To Our Health Partners in the Community
In July, the Board of Supervisors appointed Dr. Christopher Farnitano as the new County Health Officer. The Health Officer, the chief medical official for a county, serves to protect the overall health of the community.
This will be our last “print version” of the newsletter. Please visit cchealth.org/providers to subscribe to our electronic version. Please contact us at CoCoCD@hsd.cccounty.us with suggested newsletter topics and comments. For urgent questions or to report a communicable disease, please call us at (925) 313-6740.

Enteric Disease Control - The Importance of Reporting Patients’ Occupational or Exposure Settings

Many enteric illnesses are highly infectious and are easily transmitted person-to-person. Public Health is responsible for receiving and investigating reports of individual cases and outbreaks of enteric illness. Examples of these highly infectious illnesses are: Shigellosis, Shiga toxin-producing bacteria, Salmonellosis, and Hepatitis A.

By including the occupation and work settings of patients with diarrheal illness when reporting diseases to Public Health helps control disease transmission and detect additional cases.

The California Code of Regulations’ (CCR) Title 17 outlines management of certain enteric diseases. People in a sensitive occupation or setting (SOS) may need to be excluded or restricted by Public Health and infection clearance testing must be performed by the Public Health Laboratory.

A Sensitive Occupation or Situation (SOS) is defined as:

- A food handler (which includes the following duties: preparation, serving, or handling of food)
- Persons providing care in
  - Health care settings (e.g. hospitals, clinics, physician offices, dental offices, nursing facilities, etc.)
  - Congregate setting (e.g. child care settings, institutions, jails, shelters, other residential facilities)

**SWIMMING + DIARRHEA = NO FUN:** Warm weather typically means more people swimming. Please advise patients to avoid swimming when symptomatic with diarrhea. If Cryptosporidium is the cause of diarrhea, patients should not swim until 2 weeks after diarrhea has resolved.
Raw (or Undercooked) Shellfish Consumption & Foodborne Illness

Each year, Public Health investigates incidents of foodborne illness linked to shellfish consumption. When consumed raw (or undercooked), all types of shellfish (oysters, clams, mussels and scallops) can potentially cause foodborne illness, but raw oysters are of particular concern. Because oysters are filter feeders, pathogens can become concentrated in their tissues and cause illness when eaten raw. The most common infections associated with raw oyster consumption are vibriosis and norovirus gastroenteritis.

**Vibriosis** is caused by a bacterium that is naturally found in coastal waters where oysters are harvested. Levels of *Vibrio* species in these waters increase during the summer months.

**Norovirus illness** is more commonly seen in the winter months, but can be present anytime of the year. Norovirus infection occurs when shellfish/oysters have been contaminated with fecal matter due to untreated sewage run off (land run off, storm overflow, overboard boat disposal, etc.)

Norovirus and *Vibrio* infections cause self-limiting illness characterized by watery diarrhea, abdominal cramping, nausea, vomiting and sometimes body aches and fever. Symptoms of vibriosis typically last one to seven days whereas illness from norovirus typically lasts only one to two days. Both vibriosis and norovirus have incubation periods of approximately 12-48 hours, though symptoms may not start for up to 4 days in some types of *Vibrio* infections.

If you suspect foodborne illness as the cause of your patient’s symptoms, please submit a Confidential Morbidity Report (CMR) to Public Health and make sure to note shellfish consumption in the “remarks” box on the bottom of the form. Public Health works closely with Environmental Health to investigate the source of foodborne illness and work to stop its spread, including trace back to oyster beds when raw oysters are suspected.

Travel Screening: The Ongoing Importance and Benefit

The recent Ebola Virus Disease (EVD) outbreaks in the Democratic Republic of Congo highlight the ongoing need for the healthcare community to remain vigilant to international infectious disease threats and maintain the response capabilities created during the 2014-2015 Ebola Response.

While the risk of importation of EVD into California remains very low, other infectious diseases continue to be regularly imported by returning California residents and travelers from around the world. Cases of malaria, dengue, hepatitis A, measles, and enteric pathogens are reported every year in Contra Costa County. Knowing a patient’s travel history allows a clinician to more swiftly and accurately identify potentially imported infectious diseases.

