

**MEASLES OUTBREAK GUIDELINES  
FOR  
SCHOOLS  
IN  
RIVERSIDE COUNTY**

**COUNTY OF RIVERSIDE  
DEPARTMENT OF PUBLIC HEALTH  
DISEASE CONTROL  
REVISED APRIL 2014**

## INTRODUCTION

Measles is a vaccine preventable disease and because in the United States we promote vaccination, most people living here are protected against it. However measles is still common in other parts of the world. When people travel here from other countries the risk to our unvaccinated population increases significantly. From January 1, 2014 to February 15, 2014 over 15,000 suspected cases of measles and 23 deaths were reported in the Philippines. In California over 30 cases of measles were reported in the first 3 months of 2014 related to travel or exposure to visitors from that country. Five cases of measles were reported in Riverside County during this time period.

Measles is highly contagious. The virus spreads through the air when an infected person coughs or sneezes. It is so contagious that if one person has it, 90% of the people around him or her will also become infected if they are not protected.

Outbreak procedures have been developed by the Centers for Disease Control and the California Department of Public Health. The County of Riverside Department of Public Health, Disease Control Branch has formulated this manual to assist school staff during measles outbreaks.

Confirmed and suspect measles cases should be reported immediately to Disease Control by telephone at: (951) 358-5107, during regular business hours; (951) 782-2974, after hours and holidays, ask to speak with the second call Duty Officer.

## OUTBREAK PROCEDURE FOR SCHOOLS

### 1. Identify all Susceptible Pupils in the Schools

Your school should have a system in place for fast and easy identification of susceptible students without having to check all records at the time of an outbreak or identification of a single case of confirmed or suspect case of measles. The list of susceptible students must be provided to Disease Control within 48 hours.

#### Susceptible children are:

- a. Students who have no immunization records on file at the school.
- b. Students with immunization records, but no indication of measles immunization (Note: Records must include month, day, and year).
- c. Students whose parents have signed a personal belief exemption regarding measles.
- d. Students with medical exemption for measles.
- e. Students who had their first immunization prior to their first birthday (i.e., DOB 5-8-99, MMR given 5-1-00).
- f. Students who have only had one documented dose of measles containing vaccine on or after the first birthday.

### 2. Notify the Parents of all Susceptible Students in the School

Notification should be done by telephone. An Exposure/Exclusion letter must also be sent home with the susceptible students. Parents are to be informed within 48 hours after the case or suspected case of measles is reported. Staff is encouraged to notify the parents as quickly as possible. Section: 120365 of Health & Safety Code indicates “whenever there is good cause to believe that the person has been exposed to one of the communicable diseases listed in subdivision (a) of section 120325 that the person may be temporarily excluded from the school or institution until the local health officer is satisfied that the person is no longer at risk of developing the disease.”

### 3. Notification information to parents:

- a. A confirmed or suspect case of measles has occurred in this school.
- b. Susceptible students are being excluded effective immediately. Students may be admitted to class before the end of the exclusion period, provided they:
  - Obtain measles immunization within 72 hours of the exposure; OR
  - Provide medically documented proof of previous appropriate immunization; OR
  - Student obtains a blood test that proves he/she has antibodies to measles. Parents can obtain a blood test from their doctor or through private labs with a doctor’s order. However, the results may take several days to obtain. The child CANNOT be readmitted to school during the exclusion period until the results of the test are obtained and show adequate immunity as verified by the Disease Control Branch; OR

