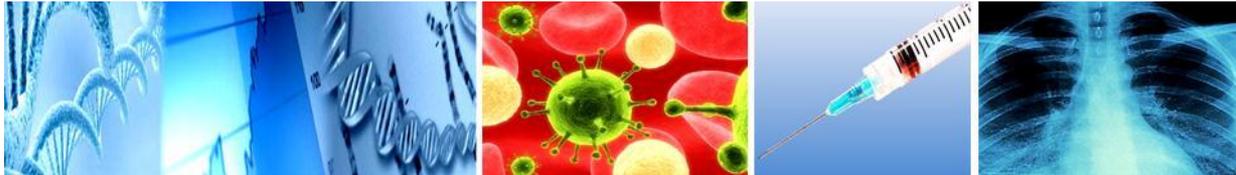


Communicable Disease Section: Investigation, Surveillance, & Prevention



Communicable Disease Section
San Bernardino Department of Public Health
Stacey A. Davis, MPH
Epidemiologist

Objectives



- Name 2 things to do if you encounter a suspect measles case
- Name 1 intervention to prevent pertussis in Riverside & San Bernardino counties
- Describe the type of contact necessary to transmit invasive meningococcal disease (IMD)
- Describe the reservoir for rabies in CA
- Describe the seasonality of West Nile virus (WNV) infections

Title 17, section 2500 California Code of Regulations (CCR)



- Requires physicians and laboratories to report:
 - >85 communicable diseases
 - Any occurrence of unusual disease
 - Any outbreak
- Non-communicable conditions
 - Animal bites (also for rabies exposure)
 - Disorders characterized by lapses of consciousness
 - Alzheimer’s disease and other dementia
- Specifies reporting timelines
- Allows for the local Health Officer to add any conditions for local reporting

Confidential Morbidity Reports (CMRs)



State of California—Health and Human Services Agency

California Department of Public Health

TUBERCULOSIS (TB)

TB TREATMENT INFORMATION

DEPARTMENT OF MOTOR VEHICLES (DMV)

California Driver License or Identification Card Number (eight characters):

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1. If this report is based upon episodic lapses of consciousness, when was the most recent episode?:
(mm/dd/yyyy)

2. If there have been multiple episodes of loss of consciousness or control within the past three years, please indicate the dates if they are known to you.

(a): (b): (c): (d): (e): (f):
(mm/dd/yyyy) (mm/dd/yyyy) (mm/dd/yyyy) (mm/dd/yyyy) (mm/dd/yyyy) (mm/dd/yyyy)

3. Within the past 12 months, has there been an episode of loss of consciousness or control while driving? Yes No Uncertain

4. Are additional lapses of consciousness likely to occur? Yes No Uncertain

5. If the patient has had episodes of nocturnal seizures, is there likelihood of lapses of consciousness occurring while he/she is awake? Yes No Uncertain

6. Has this patient been diagnosed with dementia or Alzheimer's disease? Yes No Uncertain

7. Would you currently advise this patient not to drive because of his/her medical condition? Yes No Uncertain

8. Does this patient's condition represent a permanent driving disability? Yes No Uncertain

9. Would you recommend a driving evaluation by DMV? Yes No Uncertain

Not done

Other tests:

Remarks:

What happens when you report?



- Investigation: interview cases, clinicians
 - Risk factors, exposures
 - Cases, contacts in sensitive occupations/settings (e.g. food handlers, day care workers)
- Education
 - Information to case, contacts, public to control spread of disease in community
 - Health alerts, advisories to clinical community
- Disease control
 - Treatment, prophylaxis recommendations
 - Provide recommendations to infection control practitioners to help prevent spread of disease in healthcare & other settings
- Surveillance
 - Notify state, national public health officials, as necessary
 - Report morbidity to CDPH→CDC
 - Analyze & publish surveillance data

YOU Are Our *Eyes and Ears*

➤ An important part of surveillance is being alerted to any unusual diseases or occurrences in humans and animals:

- Unusual disease
- Increased incidence
- Off-season illnesses
- Change in severity of illness





