

# ARIZONA VACCINE PREVENTABLE DISEASE UPDATE

April 19-20, 2017

Presenting To

Arizona Immunization Conference  
Phoenix, AZ

Susan Goodykoontz | VPD Epidemiologist



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# Measles



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C

Library  
Chapel

Eloy Detention Center

Library  
Chapel

F

B

B500

Intake

Dining

E600

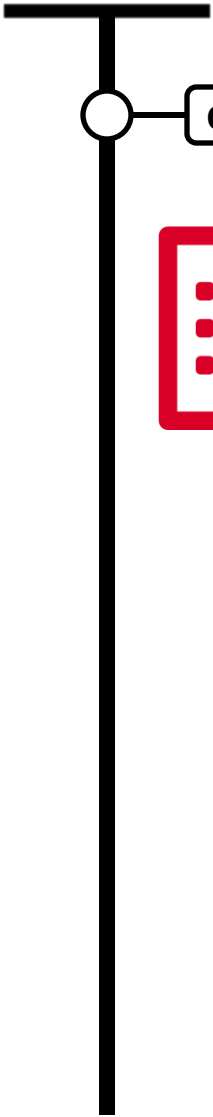
E

A

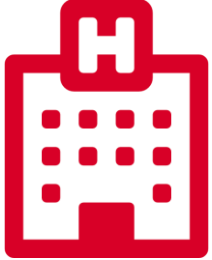
Medical  
Court  
Visitation

D

5/3 5/4 5/5 5/6 5/7 5/8 5/9 5/10 5/11 5/12 5/13 5/14 5/15 5/16 5/17 5/18 5/19 5/20 5/21 5/22 5/23 5/24 5/25 5/26 5/27 5/28 5/29 5/30 5/31 6/1 6/2 6/3 6/4 6/5 6/6 6/7 6/8 6/9 6/10 6/11 6/12 6/13 6/14 6/15 6/16 6/17 6/18 6/19 6/20 6/21 6/22 6/23 6/24 6/25 6/26 6/27



05/25/2016



Detainee taken to ED with symptoms compatible with measles. Employee also went to ED with some compatible symptoms. By the end of the day there was 1 confirmed case and 5 suspect cases related to the detention center.

1 Confirmed

05/27/2016



ADHS Emergency Operation Center was activated and routine phone calls were set up with the counties and facilities.

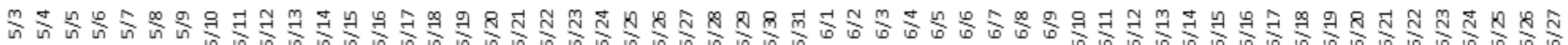
Recommendations with control measures were sent over to the facility.



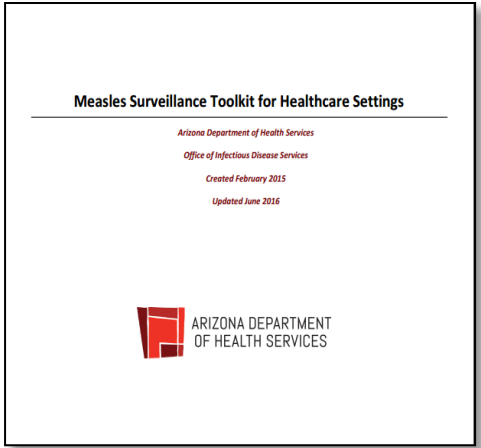
Pinal County opened their immunization clinics to all individuals to help get the staff at the detention center vaccinated as well as anyone in the public.

Vaccinations for the detainees began on 5/27 and continued through 6/1. All but 1 detainee received 1 dose of MMR.

7 Confirmed

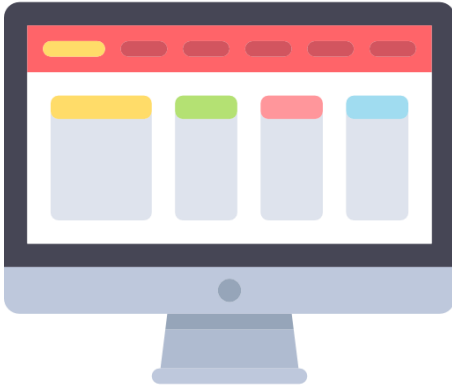


05/31/2016



ADHS, CDC, Maricopa County, and Pinal County continued to put out information and guidance for both the public and providers about the outbreak.

06/2/2016



Individuals from CDC, ADHS, and Pinal county started to get sent out the facility to aid in the investigation of the outbreak.

12 Confirmed

ADHS continued to keep the measles website up-to-date with daily updates on case counts and exposure locations.

ADHS continued to send out information for released detainees.

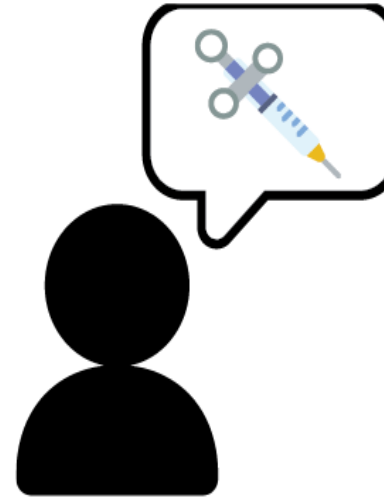
13 Confirmed



07/5/2016

08/08/2016

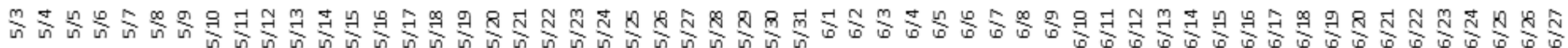
**Outbreak officially closed after 42 days since the last exposure in the facility with no additional cases**

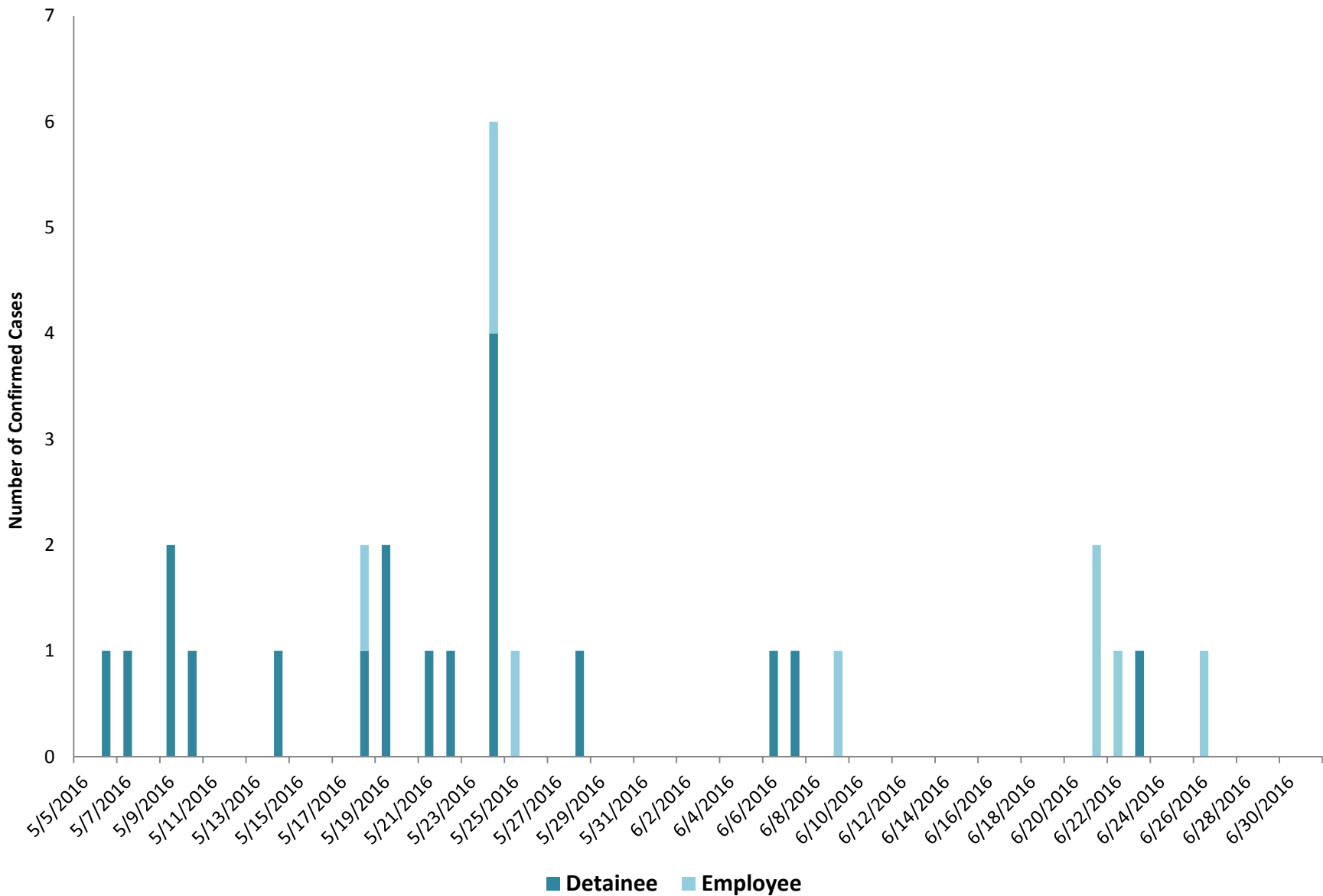


Dr. Kelly (ID physician with ADHS) went out to the detention center to talk with the employees about the importance of vaccination and to encourage a higher vaccine coverage for the facility.

22 Confirmed

Additional case finding continued after the official close to look at previous rash illness that were identified in the facility.