- The student brings a written statement from a physician that he/she has had the measles; OR
  - The student receives immune globulin (Ig) within 6 days of the exposure.
- c. If you have questions, please call the Disease Control Branch at (951) 358-5107.
4. If the parent is unable to comply with the above, the student must be EXCLUDED from school attendance for the entire exclusion period (see 5 e).
5. Enforce Outbreak Control Procedure
- a. A designated school staff person must validate proof of immunity or immunization before any susceptible student may return, if it is prior to the end of the exclusion period.
  - b. Provide teachers with a list of students who are not to be admitted to the classroom until permission is granted by the designated school staff person.
  - c. Inform teachers that susceptible students must not be admitted to class during the exclusion period.
  - d. Keeping the child in the school office is NOT an acceptable alternative to exclusion.
  - e. Susceptible students are to be excluded for 21 days after the last possible day of exposure to the suspect measles case (i.e., if the case was sent home on the 1<sup>st</sup> day of the month, the exclusion period would be through the 21<sup>th</sup> and the student allowed to return on the 22<sup>nd</sup>). This exclusion may be extended if another case of measles is identified.
  - f. Inform the Disease Control of any problems by calling (951) 358-5107.
  - g. Cooperate with Disease Control, on surveillance activities for additional cases.
6. Immunization of pupils with only one measles vaccine dose received on or after the first birthday.
- a. In schools with a measles outbreak where there is evidence that transmission of infection has occurred between pupils (e.g., two or more cases, one incubation period apart with no other source for the second case), all pupils with only one measles vaccine dose on or after the first birthday should be strongly urged to be re-immunized. (Children entering kindergarten and 7<sup>th</sup> grade are required to have 2 measles containing vaccines).
  - b. School records should be audited to identify such pupils, or direct parents to determine from their own records if their child was immunized only once on or after the first birthday. Written documentation must be provided to the school.
  - c. Health department staff will advise you when students should have a second dose of measles vaccine and the availability of the vaccine.
7. Identifying susceptible staff in the school
- a. Susceptible staff should be identified by the school and excluded for 21 days after the last exposure to the suspect measles case.
  - b. Staff can be allowed to go back to work if they:

- Obtain Measles immunization within 72 hours of the exposure; OR
  - Provide medically documented proof of previous appropriate immunization; OR
  - Obtain a blood test that proves he/she has antibodies to measles. The staff person can obtain the test from their doctor or through a private lab with a physician's order. However, the results may take several days to obtain. The staff member CANNOT return to school during the exclusion period until the results of the test are obtained and show adequate immunity, as verified by the Department of Public Health (DOPH), Disease Control; OR
  - Bring a written statement from a physician that he/she has had the measles.
  - The staff person receives immune globulin within 6 days of the exposure.
- c. If you have any questions, please call the Disease Control at (951) 358-5107.

COUNTY OF RIVERSIDE

DEPARTMENT OF PUBLIC HEALTH

SCHOOL OUTBREAK CONTROL – SUMMARY OF SUSCEPTIBLE STUDENTS

\_\_\_\_\_  
SCHOOL NAME

\_\_\_\_\_  
SCHOOL DISTRICT

\_\_\_\_\_  
SCHOOL ADDRESS (Street address & City)

PRIVATE       PUBLIC

\_\_\_\_\_  
PRINCIPAL'S NAME

\_\_\_\_\_  
DISTRICT NURSE'S NAME

\_\_\_\_\_  
PRINCIPAL'S CONTACT PHONE NUMBER

\_\_\_\_\_  
DISTRICT NURSE'S PHONE NUMBER

Number of Pupils:

1. Total Enrollment: \_\_\_\_\_ Student Age Ranges: \_\_\_\_\_

2. Total Excluded: \_\_\_\_\_

3. Exemptions: \_\_\_\_\_ Personal \_\_\_\_\_ Medical

4. Out of Compliance \_\_\_\_\_

## SCHOOL MEASLES OUTBREAK CONTROL – SCHOOL AUDIT FORM

School District: \_\_\_\_\_ School Nurse: \_\_\_\_\_

### PUPILS WITH VALID EXEMPTIONS TO IMMUNIZATION REQUIREMENTS

NAME	REASON FOR EXEMPTION*	FOLLOW-UP***

### PUPILS OUT OF COMPLIANCE WITH MEASLES IMMUNIZATION REQUIREMENT

NAME	DOB	MEASLES IMMUNIZATION		REASON OUT OF COMPLIANCE**	FOLLOW-UP
		Date (s) (mo/da/yr)	Date (s) (mo/da/yr)		

**\*REASON FOR EXEMPTION:**

- PBE - Personal beliefs exemption.
- ME-D - Medical exemption-physician’s written history of prior measles disease, or record of serologic test indicating immunity to measles.
- ME-OTH - Medical exemption for any other reason.

