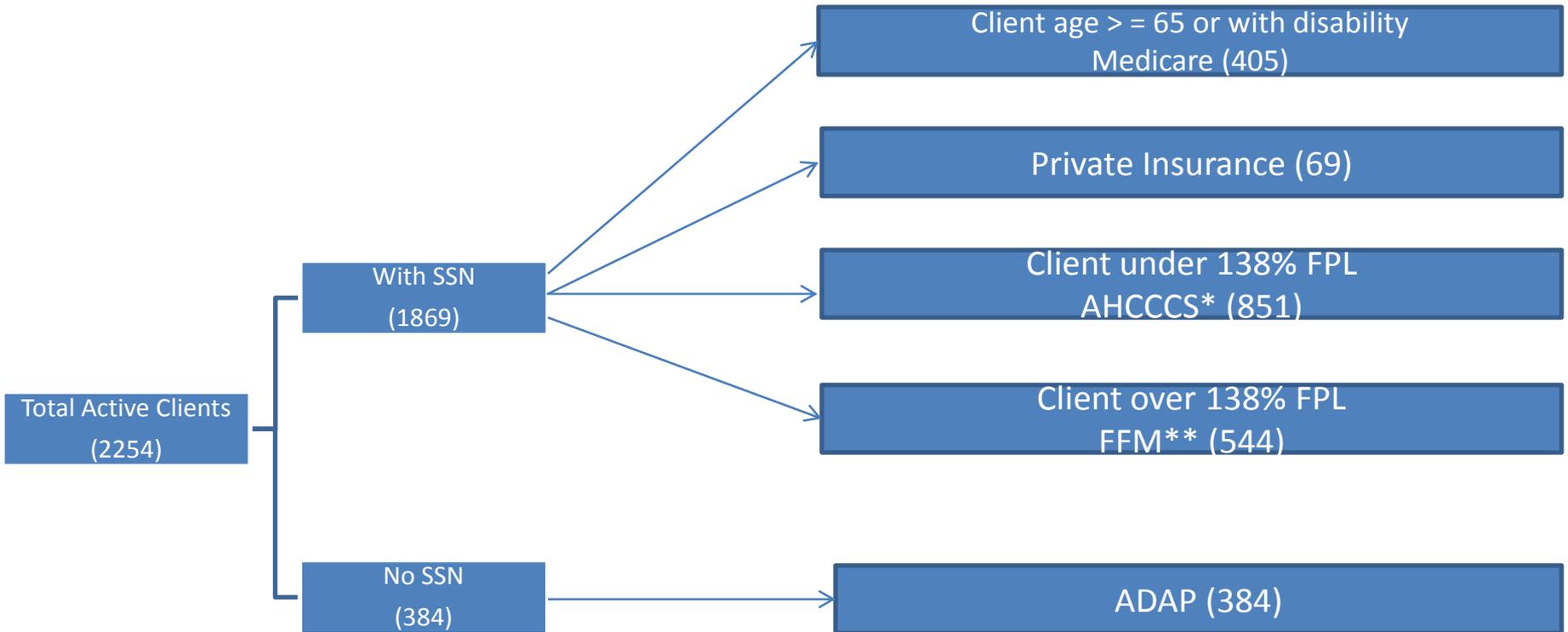
Social marketing media and Community Mobilization

Use of CDC developed campaign "Let's Stop HIV Together" for targeted populations
Internal new media options
Community mobilization through partnerships, collaborations and involvement of community members

Number of Enrolled Clients in ADAP



Projected ADAP Clients on January 1st 2014 Breakdown by Insurance Groups



*Clients with SSN and under 138% Federal Poverty Level will be eligible for AHCCCS and will not be enrolled in ADAP.

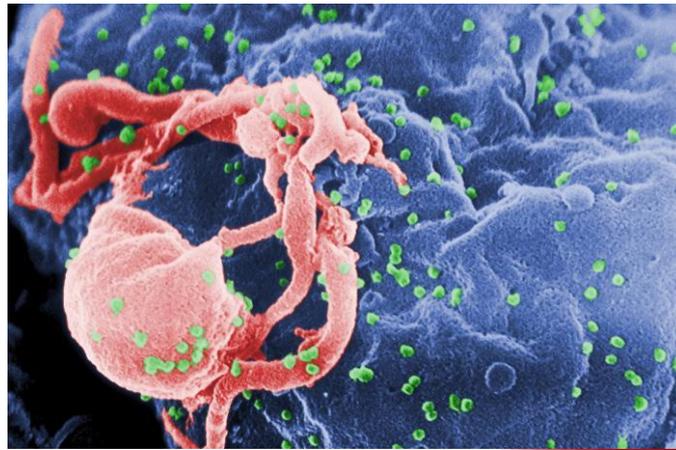
**FFM--Federally-facilitated Marketplace

Questions?



