DISEASE SURVEILLANCE & CONTROL LOCAL PUBLIC HEALTH PERSPECTIVE

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County of Riverside Department of Public Health

Importance of Public Health Infrastructure at the Local Level

- Essential to maintain the capacity to prepare and respond to public health threats at the local level.
- Adequate staff with training and expertise is the foundation of communicable disease prevention and control.

Importance of Public Health Infrastructure at the Local Level (cont.)

- California Health & Safety mandates that public health maintain programs to protect the public's health.
  - Tuberculosis
  - Immunizations
  - STD/HIV
  - General Communicable Diseases

Disease Surveillance at the Local Level

- Control of communicable diseases is based on epidemiology; the study of the distribution, causes, and transmission of communicable diseases within the population.
- Must have the ability to conduct active as well as passive surveillance.
- Must have access to public lab services which are an essential part of diagnosis of diseases and identifying potential threats in our community.

Multiple Reportable Diseases and Conditions

County of Riverside
Department of Public Health
DISEASE REPORTING REQUIREMENTS

DISEASES TO BE REPORTED IMMEDIATELY BY TELEPHONE

ANTHRAX, human or animal
INFLUENZA, novel strains (Human)
BOTULISM (Infant, Foodborne, Wound)
BRUCELLOSIS, human
CHOLERA*
CIGUATERA FISH POISONING (Community acquired only)
DENGUE
DIPHTHERIA+
DOMOIC ACID POISONING (Amnesic shellfish poisoning)
ESCHERICHIA COLI: shiga toxin producing (STEC) including *E. coli* O157 *+
HANTAVIRUS INFECTION
HEMOLYTIC UREMIC SYNDROME
MEASLES (Rubeola) +
MENINGOCOCCAL INFECTION
PARALYTIC SHELLFISH POISONING
PLAGUE, Human or Animal +
RABIES, Human or Animal +
SCOMBROID FISH POISONING
SEVERE ACUTE RESPIRATORY SYNDROME (SARS)
SHIGA TOXIN (detected in feces)
SMALLPOX (Variola)
TULAREMIA, human
VIRAL HEMORRHAGIC FEVERS, human or animal (e.g., Crimean-Congo, Ebola, Lassa and Marburg Viruses)
YELLOW FEVER
OCCURENCE OF ANY UNUSUAL DISEASE OUTBREAKS OF ANY DISEASE (including Foodborne and any diseases not listed in Section 2500. Specify if institutional and/or community setting. Two or more cases from separate households = an outbreak.)

DISEASES OR SUSPECTED DISEASES TO BE REPORTED WITHIN ONE DAY OF IDENTIFICATION

AMEBIASIS*
BABESIOSIS
CAMPYLOBACTERIOSIS*
CHICKEN POX (Only Hospitalizations and Deaths)
CRYPTOSPORIDIOSIS+
ENCEPHALITIS+, Specify Etiology: Viral, Bacterial, Fungal, Parasitic
FOODBORNE DISEASE
HAEMOPHILUS INFLUENZAE, Invasive Disease (in cases < 15 years of age)
HEPATITIS A, acute infection *[1]+
LISTERIOSIS+
MALARIA+
MENINGITIS, Specify Etiology: Viral, Bacterial, Fungal, Parasitic
PERTUSSIS (Whooping cough)
POLIOVIRUS INFECTION
PSITTACOSIS
Q FEVER
RELAPSING FEVER
SALMONELLOSIS (Other than Typhoid Fever)*
SHIGELLOSIS*
STAPHYLOCOCCUS AUREUS infection (Severe cases in previously healthy people resulting in death or admission to ICU)
SYPHILIS+
TRICHINOSIS
TUBERCULOSIS*+[3]
TYPHOID FEVER, Cases and Carriers*+
VIBRIO INFECTION *+
WEST NILE VIRUS (WNV) infection, acute +
YERSINIOSIS