**\*\*REASON OUT OF COMPLIANCE:**

- BB - Record indicates immunization before birthday.
- BM - Immunization in month of 1<sup>st</sup> birthday but has month and year only (need day).
- INC - Incomplete record. Does not include at least month and year of immunization.
- NR - No record (includes recent transfer pupils in 30-day waiting period for prior school’s records).
- UME - Undocumented medical exemption. Needs written MD verification.

**\*\*\*FOLLOW-UP Indicates Disposition:**

- If pupil receives vaccine or brings in adequate evidence of prior immunization, write in immunization date.
- If pupil excluded, so indicate.
- If pupil brings in documentation of M.D. diagnosed measles disease or of blood test showing measles immunity, so indicate.

## REPORTING RASH ILLNESS

**REPORT ALL CHILDREN HAVING A RASH WITH FEVER** to: Department of Public Health (DOPH),  
Disease Control Branch, (951) 358-5107 or FAX (951) 358-5102 **as soon as identified.**

### RASH Reporting Procedure:

- a. Every child who presents with a rash illness and fever should be reported as soon as identified.
- b. Call (951) 358-5107. Have the following information on hand:

\_\_\_\_\_  
Student's Name

\_\_\_\_\_  
DOB

\_\_\_\_\_  
Home Address

\_\_\_\_\_  
Parents/Guardian's Name

\_\_\_\_\_  
Home Phone Number

\_\_\_\_\_  
Work Phone Number

\_\_\_\_\_  
Date of Fever Onset

\_\_\_\_\_  
Date of Rash Onset

\_\_\_\_\_  
Physician's Name

\_\_\_\_\_  
Physician's Phone Number

DATE OF IMMUNIZATIONS:

	<u>MONTH</u>	<u>DAY</u>	<u>YEAR</u>
MEASLES:	_____	_____	_____
MUMPS:	_____	_____	_____
RUBELLA:	_____	_____	_____
MMR#1:	_____	_____	_____
MMR#2:	_____	_____	_____
VARICELLA:	_____	_____	_____

LAST DAY ATTENDED SCHOOL: \_\_\_\_\_

REPORTER'S FIRST & LAST NAME/TITLE: \_\_\_\_\_

SCHOOL NAME: \_\_\_\_\_ PHONE#: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

**If a rash illness with fever meets the California Department of Public Health clinical criteria for probable measles, the school will be instructed to follow the "Outbreak Procedure."**



## GENERAL INFORMATION ABOUT COMMON RASH-CAUSING DISEASES

**MEASLES (Rubeola):** An acute, highly communicable viral disease. The illness usually begins with 3-4 days of fever (can be as high as 105 degrees F), cough, coryza, and conjunctivitis followed by a dusky-red blotch rash which appears about 3-7 days after the fever. The fever will usually fall rapidly 1-2 days after the onset of illness. The rash begins around the ears and hairline spreading down to cover the face, trunk, and arms by the second day. The rash is initially raised and colored and tends to become merged by the third day. The color progresses from pink to dusky-red to reddish-brown. The rash lasts 4-7 days. The period of communicability is 4 days before the rash appears until 4 days after the appearance of the rash. Koplik spots (small red spots with blue-white centers) may appear on the oral mucosa, particularly in the region opposite molars, is a diagnostic sign in measles. Incubation is approximately 10 days. The virus is spread by the respiratory tract. Section 2500 of the California Administrative Code requires that this disease be reported to the health department as soon as possible.

**RUBELLA (German measles):** Usually a mild viral rash illness, sometimes resembling that of measles or scarlet fever. Onset is about 2 weeks after exposure. Symptoms include “cold symptoms,” swelling and tenderness of the lymph nodes on the back of the neck (especially behind ears), and a pinkish-red rash. The rash begins on the face and rapidly involves the trunk within 24 hours. The rubella rash tends to remain as small, fine pink spots as opposed to the large blotches of measles. The rubella rash, when it merges, tends to remain pink resembling scarlet fever as opposed to the dusky-red to reddish-brown progression of measles. The rash moves quickly from head to trunk and tends to fade and disappear from parts previously involved. The rash is gone by the third day. Koplik spots are never seen in rubella. Infected persons are contagious for one week before, to 5-7 days or more, after rash onset. The virus is spread by contact with respiratory secretions being coughed into the air. The disease may be dangerous to the fetus of a pregnant woman who is not immune. Section 2500 of the California Administrative Code requires that this disease be reported to the health department.

