Not “just” the mumps: the rising burden of mumps in the US and how public health is responding
Nakia Clemmons, Mariel Marlow, Chas DeBolt, Rebecca McNall

Session I2

Summary of Topic:
This goal of this session is to provide an update on US mumps epidemiology, CDC guidance, and health department insights for implementing the recent ACIP recommendation for use of a third MMR dose during outbreaks. In addition, of the use of molecular epidemiology to understand mumps transmission will be presented.

Description of Session:
Nakia Clemmons (CDC/NCIRD/DVD) – “Update on the epidemiology of mumps in the United States”
Mumps outbreaks are on the rise, with 150 outbreaks reported from Jan 2016–June 2017. Current US mumps cases and the epidemiology of recent mumps outbreaks will be presented.

Mariel Marlow (CDC/NCIRD/DVD) – “The recent ACIP recommendation and CDC guidance on use of a third dose of MMR vaccine during outbreaks”
In October 2017, ACIP recommended the use of a third dose of MMR vaccine for two dose-recipients in a group identified by public health as being at increased risk for mumps because of an outbreak. New CDC guidance on implementation of a third MMR dose recommendation will be presented.

Chas DeBolt (Washington State Department of Health) – “The use of molecular sequencing data to identify concurrent mumps outbreaks and support a targeted third dose of MMR vaccine recommendation among university students in Washington State”
From October 2016 through August 2017 nearly 900 mumps cases were reported Washington. Specimens were regularly selected for sequencing based on unique epidemiologic characteristics. Sequencing results allowed identification of multiple concurrent outbreaks, including a distinct outbreak on a university campus. To implement a third dose of MMR recommendation during an outbreak, health departments must first identify and define the group of persons at increased risk. A third dose recommendation was made for identified at risk social groups in the university outbreak, while no similar recommendation was made related to the larger community outbreak. Challenges and lessons learned will be presented.

Rebecca McNall (CDC/NCIRD/DVD) – “Use of sequencing techniques for mumps surveillance and outbreak investigation”
Use of sequencing to inform mumps surveillance and outbreak investigation has only recently been applied. As the majority of recent mumps infections in the US are caused by one genotype of mumps virus. Increasing the amount of sequence data obtained from mumps cases can increase the resolution of molecular methods to provide greater discrimination between mumps strains associated with different outbreaks. How sequencing methods are being used for current outbreaks and the potential use of whole genome sequencing will be discussed.