# Measles Outbreak, Pinal County, 2016

## Case Epi Information

**Total number of cases: 31**

Case Breakdown

22 detainees, 9 employees

Age Range

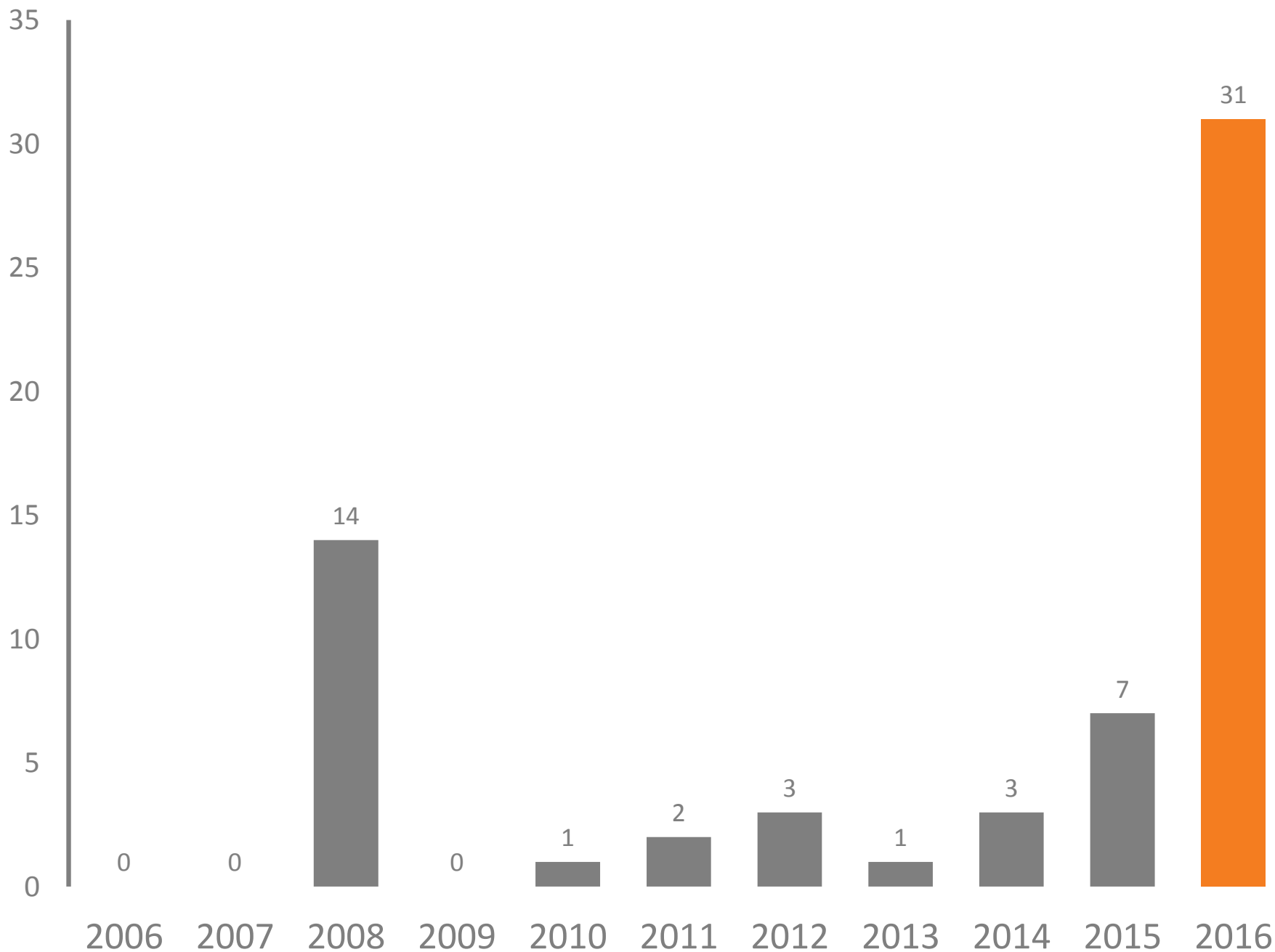
19-52 years

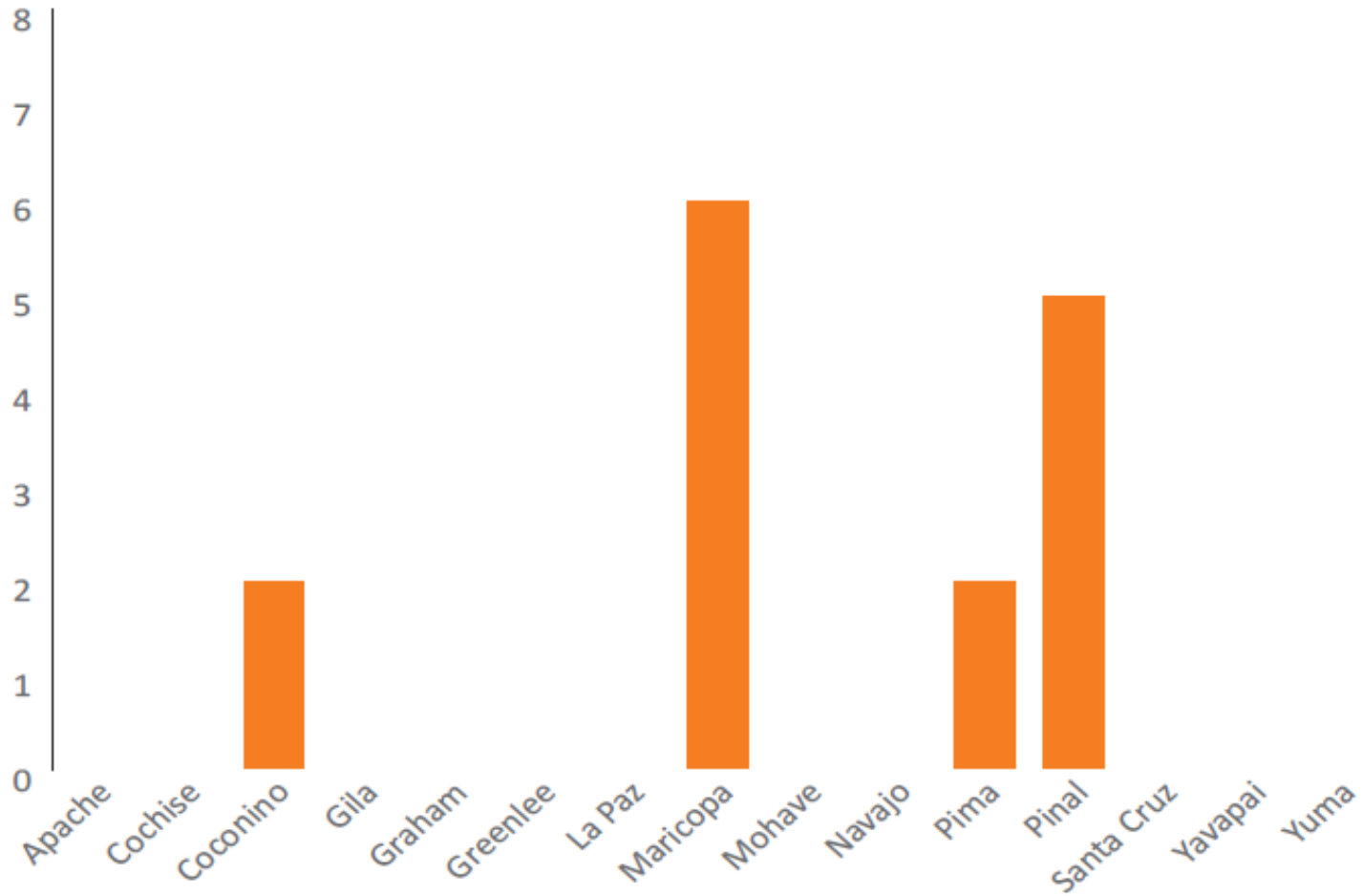
Gender

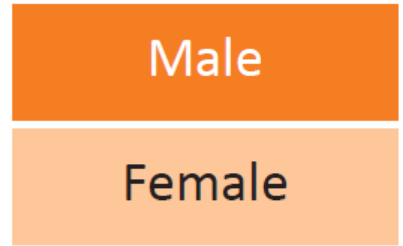
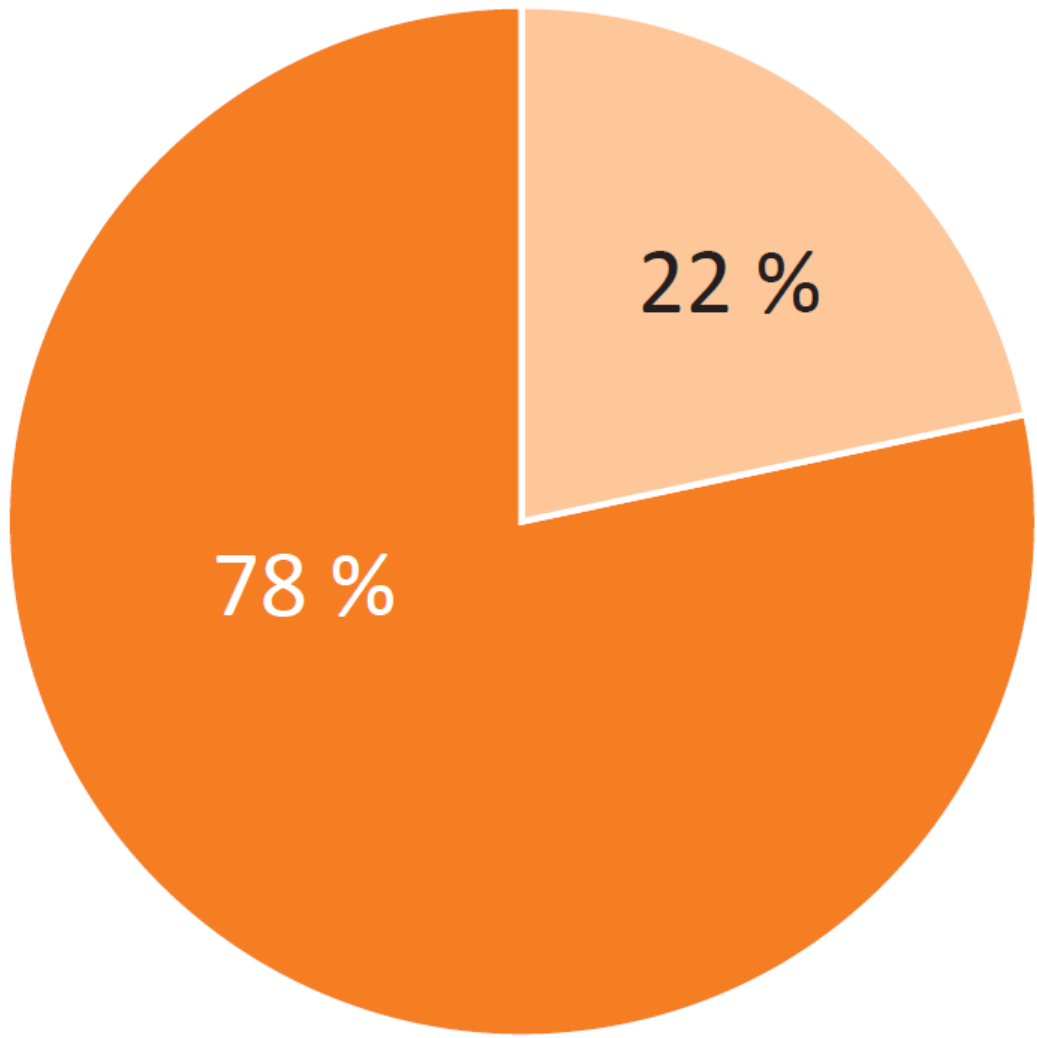
84 % Male

