

Reporting Requirements Infectious Diseases

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What is Epidemiology?

- Dictionary defines as:
 - the branch of medicine dealing with the incidence and prevalence of disease in large populations and with detection of the source and cause of epidemics of infectious disease
- What does that mean?
 - We try to decrease the burden of infectious disease in the county by identifying cases, identifying risk factors for disease, identifying the source of outbreaks, limiting transmission of infectious agents



Single Cases vs Outbreaks

- Single cases of serious disease are considered outbreaks:
 - Plague
 - Meningococcal Meningitis
 - Botulism
 - Tuberculosis
 - Hantavirus
 - Other emerging or exotic diseases



Single Cases vs Outbreaks

- Outbreaks of less severe infectious disease are common:
 - STD (Chlamydia, Gonorrhea, Syphilis, etc)
 - Foodborne (*Salmonella*, *Shigella*, *Campylobacter*, Hepatitis A, *E. coli* O157:H7, etc)
 - Person to person (influenza, pertussis, chicken pox, etc)
 - Vectorborne/Environmental (West Nile, valley fever, etc)



County Level Public Health

- Work directly with providers, reporters, facilities
- First line responders to cases or outbreaks of infectious disease
- Request assistance from Arizona State Dept of Health Services for additional resources and expertise



Reporting to Local Public Health

- **Passive Surveillance**
 - Providers/schools/correctional facilities required to report certain diseases to local health dept when suspected
 - Listed in A.A.C. – Title 9, Chapter 6, Article 2
 - Routine mechanism for reporting
 - Most reports received through passive surveillance
- **Active Surveillance**
 - Involves Public Health Dept working actively with providers to identify suspected cases of specific diseases
 - May be initiated during outbreaks or when heightened surveillance is necessary



How to Report

- For most reportable diseases mail or fax CDR within 5 days
- For more severe diseases or outbreaks notify Public Health by phone within 24 hours
- Use on call system for emergencies if necessary
- See details on “Report ‘Em” list



Arizona Administrative Code* Requires Providers To:

REPORT 'EM

to the Local Health Department Phone#

- | | | |
|---|--|---|
| <input type="checkbox"/> *O Amebiasis | <input type="checkbox"/> Hantavirus infection | <input type="checkbox"/> *O Salmonellosis |
| <input type="checkbox"/> Anthrax | <input type="checkbox"/> Hemolytic uremic syndrome | <input type="checkbox"/> Scabies |
| <input type="checkbox"/> Aseptic meningitis: viral | <input type="checkbox"/> *O Hepatitis A | <input type="checkbox"/> Severe acute respiratory syndrome |
| <input type="checkbox"/> Basidiobolomycosis | <input type="checkbox"/> Hepatitis B and D | <input type="checkbox"/> *O Shigellosis |
| <input type="checkbox"/> Botulism | <input type="checkbox"/> Hepatitis C | <input type="checkbox"/> Smallpox |
| <input type="checkbox"/> Brucellosis | <input type="checkbox"/> *O Hepatitis E | <input type="checkbox"/> Streptococcal Group A: Invasive disease |
| <input type="checkbox"/> *O Campylobacteriosis | <input type="checkbox"/> Herpes genitalis | <input type="checkbox"/> Streptococcal Group B: Invasive disease in infants younger than 90 days of age |
| <input type="checkbox"/> Chancroid | <input type="checkbox"/> HIV infection and related disease | <input type="checkbox"/> <i>Streptococcus pneumoniae</i> (pneumococcal invasive disease) |
| <input type="checkbox"/> <i>Chlamydia</i> infection, genital | <input type="checkbox"/> Kawasaki syndrome | <input type="checkbox"/> Syphilis |
| <input type="checkbox"/> * Cholera | <input type="checkbox"/> Legionellosis (Legionnaires' disease) | <input type="checkbox"/> *O Taeniasis |
| <input type="checkbox"/> Coccidioidomycosis (valley fever) | <input type="checkbox"/> Leptospirosis | <input type="checkbox"/> Tetanus |
| <input type="checkbox"/> Colorado tick fever | <input type="checkbox"/> Listeriosis | <input type="checkbox"/> Toxic shock syndrome |
| <input type="checkbox"/> Conjunctivitis: acute | <input type="checkbox"/> Lyme disease | <input type="checkbox"/> Trichinosis |
| <input type="checkbox"/> Creutzfeldt-Jakob disease | <input type="checkbox"/> Lymphocytic choriomeningitis | <input type="checkbox"/> Tuberculosis |
| <input type="checkbox"/> *O Cryptosporidiosis | <input type="checkbox"/> Malaria | <input type="checkbox"/> Tuberculosis infection in a child younger than 6 (positive test result) |
| <input type="checkbox"/> <i>Cyclospora</i> infection | <input type="checkbox"/> Measles (rubeola) | <input type="checkbox"/> Tularemia |
| <input type="checkbox"/> Cysticercosis | <input type="checkbox"/> Meningococcal invasive disease | <input type="checkbox"/> Typhoid fever |
| <input type="checkbox"/> Dengue | <input type="checkbox"/> Mumps | <input type="checkbox"/> Typhus fever |
| <input type="checkbox"/> Diarrhea, nausea, or vomiting | <input type="checkbox"/> Pertussis (whooping cough) | <input type="checkbox"/> Unexplained death with a history of fever |
| <input type="checkbox"/> Diphtheria | <input type="checkbox"/> Plague | <input type="checkbox"/> Vaccinia-related adverse event |
| <input type="checkbox"/> Ehrlichiosis | <input type="checkbox"/> Poliomyelitis | <input type="checkbox"/> Vancomycin-resistant <i>Enterococcus</i> spp. |
| <input type="checkbox"/> Emerging or exotic disease | <input type="checkbox"/> Psittacosis (ornithosis) | <input type="checkbox"/> Vancomycin-resistant or Vancomycin-intermediately susceptible <i>Staphylococcus aureus</i> |
| <input type="checkbox"/> Encephalitis, viral or parasitic | <input type="checkbox"/> Q fever | <input type="checkbox"/> Vancomycin-resistant <i>Staphylococcus epidermidis</i> |
| <input type="checkbox"/> Enterohemorrhagic <i>Escherichia coli</i> | <input type="checkbox"/> Rabies in a human | <input type="checkbox"/> Varicella (chickenpox) |
| <input type="checkbox"/> Enterotoxigenic <i>Escherichia coli</i> | <input type="checkbox"/> Relapsing fever (borreliosis) | <input type="checkbox"/> *O <i>Vibrio</i> infection |
| <input type="checkbox"/> *O Giardiasis | <input type="checkbox"/> Reye syndrome | <input type="checkbox"/> Viral hemorrhagic fever |
| <input type="checkbox"/> Gonorrhea | <input type="checkbox"/> Rocky Mountain spotted fever | <input type="checkbox"/> West Nile virus infection |
| <input type="checkbox"/> <i>Haemophilus influenzae</i> : invasive disease | <input type="checkbox"/> * Rubella (German measles) | <input type="checkbox"/> Yellow fever |
| <input type="checkbox"/> Hansen's disease (Leprosy) | <input type="checkbox"/> Rubella syndrome, congenital | <input type="checkbox"/> *O Yersiniosis |

Submit a report by telephone or through an electronic reporting system authorized by the Department within 24 hours after a case or suspect case is diagnosed, treated, or detected or an occurrence is detected.

* If a case or suspect case is a food handler or works in a child care establishment or a health care institution, instead of reporting within the general reporting deadline, submit a report within 24 hours after the case or suspect case is diagnosed, treated, or detected.

Submit a report within one working day after a case or suspect case is diagnosed, treated, or detected.

Submit a report within five working days after a case or suspect case is diagnosed, treated, or detected.

Submit a report within 24 hours after detecting an outbreak.



COMMUNICABLE DISEASE REPORT
 Important Instructions - Please complete Sections 1 thru 3 for all reportable conditions. In addition, complete Section 4 for STDs and HIV/AIDS, Section 5 for hepatitis, and Section 6 for tuberculosis. Once completed, return to your county or tribal health agency. If reporting through MEDSIS, go to <http://siren.az.gov>.