DISEASES TO BE REPORTED WITHIN SEVEN CALENDAR DAYS

ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS) (HIV Infection only; see Human Immunodeficiency Virus)
ANAPLASMOSIS/EHRLICHIOSIS
BRUCELLOSIS, animal (except dogs)
CHANCROID
CHLAMYDIA TRACHOMATIS Infection+ including Lymphogranuloma Venereum (LGV)
COCCIDIOIDOMYCOSIS
CREUTZFELDT-JAKOB DISEASE (CJD) and other Transmissible Spongiform Encephalopathies (TSE)
CYCLOSPORA
CYSTICERCOSIS OR TAENIASIS
GIARDIASIS
GONOCOCCAL INFECTION+
HEPATITIS B (Specify acute case or chronic) [1]*+
HEPATITIS C (Specify acute case or chronic)[2]
HEPATITIS D (Delta), acute infection [1]
HEPATITIS E, acute infection [1]
HUMAN IMMUNODEFICIENCY VIRUS (HIV)
INFLUENZA (Deaths in laboratory-confirmed cases for ages 0-64 years)
LEGIONELLOSIS
LEPROSY (Hansen's Disease)
LEPTOSPIROSIS
LYME DISEASE+
MUMPS
PELVIC INFLAMMATORY DISEASE (PID)
RICKETTSIAL DISEASES (non-Rocky Mountain Spotted Fever), including Typhus and Typhus-like Illness)
ROCKY MOUNTAIN SPOTTED FEVER
RUBELLA (German Measles)
RUBELLA SYNDROME, Congenital
TETANUS
TOXIC SHOCK SYNDROME
TULAREMIA, animal

REPORTABLE NON-COMMUNICABLE DISEASES AND CONDITIONS

ALZHEIMER'S DISEASE AND RELATED CONDITIONS
ANIMAL BITE (SEE REVERSE)
DISORDERS CHARACTERIZED BY LAPSES OF CONSCIOUSNESS (SEE REVERSE)
PESTICIDE EXPOSURE (SEE REVERSE)

* Essential to include occupation
\+ Must also be reported by Laboratories
[1] Viral Hepatitis: All Hepatitis reports must include lab results and the date of onset. Hepatitis A: include occupation. Hepatitis B: if pregnant, include EDC.
[2] Please differentiate Acute Hepatitis C cases on the CMR. Chronic Hepatitis C indicated by positive anti-HCV test in an asymptomatic person should still be reported, and should include confirmatory test results and supporting labs.
[3] Special Requirements for TB:
1. Health care provider is responsible for reporting TB results from out-of-state labs.
2. Laboratories that isolate *Mycobacterium tuberculosis* from a patient's specimen must follow requirements for submission of a culture to the Public Health Lab and drug susceptibility testing (Copy of requirements available upon request).
3. Active or suspected cases require approval of the Health Officer (or designee) prior to discharge/transfer from a health care facility.
4. Positive TB skin test reactors listed below must be reported:
   a) TB Skin Test (TST) Converters: An increase of at least 10 mm of induration from <10 mm to ≥10 mm within two years from a documented negative to positive TST.
   b) Children 3 years of age or younger with a positive TB skin test (5mm or greater).

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Challenges Facing Local Public Health Departments

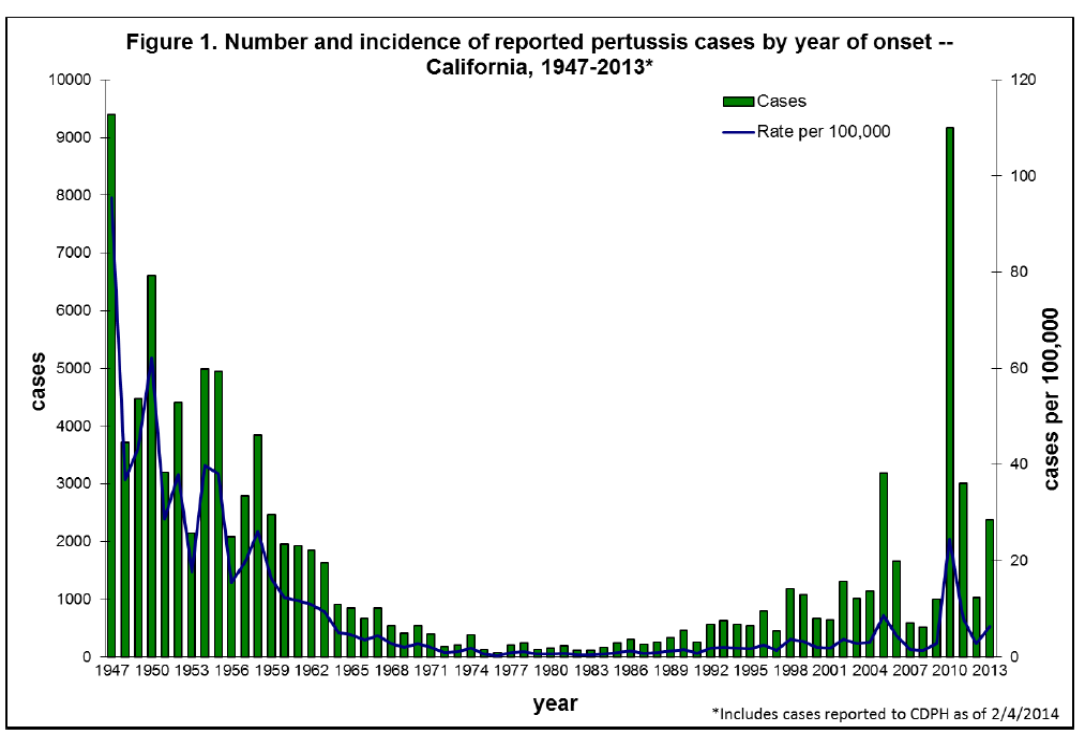
- Diminishing local resources.
  - A recent survey by the California Association of Communicable Disease Controllers (CACDC) indicated that 73% of responding local health departments (LHDs) indicated budget and/or staffing reductions impacted their ability to carry out CD control activities.