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- “NIH-Funded Study Finds Community-based Efforts Increase HIV Testing” (Online Image). NIMH. <http://www.nimh.nih.gov/science-news/2013/nih-funded-study-finds-community-based-efforts-increase-hiv-testing-prompt-behavior-change.shtml>
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- Ryan White Part B: <http://www.azdhs.gov/phs/edc/odis/hiv-care/index.htm>



<http://phil.cdc.gov/phil/details.asp?pid=10009>

ACKNOWLEDGMENTS

Thank You:

- Rick DeStephens - HIV Epidemiology Program Manager
- Julia Skinner - Capacity Building Epidemiologist
- Megan Swanson – HIV Epidemiologist/MHS Coordinator
- David Johns – HIV Incidence Coordinator
- Jonathan Gonzales - HIV Epidemiologist
- Ann Gardner – HIV Prevention
- Lena Hu - ADAP Data Manager
- Jenny Warrington – Ryan White Quality Assurance Manager

Tuberculosis in Arizona

Tuberculosis Control Program
Arizona Department of Health
Services

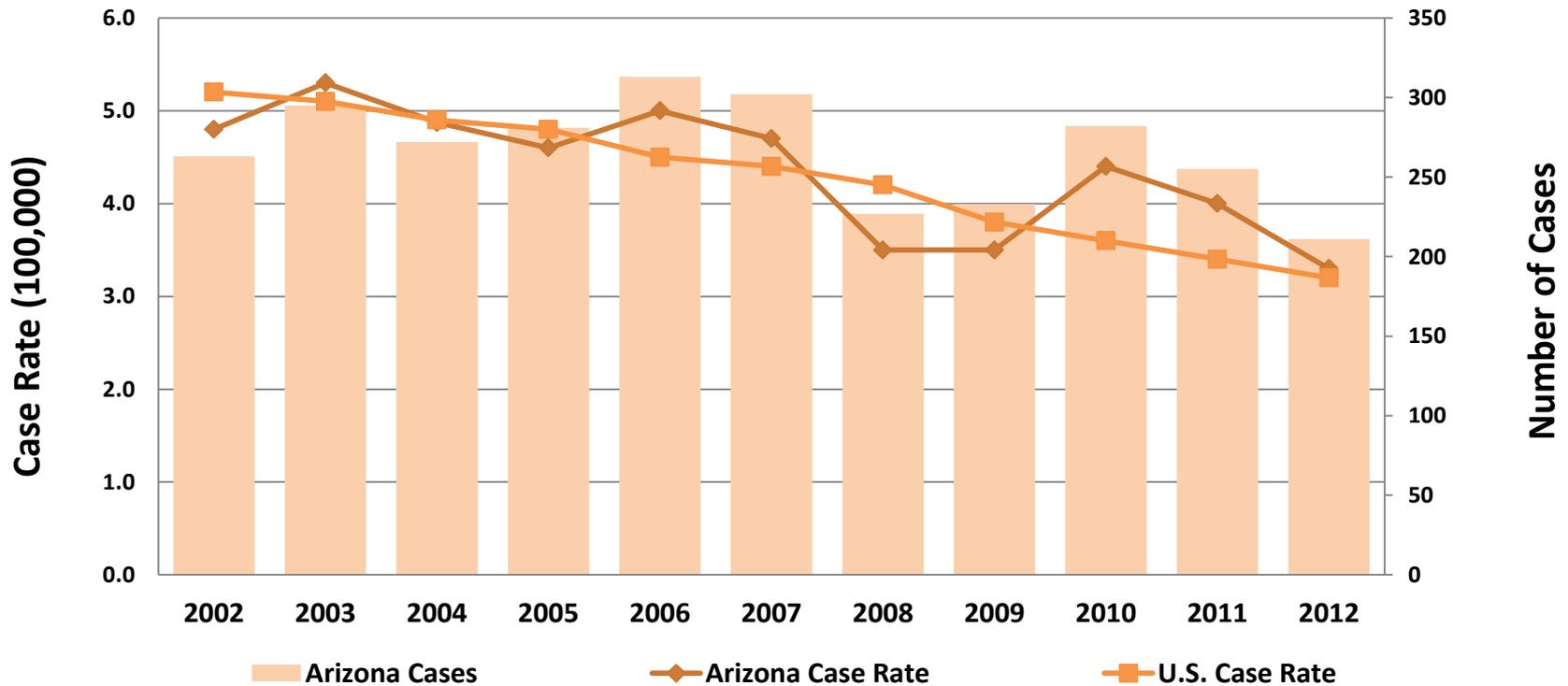


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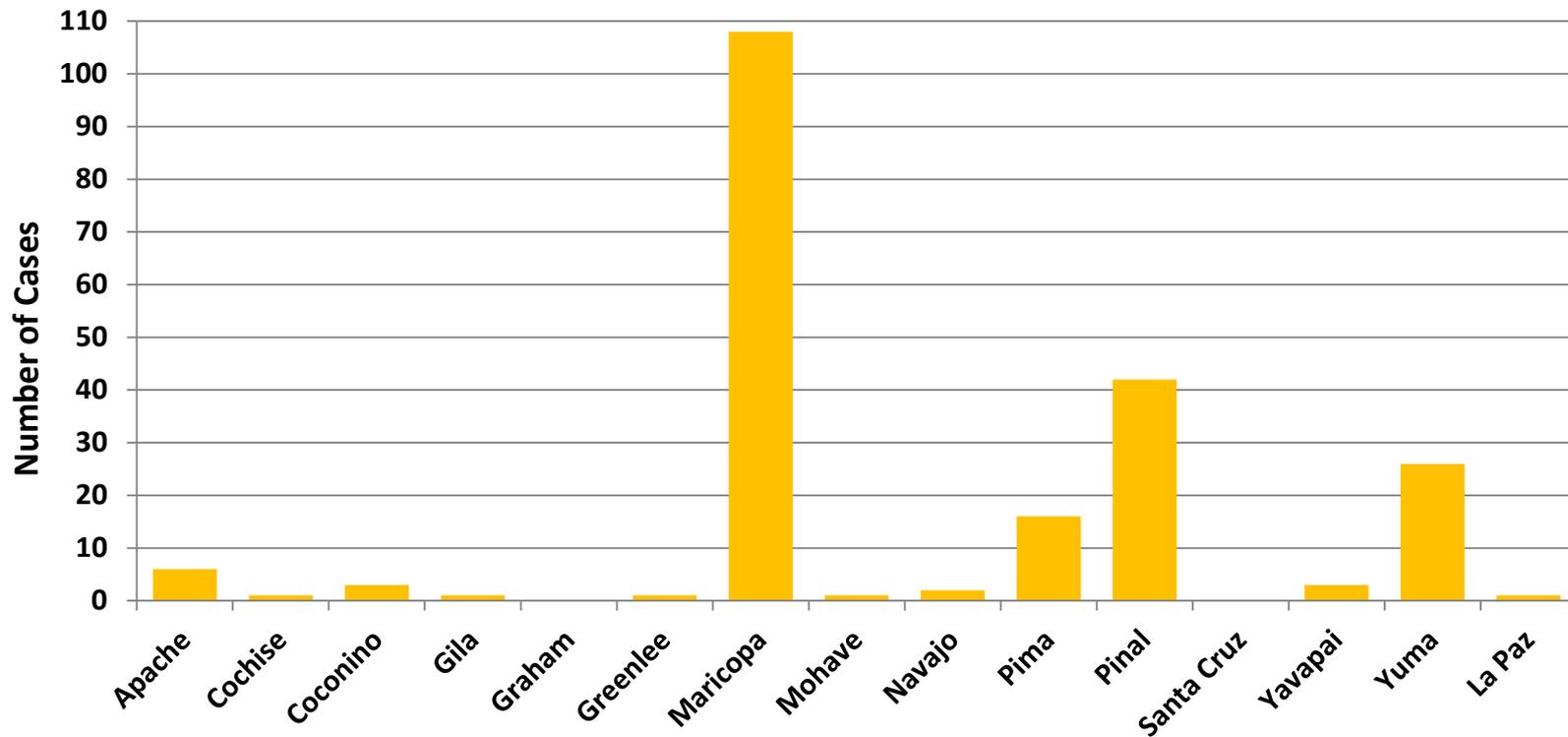
azdhs.gov