Measles Outbreak in CA



58 confirmed measles cases have been reported as of April 23, 2014

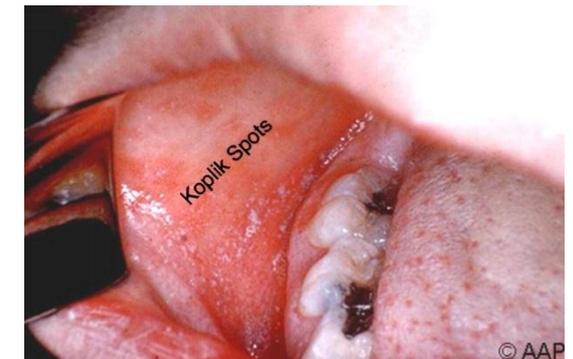
2013: 4 measles cases at this date

Exposures

- 13 patients traveled outside N & S America
 - Philippines (8)
 - India (2)
 - Vietnam (1)
 - W Europe (1)
- 34 had contact with known cases
- 3 contact with international travelers
- 8 under investigation

Vaccination Status (age range 5mo to 60y)

- 25 (43%) unvaccinated (19 intentionally, 3 too young, 3 unk reason)
- 11 received appropriate vaccination
- 4 had serologic immunity



BE READY!

Orange County: 22 cases

Riverside County: 5 cases

Los Angeles County: 10 cases

San Diego: 4 cases

Measles



VISITING ANOTHER COUNTRY? PROTECT YOUR FAMILY.

THINK MEASLES

ATTENTION: YOU COULD HAVE MEASLES.

If you have:



a fever

+



a rash

+



traveled overseas
in the last 3 weeks

Tell Staff and Get a Mask.

Protect Yourself and Others Now!

Measles is very contagious and is widespread in many parts of the world.

California Department of Public Health, Immunization Branch

IMM-1050 (6/11)

California Department of Public Health, Immunization Branch

IMM-1046 (5/11)

➤ When is someone with measles considered infectious?

4 days prior to 4 days after rash onset

➤ What do you do if you have a suspect measles case?

- 1. Remember diagnosis (fever & rash)**
- 2. Isolate (mask, room) & Notify DPH**
- 3. Get History**
- 4. Collect Specimens**

➤ What are the recommended specimens to collect for measles testing?

