

Mumps Investigation Guideline

CONTENTS

Investigation Protocol:

- **Investigation Guideline**

Investigation Forms / Documentation Worksheets:

- **General Investigation Form(s)**
- **Mumps Supplemental Form**

Supporting Material:

- **Sample Letter, Parent**
- **Sample Letter, Physician**
- **Fact Sheet**

Mumps

Disease Management and Investigative Guidelines

CASE DEFINITION (CDC 2008)

A. Clinical Description for Public Health Surveillance:

- An illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting ≥ 2 days, and without other apparent cause.

B. Laboratory Criteria for Case Classification:

- Isolation of mumps virus from clinical specimen, or
- Detection of mumps nucleic acid (e.g., standard or real time PCR assay), or
- Detection of mumps IgM antibody, or
- Demonstration of specific mumps antibody response in absence of recent vaccination, either a four-fold increase in IgG titer as measured by quantitative assays, or a seroconversion from negative to positive using a standard serologic assay of paired acute and convalescent serums.

C. Case Classification:

- Confirmed: A case that: 1) meets the clinical case definition or has clinically compatible illness, and 2) is either laboratory confirmed or is epidemiologically linked to a confirmed case.
- Probable: A case that meets the clinical case definition without laboratory confirmation and is epidemiologically linked to a clinically compatible case.
- Suspected: A case with clinically compatible illness or that meets the clinical case definition without laboratory testing or a case with laboratory tests suggestive of mumps without clinical information.

Comment: With previous mumps virus contact through natural infection or vaccination, mumps IgM test results may be negative; IgG test results positive and viral detection in RT-PCR or culture may have low yield. Interpret serologic tests with caution; false-positives and false-negatives are possible with IgM tests. Mumps cases cannot be ruled out by negative lab results alone.

D. Laboratory Testing:

- Collection: Two laboratory kits are available. Use Viral Transport Media (VTM) for culture or yellow topped blood tubes for serology.
- Specimen: Throat or buccal swab (culture) or Blood (serology)
- Remarks:
 - Specimens are not required to be sent to the State Public Health Laboratory (KDHEL); but they are equipped to test for mumps if requested. For testing to occur at the state laboratory, all case information should be reported to 1-877-427-7317.
 - Collect throat or buccal swab within 3 days of symptom onset.
- For additional information concerning collection, sample transport and laboratory kits call (785) 296-1620 or refer to online guidance at www.kdheks.gov/labs/packaging_and_shipping.html or http://www.kdheks.gov/labs/lab_ref_guide.htm.

E. Bioterrorism Potential: None.

F. Outbreak Definition:

- An outbreak is defined as ≥ 2 cases occurring within a 4-week period, or sustained transmission (i.e., ≥ 2 transmission cycles) occurring at a daycare, school, college or university.

INVESTIGATOR RESPONSIBILITIES

A. Investigation Related Tasks and Activities:

Note: Investigational activities should begin as soon as possible. Control measures must be initiated ≤ 24 hours of initial report.

- 1) Confirm diagnosis with appropriate medical provider.
 - Before contacting the patient, discuss what the patient has been told about his/her evaluation for disease.
 - Obtain information that supports clinical findings in the case definition and information on symptom onset. (i.e., duration of parotitis).
 - Obtain information on any laboratory tests performed and results.
 - If symptom onset was less than three days prior and culture tests have not been done, coordinate testing of throat or buccal swabs.
 - If more than three days have past since symptom onset and no laboratory tests have been done, coordinate serology testing for acute IgM and IgG and later for convalescent IgG (2-4 weeks after).
 - If patient hospitalized, obtain medical records, including admission notes, progress notes, lab report(s), and discharge summary.
- 2) Conduct case investigation to identify potential source of infection.
- 3) Conduct contact investigation to locate additional cases and/or contacts.
 - Determine if case is involved in a high-risk occupation or if another special situation is involved (i.e. school attendee, direct patient care).
- 4) Identify whether the source of infection may be of major public health concern, such as an under-immunized population within the community.
 - Distinguish between failure to vaccinate and vaccine failure.
- 5) Initiate control and prevention measures to prevent spread of disease.
 - Provide education that includes basic information about the disease and its complications and ways to treat and prevent transmission of illness, including instructions on the necessary isolation measures for cases.
 - Provide or assure that appropriate treatment and/or prophylactic measures were received by case(s) and/or contact(s).
 - If needed, work with appropriate administrative personnel to initiate work and school restrictions for high-risk cases and/or contacts (i.e., school or daycare provider/attendee, direct patient care provider).
 - Follow-up with case(s) and contacts to assure compliance with work and/or school restrictions.
 - Initiate active surveillance for a period of 21 days after the last known exposure to a case.
- 6) Report all confirmed, probable and suspect cases to the KDHE Office of

Surveillance and Epidemiology at KDHE (1-877-427-7317) within 4 hours of the initial report.