County / IHS Number

State ID / MEDSIS ID

Date Received by County

1. PATIENT INFORMATION

Patient's Name (Last) (First) (Middle Initial)		Date of Birth	Race (Check all that apply) <input type="checkbox"/> White <input type="checkbox"/> Pacific Islander <input type="checkbox"/> Unknown <input type="checkbox"/> Black <input type="checkbox"/> Native American <input type="checkbox"/> Asian <input type="checkbox"/> Other		Ethnicity <input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown		Sex <input type="checkbox"/> Male <input type="checkbox"/> Transgender <input type="checkbox"/> Female <input type="checkbox"/> Unknown		Pregnant <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes Due Date _____	
Street Address			City	State	ZIP Code	County	Reservation	Telephone #		
Patient's Occupation or School			Guardian (Not necessary for STD)		Outcome <input type="checkbox"/> Survived <input type="checkbox"/> Died Date _____		Is the patient any of the following? <input type="checkbox"/> Health care worker <input type="checkbox"/> Food worker/handler <input type="checkbox"/> Childcare worker/attende Facility Name & Address _____			

2. REPORTABLE CONDITION INFORMATION / LAB RESULTS

Diagnosis or Suspect Reportable Condition			Onset Date	Diagnosis Date	
LAB RESULTS	Date Collected	Date Finalized	Specimen Type <input type="checkbox"/> Blood <input type="checkbox"/> CSF <input type="checkbox"/> Urine <input type="checkbox"/> Stool <input type="checkbox"/> NP Swab <input type="checkbox"/> Sputum <input type="checkbox"/> Other _____	Lab Test	Lab Result
	Date Collected	Date Finalized	Specimen Type <input type="checkbox"/> Blood <input type="checkbox"/> CSF <input type="checkbox"/> Urine <input type="checkbox"/> Stool <input type="checkbox"/> NP Swab <input type="checkbox"/> Sputum <input type="checkbox"/> Other _____	Lab Test	Lab Result
	Date Collected	Date Finalized	Specimen Type <input type="checkbox"/> Blood <input type="checkbox"/> CSF <input type="checkbox"/> Urine <input type="checkbox"/> Stool <input type="checkbox"/> NP Swab <input type="checkbox"/> Sputum <input type="checkbox"/> Other _____	Lab Test	Lab Result

3. REPORTER AND PROVIDER INFORMATION

Reporting Source (Physician or other reporting source)				Facility	
Street Address		City	State	ZIP Code	Telephone #
Provider (if different from reporter)				Facility	
Provider Street Address		City	State	ZIP Code	Telephone #
Lab Name, Address and Telephone #					

4. SEXUALLY TRANSMITTED DISEASES (STD) AND HIV/AIDS

Diagnosis <input type="checkbox"/> Syphilis (specify below) <input type="checkbox"/> Primary <input type="checkbox"/> Secondary <input type="checkbox"/> Early Latent (<1 year) <input type="checkbox"/> Late (>1 year) <input type="checkbox"/> Congenital Mother's Name _____ Mother's DOB _____ <input type="checkbox"/> Other Syphilis _____ <input type="checkbox"/> Neurological Symptoms _____		<input type="checkbox"/> Chlamydia <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> PID Risk Factors <input type="checkbox"/> Gonorrhoea <input type="checkbox"/> IDU <input type="checkbox"/> Herpes <input type="checkbox"/> Sex with IDU <input type="checkbox"/> Chancroid <input type="checkbox"/> Sex with males		Date of Last Negative HIV Test _____	
Treatment Date Drug Dosage _____ Date Drug Dosage _____ Date Drug Dosage _____		Site of Infection <input type="checkbox"/> Genitalia <input type="checkbox"/> Rectum <input type="checkbox"/> Throat <input type="checkbox"/> Other		Marital Status <input type="checkbox"/> Married <input type="checkbox"/> Single <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed <input type="checkbox"/> Separated <input type="checkbox"/> Domestic Partner <input type="checkbox"/> Unknown	
		Patient had Sexual Contact with <input type="checkbox"/> Males Only <input type="checkbox"/> Refused <input type="checkbox"/> Females Only <input type="checkbox"/> Unknown <input type="checkbox"/> Both		Sex Partners # of partners _____ # of partners treated _____	

5. HEPATITIS PANEL

Hepatitis A Serology Results Hepatitis A Antibody (Acute IgM anti-HAV) Pos Neg Unk <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
Hepatitis B Serology Results Hepatitis B surface Antigen (HBsAg) Pos Neg Unk <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis B core Antibody IgM (HBcAb-IgM) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis B core Antibody Total (HBcAb) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis B surface Antibody (HBsAb) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis B e Antigen (HBeAg) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Symptoms consistent with acute hepatitis Jaundice <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Liver Function Test ALT _____ AST _____		
Hepatitis C Serology Results Hepatitis C-EIA s/co ratio _____ Pos Neg Unk <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis C-RIBA <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis C-NAT/PCR <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hepatitis C-Viral Load _____ Liver Function Test ALT _____ AST _____		

6. TUBERCULOSIS (TB)

Site of Disease <input type="checkbox"/> Pulmonary <input type="checkbox"/> Laryngeal <input type="checkbox"/> Extrapulmonary	
<input type="checkbox"/> TB Infection in a Child 5 and Under (Positive TB skin test result)	
Medicine and Dosage (Please enter information)	

Comments

Why Report?