Serum, red-top tube 7-10ml

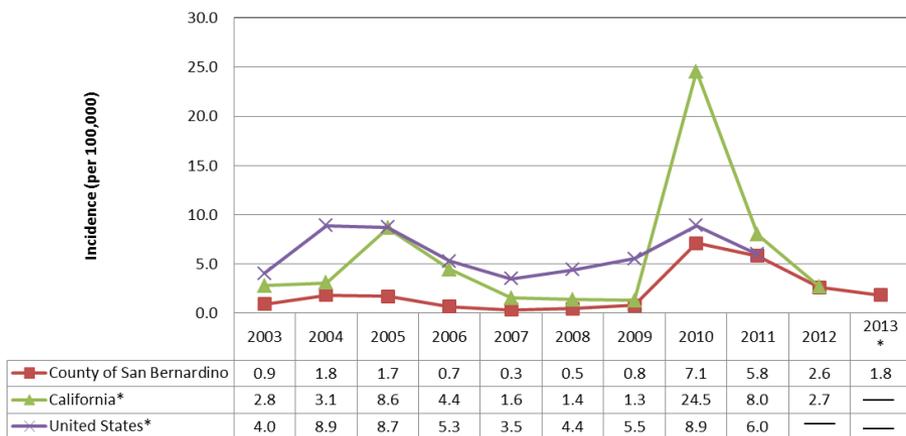
Viral throat or NP swab

Urine, 50-100ml

Pertussis: San Bernardino & Riverside Counties

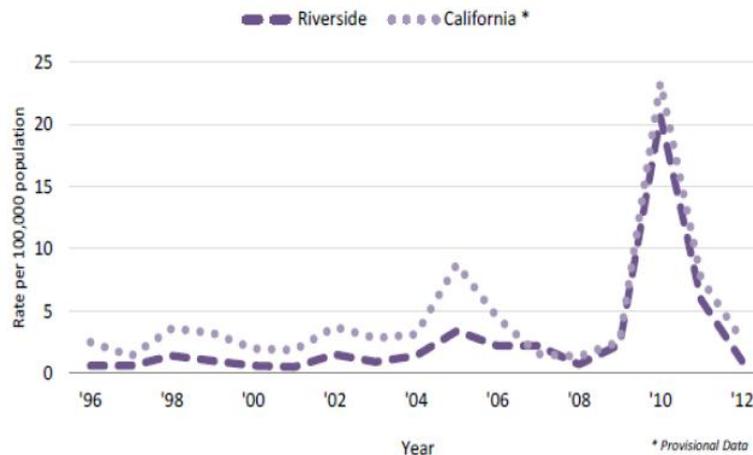


Incidence Rates for Pertussis in the County of San Bernardino, California, and the United States, 2003-2013

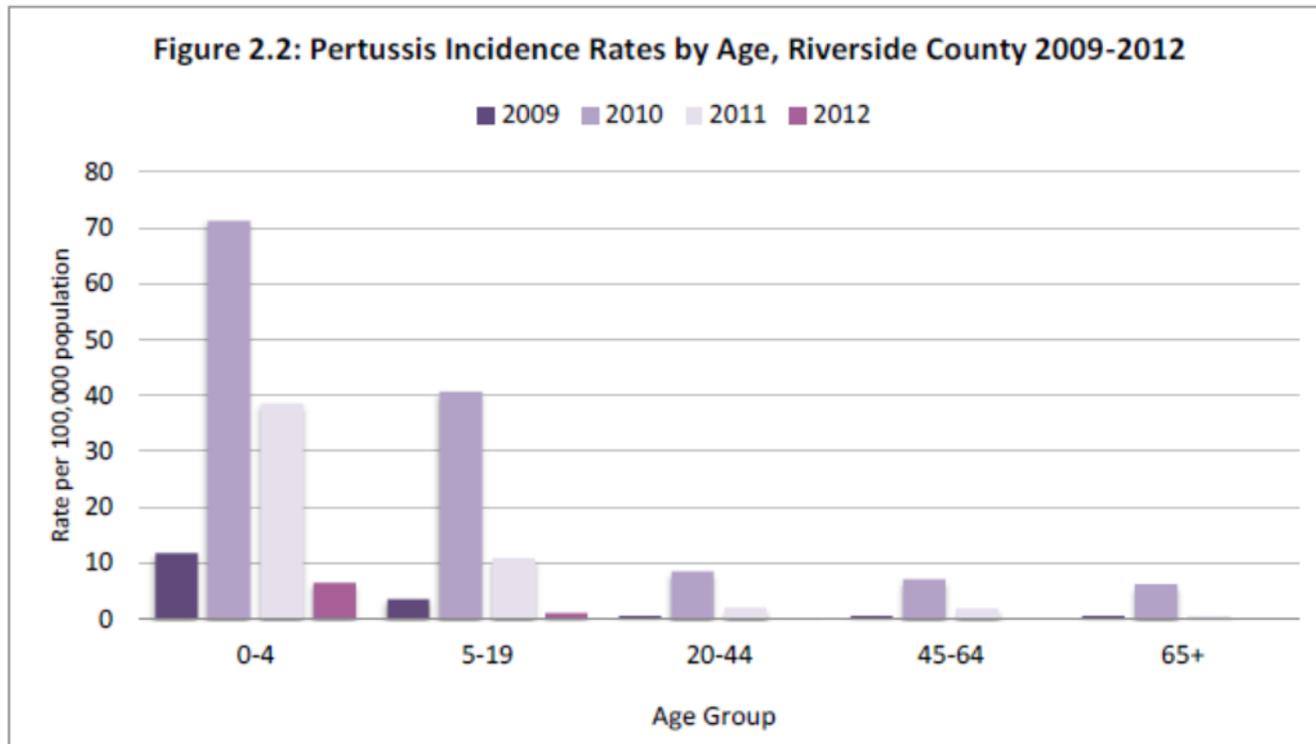
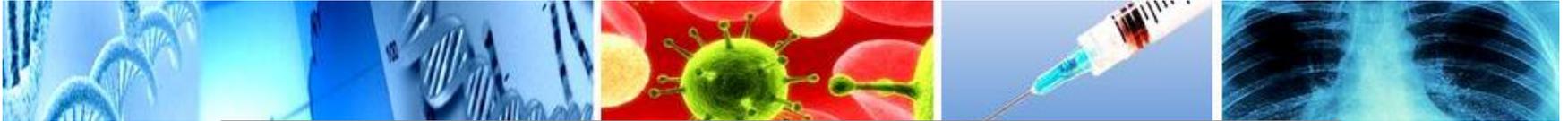


