

Date: April 19, 2006

*Joint Statement from the American College Health Association and Centers for Disease Control and Prevention (CDC)*

## **Multi-State Mumps Outbreak Alert**

### **BACKGROUND:**

The state of Iowa has been experiencing a large outbreak of mumps that began in December 2005 (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5513a3.htm>). As of April 12, 2006, 605 suspect, probable and confirmed cases have been reported to the Iowa Department of Public Health (IDPH). The majority of cases are occurring among persons 18-25 years of age, many of who are vaccinated and are on college campuses. The first reported cases in Iowa were among college students and mumps cases have been identified in college students in at least one other state. Cases of mumps are under investigation in 8 neighboring states, including Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin (<http://www.phppo.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00243>).

Although the source of the current U.S. outbreak is unknown, the mumps viral strain has been identified as genotype G, a common genotype circulating in the United Kingdom (UK) and globally. A large outbreak is ongoing in the UK primarily affecting unvaccinated young adults (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5507a1.htm>).

### Mumps Disease

Mumps is an acute viral infection characterized by a non-specific prodrome including myalgia, anorexia, malaise, headache, and fever, followed by acute onset of unilateral or bilateral tender swelling of parotid or other salivary glands. In unvaccinated populations, an estimated 30%-70% of mumps infections are associated with typical acute parotitis. However, as many as 20% of infections are asymptomatic and nearly 50% are associated with non-specific or primarily respiratory symptoms, with or without parotitis. Complications of mumps infection can include deafness, orchitis, oophoritis, or mastitis (inflammation of the testicles, ovaries, or breasts respectively), pancreatitis, meningitis/encephalitis, and spontaneous abortion. With the exception of deafness, these complications are more common among adults than children.

Transmission of mumps virus occurs by direct contact with respiratory droplets, saliva or contact with contaminated fomites. The incubation period is generally 16-18 days (range 12-25 days) from exposure to onset of symptoms. Mumps virus has been isolated from saliva from between 2 and 7 days before symptom onset until 9 days after onset of symptoms. Post-high school educational institutions such as colleges and universities are at increased risk for mumps transmission because these communities are highly mobile yet tend to concentrate large numbers of persons in living, learning, and social environments. In addition, interactions of students during sporting or other inter-collegiate events and mass mobilization of students during holidays (e.g., spring break in March and April) are opportunities for transmission among college students from geographically diverse parts of the country and world.

### **RECOMMENDATIONS:**

#### Mumps Prevention

Because undergraduate and graduate students, faculty, and health care and other workers in colleges and other post-high school educational institutions may be at increased risk of acquiring mumps, they should receive two doses of MMR vaccine or provide other evidence of mumps immunity (physician diagnosis or laboratory evidence) (<http://www.cdc.gov/mmwr/preview/mmwrhtml/00053391.htm>). The effectiveness of MMR against mumps is approximately 80% after one dose and approximately 90% after two doses (<http://www.phppo.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00243>). Because the vaccine is not 100% effective, some cases can occur in vaccinated persons.

### Mumps Control

The main strategy for controlling a mumps outbreak is to define the at-risk population and transmission setting, to prevent further transmission of cases through isolation, and to protect susceptible populations with vaccination (<http://www.cdc.gov/mmwr/preview/mmwrhtml/00053391.htm>). Specific recommendations for colleges and other post-high school educational institutions are to:

1. Rapidly identify susceptible persons and vaccinate with up to two doses of MMR. Susceptible persons may include undergraduate and graduate students, faculty, and health care and other workers in colleges and other post-high school educational institutions without evidence of mumps immunity (physician diagnosis or laboratory evidence). Although birth before 1957 is usually considered proof of immunity, during an outbreak, one dose of vaccine can be considered for this age group if the epidemiology of the outbreak suggests that they are at increased risk of disease. Once vaccinated, persons, including health care workers, can be readmitted to school or work.
2. Exclude susceptible persons from school or work to prevent exposure and transmission if a contraindication to MMR vaccine exists. Exclusion of those that remain susceptible should be from the 12<sup>th</sup> day after the first exposure through the 26<sup>th</sup> day after the last exposure (onset of parotitis) in the affected institution.
3. Identify and test suspected cases for mumps and report cases to the local public health agency. Information on collection and testing of clinical specimens for mumps is available at <http://www.cdc.gov/nip/diseases/mumps/default.htm#lab>.
4. Isolation of persons having mumps for 9 days after symptom onset is very important to prevent transmission on a college campus. Efforts should be made to assure ill persons stay confined to their residence hall room and/or home. In health care settings, the use of droplet precautions is recommended.

Additional information on mumps prevention and control can be found at <http://www.cdc.gov/nip/diseases/mumps/default.htm>.

Colleges and other post-high school educational institutions should check with the local public health agency for additional information specific to their jurisdiction.