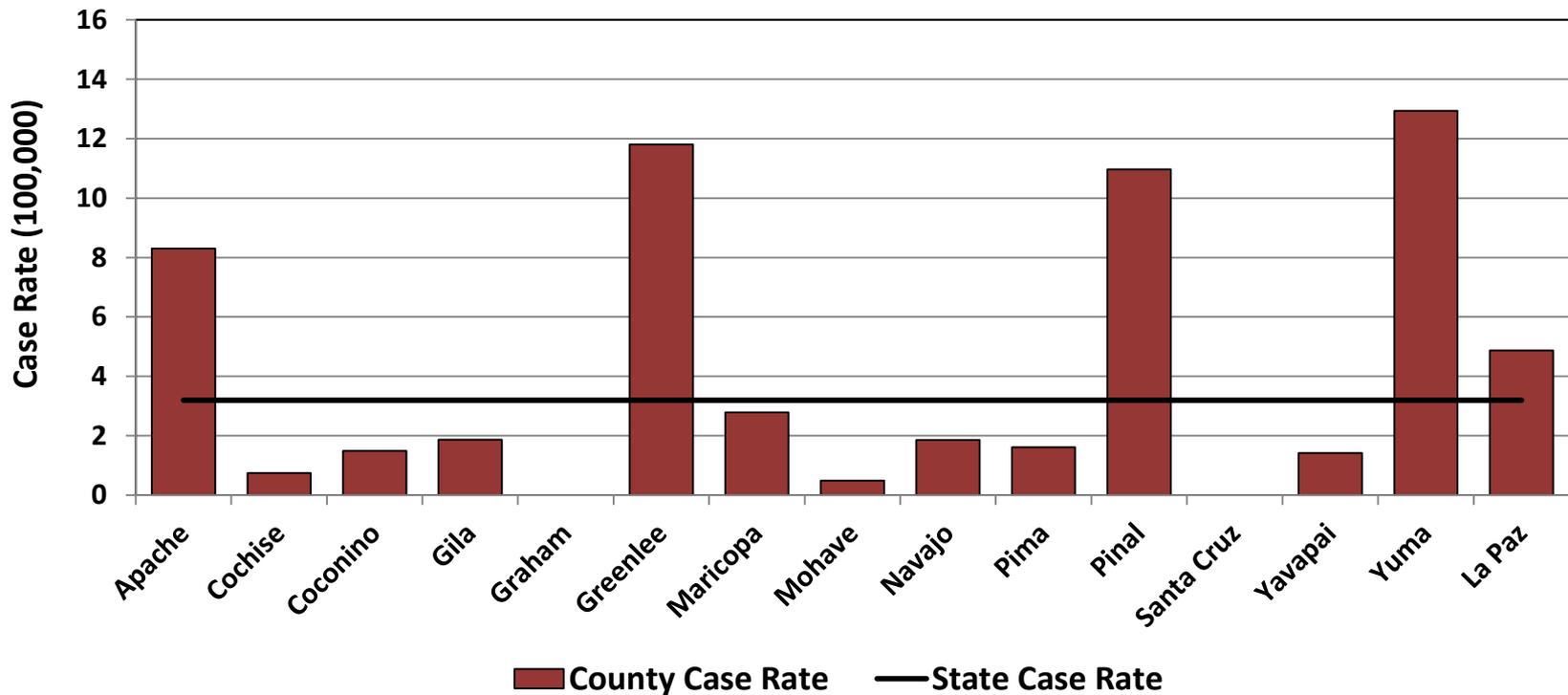
TB Case Rates per 100,000 population, Arizona & U.S., 2002 - 2012