- Required by Arizona Administrative Code
- Required for some grant funding
- Local Public Health can provide recommendations for infection control and outbreak response
- Allows for data analysis to characterize disease, risk factors, trending, etc.
- Patient tracking through jurisdictions



Requirements for Grant Funding

- Information is needed to make data analysis possible
- Most diseases require basic information, info on CDR
- TB requires a little more time and effort, variables include:
 - HIV Test Result
 - Use of drugs/alcohol
 - Homeless?
 - Immigration status, country of origin, date arrived in USA
 - Treatment start date, regimen, stop date
 - Deportation date, destination for continuity of care



Recommendations

- Varicella Case
 - Isolate case until all lesions crust over
 - Perform contact investigation
 - Usually census of pod (at least) to determine possible immune naïve contacts
 - Serology of contacts to test for varicella immunity preferred
 - Immune naïve contacts should be isolated from EACH OTHER for 21 days after last exposure



Recommendations

- Active Tuberculosis
 - Any suspected case should be in isolation until sputum smear negative x3
 - If case was in general population, transported, or potentially exposed others, public health can advise on how to proceed with evaluation of contacts
 - For medically complicated cases resources available to provide treatment recommendations

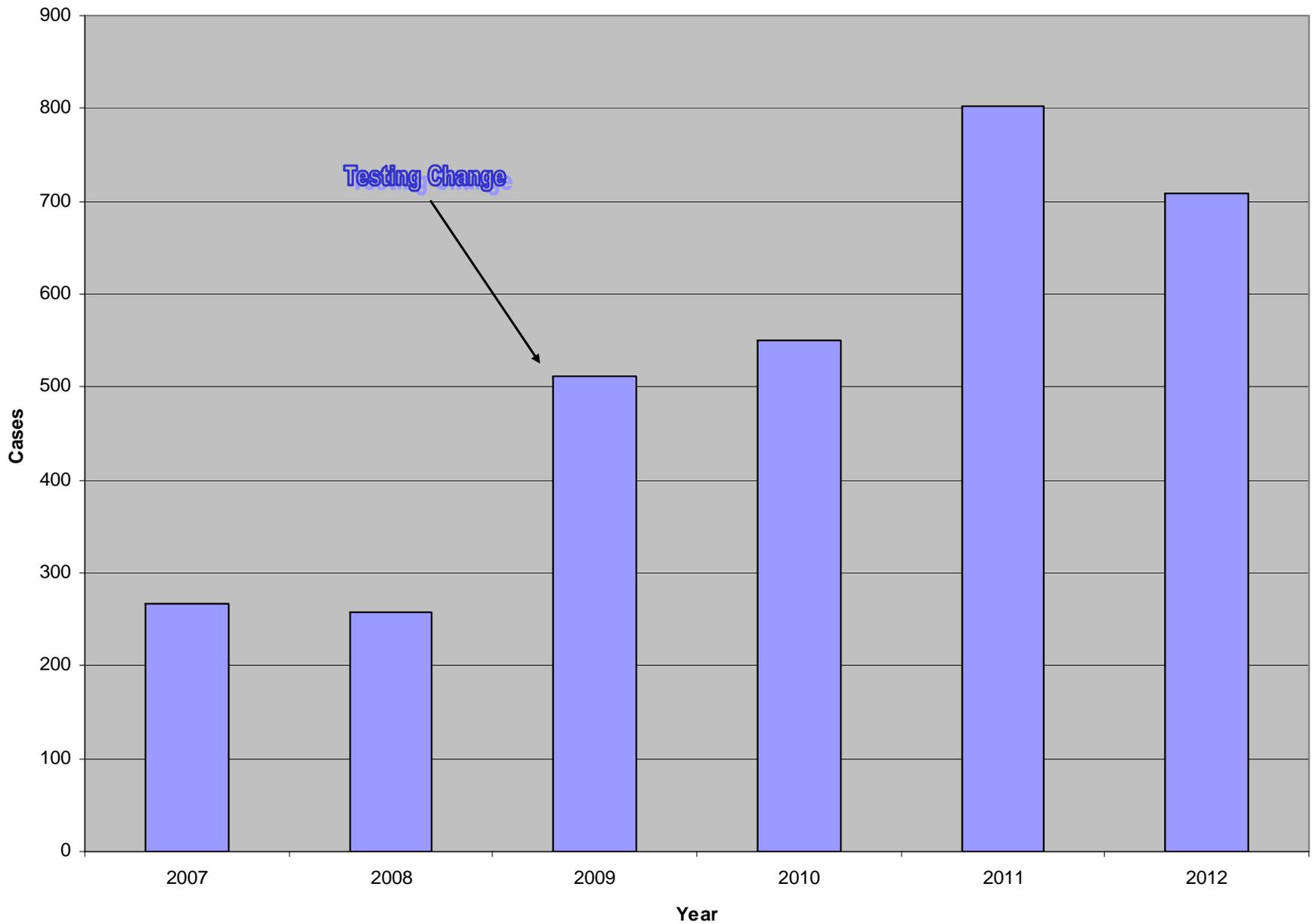


Data Analysis

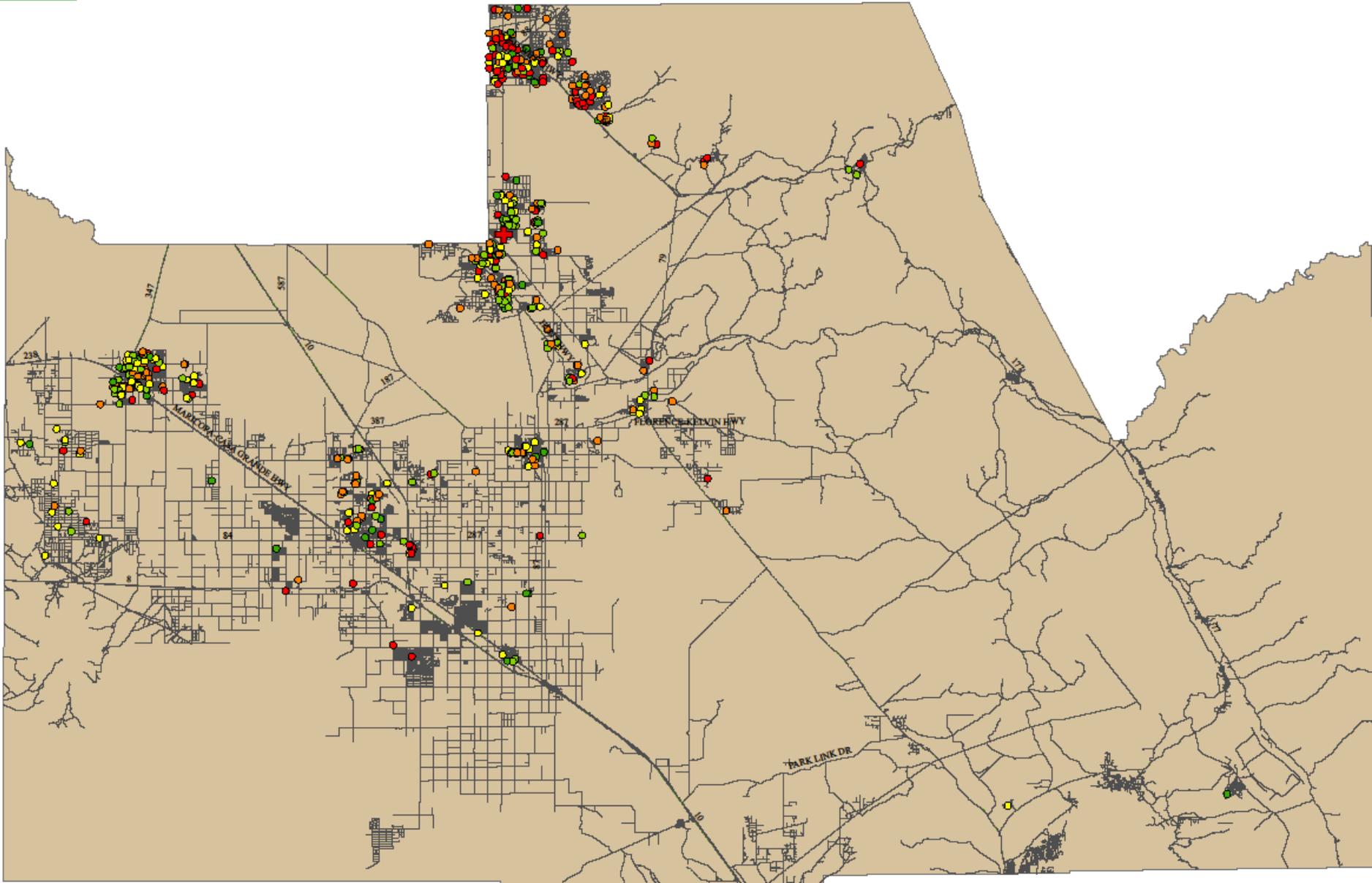
- Coccidioidomycosis (Cocci) or Valley Fever
- 722 cases YTD in Pinal County
- 53.9% Female
- 45.3% Male
- Mean Age at Onset= 50.0 years