The genotype identified was D8









# Mumps

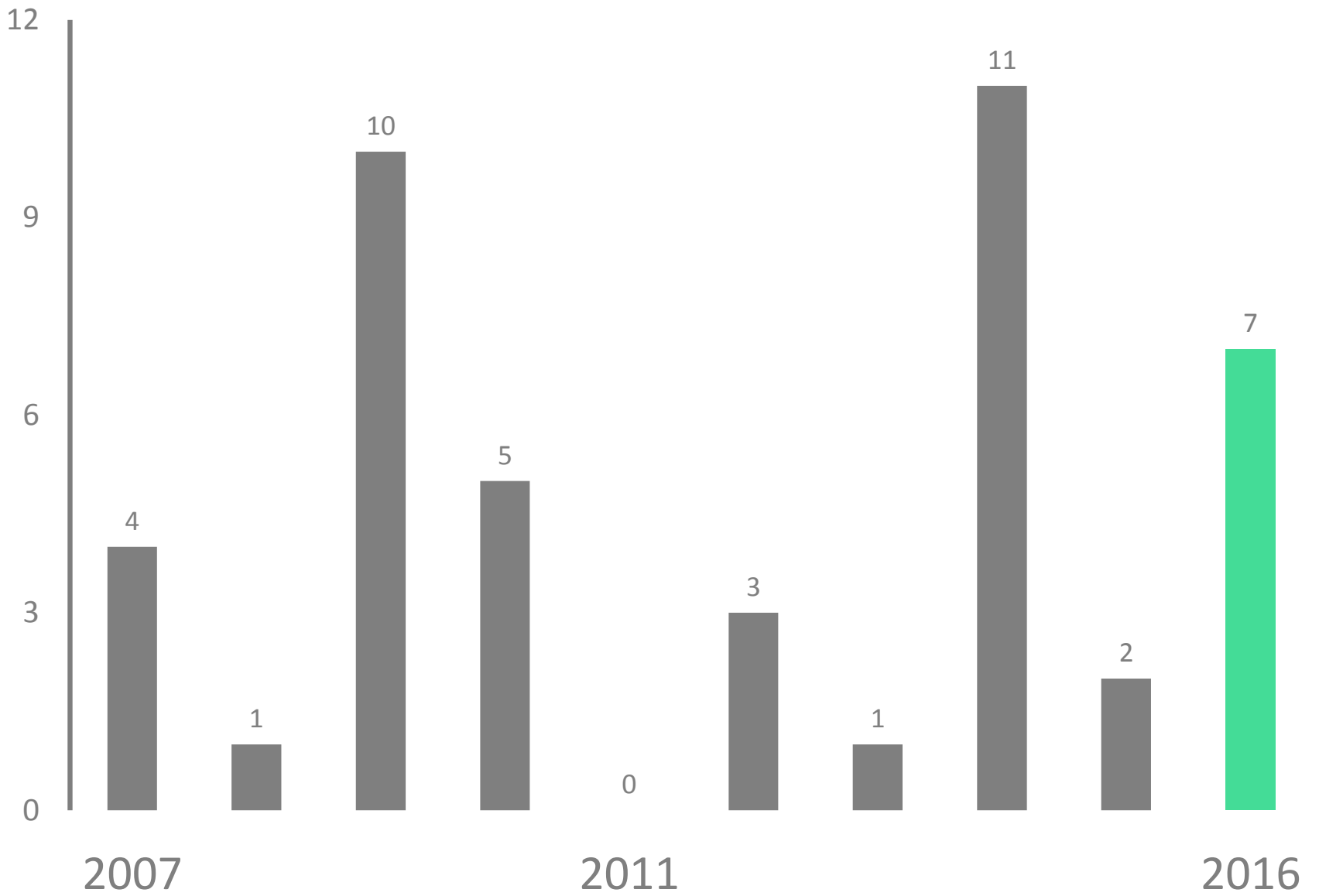


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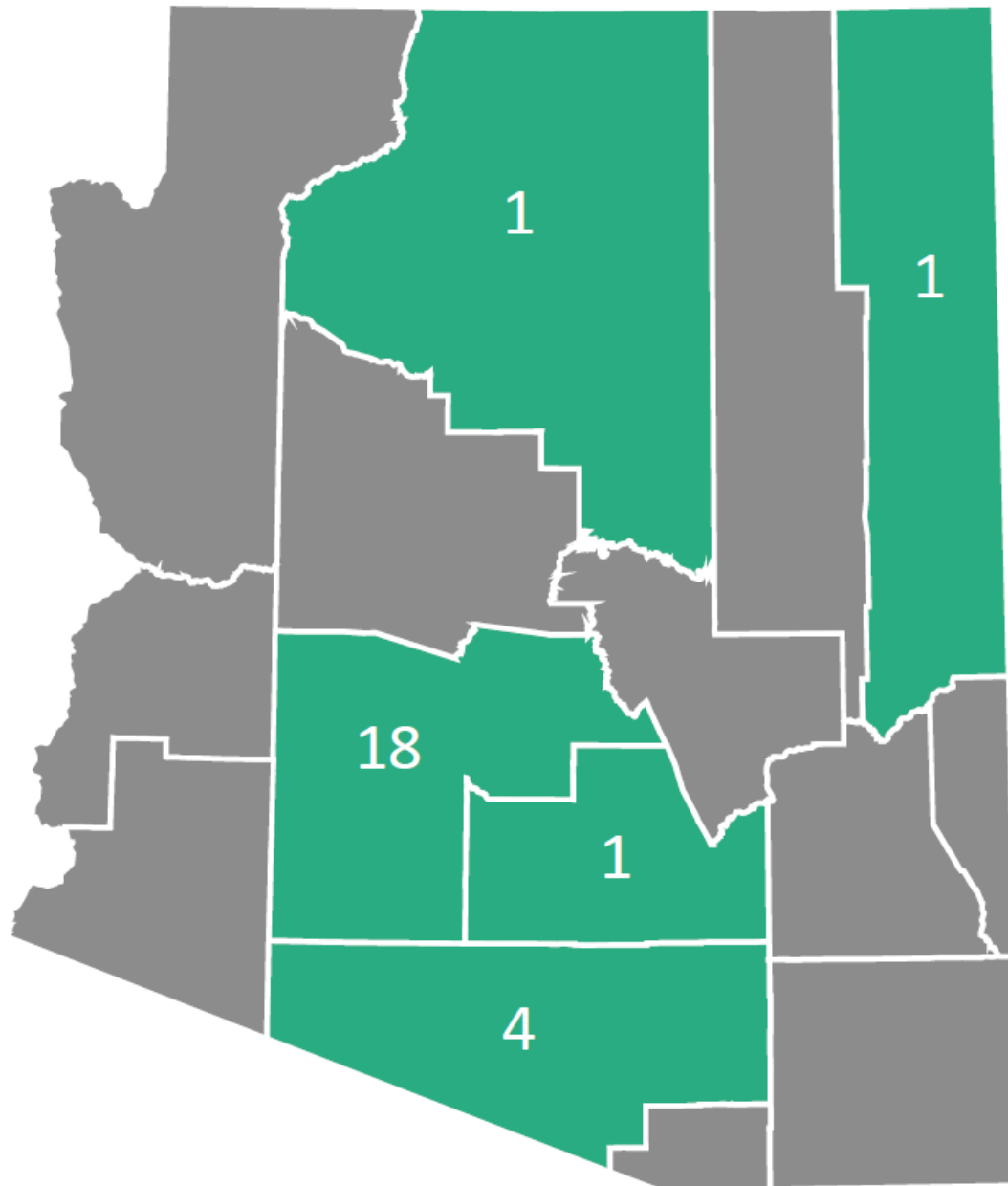
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[http://phil.cdc.gov/phil/details\\_linked.asp?pid=4491](http://phil.cdc.gov/phil/details_linked.asp?pid=4491)







# Invasive Meningococcal Disease



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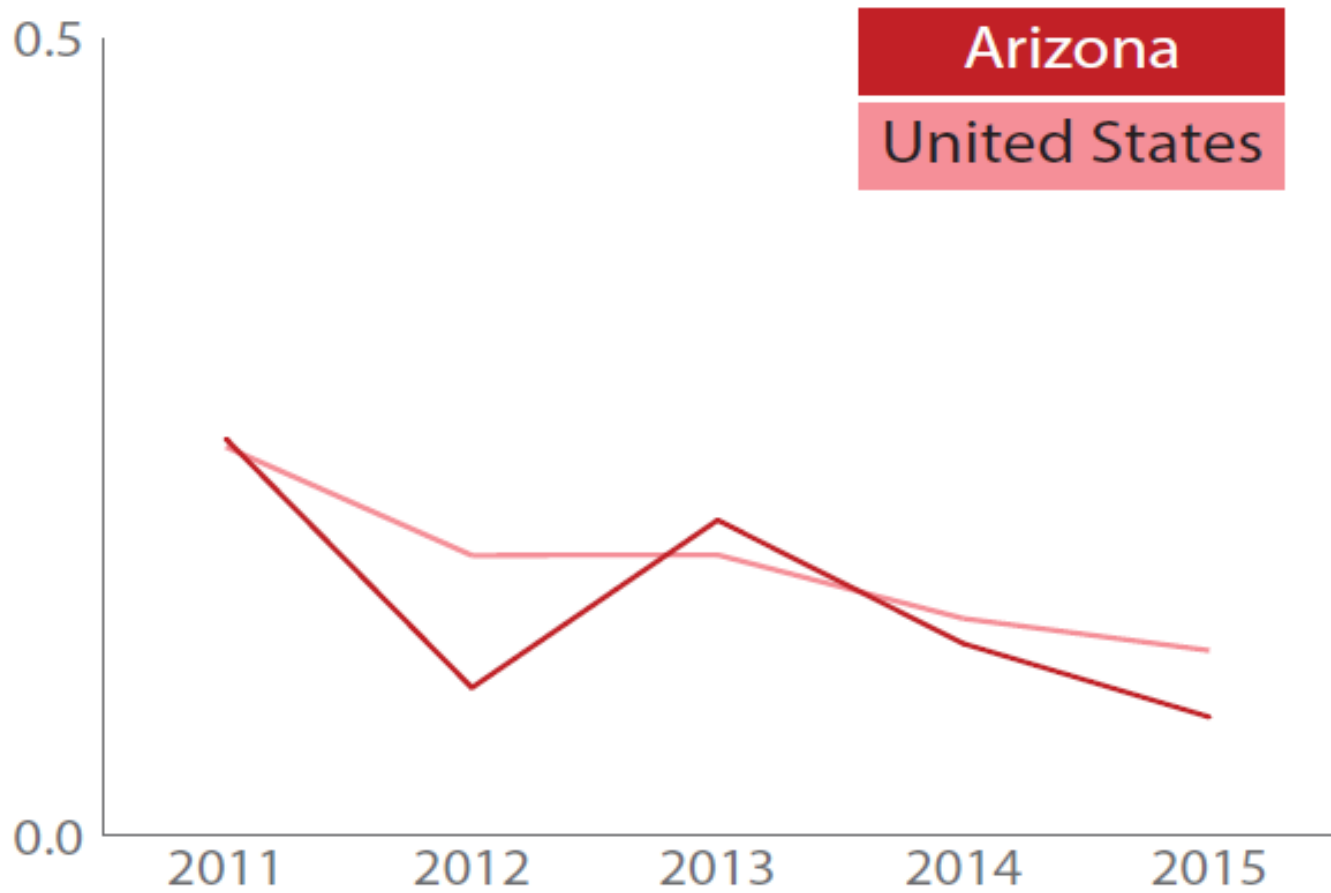
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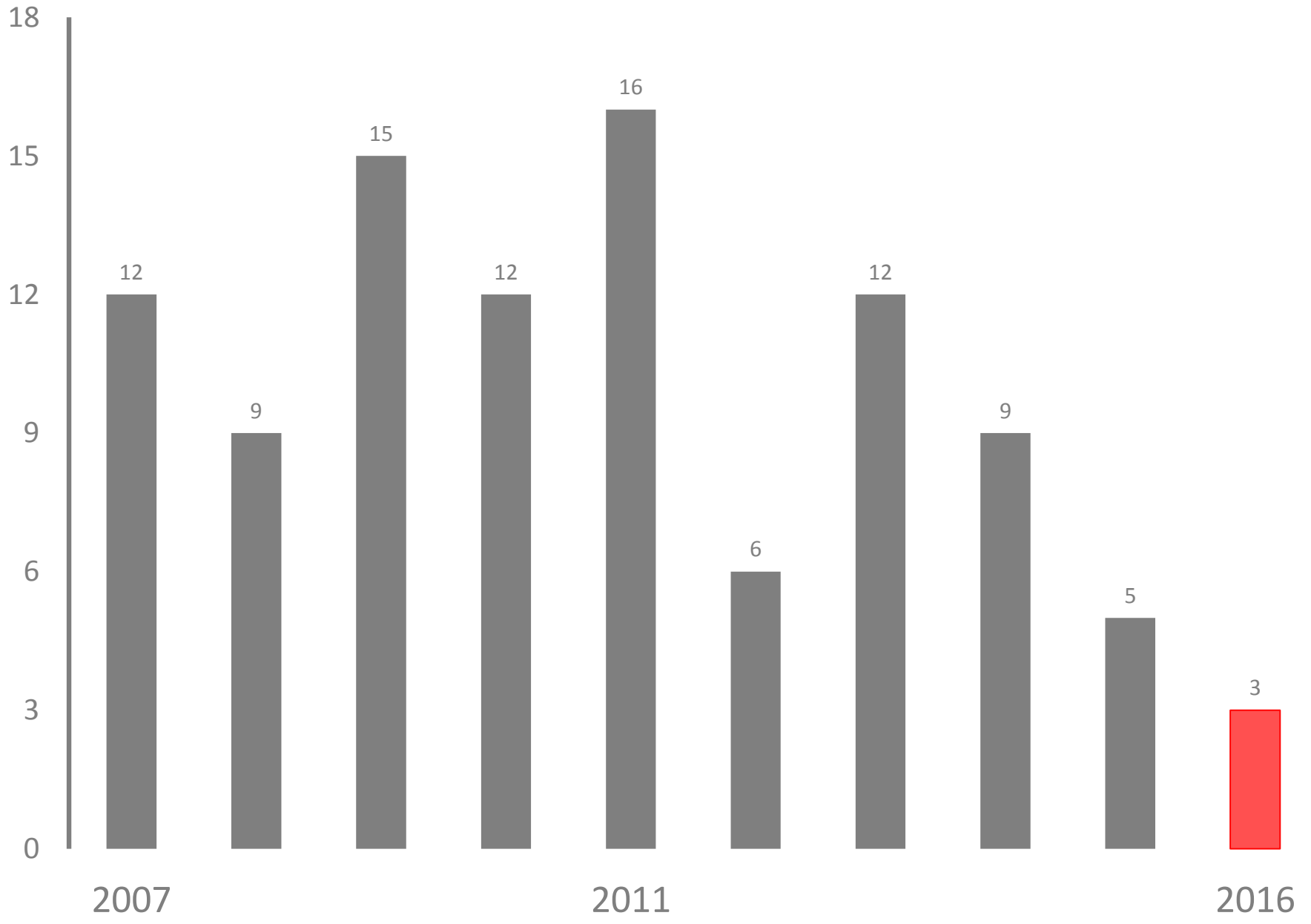