Challenges Facing Local Public Health Departments (cont.)

- Delayed response times.
- Increased follow-up by telephone rather than home visits.
- More difficult to conduct active surveillance.
- Lack of CD specific funding for local health departments.

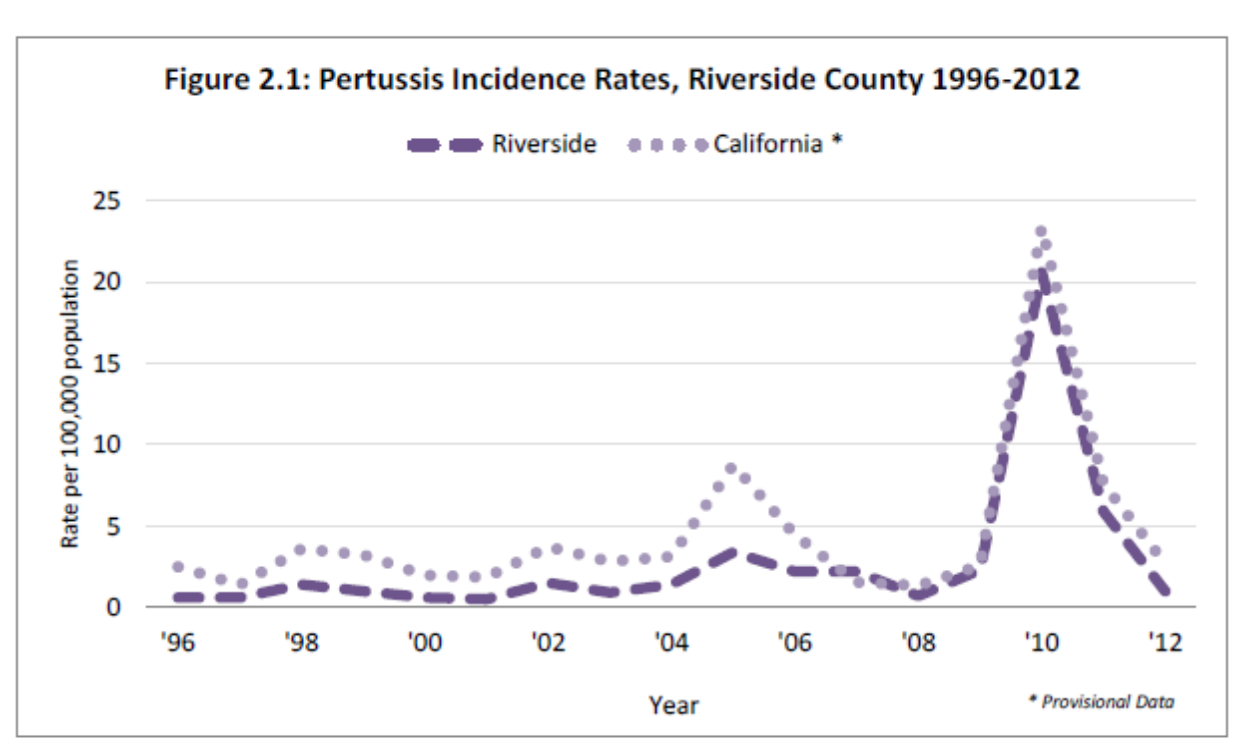
Emerging and Re-emerging Infectious Diseases

- Norovirus Outbreaks in long term care and correctional facilities.
- Pertussis (Whooping cough outbreaks).



Emerging and Re-emerging Infectious Diseases (cont.)

- Pertussis (Whooping cough outbreaks) (cont.)