*CA & U.S. data for 2012-2013 were not available at the time this report was published.

Figure 2.1: Pertussis Incidence Rates, Riverside County 1996-2012

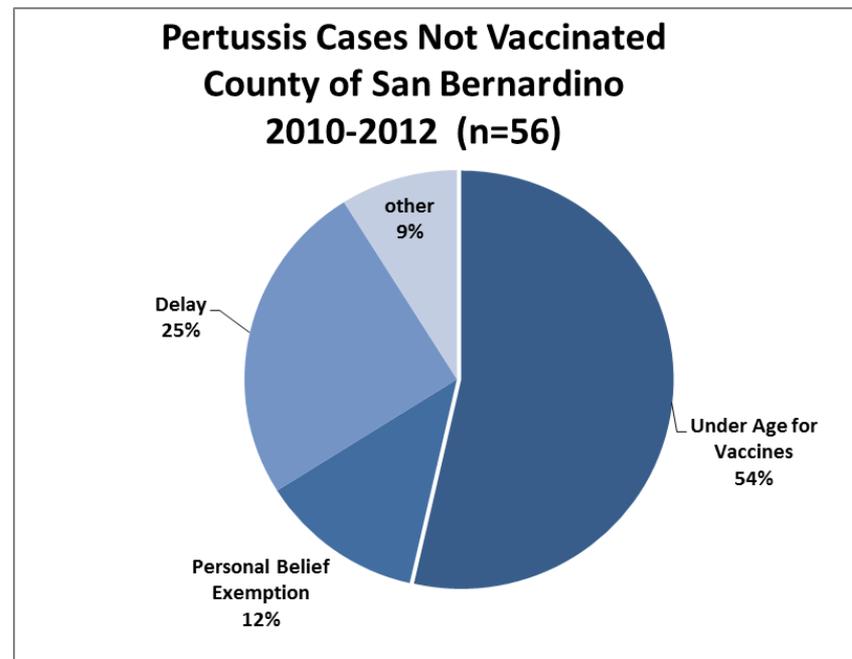
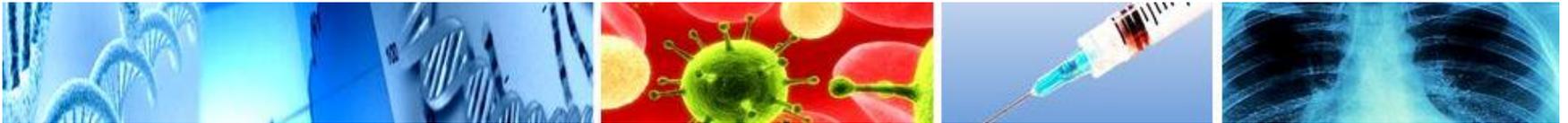


Pertussis by Age



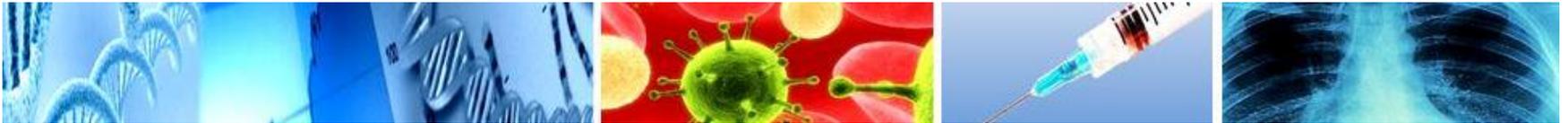
*Incidence rates in age groups where totals are less than 5 are not considered reliable.