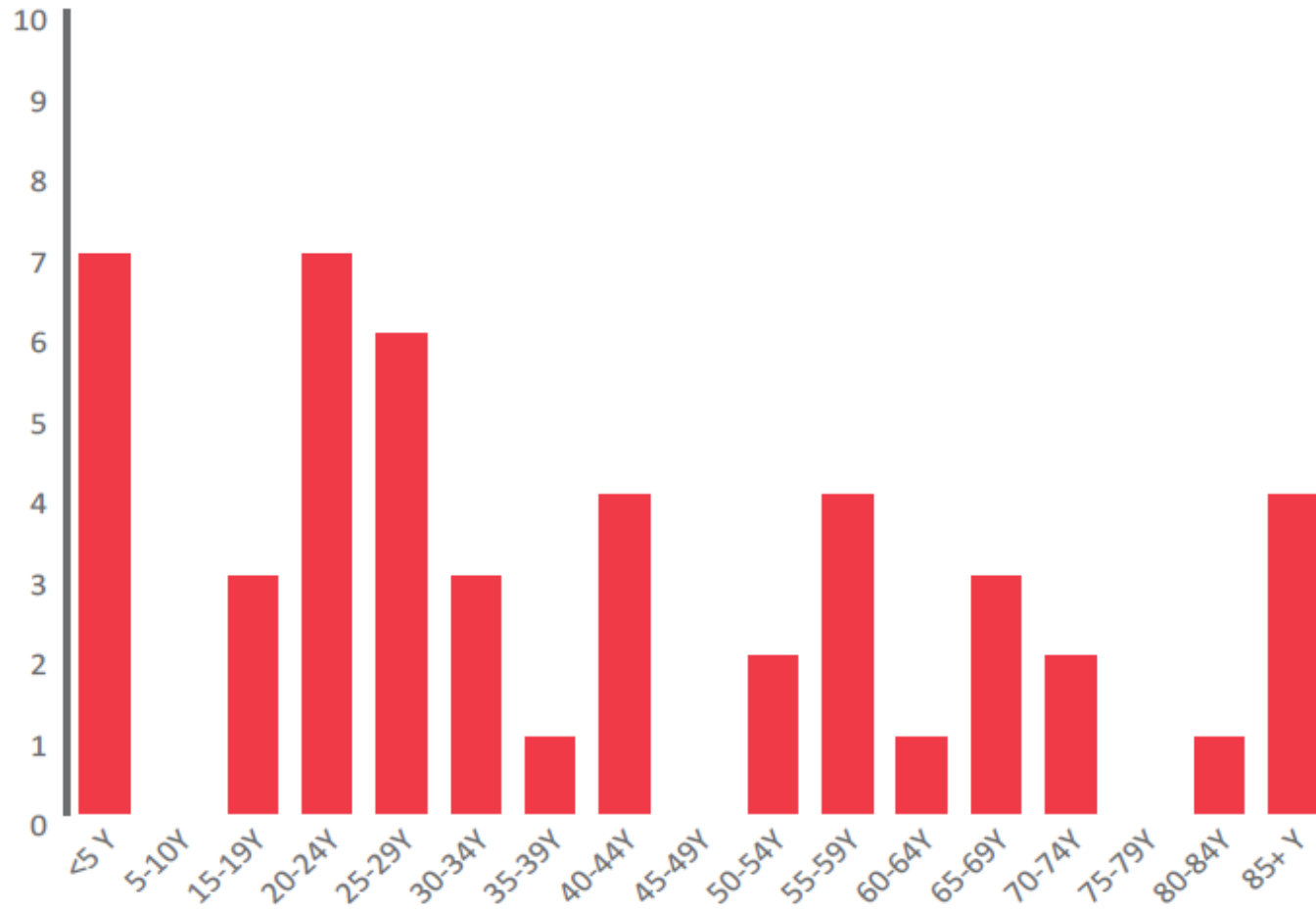
<https://phil.cdc.gov/phil/details.asp>

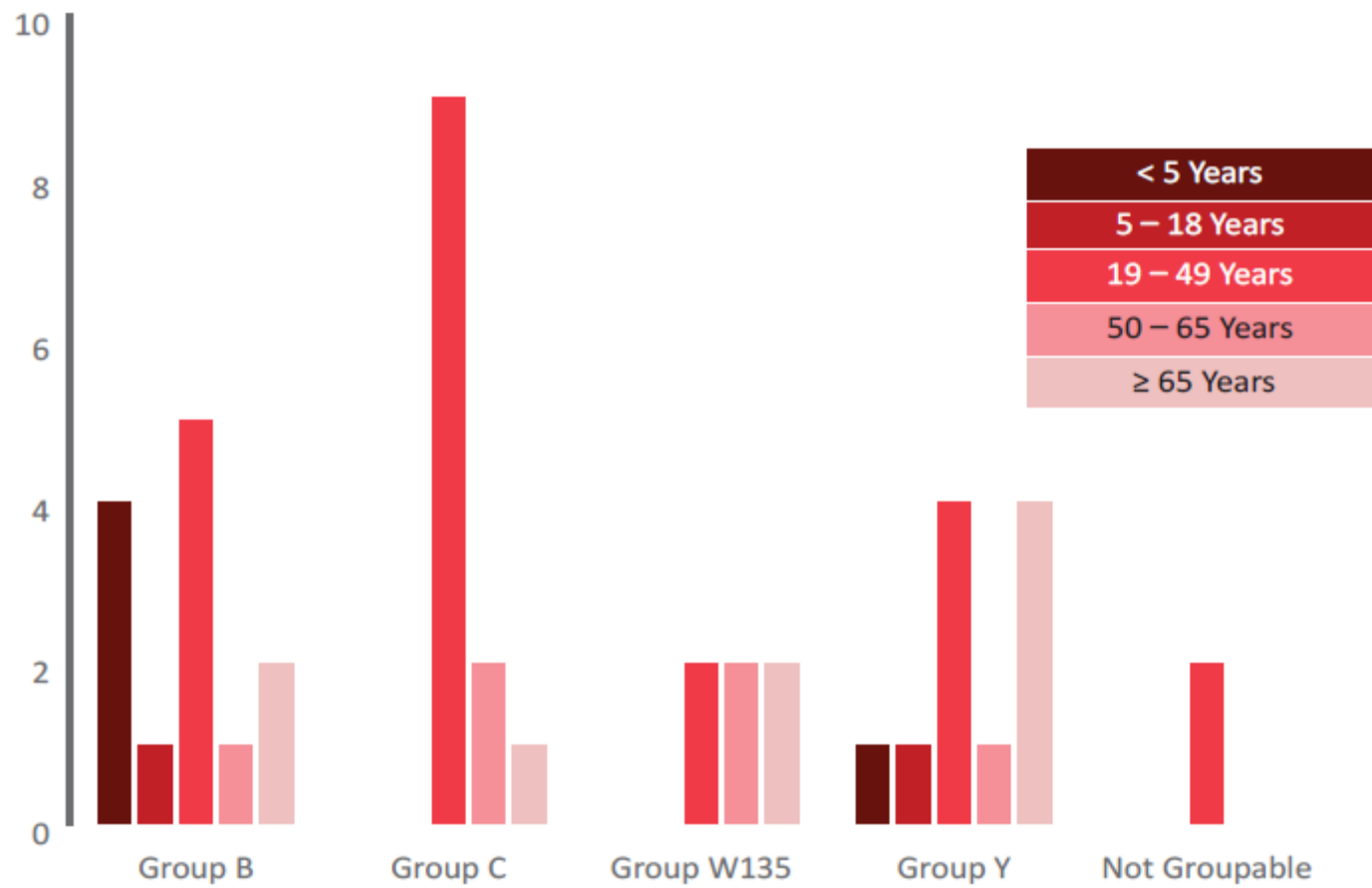


Needle syringe with a vaccine bottle. Credit: NIH

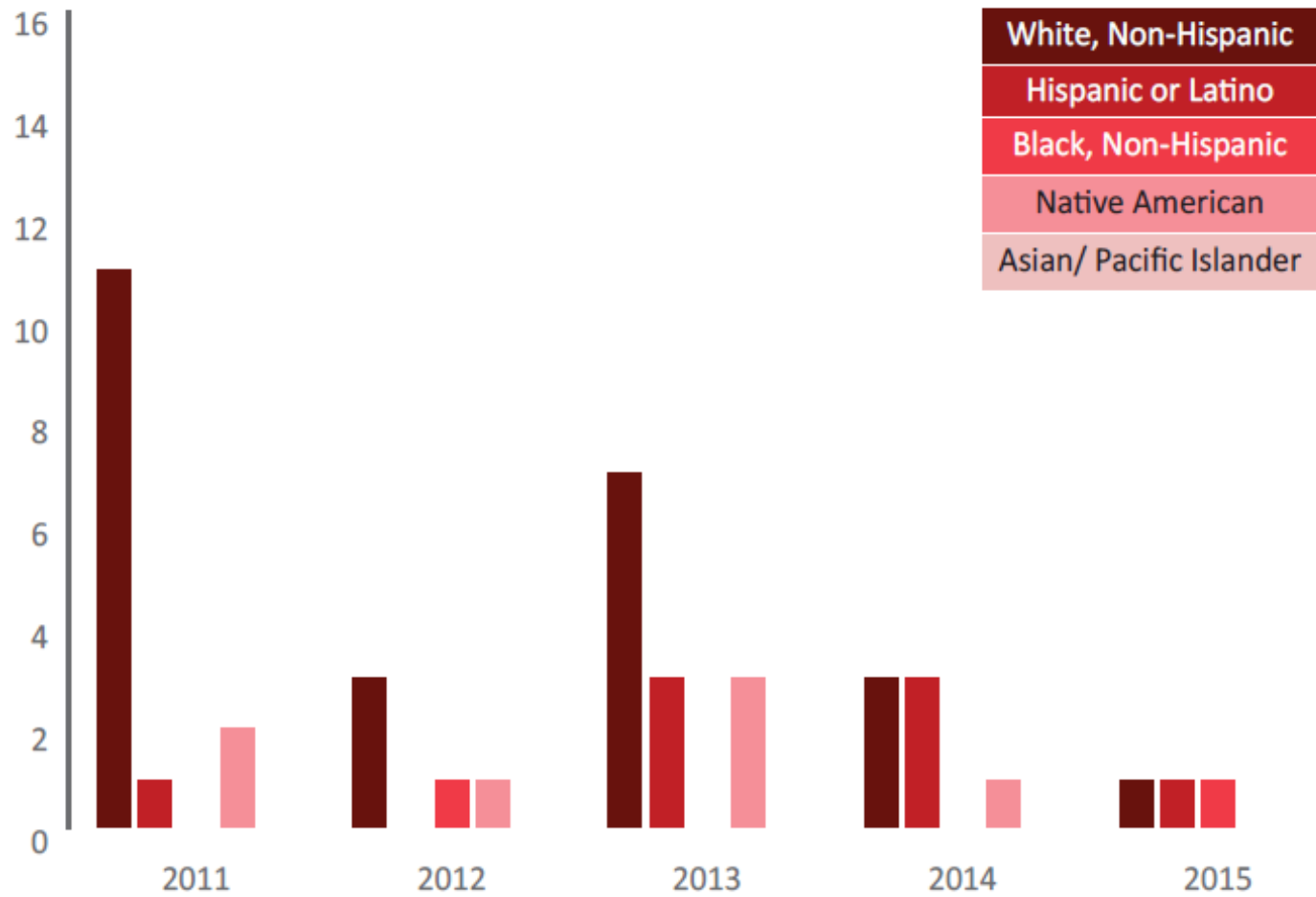












# Pertussis



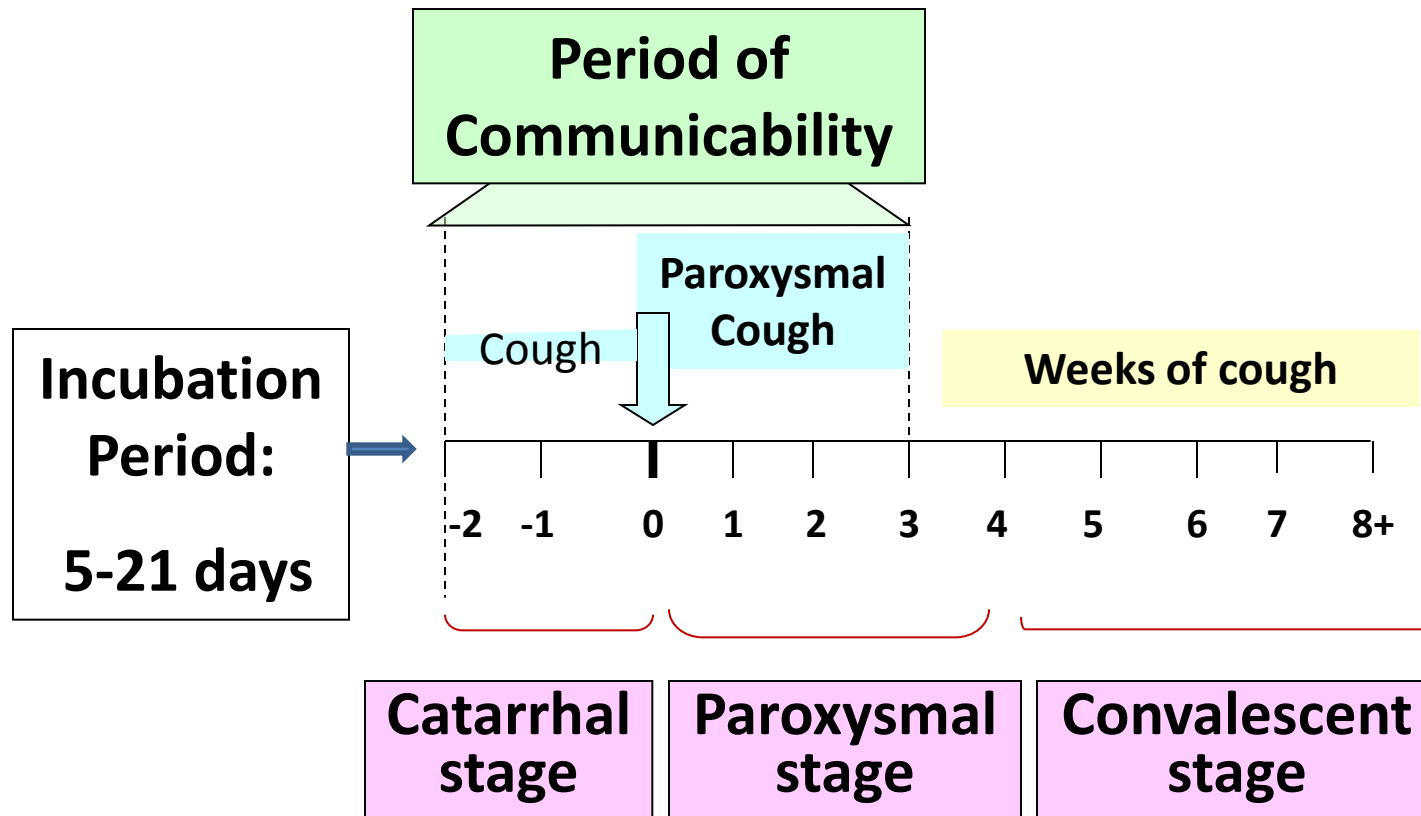
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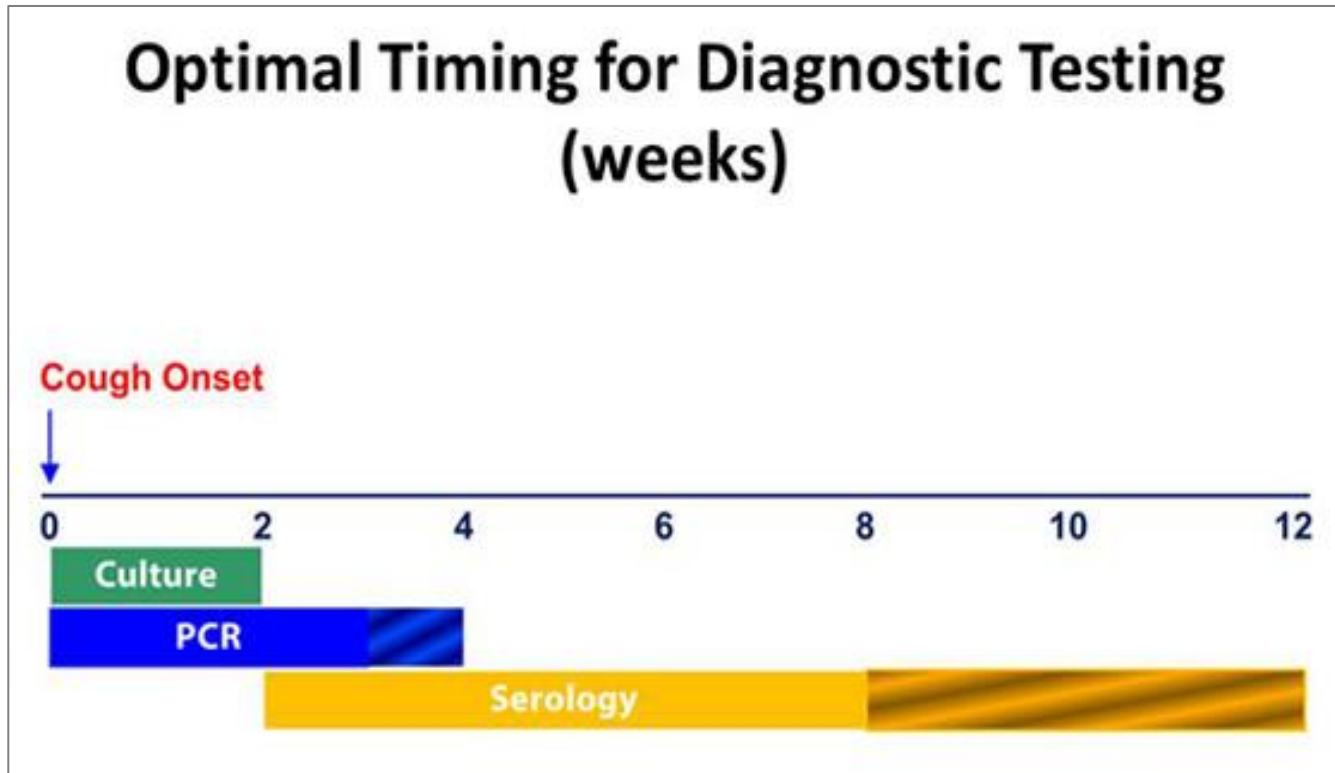