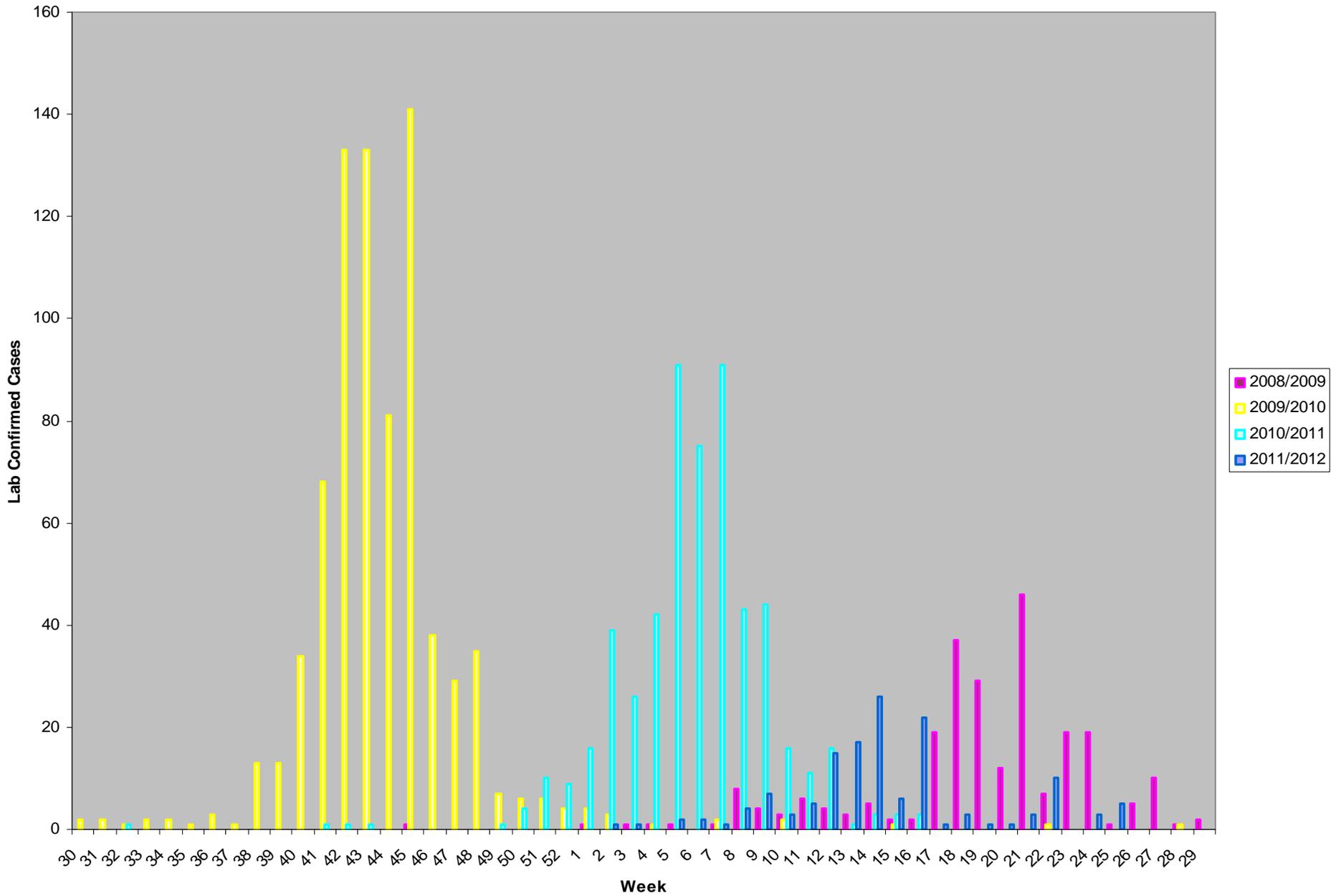
Cocci Activity by Year: Pinal County, 2007-2012 YTD