B. Notifications:

- 1) Report all cases by telephone to the Local Health Officer, the local on-call epidemiologist and KDHE (1-877-427-7317) within 4 hours of initial report.
- 2) As appropriate, use the notification letter(s) and the disease fact sheet to notify the case, contacts and other individuals or groups.

EPIDEMIOLOGY

Mumps occurs worldwide and is endemic year-round with peaks in the winter and spring. In the United States the incidence of mumps has declined significantly since the vaccine was introduced in 1967. In 1986-87 there was a resurgence of mumps nationwide due to the absence of national standard immunization requirements and vaccine failure. The incidence of reported mumps cases reported has declined steadily since then due to the 2-dose MMR vaccination policy. Outbreaks in vaccinated populations still occur and are usually linked to vaccine failure.

DISEASE OVERVIEW

A. Agent:

Mumps is a member of the Paramyxoviridae family, genus *Rabulavirus*.

B. Clinical Description:

An acute viral disease distinguished by fever and swelling of one or more of the salivary glands (e.g., parotid, sublingual or submandibular glands).

Asymptomatic cases occur in 20% of mumps infections. Additionally, 40-50% of cases may have only nonspecific or primary respiratory infections. Orchitis, usually unilateral, occurs in 20-30% of post-pubertal males and oophoritis in approximately 5% of post-pubertal females; sterility may occur but is extremely rare. Symptomatic meningitis occurs in up to 10% of cases. Pancreatitis, neuritis, arthritis, mastitis, nephritis, thyroiditis and pericarditis may occur.

Mumps infection during the first trimester of pregnancy may increase the rate of spontaneous abortion but there is no firm evidence that mumps during pregnancy causes congenital malformations.

C. Reservoirs: Humans.

D. Mode(s) of Transmission:

Direct contact with infected person, droplet spread and indirectly by fomites freshly soiled with the saliva of an infected person.

E. Incubation Period:

Range 14-21 days; average 18 days.

F. Period of Communicability:

The virus has been isolated from saliva from 7 days before overt parotitis and 9 nine days after. Maximum infectiousness occurs between 3 days before and 5 days after onset of illness with the initial day of swelling counted as day 0.

Exposed non-immune persons should be considered infectious from days 12-25 after exposure.

G. Susceptibility and Resistance:

Immunity is life-long and develops after clinical or inapparent infections. Adults born before 1957 are likely to have been infected naturally and are considered immune.

H. Treatment:

Supportive only.

STANDARD CASE INVESTIGATION AND CONTROL METHODS

Standard investigation activities include the following:

- 1) Confirmation of diagnosis using case definition.
- 2) Collection of demographic data (birth date, county, sex, race/ethnicity)
 - Length of time in U.S.
- 3) Collection of clinical and vaccine status data:
 - Symptoms, including parotitis or other salivary gland involvement
 - Date of illness onset and recovery, especially duration of parotitis
 - Complications: meningitis, deafness, encephalitis, orchitis, oophoritis, mastitis, pancreatitis
 - Hospitalizations, reason/mumps-associated and duration of stay
 - Outcomes: survived or date of death
 - Medications given and duration
 - Mumps vaccine: dates of vaccination, manufacturer, number of doses, and lot numbers or why not vaccinated
- 4) Determination of risk factors and transmission settings (i.e. transmission outside of household, further documented spread, travel outside of country)
- 5) Investigation of epi-links among cases (cluster, household, co-workers, etc).

Standard investigation **includes** completion of the General Investigation Form and Mumps Supplemental Form. Further investigative activity should include:

A. Case Investigation - Identify Potential Source of Infection:

Focus within the incubation period of 14-21 days prior to cough onset:

- Known exposure to another case within incubation period. Obtain dates of exposure, relationship to case, transmission setting, and name with date of birth of possible sources.
- Epi-links: With name and date of birth of possible sources search for previous reports filed with state. Note the state investigation ID number for cases previously reported. Highly suspected sources not previously reported should be investigated as a suspect case and reported.

B. Contact Investigation – Identify Exposed Individuals / Populations:

Consider those in contact with case 3 days before to 5 days after onset of swelling.

- Examine a case's occupation and activities; especially involvement with students and direct patient care.
- There are several types of contacts to consider when dealing with a mumps investigation, they include:

- General: Household and close contacts of a case.
- Daycare: All direct caregivers and classmates of a case.
- School: All close personal contacts, educators and classmates of case.
- Work: Coworkers sharing the same workspace of a case.
- Identify high-risk susceptible contacts of the case during infectious period; these include:
 - Pregnant women should be referred to their obstetrician.
 - Immunosuppressed individuals – referred to their healthcare provider.
 - Infants <12 months of age – referred to their pediatrician.
- Identify all other susceptible contacts. These are individuals without proof of immunity, including those with medical or religious exemptions to immunization. Proof of immunity is defined as:
 - Birth in the US before 1957
 - Serologic evidence of mumps immunity
 - Documentation of physician-diagnosed mumps
 - Documentation of ≥ 1 dose mumps containing vaccine on or after first birthday.
- Follow-up symptomatic contacts as cases.

C. Isolation, Work and Daycare Restrictions

- K.A.R 28-1-6 for Mumps:
 - Each infected person shall remain in respiratory isolation for five days from the onset of illness.
 - Each susceptible contact of an infected person in a school, day care facility, or family day care home shall be vaccinated within 24 hours of notification to the secretary or excluded from the school, child care facility, or family day care home until 26 days after the onset of the last reported illness in the school, child care facility, or family day care home.
- Hospital Settings: Recommend respiratory isolation and a private room are for cases for 5 days from onset of parotitis.
- School and child care settings
 - Exclude case for 5 days from onset date.
 - Susceptible contacts shall be vaccinated within 24 hours of notification or be excluded for 26 days after the onset of the last reported illness in the child care facility and/or school.
- Work Settings:
 - Exclude case from work for 5 days from onset date.
 - Exclude susceptible contacts from work from the 12th day after first date of exposure to the 25th day after the last date of exposure.

D. Case Management, Including Follow-up of cases:

- Case isolation inside a household is not usually feasible, but cases should still refrain from contact outside of the household for five days from the onset of illness.
- Initiate outbreak control measures appropriate to setting.
- If necessary, reference the [Kansas Community Containment Toolbox](#) for

templates concerning isolation measures.

- Follow-up to assure compliance with control measures (i.e., voluntary isolation) and work, school or daycare restrictions.

E. Contact Management, Including Protection of Contacts:

- Immunize all susceptible contacts immediately. Mumps vaccination has not been shown to be effective in preventing mumps in persons already infected but will prevent infection from subsequent exposures.
- Immune globulin (IG) is of no value as post-exposure prophylaxis and is not recommended.
- Provide education to susceptible contacts on the benefits of vaccination, incubation period and symptoms of disease and precautions to take if symptoms develop.
- Follow-up of contacts that have been excluded from daycare, school, or work is indicated to determine compliance of control measures.
- Monitor household and other close susceptible contacts for symptoms for 21 days after onset of the last confirmed or suspected case, even if immunized after contact, as new cases might still occur.
- Symptomatic contact meeting clinical case definition are a probable case; investigate and report to the state; initiate any work / school restrictions.

F. Environmental Measures:

- Disinfect utensils and fomites soiled with nasal and/or oral secretions as well as articles contaminated with urine.

G. Education:

- Discuss possible ovary and testicular involvement with post-puberty cases and possible CNS and pancreatic involvement with all cases.
- Counsel contacts to watch for signs or symptoms of mumps occurring within 21 days of exposure. Should symptoms develop, medical care should be sought promptly and appropriate specimens taken.

MANAGING SPECIAL SITUATIONS

A. Outbreak Investigation:

- Notify KDHE immediately, 1-877-427-7317.
- Active case finding will be an important part of any investigation.

B. School and Child Care Settings:

- Coordinate activities with school nurse and/or administration.
- Exclude case from setting for 5 days from onset date of parotitis
- Identify potential contacts based on patterns of interaction with case:
 - Classmates, roommates, educators and teammates are to be considered close contacts.
 - Home childcare: All children, the child-care provider and members of his/her family who have had contact with case are close contacts.
 - Other contacts are evaluated based on extent of exposure.

- Create listing(s) of close contacts; perform the following for each contact:
 - Evaluate for mumps illness.
 - Assess immunization status; i.e. vaccination or history of mumps
- Refer symptomatic contacts to health care providers for treatment and testing and exclude them from school from 5 days after onset of parotitis
- Refer susceptible contacts (children and staff) for mumps vaccination within 24 hours of notification or exclude susceptible contacts from the setting for 26 days after the onset of parotitis in the last person in the school who develops mumps.
- Maintain the log of who had symptoms and was referred for medical evaluation and/or testing and of contacts that required vaccination or exclusion. Follow-up to see outcomes of referrals and exclusions.
- Notify parents of close contacts of the case within 24 hours of receipt of the case report. The notice should advise the parents to:
 - Verify their child’s immunization status and bring it up to date within 24 hours of receiving notification.
 - Failure to comply with immunization requirements and/or antibiotic therapy may result in the child being excluded from school for 26 days after the onset of the last reported illness in the facility.
 - Advise them to report any mumps like illness occurring within 3 weeks of last contact with the case and seek medical care for diagnosis and appropriate treatment.
- Surveillance: Conduct active surveillance for 2 incubation periods (i.e., 50 days) after onset of the last case.
- Reference K.A.R. 28-1-20 for immunization requirements for the current school year; on-line at: <http://www.kdheks.gov/immunize/schoolInfo.htm>

C. Health Care Setting:

- Isolation of patients
 - Cases should be placed on droplet precautions through 5 days after onset of parotid swelling (counting the day of onset as day 0). They may be taken off precautions on the 6th day.
 - Exposed susceptible contacts should be placed on droplet precautions from the 12th day after their first exposure through the 25th day after their last exposure. Precautions may be removed on day 26.
- Exclusion of staff
 - Adequate mumps vaccination for health-care workers born during or after 1957 consists of 2 doses of a live mumps virus vaccine. Health-care workers with no history of mumps vaccination and no other evidence of immunity should receive 2 doses (at a minimum interval of 28 days between doses). Health-care workers who have received only 1 dose previously should receive a second dose.
 - Because birth before 1957 is only presumptive evidence of immunity, health-care facilities should consider recommending 2 doses of a live mumps virus vaccine for unvaccinated workers born before 1957 who do not have a history of physician-diagnosed mumps or laboratory

- evidence of mumps immunity.
- Personnel who become sick should be excluded from work through 5 days post parotid swelling onset. They may return on the 6th day.
- Exposed susceptible personnel should be excluded from the 12th day after their first exposure through the 25th day after their last exposure.
- Conduct active surveillance for 2 incubation periods (i.e., 50 days) after onset of the last case.

DATA MANAGEMENT AND REPORTING TO THE KDHE

- A.** Organize, collect and report data with the “General Investigation Form(s)” and “Mumps Supplemental Form.”
- B.** Report data electronically via KS-EDSS or by fax, include:
 - At a minimum, data that was collected during the investigation that helps to confirm or classify a case. (For epi-linked cases, please include the KS-EDSS investigation ID of the related case.)
 - All information collected on the General Investigation and supplemental forms.

ADDITIONAL INFORMATION / REFERENCES

- A. **Treatment / Differential Diagnosis:** American Academy of Pediatrics. 2006 Red Book: Report of the Committee on Infectious Disease, 27th Edition. Illinois, Academy of Pediatrics, 2006.
- B. **Epidemiology, Investigation and Control:** Heymann. D., ed., Control of Communicable Diseases Manual, 18th Edition. Washington, DC, American Public Health Association, 2004.
- C. **Case Definitions:** CDC Division of Public Health Surveillance and Informatics, Available at: http://www.cdc.gov/ncphi/diss/nndss/casedef/case_definitions.htm
- D. **Quarantine and Isolation:** Kansas Community Containment Isolation/ Quarantine Toolbox Section III, Guidelines and Sample Legal Orders <http://www.waldcenter.org/Quarantine%20and%20Isolation%20Information%20for%20Health%20Officers.pdf>
- E. **Kansas Regulations/Statutes Related to Infectious Disease:** <http://www.kdheks.gov/epi/regulations.htm>
- F. **Updated Recommendations** of the Advisory Committee on Immunization Practices (ACIP) for the Control and Elimination of Mumps. MMWR, June 9, 2006: Vol 55; 629-630. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5522a4.htm?s_cid=mm5522a4_e
- G. **Pink Book:** Epidemiology and Prevention of Vaccine-Preventable Diseases. Available at: <http://www.cdc.gov/vaccines/pubs/pinkbook/default.htm>
- H. **Manual for the Surveillance of Vaccine-Preventable Diseases:** Available at: <http://www.cdc.gov/vaccines/pubs/surv-manual/default.htm> .
- I. **Additional Information (CDC):** <http://www.cdc.gov/health/default.htm>