<https://blogs.cdc.gov/publichealthmatters/2012/06/pertussis-are-you-protected>

# Clinical Course of Pertussis



# Pertussis Testing



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



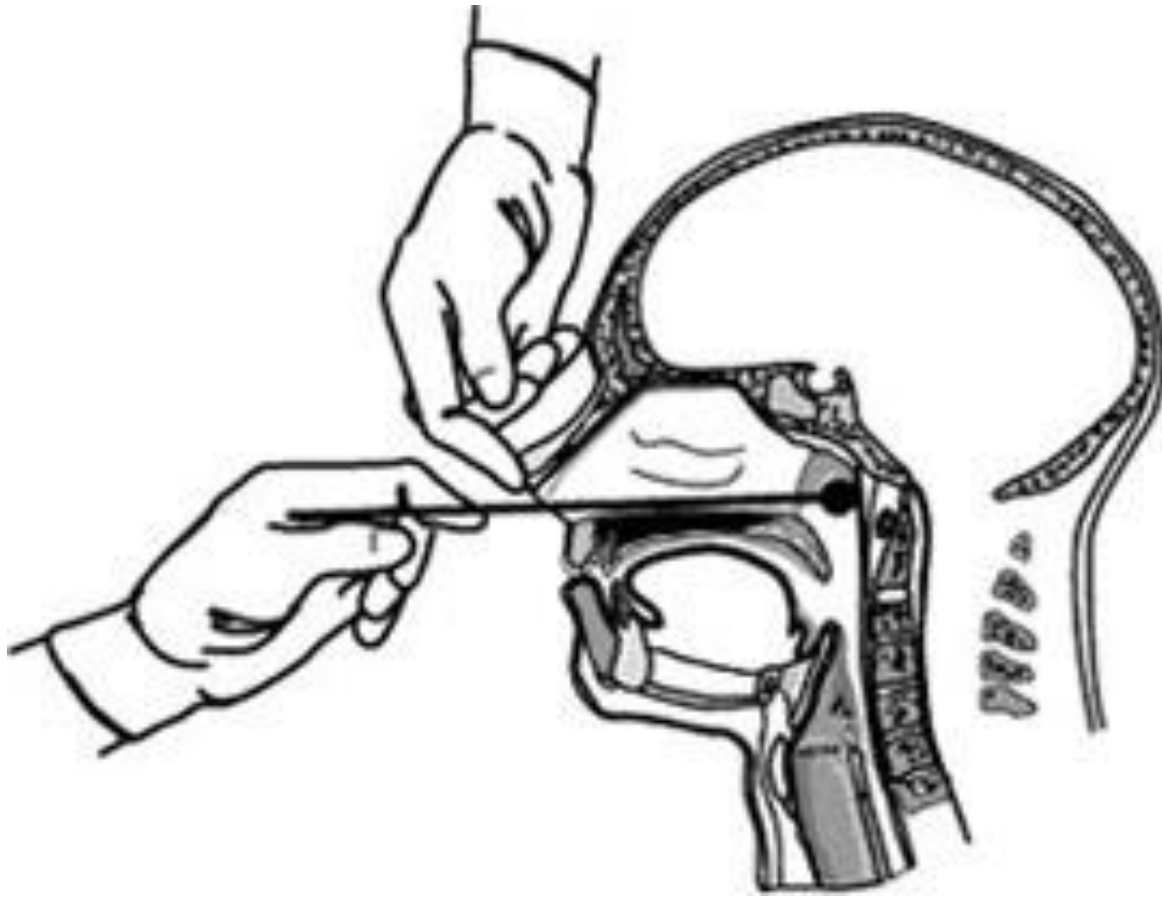


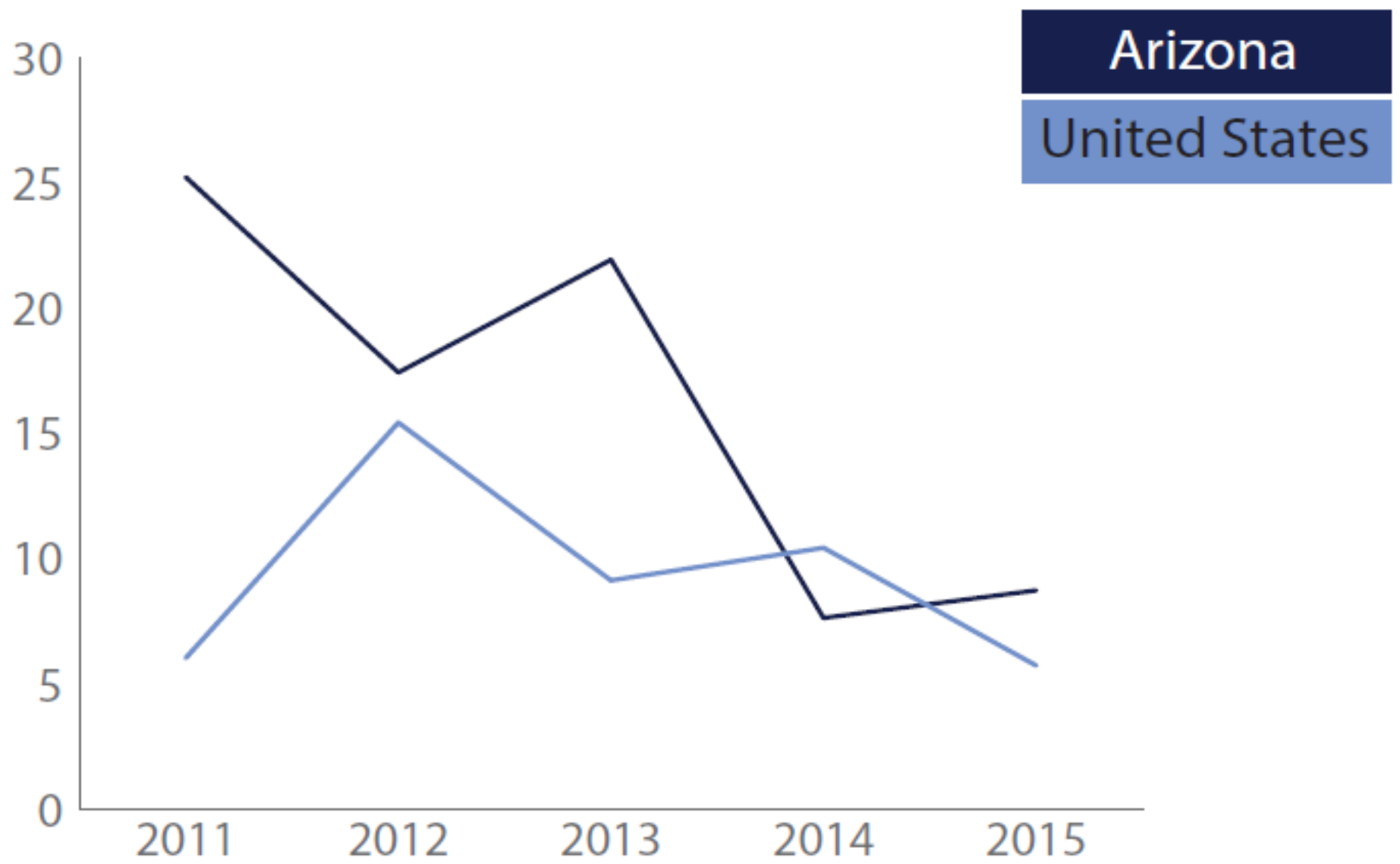
Image: Manual for the Surveillance of Vaccine-Preventable Diseases, 2015

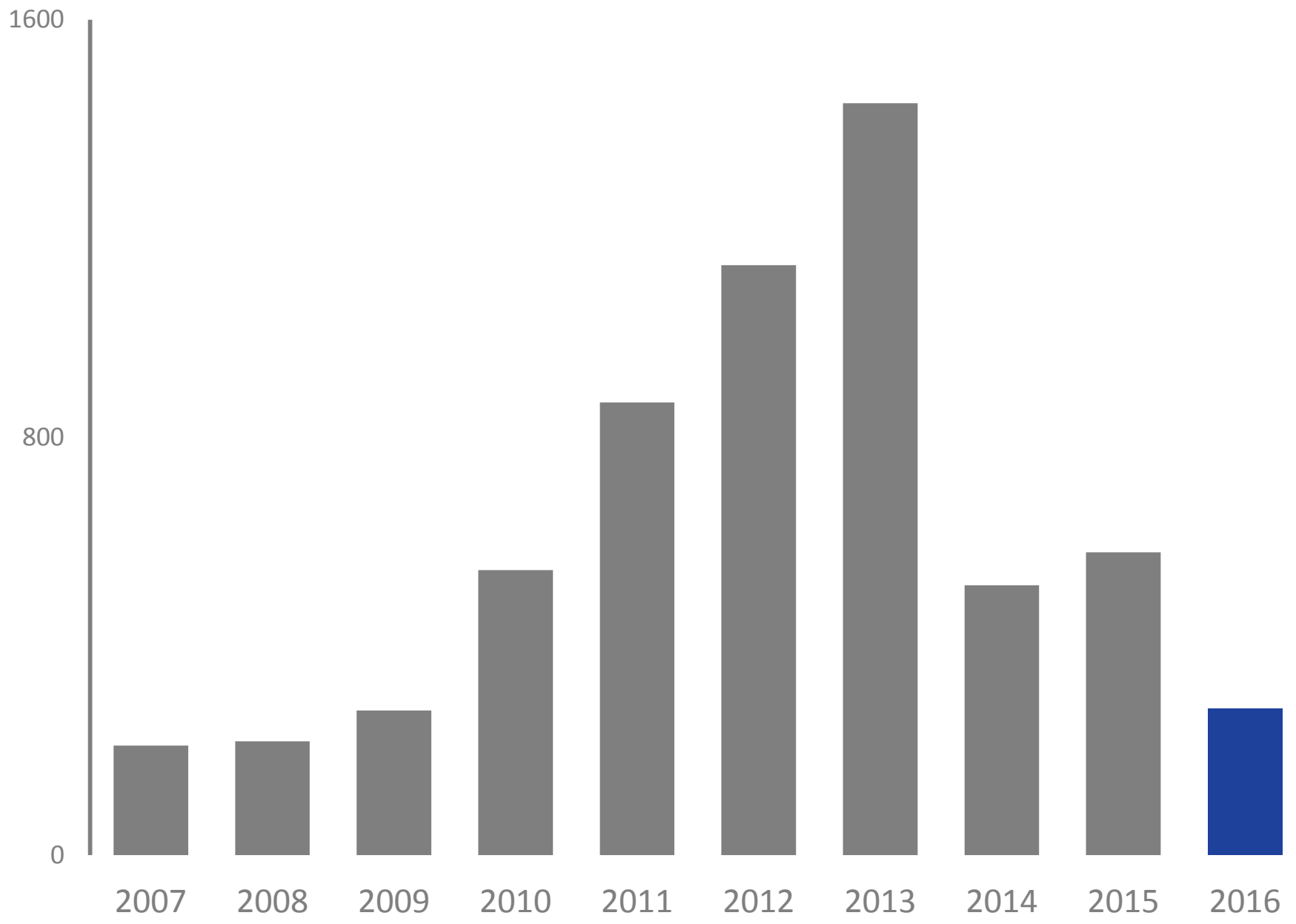
# Reported NNDSS pertussis cases: 1922-2015