Prompt notification from clinicians to Public Health results in more timely mobilization of resources to ensure proper management and prevent transmission. Therefore, Contra Costa Public Health, in conjunction with the California Department of Public Health, strongly recommends:

- Healthcare providers should ask patients with acute, possibly infectious illness about any travel within the past 1-2 months. Make travel history a routine part of patient intake at every visit and incorporate into the electronic medical record.
- Implement appropriate infection control procedures in all settings when there is suspicion of an infectious disease. The travel history can inform the specific infection control measures needed.
- For information on location-specific travel related diseases, please refer to the [CDC traveler’s health webpage](https://www.cdc.gov/travel).

Source: CAHAN Health Alert Update (July 30, 2018)
**Influenza Updates**

Influenza viruses typically circulate widely in the United States annually, from the late fall through the early spring. Although most persons with influenza will recover without sequelae, influenza can cause serious illness and death, particularly among older adults, very young children, pregnant women, and those with certain chronic medical conditions.

Routine annual influenza vaccination is recommended for all persons aged 6 months and above who do not have contraindications. Optimally, vaccination should occur before onset of influenza activity in the community. Health care providers should offer vaccination by the end of October, if possible.

**Flu vaccine composition for 2018-19:**
- A/Michigan/45/2015 (H1N1)pdm09-like virus
- A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus
- B/Colorado/06/2017-like (B/Victoria lineage) virus
- B/Phuket/3073/2013-like (B/Yamagata lineage) virus
  (in quadrivalent vaccine only)

**Children Aged 6 Months Through 8 Years:** Evidence from several studies indicates that children aged 6 months through 8 years require two doses of influenza vaccine (administered a minimum of 4 weeks apart) during their first season of vaccination for optimal protection. Children aged 6 months through 8 years who have previously received ≥2 total doses of trivalent or quadrivalent influenza vaccine before July 1, 2018 require only 1 dose for 2018-19 and each subsequent flu season.

**Pregnant Women:** ACIP recommends that all women who are pregnant or who might be pregnant in the influenza season receive influenza vaccine because pregnant and postpartum women are at higher risk for severe illness and complications from influenza than women who are not pregnant. Any licensed, recommended, and age-appropriate influenza vaccine may be used*. Influenza vaccine can be administered at any time during pregnancy, before and during the influenza season.

**Older Adults:** For persons aged ≥65 years, any age-appropriate flu vaccine is an acceptable option. In several large randomized trials Fluzone High-Dose (HD-IIV3; Sanofi Pasteur, Swiftwater, Pennsylvania) had superior efficacy in this age group. However, the ACIP makes no preferential recommendation for any specific vaccine product. Vaccination should not be delayed if a specific product is not readily available.

For more information, review the following documents:

1. *Prevention and Control of Seasonal Influenza with Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP) – United States, 2018-19 Influenza Season* (CDC MMWR, August 24, 2018)

2. *Poster: Pediatric/Adult Influenza Vaccine, 2018-2019* (CDPH)

*Per California law, pregnant women and children under 3 years of age may only receive preservative-free vaccine.*
West Nile Virus: Keep It On Your Radar!

West Nile virus (WNV) is a mosquito-borne illness which has become endemic in the contiguous United States since being first discovered in New York City in 1999. WNV is maintained in a bird-mosquito-bird transmission cycle. Nearly all human infections are caused by mosquito bites, but WNV can also be transmitted by blood products. A typical WNV season occurs from April to November with human cases having onset between July to September.

Consider Testing
Physicians are encouraged to order a WNV test, during WNV season, for all patients with:
- aseptic meningitis,
- encephalitis,
- acute flaccid paralysis, and/or
- nonspecific febrile illness (WNV fever)

Testing for WNV antibody includes acute or convalescent serum specimens (>= 2cc) and, lumbar puncture (1-2cc CSF).

Serology Testing & Limitations:
- If collected <7 days of onset may lack detectable IgM
- IgM can persist >1 year; therefore positive results may be present past infection
- IgG – only indicates past infection
- IgM and IgG may be false-positive due to cross-reactive antibodies

Molecular Testing:
- Can detect RNA in serum or CSF
- Testing methods: RT-PCR (commercial labs) and PRNT (plaque reduction neutralizing test – only performed at public health lab)
- Indicates recent WNV infection

Additionally, review of mosquito bite and travel history is helpful for diagnosis. Persons older than 50 years and immunocompromised individuals are at especially high risk for clinical disease.

Disease Reporting Requirements:
Public Health tracks cases of WNV fever, neuroinvasive disease, and infection in asymptomatic blood donors. Physicians, laboratories and blood banks are required to report all positive laboratory findings of WNV to Public Health.

More resources at cchealth.org/providers/