Pertussis: Vaccination Status

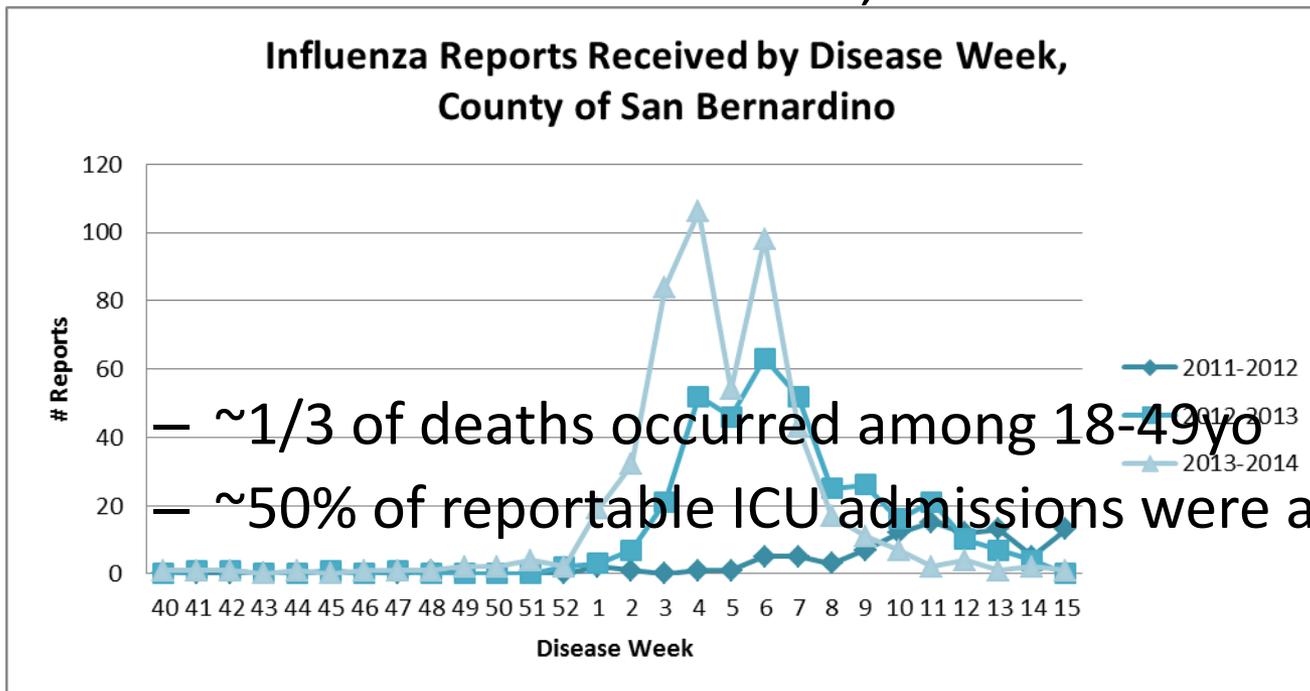


- Importance of vaccinating contacts of the newborn: siblings, parents, caregivers
 - ❑ How often is a pregnant mom supposed to be vaccinated for pertussis?
Every pregnancy
- Missed opportunities? 25% of those not vaccinated because of delay in starting series or between doses

Influenza 2013-2014



- Predominant strain: Influenza A, 2009 H1N1
 - Influenza illnesses detected slightly earlier this season than the last 2 seasons, ended earlier



– ~1/3 of deaths occurred among 18-49yo

– ~50% of reportable ICU admissions were among 18-49yo



Health Alert



Invasive Meningococcal Disease (IMD)



- LA County: 4 cases of IMD among men who have sex with men (MSM) since January 2014
 - 3 were HIV-infected
 - 3 died

➤ Vaccination for:

- HIV-infected MSM
- MSM, regardless of HIV status who have close or intimate contact with multiple partners

What is considered close/intimate contact for IMD?