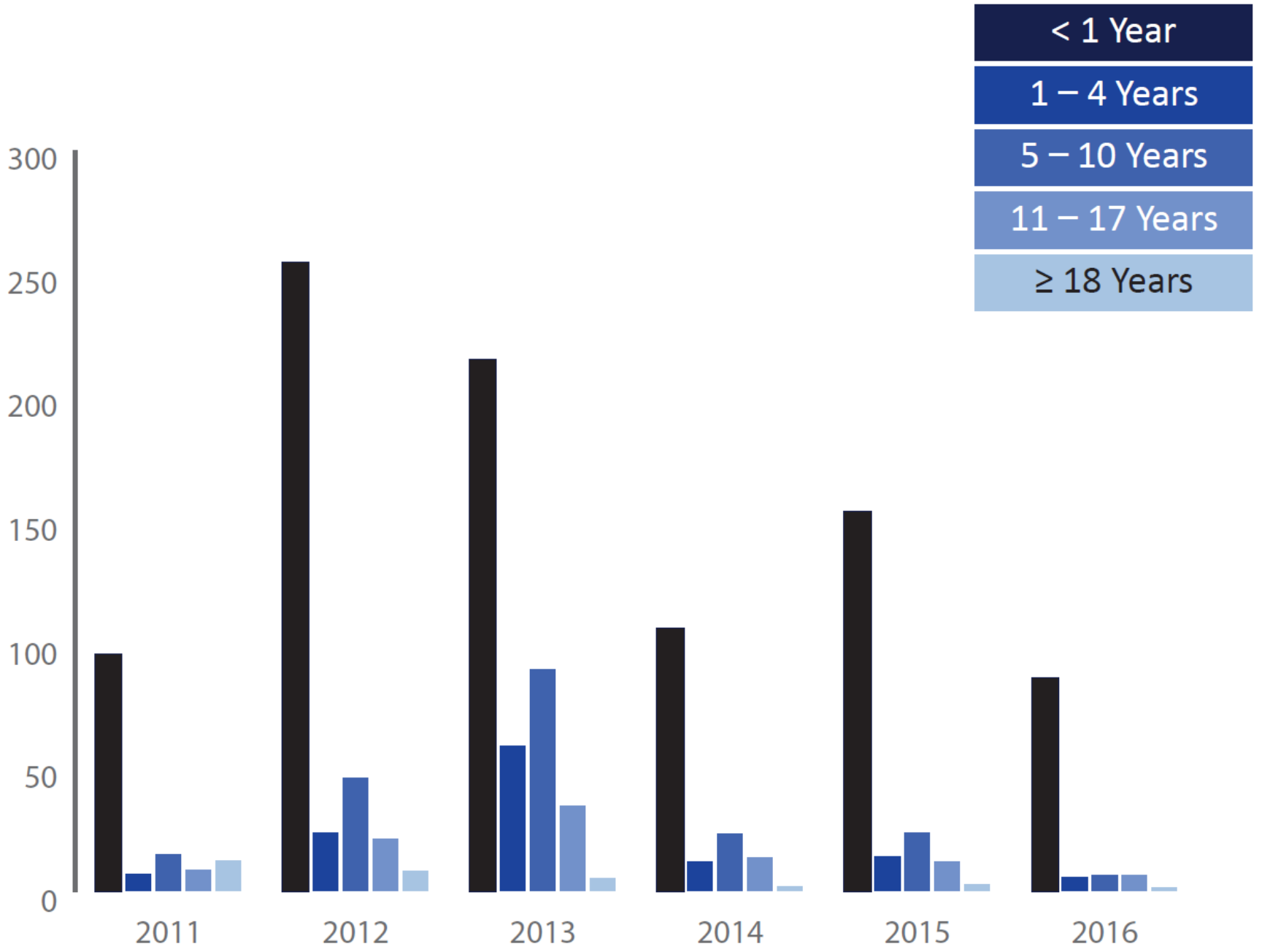


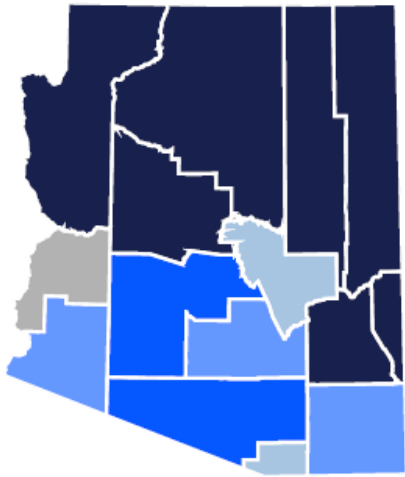
SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System and 1922-1949, passive reports to the Public Health Service



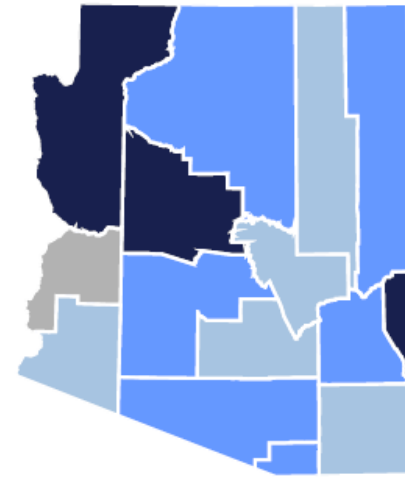




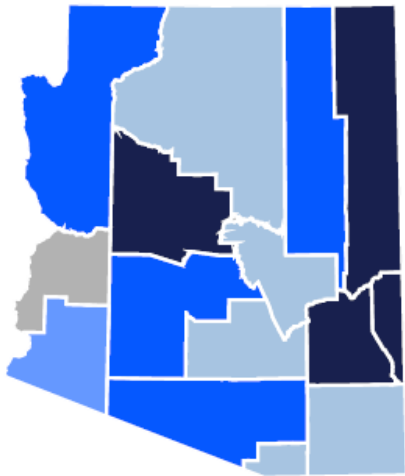




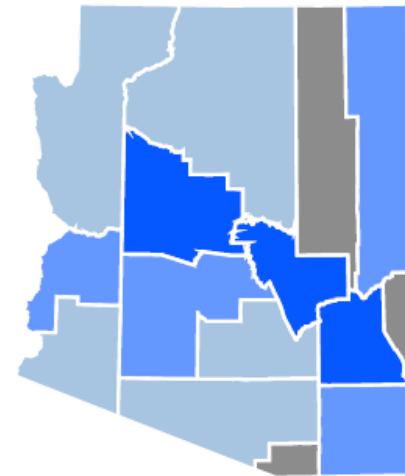
2013



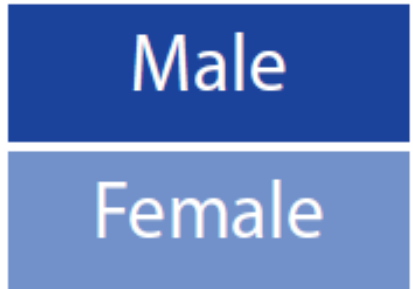
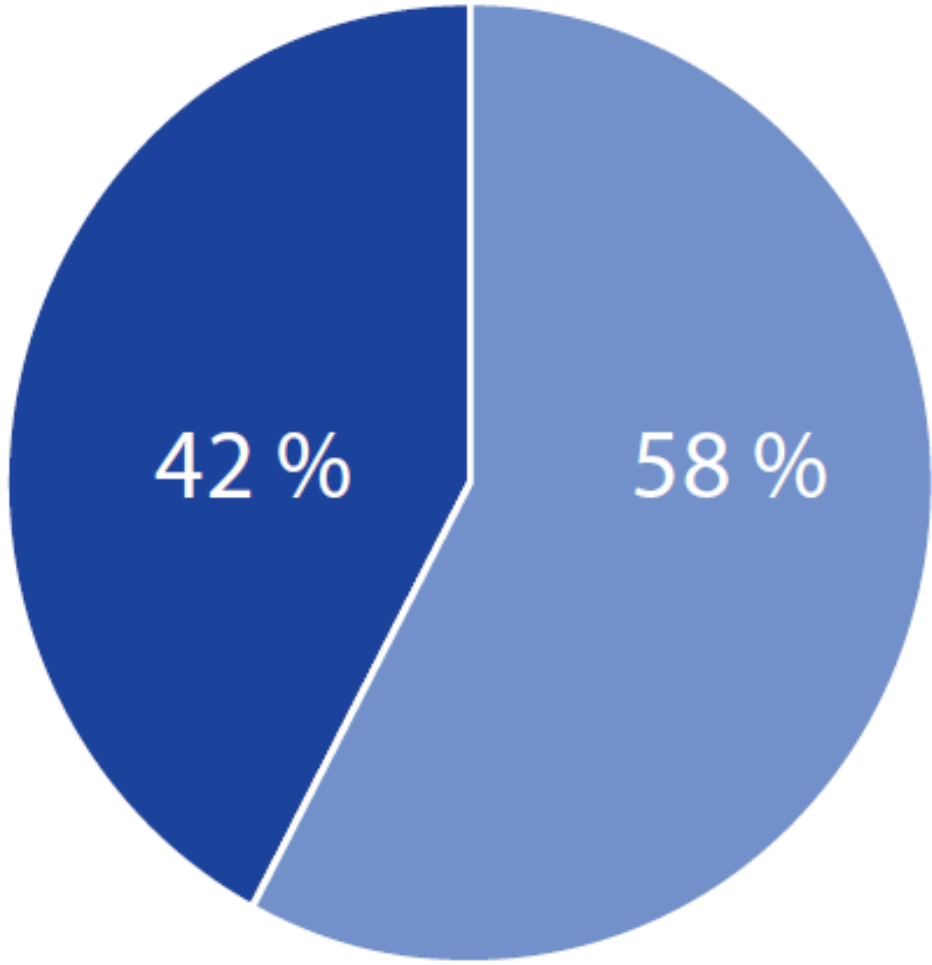
2014



