SLO Public Health Laboratory Bulletin

November 2009

Pandemic H1N1 2009 Influenza virus

Transmission of the pandemic H1N1 2009 influenza virus continues in the midst of the initiation of a broad vaccination program. We encourage all submitters to **STOP USING THE STATE LAB FORM AND BEGIN USE OF THE NEW SLO LABORATORY REQUISITION**. The form can be downloaded from the Public Health Department's website :http://www.slocounty.ca.gov/Assets/PH/Communicable+Disease/Swine+Flu/Clinician+Information/Swine+Flu+Specimen+Submittal+Form.pdf.

- The San Luis Obispo Public Health Laboratory will continue to perform Influenza virus reverse transcription polymerase chain reaction (RT_PCR) to detect influenza A and B viruses and seasonal H1/H3 subtyping. If our laboratory reports "Influenza virus type A positive, non-subtypable" you can assume that we are detecting the Pandemic H1N1 2009 influenza virus. At this point the pandemic virus has virtually replaced the usual seasonal type A H1 and H3 strains. Seasonal H1 and H3 strains have not been detected by the SLO PH lab this fall.
- No fees will be charged for patients with influenza-like illness who require hospitalization or who have died. Specimens with type A positive, non-subtypable results are being referred to the state laboratory for confirmation. SLO Public Health communicable disease staff are authorizing no charge testing for institutions that may be experiencing influenza virus transmission.
- A new PCR platform has been installed and training at the State lab is scheduled. With this new thermocycler, it is expected the SLO Public Health Laboratory will be able to perform the CDC confirmatory PCR for the pandemic virus before the end of 2009.

Call 805-781-5512, Dr James Beebe if additional information is required.

What else does a public health laboratory do besides flu testing?

While pandemic H1N1 influenza virus testing takes center stage recently, the San Luis Obispo Public Health Laboratory conducts a variety of testing services in other areas.

Water testing services include testing of **drinking, waste and ocean water** are provided by the SLO PH lab for water districts, the county environmental health division, and other agencies to ensure that regulatory standards are met. However, the SLO PHL also tests **shellfish and shellfish-growing ocean wate**r to verify that shellfish such as mussels and oysters grown at a number of sites along the Central Coast are within microbiologic limits. Recently, the SLO PHL began to offer an overnight method called Total Coliform A-1 method that cuts the time of laboratory incubation from 48 hours to 24 hours. The new method allows shellfish growers to get harvests to market a full day faster than previously.

This year the SLO PHL also began routine testing of selected shellfish samples for an important marine biotoxin called **Domoic Acid.** Domoic acid and derivatives are amnesiac neurotoxins produced by a number of marine microalgae, especially during summer months. Unlike red tide blooms of dinoflagellates, microalgae do not produce a visible discoloration of ocean water, so there is no easily recognized flag to signal a problem to shellfish growers.

The SLO PH Laboratory performs an enzyme-immunoassay on aqueous extracts of shellfish meats in about 5 hours. If positive, a duplicate specimen is confirmed by a reference method—High Performance Liquid Chromatography or HPLC at the California Department of Public Health. Local testing capability means that safe seafood moves more quickly and fresher to market.