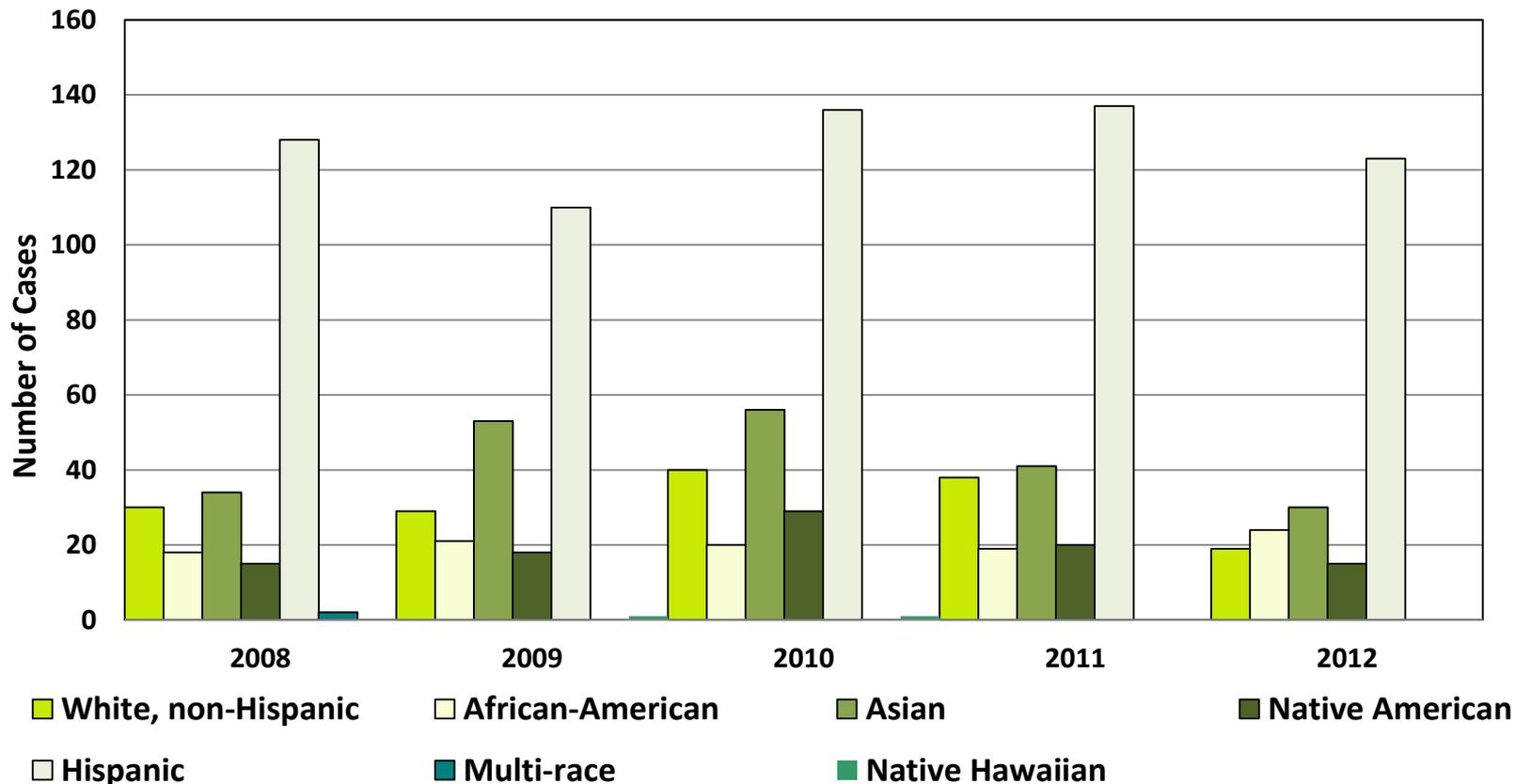
TB Cases by County of Residence, Arizona, 2012