Overview of Rabies in the San Bernardino County



History

- Rabies detected in CA since 1836, mainly in skunks & dogs
- 1909: outbreak in LA dogs that spread statewide
- 1926-1949: **375** rabid animals, County of San Bernardino
- 1947: First ordinance requiring canine rabies vaccination in County of San Bernardino
 - 1948—last rabid dog identified
- 1961: First positive bat in County of San Bernardino
- 2009: 5
- 2010: 7
- 2011: 12
- 2012: 10
- 2013: 14
- 1993: last rabid cat reported
- 2001: last rabid fox reported
- 2013: ***first*** documented rabid skunk
- No human rabies ever reported in County of SB





Rabies Exposure Evaluation

Factors for consideration:

➤ Circumstances of bite/exposure

- Provoked or non-provoked?
- Type of animal
- Vaccination status

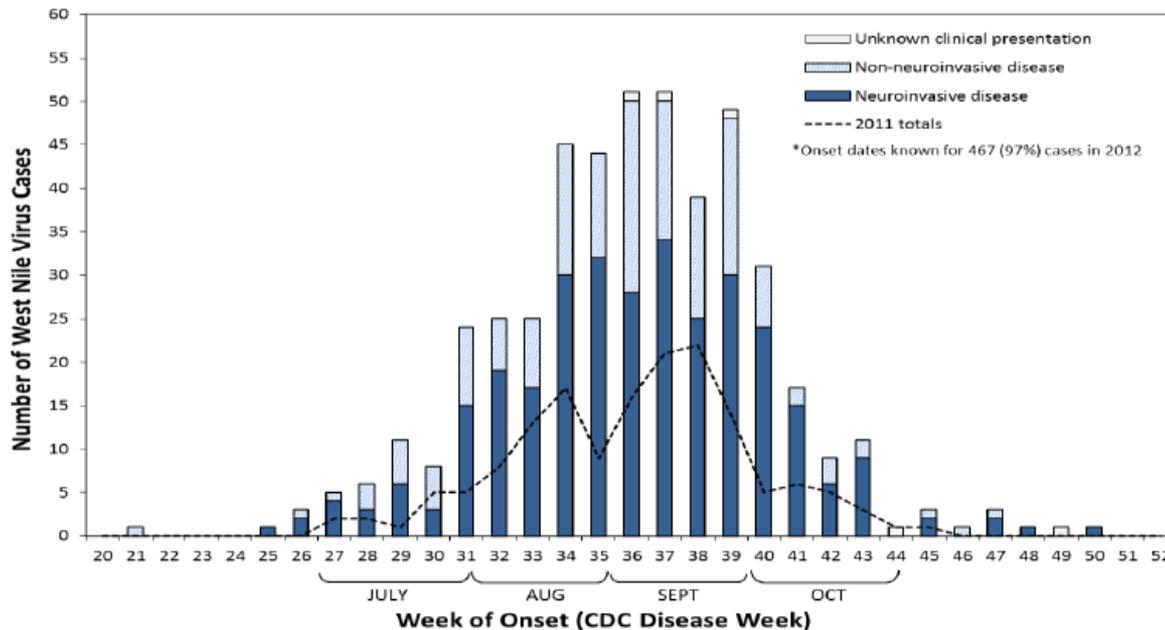
➤ Non-bite transmission

- Transplants
- Spelunkers
- Lab workers

West Nile Virus



Figure 1. Human West Nile virus cases by onset date and clinical presentation, California, 2012*



County of San Bernardino, 2013

- 17 WNV infections in residents: 4 asymptomatic blood donors, 11 neuroinvasive disease [including 1 death], 2 non-neuroinvasive
- Most symptomatic cases were exposed in San Bernardino County

➤ Communicable Disease Section coordinates with DPH Vector Control: locations of exposure & surveillance ***Two mosquito pools have tested positive in SB County***

Electronic Reporting via CalREDIE: Provider Portal

- Allow providers to report directly to SBDPH via CalREDIE
- Brief training
- Meaningful Use requirements
- If interested, contact Communicable Disease Section, 1.800.722.4794

The screenshot shows the 'Supplemental' tab of the CalREDIE Provider Portal. The form is titled '* Disease Being Reported' and contains various fields for patient information, including name, SSN, DOB, address, and contact details. It also includes a section for race and ethnicity, and a 'Reported Race' field. The form is designed for data entry and includes a 'Next' button at the bottom right.