2015



2016



# *Haemophilus influenzae* type b

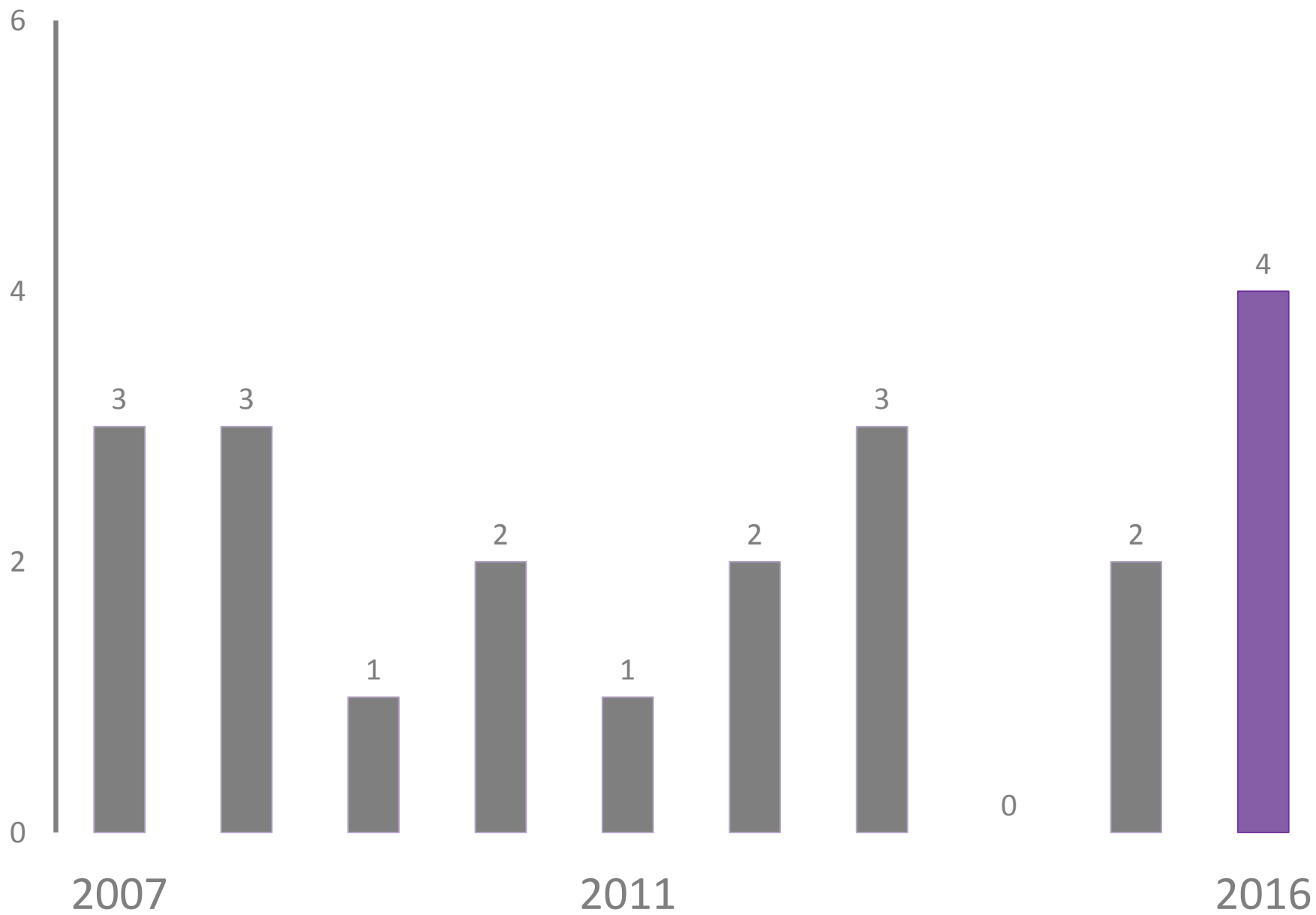


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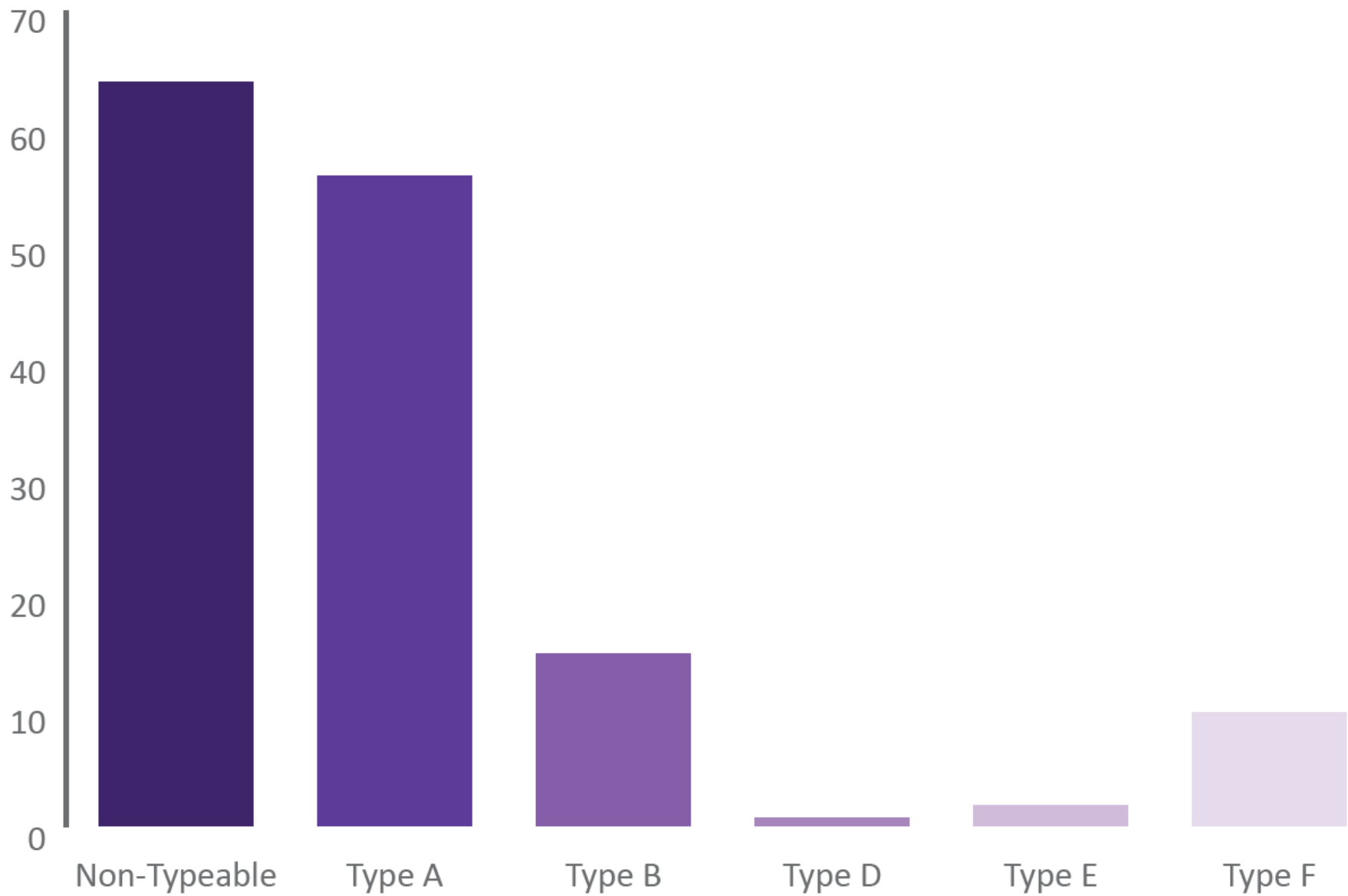
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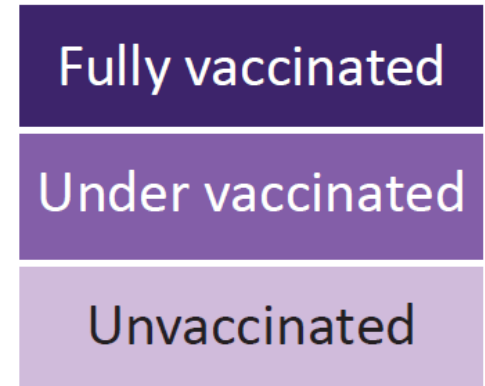
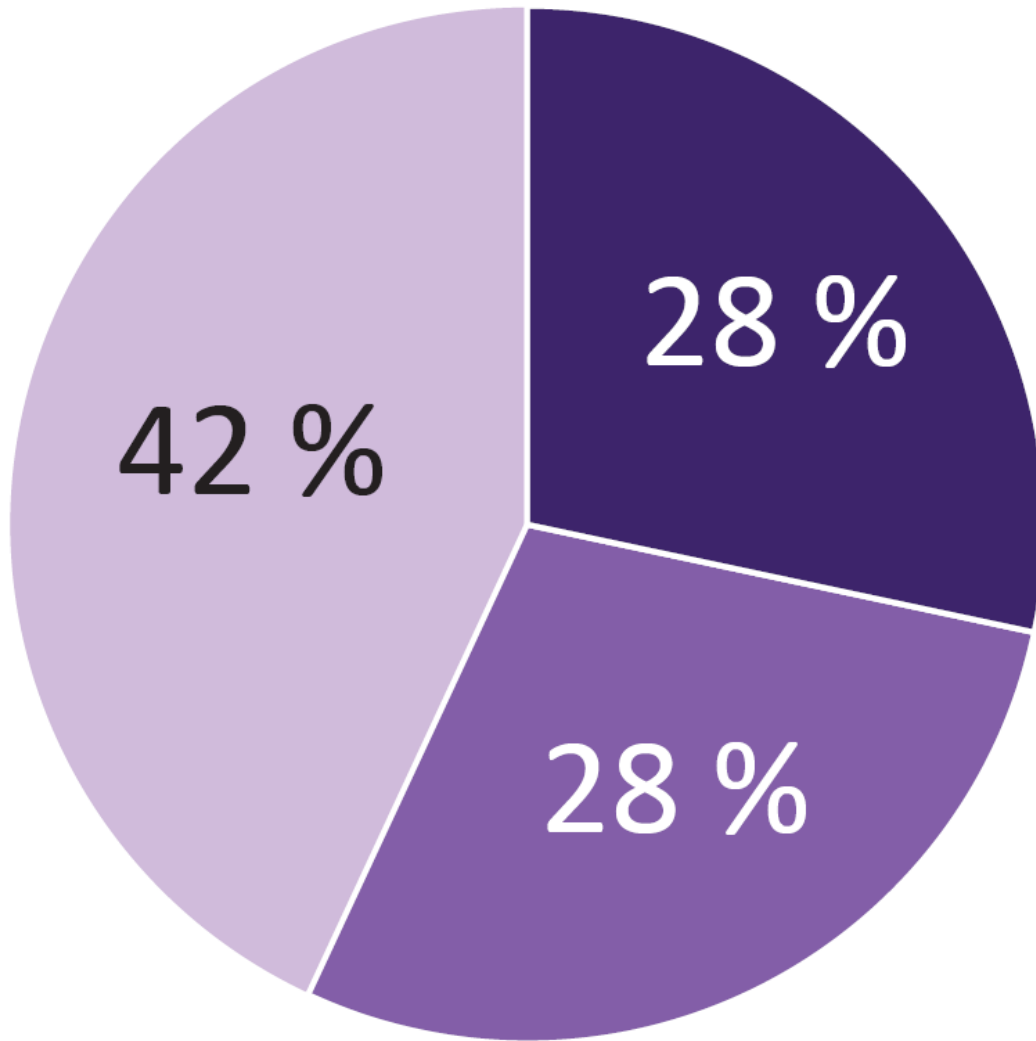


<https://www.cdc.gov/hi-disease/about/photos.html>







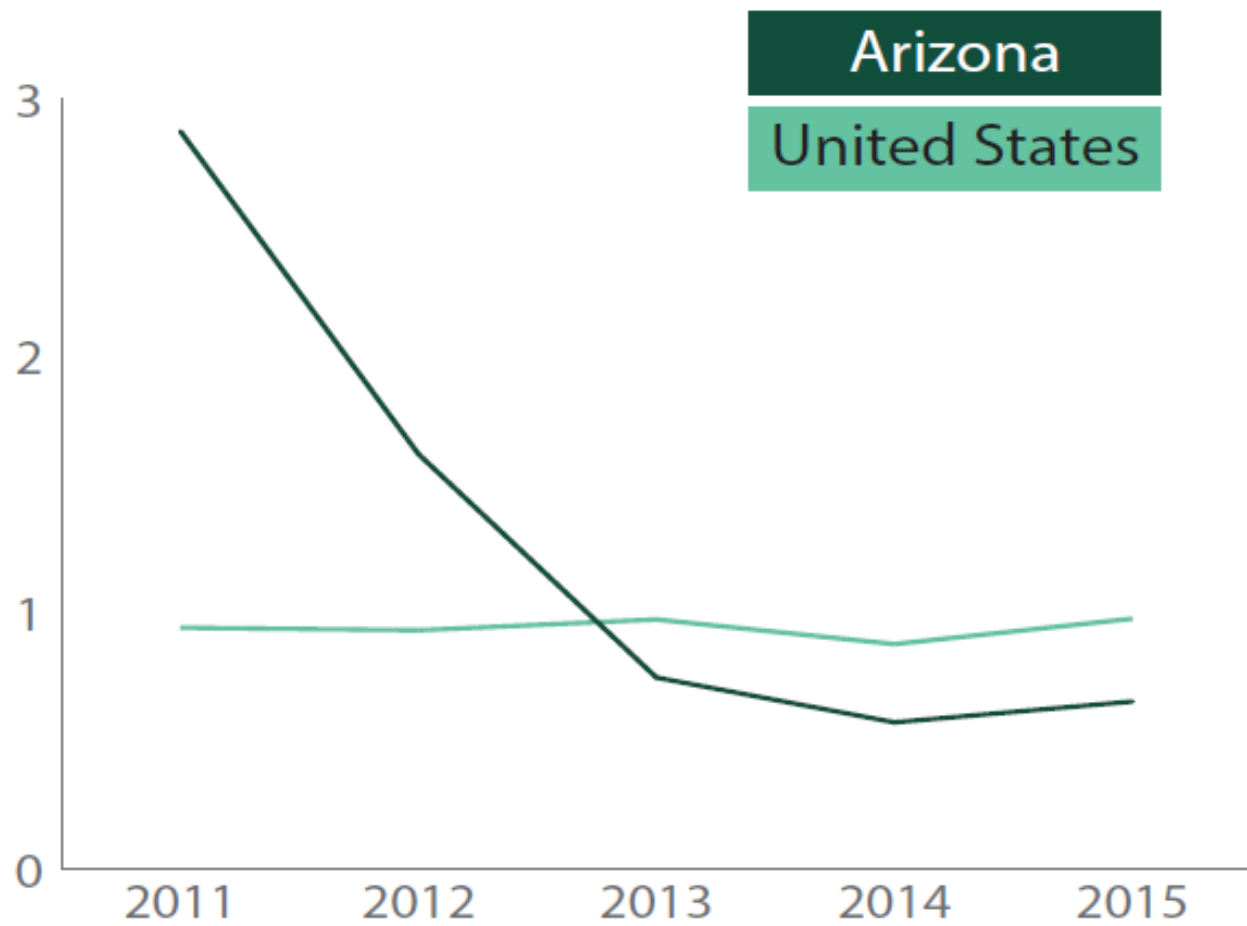


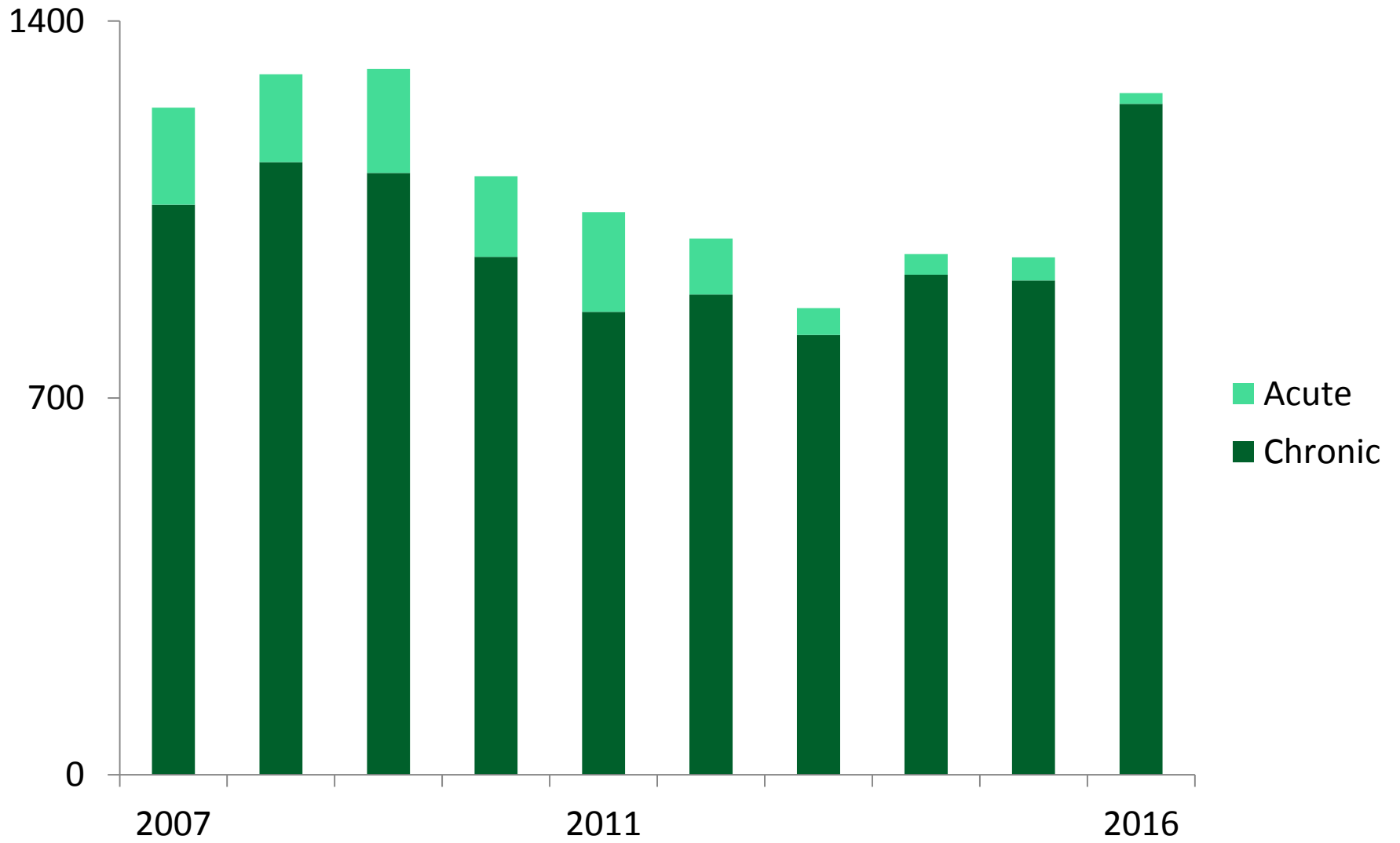
# Hepatitis B

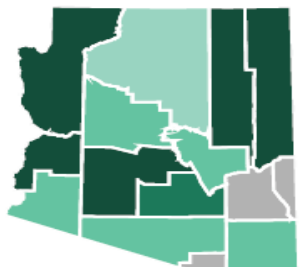


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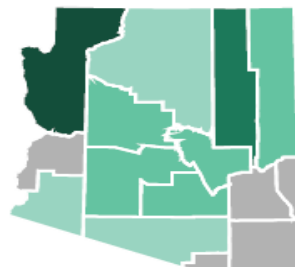
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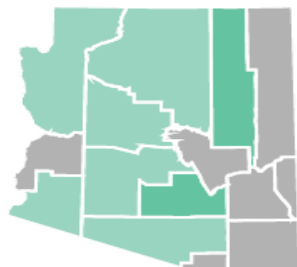




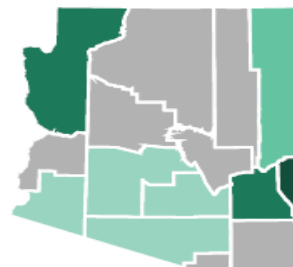
2011



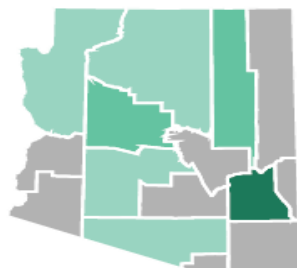
2012



2013

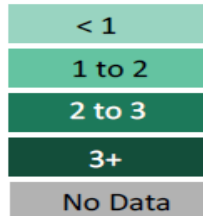


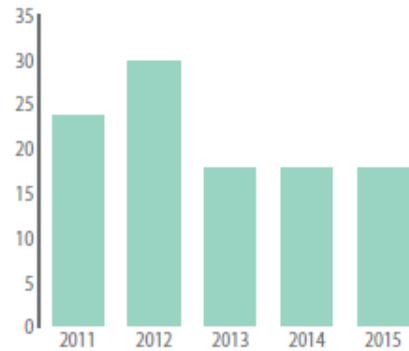
2014



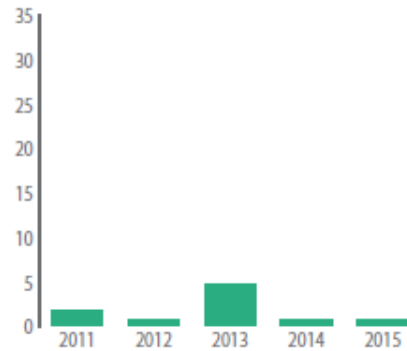
2015

Rates (per 100,000)

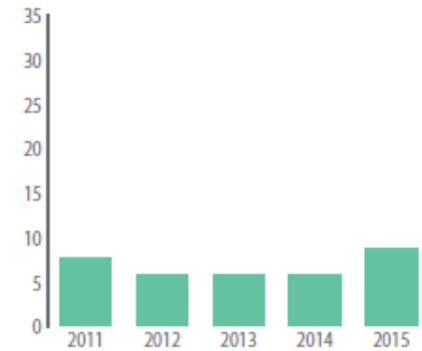




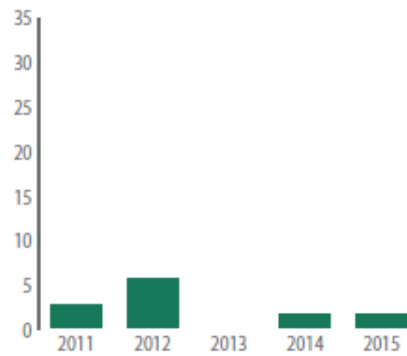
White, Non-Hispanic



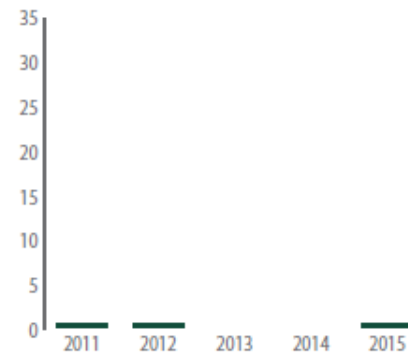
Black, Non-Hispanic



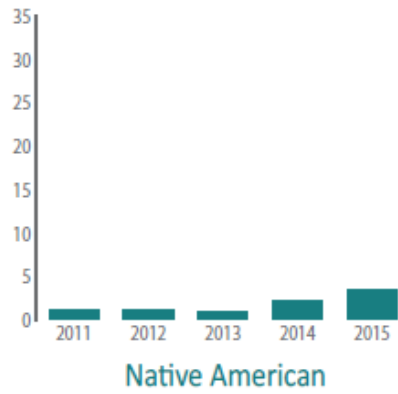
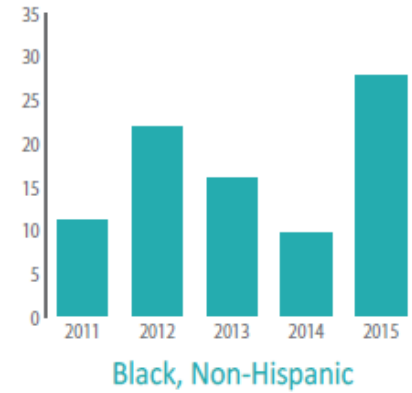
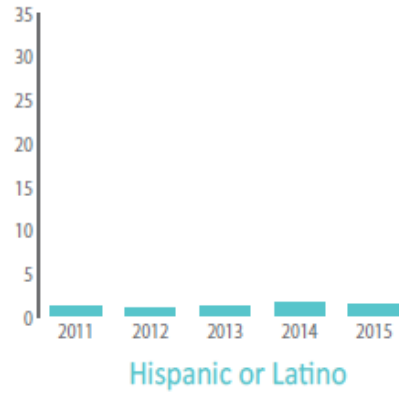
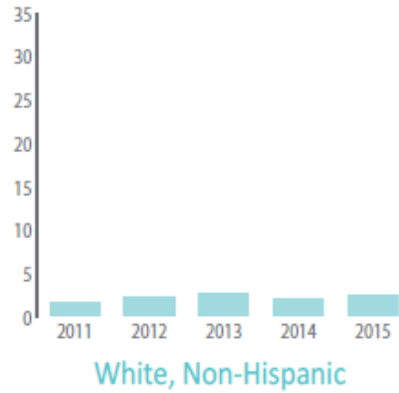
Hispanic or Latino



Native American



Asian/ Pacific Islander



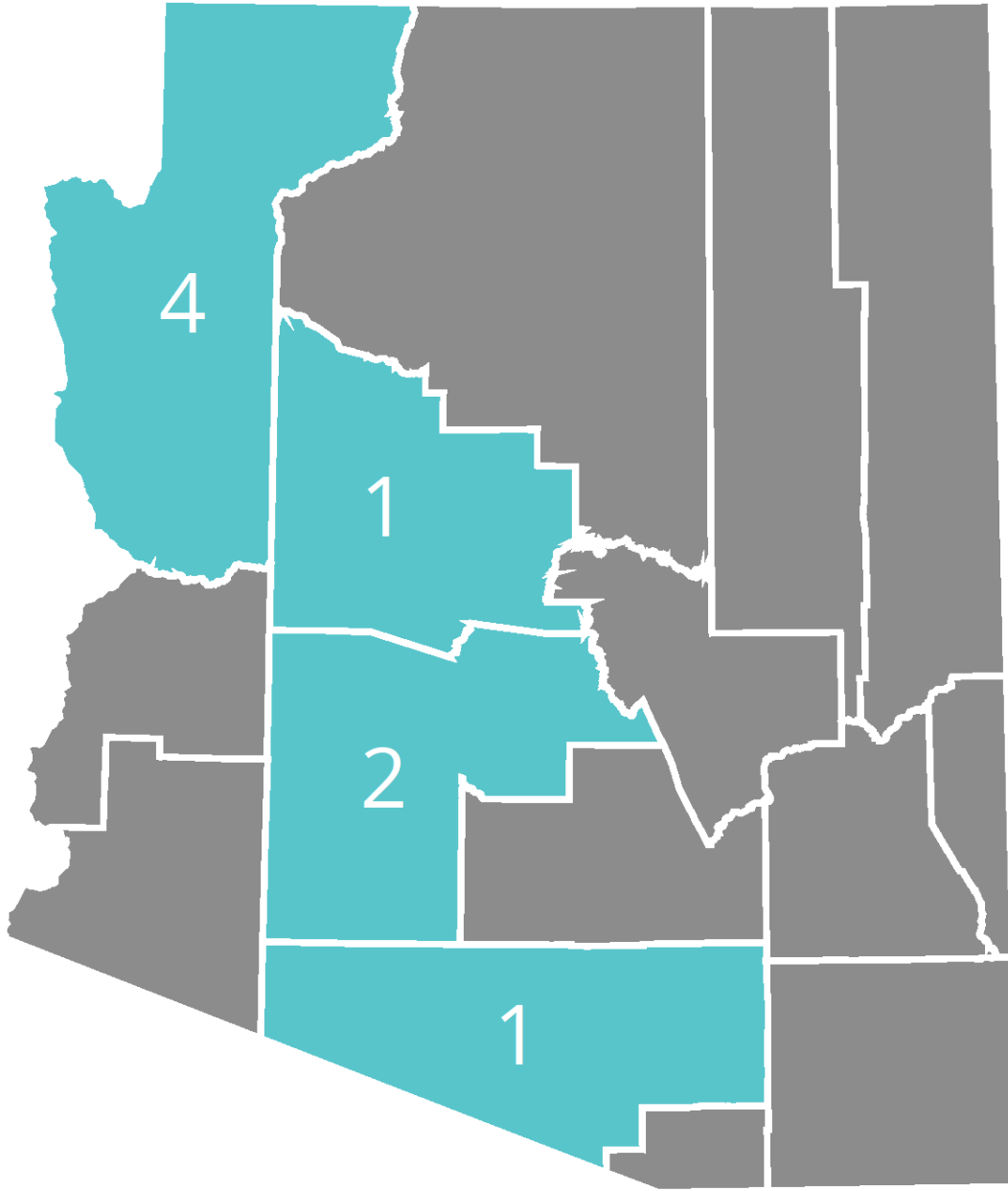


# Tetanus



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# Arizona Infectious Disease Conference

## July 19-20<sup>th</sup>, 2017

- Topics: VPDs, Healthcare-Associated Infections, Influenza, Refugee Health, Vector-borne and Zoonotic Diseases, TB, HIV, STDs, and more!
- Cost: Free!
- CEUs: Available!
- Foodborne Outbreak Tabletop Exercise July 18, 2017
- Location: Black Canyon Conference Center
- For more info,  
visit:<http://azdhs.gov/preparedness/epidemiology-disease-control/index.php#training-2017>



# ADHS VPD Surveillance Staff

- Susan Robinson, VPD Epi, [susan.robinson@azdhs.gov](mailto:susan.robinson@azdhs.gov)
- Susan Goodykoontz, VPD Epi, [goodyks@azdhs.gov](mailto:goodyks@azdhs.gov)
- Shane Brady, Program Manager, [shane.brady@azdhs.gov](mailto:shane.brady@azdhs.gov)

**Contact: 602-364-3676**



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# Questions?

Thank you!



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# THANK YOU

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