**FIFTH Disease:** A mild, non-febrile viral rash illness that presents usually with bright red cheeks (“slapped-cheek” appearance) and a lace-like body rash that may fade and re-appear for 1-3 weeks or longer on exposure to sunlight or heat (e.g., sunbathing). Incubation is from 4-20 days. Infected persons are contagious prior to the onset of the rash. The virus is spread by contact with secretions being coughed into the air. The child should be excluded from school/daycare attendance while fever is present. Outbreaks are reportable to the Department of Public Health, Disease Control Branch.

**CHICKENPOX (Varicella):** One of the most common infections of childhood is highly contagious but rarely a serious health threat to otherwise healthy people. Onset of symptoms occurs about 2-3 weeks after exposure. Symptoms include fever, irritability and a rash. The rash begins as red bumps on the chest, back, underarms, neck and face. These change into blisters and finally form scabs. The blisters come in “crops.” Infected persons are contagious from 1-5 days before developing the rash and not more than 5 days after the appearance of the first crop of blisters. The virus is spread by direct contact with the fluid from the blisters or by secretions being coughed into the air. An individual case of chickenpox is not reportable unless the individual is hospitalized or dies. Outbreaks of chickenpox (5 or more linked cases from separate households) are reportable to the Department of Public Health, Disease Control Branch.

**STREPTOCOCCAL Rash (Scarlet fever):** Scarlet fever is a strep infection with a rash. The strep rash is a fine red rash that blanches with pressure and has a sand-paper feel. It appears on the neck, chest, in the folds of the axilla, elbow and groin, and the inner surfaces of the thighs and includes the hands and feet (it is seldom on the face). The rash appears within the first 24 hours as a pink-red flush with lesions the size of pinheads (looks like “sunburn with goose flesh”). It clears by the end of the first week and is followed by peeling. The tongue may have a whitish coating and appear swollen. This coating is shed by the fourth or fifth day, revealing a glistening red “strawberry tongue.” Onset is 1-4 days after exposure and may include sore throat, fever, nausea and vomiting. Treatment is with antibiotics. This disease is usually not communicable 48 hours after beginning antibiotic therapy. The bacteria is spread by direct contact with oral or nasal secretions or by those secretions being coughed into the air. Infected persons who do not receive treatment are contagious from the appearance of the first symptom until 10-21 days after symptoms.

PHOTO'S OF COMMON RASH ILLNESSES

**MEASLES (Rubeola) 3<sup>rd</sup> day of rash**



**MEASLES (Rubeola)**



**RUBELLA (German Measles)**



**FIFTH DISEASE**



**CHICKENPOX (Varicella)**



**CHICKENPOX (Varicella)**



**STREPTOCOCCAL RASH (Scarlet fever)**



**STREPTOCOCCAL RASH (Scarlet fever)**



**LETTER TEMPLATES FOR RIVERSIDE COUNTY SCHOOLS AND DAYCARES**

Letter to Parents or Guardians  
To be used **ONLY** with permission of  
County of Riverside Department of Public Health  
Disease Control Branch

## Measles

Dear Parent or Guardian:

A child attending \_\_\_\_\_ is suspected of having measles. Measles is spread easily by air and direct contact. Your child may have been exposed and may be at risk for developing measles. This is especially true if your child has never had the disease or received **two doses** of measles vaccine. Measles is especially dangerous for infants under one year of age, pregnant women and immune compromised people, who have never had the vaccine.