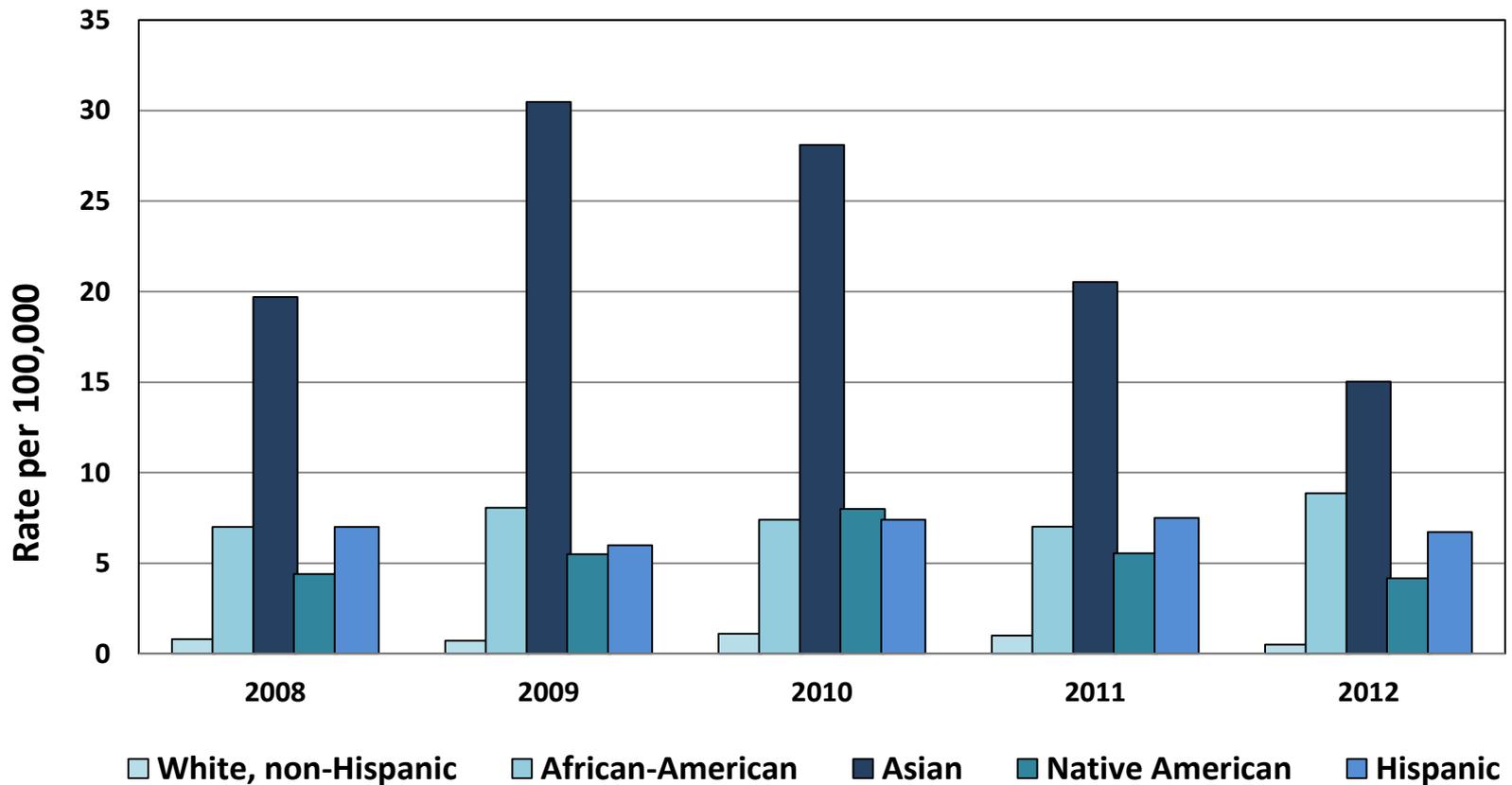
TB Case Rates by County of Residence, Arizona, 2012



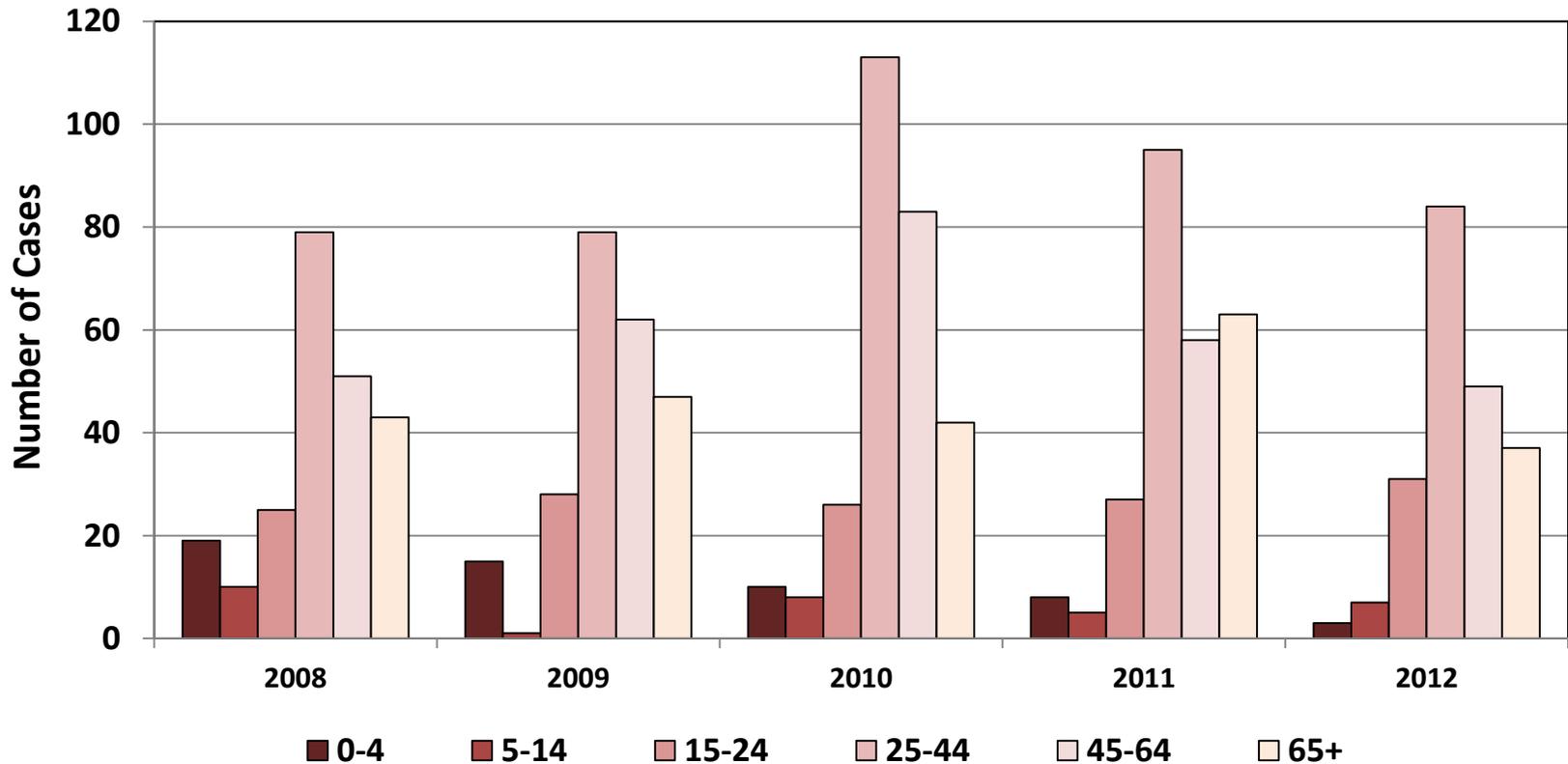
TB Cases by Race & Ethnicity, Arizona, 2008-2012