Patient		Supplemental	
* Disease Being Reported			
* Last Name	* First Name	Middle Name	Name Suffix
SSN	DOB (MM/DD/YYYY)	Age	Months Days
Address Number & Street		Apartment/Unit Number	
City	State	Zip	
Census Tract	County of Residence	Country of Residence	
Country of Birth	Date of Arrival (MM/DD/YYYY)	Work/School Telephone	
Home Telephone	Cellular Phone / Pager	Other Electronic Contact Information	
E-mail Address	Work/School Location	Work/School Contact	
* Gender	Pregnant?	Estimated Delivery Date	
Marital Status	Medical Record Number	Describe/Specify	
Occupation Setting	Occupation	Describe/Specify	
Occupation Location	Request New Report Source	* Submitter Name	* Reporting Source
		Stone, Allison	Kaiser - South Sacramento

Resource for School Staff



Quick Reference for Exclusion of Students & Staff

Please report ALL cases of **Unusual disease** and **Outbreaks** to San Bernardino Department of Public Health:

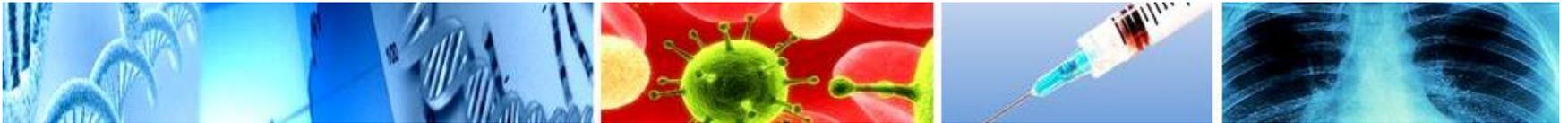
1.800.722.4794 or <http://www.sbcounty.gov/pubhlth/>

Developed by SBCSS Health Services in cooperation with San Bernardino County Department of Public Health Communicable Disease Section

Disease	Transmission	Report	Exclusion
Chickenpox/Shingles/Varicella	Direct contact, Indirect contact, Airborne, Droplet	Yes--outbreaks & hospitalizations	Yes, until vesicles dry Yes, until 24h after treatment or released by MD
Conjunctivitis	Direct contact	Outbreak only	Yes, until recovered
Diarrhea/Vomiting	Fecal-oral	Outbreak only	Yes, if fever present
Fifth Disease	Direct contact	Outbreak only	Yes, during acute illness
Hand, Foot, and Mouth	Fecal-oral, Direct contact	Outbreak only	Yes, until treated and no nits
Head lice	Direct contact	Outbreak only	Yes, until lesions healed or covered or 24h after treatment
Impetigo	Direct contact	Outbreak only	Yes, until recovered
Influenza	Droplet, Direct contact, Indirect contact	Hospitalized cases, Outbreaks	Yes, 4 days past onset of rash
Measles/Rubeola	Droplet, Direct contact	Yes	Yes, until released by MD
Meningitis	Direct contact, Droplet	Yes	Yes, until no longer acutely ill
Mononucleosis	Direct contact Airborne, Direct contact,	Outbreak only	

Summary:

SBDPH Communicable Disease Section



- Investigation: individual cases & outbreaks
- Surveillance:
 - Passive for all diseases except TB contacts
 - Active for identifying TB contacts (potential cases), outbreak investigation
- Prevention:
 - case-patient education re: disease transmission & vaccination,
 - TB screening for contacts to active TB case

<http://www.sbcounty.gov/pubhlth/>

1.800.722.4794

Public Health Duty Officer available after hours

Questions?