### **Signs and Symptoms**

- Fever (101 degrees or more)
- Dry cough
- Coryza (runny nose)
- Conjunctivitis (red, inflamed eye/s)

A rash may develop about four days after the onset of the above mentioned symptoms. The red blotchy rash generally starts around the hairline or behind the ears, spreading down to cover the face, trunk, and extremities by the second day. The rash lasts about 4 days or more.

Symptoms can appear up to 21 days after exposure. Infected persons are contagious 4 days before the rash develops until 4 days after.

If your child develops any of these symptoms, keep him/her home and consult a physician. If the physician tells you to bring your child in, keep your child outside the office with adult supervision and come in for a mask for the child to wear. This will prevent further spread of the disease. Please notify Disease Control. Your child **must** remain at home for 4 days after the rash has started.

### **Prevention**

Current recommendations are that children be immunized against measles after 12 months of age and all school-aged children receive **two doses of measles containing vaccine**. This immunization is combined with the mumps and rubella vaccines (MMR) and usually given between 12 and 15 months of age. Children immunized **prior to twelve months** of age should be **re-immunized**. In addition, it is recommended that all undergraduate and graduate students at post-high school institutions receive two doses of MMR vaccine or provide proof of immunity before enrollment.

If your child is not protected against measles, please contact your physician or you can call 1 800 720-9553 to find the nearest Riverside County Health Systems Clinic.

For more information on this disease please contact, Disease Control at (951) 358-5107.

cc:

## Sarampión (Measles)

Estimados Padres o Guardián:

Un niño/a que atiende \_\_\_\_\_ es sospechado de haber contraído sarampión. Sarampión se desparrama fácilmente por el aire y contacto directo. Su hijo/a pudo haber sido expuesto/a y podrá estar al riesgo para contraer sarampión. Esto es especialmente cierto si su hijo/a nunca ha tenido la enfermedad o si no ha recibido **dos dosis** de la vacuna para sarampión. Sarampión es especialmente peligroso para infantes menores de un año de edad, mujeres embarazadas y personas inmunocomprometidas que nunca han tenido la vacuna.

### Señales y Síntomas

- Fiebre (grado 101 o más)
- Tos seca
- Secreción nasal o moqueo
- Conjuntivitis (ojos rojos e inflamados)

Un salpullido (erupción en todo el cuerpo) podrá desarrollarse como a cuatro días después del inicio de los síntomas mencionados arriba. El salpullido rojo generalmente empieza alrededor de la línea cabellera o por detrás de las orejas, esparramándose por la cara, el cuello y extremidades para el segundo día. El salpullido dura como 4 días o más.

Síntomas pueden aparecer hasta 21 días después de haber sido expuestos. Personas infectadas son contagiosas 4 días antes que el salpullido se desarrolla hasta 4 días después.

Si su hijo/a desarrolla cualquier de estos síntomas, manténgalo/a en casa y consulte a su médico. Si el médico le dice que traiga a su hijo/a la oficina, deje a su hijo/a afuera de la oficina con supervisión adulta y entre usted para que le den una máscara para su hijo/a usar. Esto es para prevenir desparrame adicional de la enfermedad. Su hijo/a **debe** permanecer en casa por 4 días después que el salpullido haya comenzado.

### Prevención

Recomendaciones actuales son que niños sean vacunados en contra de sarampión después de 12 meses de edad y todos niños de edad de escuela reciban **dos dosis de vacunas conteniendo sarampión**. Esta vacuna es combinada con la vacuna de paperas y rubéola (MMR) y usualmente dada dentro de 12 a 15 meses de edad. Niños vacunados **antes de 12 meses** de edad deberían ser **vacunados de nuevo**. Adicionalmente, es recomendado que todos niños escolares y estudiantes que se han graduado para entrar a instituciones de escuelas preparatorias reciban dos dosis de la vacuna MMR o que proveen prueba que son inmunes antes de ser registrados.

Si su hijo/a no está protegido/a en contra de sarampión, por favor llame a su médico o usted puede llamar a 1-800-720-9553 para encontrar la Clínica del Sistema de Salud del Condado de Riverside más cercana a usted.

Para más información sobre esta enfermedad, por favor póngase en contacto con Control de Enfermedades Contagiosas al (951) 358-5107.

cc: