



State of New Jersey

DEPARTMENT OF HEALTH AND SENIOR SERVICES
DIVISION OF EPIDEMIOLOGY, ENVIRONMENTAL AND OCCUPATIONAL HEALTH
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February 16, 2010

Dear Colleague:

State and local health departments, in collaboration with the Centers for Disease Control and Prevention (CDC), continue to investigate a mumps outbreak that began in June 2009. As of January 29, 2010, several counties in New York and New Jersey report 1,521 outbreak-associated mumps cases. This mumps outbreak is the largest since 2006 and primarily has affected a tradition-observant religious community.

The New Jersey Department of Health and Senior Services (NJDHSS) is requesting that all medical, public health and educational providers as well as community and religious leaders assist in controlling this ongoing outbreak. We ask that you:

1. Ensure that all individuals living in and interacting with communities with ongoing mumps transmission are age-appropriately vaccinated including adults working in medical offices and school settings. During outbreaks:
 - a. Administer one or two doses of measles-mumps-rubella (MMR) vaccine, as appropriate, to adults whose vaccination status is unknown or who have not received the number of MMR doses recommended by the Advisory Committee on Immunization Practices and
 - b. Ensure children receive the first dose of MMR at 12 months of age. Consider administering the second dose of MMR vaccine to children aged 13 months to 4 years who have received one dose instead of waiting to administer at 4 – 6 years of age. The second shot should be given a minimum of four weeks after the first.
2. Keep suspected mumps cases home for **5 days** following onset of parotitis or other clinically compatible symptoms. Symptomatic individuals must be excluded from schools and dormitories for 5 days.
3. Ensure that all individuals engage in appropriate hand and respiratory hygiene.
4. In health care settings, place suspected mumps cases on standard and respiratory droplet precautions immediately. Symptomatic individuals should be separated from others by 3 – 6 feet and be asked to wear a face mask.
5. Obtain clinical specimens (serum and buccal swabs) for diagnostic testing.
6. Exclude susceptible students (those who are not age appropriately vaccinated and those with a medical or religious exemption to vaccination) from school from day 12 through and including day 25 after exposure.
7. Report all SUSPECTED cases of mumps to the local health department within 24 hours or to the NJ Department of Health and Senior Services Vaccine Preventable Disease Program (VPDP) at 609-826-4860. Contact information for your local health department is available at <http://www.state.nj.us/health/lh/directory/lhdselectcounty.shtml> .

Attached please find the February 12 Morbidity and Mortality Weekly Report titled Update: Mumps Outbreak - New York, New Jersey, June 2009 – January 2010 describing the ongoing mumps outbreak involving multiple locations. The majority of cases and exposures in New Jersey have occurred in Ocean County; however, other counties including Essex, Passaic, Bergen, Hudson and Morris Counties have been impacted as well. The MMWR is available on the CDC website at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5905a1.htm> .

Despite the institution of control measures, the outbreak has grown significantly since previously reported. In the MMWR Dispatch released on November 12, 2009, 179 confirmed or probable cases had been identified and reported from June 2009 – October 30, 2009. The MMWR Dispatch is available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58d1112a1.htm>.

Community transmission outside of congregate settings (e.g., camps, schools, and colleges) is unusual in highly-vaccinated populations. In this outbreak, the limited transmission of mumps into the general population might be attributable to generally high vaccination levels and little interaction between members of the affected religious community and persons in surrounding communities. However, mumps incidence commonly peaks in the winter months, and vaccine-preventable diseases have spread from religious communities to the general population during the peak transmission season.

Clinical Illness

Mumps is an illness characterized by acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting 2 or more days, without other apparent cause. The infectious period for mumps is 2 days before onset of symptoms to 5 days after symptoms appear. The incubation period for mumps from exposure to onset of illness ranges from 12 to 25 days. Other less common manifestations of mumps include viral meningitis/encephalitis, orchitis, oophoritis, pancreatitis, and sensorineural hearing loss.

Mumps Vaccination

Mumps vaccine should be given to children at 12 months of age with a second dose at 4 -6 years of age. Consideration should be given to administering the second dose of MMR vaccine, at least 28 days after the first dose, to children ages 13 months – 4 years living in communities with ongoing mumps transmission. Individuals not fully vaccinated against mumps are at highest risk of infection. Only healthcare provider-documented doses of MMR vaccine are considered valid. If you are unsure of the vaccination status of an adult or pediatric patient, it is recommended that you administer another dose to ensure he/she is fully immunized. There is no evidence that having more than 2 doses of MMR is harmful.

Although many case-patients have received one or two doses of mumps-containing vaccine, the vaccine remains effective and the best protection against disease. Mumps vaccine effectiveness has been estimated at 73 - 91% for 1 dose and 76 - 95% for 2 doses. Studies during 2006 U.S. mumps resurgence suggested that outbreaks could occur among highly-vaccinated populations such as college students, where frequent close contact occurs and where > 10 years have passed since most of the population received a second dose. However, even in such settings, attack rates were <8% in 2006 for those with 2 doses, suggesting that the vaccine was highly effective in preventing disease for the vast majority of those exposed. It is not known if a third dose of mumps-containing vaccine will provide additional protection although a CDC study is underway to evaluate the potential benefits of a third dose. At this time, administration of a third dose of mumps-containing vaccine is not recommended for those individuals with 2 documented doses of vaccine.

Contacts of mumps cases

Mumps is spread via large respiratory droplets. Non-immune close contacts are at risk for developing mumps and should be isolated at home for the incubation period from day 12 through day 25 after exposure and should NOT attend school or work. Although vaccination is not considered effective as post-exposure prophylaxis against mumps, MMR vaccine should be administered to eligible close contacts (including household members) who do not have documentation of one or two live mumps-containing vaccinations, as age appropriate, to protect against subsequent exposures.

Exclusion of susceptible students, teachers and administrative staff from schools/colleges (or other congregate settings as determined in collaboration with the local health department) affected by a mumps outbreak should be considered among the means to control mumps outbreaks. Once vaccinated, students can be readmitted to school. However, one should exercise caution in allowing students who may have been exposed to enter settings not yet impacted by the outbreak since the vaccine will not prevent disease in those already incubating the illness. Students who have been exempted from mumps

vaccination for medical, religious, or other reasons should be excluded until at least 26 days after the onset of parotitis in the last person with mumps in the affected school. Consult the local health department or NJDHSS VPDP for guidance.

Infection Control

Individuals with suspected mumps disease must be isolated for 5 days following the onset of symptoms compatible with mumps disease.

In healthcare settings, providers should institute standard and droplet precautions. Exposed healthcare workers who do not have evidence of immunity at the time of exposure should be furloughed from day 12 through and including day 25 after exposure. Healthcare workers born during or after 1957 can be considered immune if they have received two doses of a live mumps-containing vaccine, if they have laboratory evidence of immunity or laboratory confirmation of disease. Although birth before 1957 is generally considered acceptable evidence of immunity, healthcare facilities should also require similar evidence of immunity for these healthcare workers, especially during an outbreak. Please note that vaccinated individuals with documented IgG mumps antibody prior to exposure may still develop mumps disease. Regardless of vaccination or serologic status, anyone with an illness compatible with mumps must be excluded for 5 days following the onset of parotitis. The CDC is currently investigating serologic correlates of immunity.

In all settings, hand hygiene and respiratory etiquette should be stressed in order to prevent the spread of mumps as well as other pathogens. Individuals should have access to appropriate hand washing facilities and/or hand sanitizers. Tissues with appropriate disposal receptacles should be available. We encourage everyone to place hand hygiene posters in public venues. Hand washing materials are available on the NJDHSS website at <http://www.state.nj.us/health/cd/handwashing.shtml>.

Laboratory testing

Serum specimens for mumps IgM and IgG titers should be collected on all suspect mumps cases. A buccal swab for viral specimens should be collected at the time of acute presentation, up to 6 days after the onset of parotitis. Viral specimens should be taken using a Dacron swab and placed in viral transport media. Specimens should be refrigerated (at 4 degrees Celsius); if viral specimens are going to be held for more than 24 hours prior to transport, they should be frozen at – 70 degrees Celsius and shipped frozen on dry ice. Please contact the local health department or NJDHSS Vaccine Preventable Disease Program for assistance with transport to the Public Health and Environmental Laboratories.

Laboratory tests may be difficult to interpret in individuals who have been vaccinated. Vaccinated individuals may not develop a classic IgM response even though they have symptoms compatible with acute illness. Although a single test might not be diagnostic, a four-fold rise between acute- and convalescent-phase titers in serum mumps IgG antibody level by any standard serologic assay would be helpful for confirmation.

Reporting

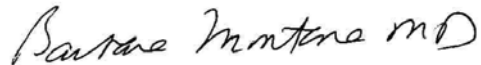
All suspected cases of mumps must be reported within 24 hours of diagnosis as per N.J.A.C 8:57, which can be accessed at: <http://nj.gov/health/cd/izdphome.htm>. Please report all suspected and confirmed cases to your local health department within 24 hours. If unable to reach the local health department, notify the NJDHSS Vaccine Preventable Disease Program (VPDP) (during regular business hours) at (609) 826- 4860. If after-hours or on the weekend, call NJDHSS at (609) 392-2020. If mumps is suspected, the VPDP can offer guidance on the appropriate clinical specimens to obtain and facilitate transport of specimens to the Public Health and Environmental Laboratories (PHEL), as appropriate.

Do NOT wait for laboratory confirmation to report or to isolate symptomatic individuals. Report all clinically compatible cases of mumps whether or not laboratory testing is done and without regard for results, as available diagnostic tests can NOT rule out mumps among those with compatible symptoms. In addition, laboratory tests can be difficult to interpret in those individuals who have been vaccinated. Vaccinated individuals may not develop a classic IgM response even though they have symptoms compatible with acute illness. Although a single test might not be diagnostic, a four-fold rise between

acute- and convalescent-phase titers in serum mumps IgG antibody level by any standard serologic assay would be helpful for confirmation.

We are asking all our partners to remain vigilant whenever an individual has clinical illnesses compatible with mumps regardless of vaccination status. Only by working together can we effectively control this ongoing outbreak. We thank you in advance for your assistance.

Respectfully,



Barbara Montana, MD, MPH, FACP
Medical Director
Communicable Disease Service

Additional information on mumps can be found at:

Centers for Disease Control and Prevention
Specimen collection and management:
<http://www.cdc.gov/mumps/clinical/qa-specimen-collect.html>

and

http://www.cdc.gov/mumps/downloads/detection_IL.pdf

General mumps information:

<http://www.cdc.gov/mumps/index.html>

MMWR

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5905a1.htm>

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58d1112a1.htm>

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www.state.nj.us/health

Directory of local health departments in NJ

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