Kansas Disease Investigation Guidelines

General Investigation Form

Investigation Information		
Case Type: <input type="checkbox"/> Human Case <input type="checkbox"/> Non-human Case	Disease Name: _____	
Classification: <input type="checkbox"/> Suspect <input type="checkbox"/> Probable <input type="checkbox"/> Confirmed	KS-EDSS Investigation ID: _____	
Outbreak: <input type="checkbox"/> Yes <input type="checkbox"/> No	Outbreak Name: _____	Outbreak #: _____
Onset Date: _____	Diagnosis Date: _____	Report Date: _____
Assigned to (Investigator): _____	Patient Died: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Patient Information		
Name Type: <input type="checkbox"/> Default/Common <input type="checkbox"/> Legal <input type="checkbox"/> Maiden <input type="checkbox"/> Nickname		
Last: _____	First: _____	Middle: _____
Street: _____	City/State: _____	Zip: _____
Evening Phone #: _____	Daytime Phone #: _____	
Sex: <input type="checkbox"/> Failure to Report <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Other <input type="checkbox"/> Transexual <input type="checkbox"/> Unknown		
Race: <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian or Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Unknown		
Hispanic / Latino Ethnicity: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Date of Birth: _____	Age: _____	Age Unit: <input type="checkbox"/> Days <input type="checkbox"/> Weeks <input type="checkbox"/> Months <input type="checkbox"/> Years
Parent Information (if under 18)		
Last: _____	First: _____	Middle: _____
Street: _____	City/State: _____	Zip: _____
Evening Phone #: _____	Daytime Phone #: _____	
Work / Occupation or School / Grade		
Worksites / School: _____		
Occupations / Grade: _____		
Travel History		
1st	Destination: _____	Depart Date: _____ Return Date: _____
2nd	Destination: _____	Depart Date: _____ Return Date: _____
3rd	Destination: _____	Depart Date: _____ Return Date: _____
4th	Destination: _____	Depart Date: _____ Return Date: _____

Supplemental Laboratory Report Form

Lab Reports

Laboratory Name: _____

Lab Report Date: _____

Ordering Provider Name: _____

Phone: _____

Facility: _____

Specimen Accession Number: _____

Specimen Collection Date: _____

Organism Name: _____

Organism Species: _____

Organism Serogroup: _____

Organism Serotype: _____

PFGE Results

Pattern 1 KS: _____

Other State: _____

CDC: _____

Pattern 2 KS: _____

Other State: _____

CDC: _____

Pattern 3 KS: _____

Other State: _____

CDC: _____

Additional Results Information

Reported Test Name:

Coded Result:

Text Result:

Numeric Result:

Comments:

Supplemental Contact Form

Contacts

Last: _____ **First:** _____ **Middle:** _____

Street: _____ **City/State:** _____ **Zip:** _____

Evening Phone #: _____ **Daytime Phone #:** _____ **E-mail:** _____

Sex: Failure to Report Female Male Other Transexual Unknown

Race: American Indian or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Unknown

Hispanic / Latino Ethnicity: Yes No

Date of Birth: _____ **Age:** _____ **Age Unit:** Days Weeks Months Years

Worksites / School: _____

Occupations / Grade: _____

Exposure Information

Contact Type: Household Sexual Other: _____ **Partner / Cluster Code:** _____

Date of First Exposure: _____ **Date of Last Exposure:** _____ **Frequency:** _____

Nature of Exposure: _____ **Comments:** _____

Testing and Treatment Information

Clinic Code: _____ **Examination Date:** _____

Examination Test: _____ **Examination Result:** _____

Prophylaxis/empiric treatment date: _____ **Drug / Dosage:** _____

Provider (Name / Facility): _____

Disposition and Diagnosis Information

Initiation Date: _____ **Disposition Date:** _____ **Disposition:** _____

Diagnosis: _____ **Referral Type:** Patient Provider **Post-test Counseled :** Yes No