TB Case Rates by Race & Ethnicity, Arizona, 2008-2012



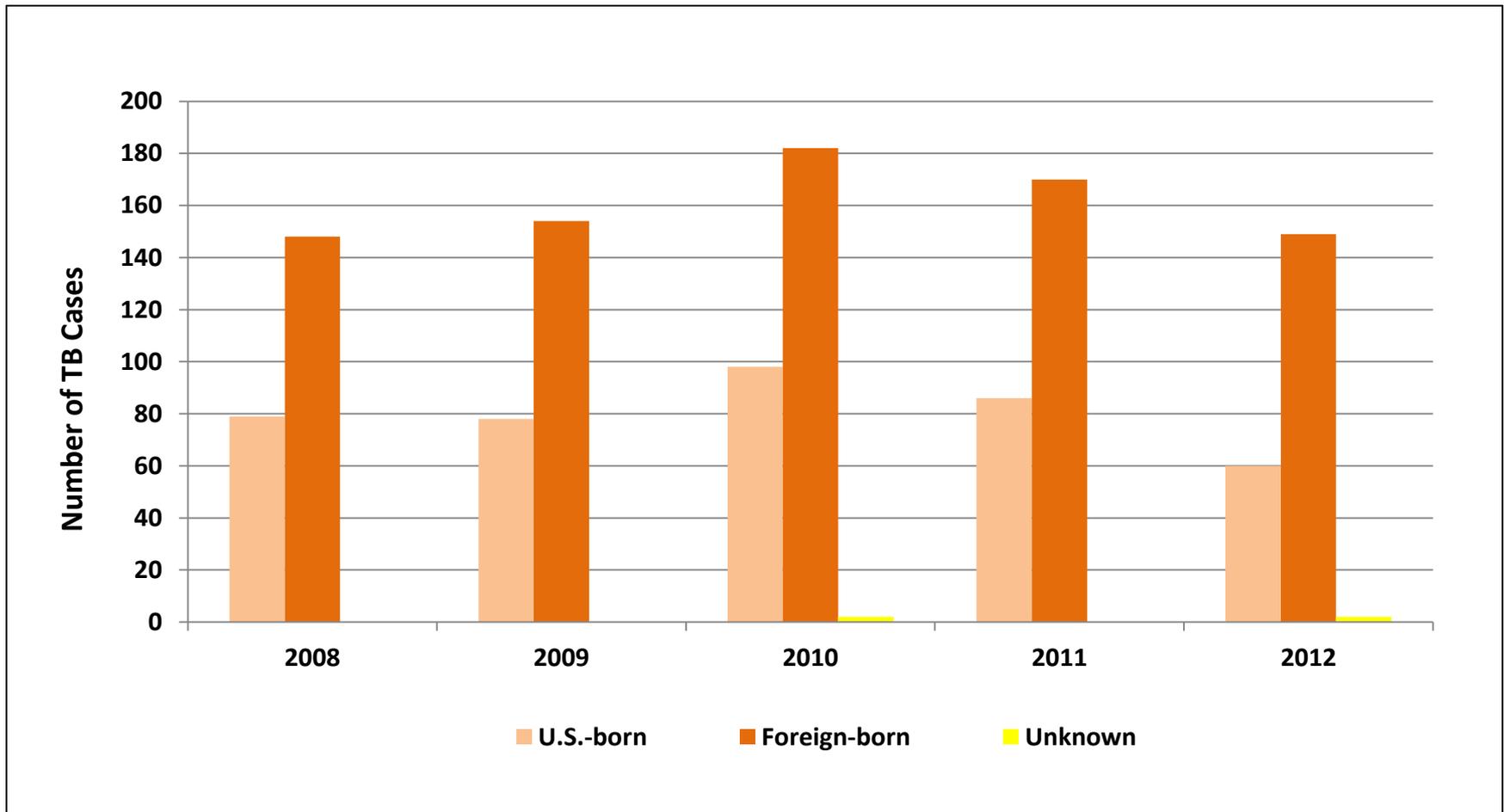
TB Cases by Age Groups, Arizona, 2008 - 2012



Risk Factors for TB Cases, Arizona, 2010-2012

	2010		2011		2012	
	Cases	%	Cases	%	Cases	%
Total Cases	282		255		211	
Occupation						
Health Care Worker ≥ 15 years	4	1.5	10	4.1	8	4.0
Migrant Farm Worker ≥ 15 years	8	3.0	19	7.9	17	8.4
Reported Behaviors						
Injecting Drug Use ^a ≥ 15 years	8	3.0	8	3.3	8	4.0
Non-injecting Drug Use ^a ≥ 15 years	16	6.1	25	10.3	26	12.9
Excess Alcohol Use ^a ≥ 15 years	27	10.2	34	14.1	24	11.9
Type of Residence						
Long Term Care Facility ^b	6	1.8	8	3.1	2	1.0
Homeless ^a	24	8.5	15	5.9	12	5.7
Comorbidity						
Diabetes Mellitus ^c	31	11.0	31	12.2	36	17.1
Immunosuppression (Not HIV/AIDS) ^c	9	3.2	6	2.3	4	1.9
Incomplete LTBI Therapy ^c	10	3.5	6	2.4	5	2.4
Contact of infectious TB case (2 years or less) ^c	15	5.3	15	5.9	8	3.8
^a Within one year prior to diagnosis of tuberculosis.						
^b Residence at time of diagnosis.						

U.S.-born & Foreign-born TB Cases, Arizona, 2008 - 2012



TB Reporting

- What is reportable by Health Care Providers?
 1. Tuberculosis, active disease
 2. Tuberculosis latent infection in a child 5 years of age or younger
- By laboratories?
 - Mycobacterium complex and its drug sensitivity pattern

TB Reporting

- When reporting a case or suspect case of TB
 - a) The site of infection; and
 - b) A description of the treatment prescribed, if any, including:
 - i. The name of each drug prescribed
 - ii. The dosage prescribed for each drug, and
 - iii. The date of prescription for each drug

Case Control Measures

1. Isolation and airborne precautions for infectious active TB or a suspect case until:
 - a. 3 successive sputums collected 8 hrs apart are negative (at least one in early in the AM)
 - b. Treatment has been initiated
 - c. Clinical signs/symptoms improved
 - d. For MDR, TB control officer approval
2. Notify LHD at least one working day before discharging TB case or suspect case

R9-10-112. Tuberculosis Screening

- Two options for health care institutions to follow if TB screening is required at the facility
 1. a) On or before date of HCW providing services
 - Documentation of negative skin test or other approved screening test within six months before providing services
 - Written statement from medical practitioner that individual is free of infectious TB if prior history of approved screening test
 - b) Repeat every 12 months thereafter

R9-10-112. Tuberculosis Screening

2) Establish, document, and implement a TB infection control program that complies with the Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care settings, 2005.

R9-10-112. Tuberculosis Screening

2) Continued

- a) Conducting TB risk assessments, TB screening tests, screening for signs or symptoms, and providing training and education related to recognizing signs and symptoms
- b) Maintain documentation of :
 - i. TB risk assessment
 - ii. TB screening tests
 - iii. Screening for signs or symptoms of TB



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Morbidity and Mortality Weekly Report

Recommendations and Reports

December 30, 2005 / Vol. 54 / No. RR-17

Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005

INSIDE: Continuing Education Examination

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

www.cdc.gov/mmwr/pdf/rr/rr5417.pdf



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Questions?



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Thank You!



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