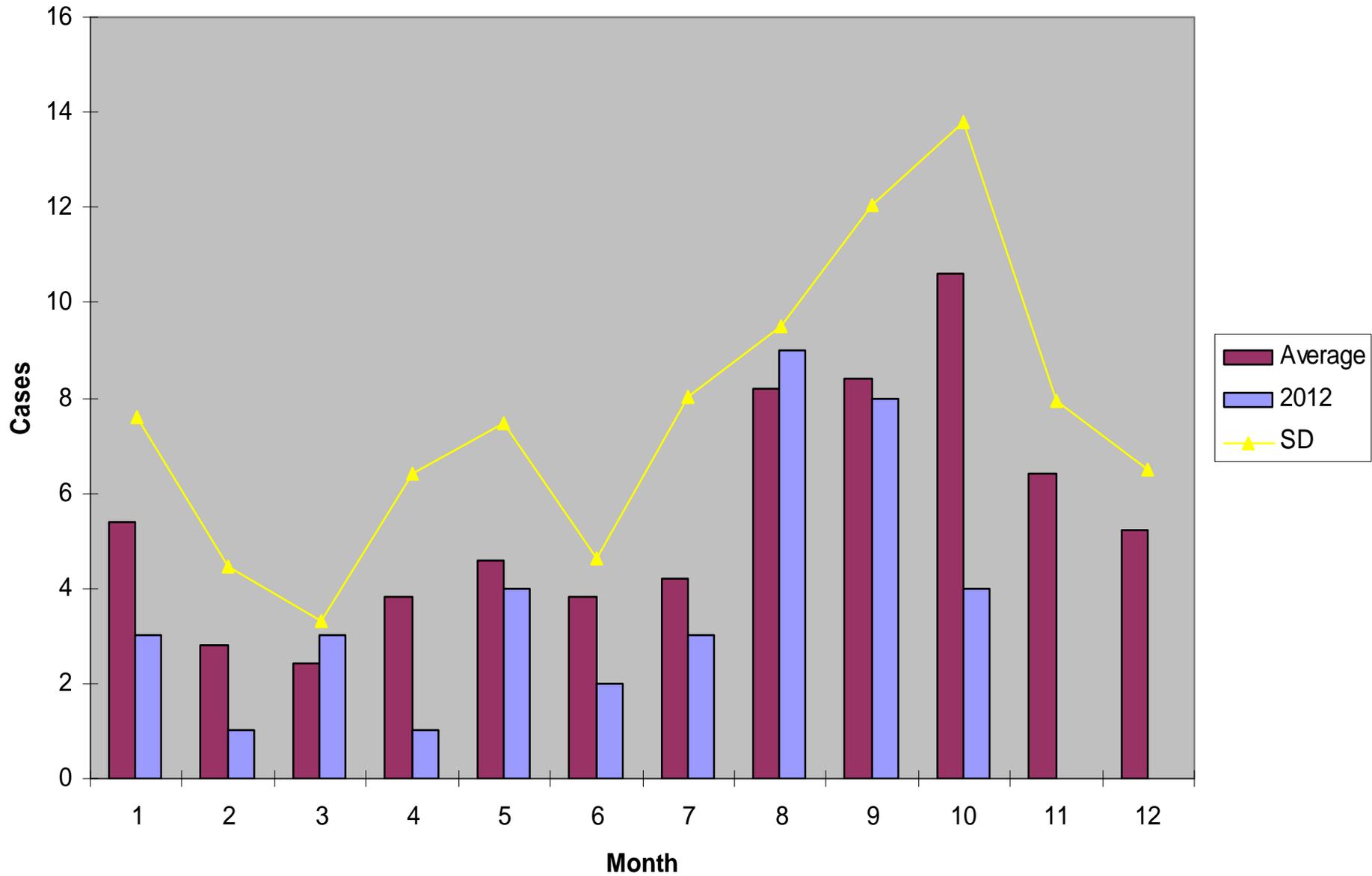
Valley Fever in Pinal County



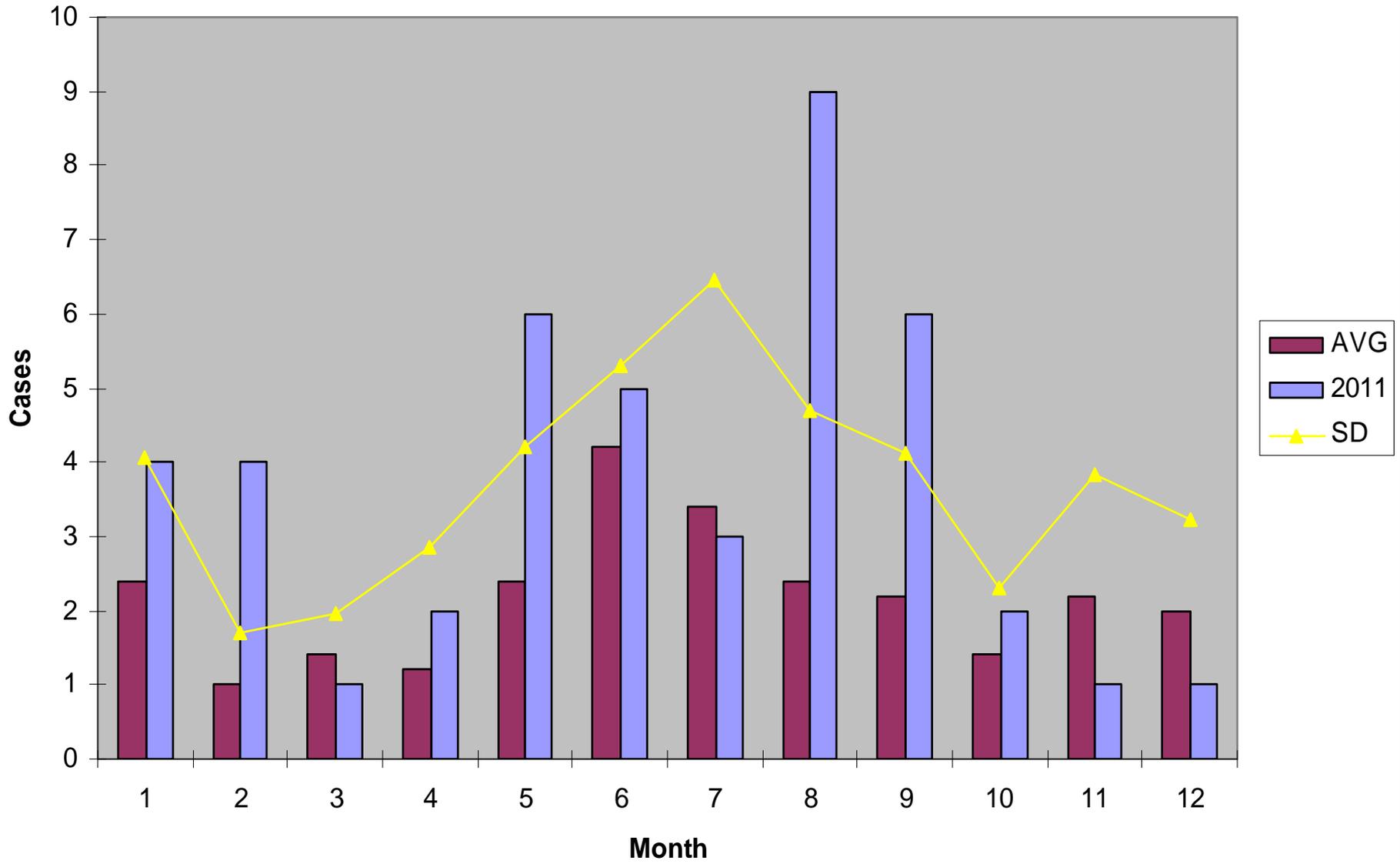
Weekly Influenza Activity: Pinal County



Salmonella Trending in Pinal County: 2012



Campylobacter: 2011



Final Thoughts

- At the local level reporting:
 - Makes resources available to facilities when infectious disease issues arise
 - Allows for rapid outbreak response
 - Keeps Public Health in the loop
 - Helps build stronger data for characterization of diseases



Feel free to contact me with questions:

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