Currently Assigned To: _____ **Follow-up Date:** _____

Risk Factors

Pregnant: Yes No **If Yes, # of Weeks:** _____

Risk factors for complications in contact: None Pregnant Woman HIV Seropositive Unimmunized Index case is a super-spreader

Child younger than 5 Age > 65 Otherwise immunosuppressed (s/p transplant, high dose steroids, etc)

Mumps Supplemental Form

Kansas Department of Health

Epidemiologic Case History

* indicates required fields

Case Type* <i>Human Case Non Human Case</i>	Classification* <i>Confirmed Not a Case Probable Suspect Deleted Unknown</i>
--	---

Supplemental Form Status <i>Not Done Form Complete Form in Progress Form Approved Form Sent to CDC</i>
--

Report Date* <small>mm/dd/yyyy</small>
--

Patient Demographic Information

* indicates required fields

Last Name*	First Name*	Middle Name	Name Type*	Age
-------------------	--------------------	--------------------	-------------------	------------

Age Unit <i>Days Weeks Months Years</i>	Date of Birth <small>mm/dd/yyyy</small>
--	---

Race* <small>(Check all that apply)</small>			
<i>American Indian or Alaska Native</i>	<i>Asian</i>	<i>Black or African American</i>	
<i>Native Hawaiian or Other Pacific Islander</i>	<i>White</i>	<i>Unknown</i>	

Ethnicity* <i>Hispanic or Latino Not Hispanic or Latino Unknown</i>

Sex* <i>Failure to Report Female Male Other Transexual Unknown</i>

Street Address

City	County	State	Zip
-------------	---------------	--------------	------------

Evening Phone <small>###-###-####</small>	Daytime Phone <small>###-###-####</small>
---	---

Occupation

Person Providing Report

Name of Reporting Facility*

Clinical Data

Parotitis? <i>Yes No Unknown</i>	Duration
--	-----------------

Notes

Complications

Fever? <i>Yes No Unknown</i>	If yes, highest temperature	Meningitis? <i>Yes No Unknown</i>	Deafness? <i>Yes No Unknown</i>
Orchitis? <i>Yes No Unknown</i>	Oophritis? <i>Yes No Unknown</i>	Pancreatitis? <i>Yes No Unknown</i>	Encephalitis? <i>Yes No Unknown</i>
Death? <i>Yes No Unknown</i>	Was patient hospitalized? <i>Yes No Unknown</i>		Days Hospitalized <small>(0-998; 999=Unknown)</small>
Other Complications? <i>Yes No Unknown</i>		If Yes, Please Specify:	

Vaccine History

Vaccinated?
(Received mumps-containing vaccine?)

Yes No Unknown

Vaccination Date	Vaccine Type	Vaccine Manufacturer	Lot Number	Number of doses received ON or AFTER 1st birthday
<i>mm/dd/yyyy</i>	<i>Select One</i>	<i>Select One</i>		

If Not Vaccinated, What was The Reason?

<i>Religious Exemption</i>	<i>Medical Contraindication</i>	<i>Philosophical Objection</i>
<i>Lab Evidence of Previous Disease</i>	<i>MD Diagnosis of Previous Disease</i>	<i>Under Age For Vaccination</i>
<i>Parental Refusal</i>	<i>Other, Specify _____</i>	<i>Unknown</i>

Epidemiologic

Transmission Setting

(Where did this case acquire mumps?)

<i>Daycare</i>	<i>School</i>	<i>Doctor's Office</i>	<i>Hospital Ward</i>	<i>Hospital ER</i>
<i>Hosp. outpatient clinic</i>	<i>Home</i>	<i>Work</i>	<i>Unknown</i>	<i>College</i>
<i>Military</i>	<i>Correctional Facility</i>	<i>Church</i>	<i>International Travel</i>	<i>Other</i> _____

Were Age and Setting Verified

(Is age appropriate for setting, i.e. aged 49 years and in day care, etc.)

Yes *No* *Unknown*

Specify Other Transmission Setting

(If transmission setting not listed, provide here)

Source of Exposure For Current Case

(Enter State ID if source was an in-state case; Enter State if source was out-of-state; Enter Country if source was out of US.)