News Release

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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First Confirmed Whooping Cough Death Since 2010

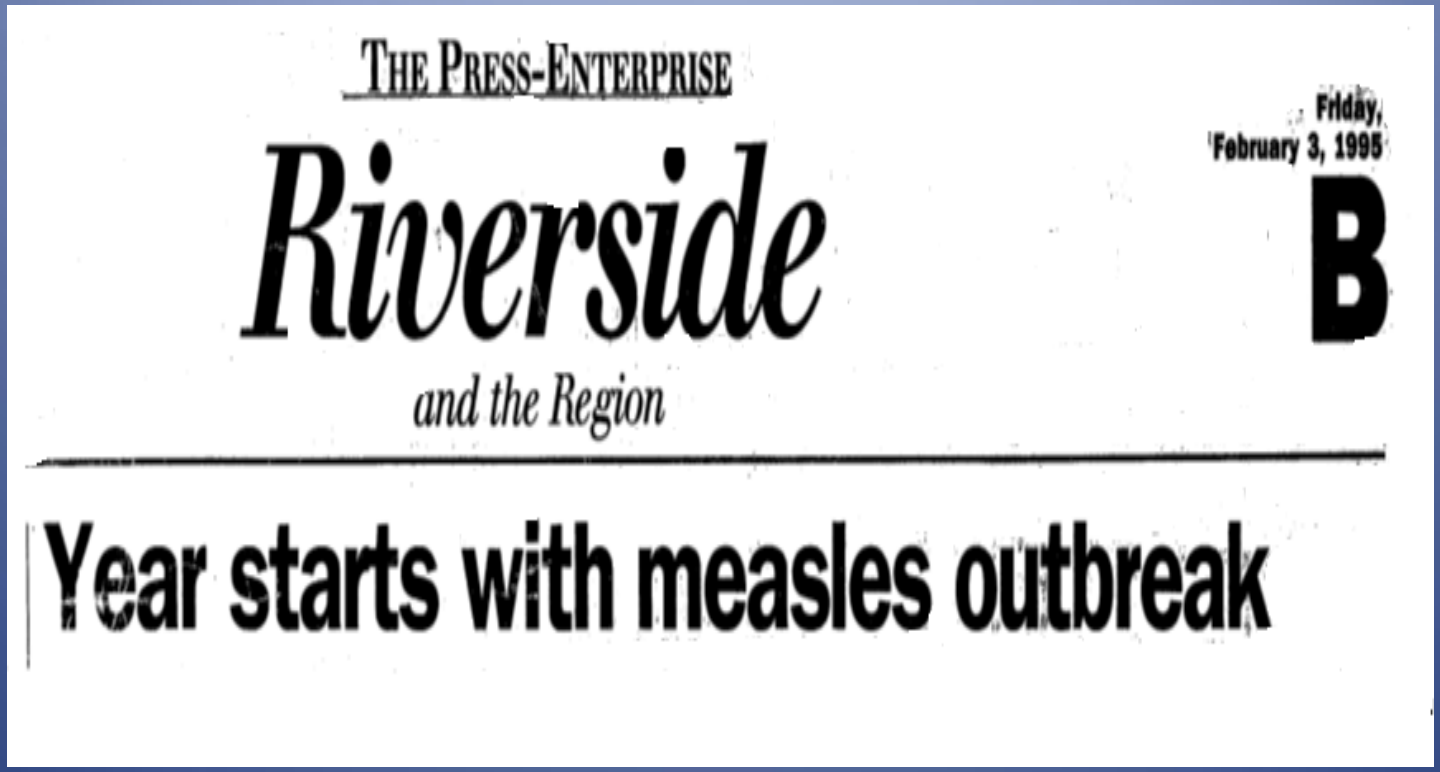
SACRAMENTO – Pertussis, better known as whooping cough, has claimed the life of a Riverside County infant less than six months of age, the California Department of Public Health (CDPH) announced today. It's the first confirmed death from the disease since 2010.

Novel Influenza

- H1N1 Influenza Outbreak in 2009
  - Challenged local health department's ability to conduct disease investigations. Implement control measures including mass vaccination clinics.
  - Local health department's readiness to respond to the next Novel Influenza Outbreak is crucial for protecting the public's health.

Threat Posed by Measles

- Immunizations are an excellent example of primary prevention.
- Significant reduction in measles morbidity and mortality.
- One case has the potential to trigger a major outbreak.
- LHDs must have resources to quickly investigate reported cases, conduct contact tracing, implement quarantine measures when indicated, and maintain surveillance for secondary cases.



THE PRESS-ENTERPRISE

Riverside

and the Region

Friday, February 3, 1995

B

Year starts with measles outbreak

Application of Epidemiological Principles

- Epidemiological principles facilitate disease investigation and outbreak containment.
- Identifying the likely causative agent.
- Steps include:
  - Developing a case definition and implementing a plan of action.

Application of Epidemiological Principles (cont.)

- Evaluating the effectiveness of the intervention.
- LHDs must have adequate and knowledgeable public health staff to carry out the mandated responsibilities to protect our communities.

Decay of the Public Health Infrastructure

- "In 1988, Institute of Medicine described the current public health system as inadequate to protect the public health through effective, organized and sustained efforts."

- How will the public health system be described in the next five years and beyond?
- Will we be able to carry out our mandate to protect the public's health?

Thank You!