Epi-linked to Another Confirmed or Probable Case

Yes *No* *Unknown*

Case ID of epi-linked case

Date:

Dear Parent:

A child who attends _____ has been recently diagnosed as having mumps. The risk of other children getting mumps depends on the age of the exposed children and the vaccine coverage among children at the facility.

We are recommending all children be up-to-date on their mumps vaccination. A review of your child's immunization records has determined that your child does _____ does not _____ need to receive the mumps vaccine.

Children that need to receive the mump vaccine must do so within 24 hours. Any child needing a mumps vaccine that does not receive one will be excluded from the facility until 26 days after the last reported illness.

Children that are sick with mumps or develop mumps are required to be kept home for 5 days after the illness begins. The facility administrator will tell you when it is time to bring your child back to the facility.

An information sheet on mumps is enclosed. If you have additional questions, please contact your physician or the Health Department.

Sincerely,

Investigator Name, Title

Phone #

Address Line 1

Address Line 2

City, State Zip Code

Date:

Dear Dr. _____,

A case of *mumps* has been diagnosed in a child at _____.
We are also recommending that children be up-to-date with their MMR
immunization(s). Please be alert to the presence of this disease in our
community. If you have any questions, please contact the Health Department.

Sincerely,

Investigator Name, Title

Phone #

Address Line 1

Address Line 2

City, State Zip Code

Public Health Fact Sheet

Mumps

What is Mumps?

Mumps is viral disease often associated with fever, swelling and tenderness of one or more of the salivary glands.

What are the symptoms?

Symptoms include: swollen and tender salivary glands, usually one or both glands near the ear and the back of the jaw; however, as many as 1/3 of people with mumps do not have enough swelling to show. Additional symptoms include: fever, headache, stiff neck and loss of appetite. Although mumps is more common in children than in adults, it is more likely to cause serious problems in adults. Symptoms most often appear 2-3 weeks after a person is exposed.

How is Mumps spread?

The virus that causes mumps is found in the nose, mouth, and throat, and is sprayed into the air when an infected person sneezes, coughs, or talks. Other people nearby can then inhale the virus. Touching a tissue or sharing a cup or eating utensils used by someone with mumps can also spread the virus. People with mumps are contagious from 7 days before until 9 days after their glands start swelling.

Who gets Mumps?

Although older people may contract the disease, mumps usually occurs in children between the ages of 5-15. The greatest risk of infection occurs among older children.

How is it diagnosed?

Mumps is most often diagnosed by its symptoms, but this is not always reliable. There is also a blood test for the disease.

How is Mumps treated?

There are no specific treatments for mumps, but supportive Care should be given as indicated

How can you prevent Mumps?

The single most effective control measure is maintaining the highest possible level of immunization in the community. In addition, children should not attend school during their infectious period.

- Protect your children by having them vaccinated when they are 12-15 months old, and again when they are about to enter kindergarten. Mumps vaccine is usually given in a shot called MMR, which protects against measles, mumps and rubella.

This fact sheet is for information only and is not intended for self-diagnosis or as a substitute for consultation. If you have any questions about the disease described above or think that you may have an infection, consult with your healthcare provider. This fact sheet is based on the Centers for Disease Control and Prevention's Health and Safety topic fact sheets.

- State regulations require certain groups to be vaccinated against mumps. Any student entering a Kansas school is required by law to have proof of at least 2 doses of mumps vaccine or to have written evidence of physician diagnosed mumps or blood test results proving they are immune. All children, who are ≥ 15 months and attending a child care facility, family day care home or preschool or child care program operated by a school, are required by law to have proof of 1 dose of MMR vaccine.

Are there any other health regulations for people with Mumps?

Yes, children with mumps and those that have not received a MMR vaccine may be excluded from school and/or daycare if the disease is present in the community.

Where can you get more information?

- Your Local Health Department
- Kansas Department of Health and Environment, Epidemiologic Services Section at (877) 427-7317
- <http://www.cdc.gov/health/default.htm>
- Your doctor, nurse, or local health center

This fact sheet is for information only and is not intended for self-diagnosis or as a substitute for consultation. If you have any questions about the disease described above or think that you may have an infection, consult with your healthcare provider. This fact sheet is based on the Centers for Disease Control and Prevention's Health and Safety topic fact sheets.