



===== PUBLIC HEALTH BULLETIN =====

July – Sep 2017

Dear Kern County Healthcare Provider:

This bulletin is being sent to call your attention to important health topics related to the summer months. A public health bulletin similar to this will be delivered quarterly with various topics and preventive messaging that you can share with your patients. This season the topics are:

- **Ebola Outbreak:** The Democratic Republic of the Congo alerted WHO of a cluster of suspected cases of Ebola Virus Disease.
- **Water Conditions:** Eight people have drowned in the Kern River and four are missing due to increasingly dangerous water conditions.
- **Waterborne Illnesses:** Water-related illnesses peak in the summer because of the time spent in natural and recreational bodies of water. Many of these illnesses appear with gastrointestinal symptoms.
- **Mosquito-borne Illnesses:** West Nile Virus season has begun, Kern County has had a human case and an equine case. Additionally, the Zika virus remains a concern for travelers.
- **Valley Fever:** There are greater opportunities for exposure during the summer months to the fungus while dirt biking or participating in other outdoor activities.
- **Norovirus:** Exposure is not only limited to cruises, Norovirus circulates in the community as well. Recently there have been three local retirement communities that have had Norovirus-like illness outbreaks.
- **Rabies:** Kern County continues to be endemic for rabies. The increased exposure to bites from wild animals while participating in seasonal activities creates a risk to pets and their owners.
- **Wildfires, Air Quality and Respiratory Impacts:** Air quality due to neighboring wildfires have not been associated with increased ED visits to date. Remind your patients to continue to be aware of air quality alerts and adjust outdoor activities as needed.
- **Hepatitis:** World Hepatitis Day is July 28. This is a good time to remind your patients born between 1945 and 1965 that screening is recommended.
- **STDs:** Numbers of cases of congenital syphilis causes Kern to remain a designated “high morbidity” county. Continue reminding patients at high risk for infections to use risk reduction practices.

An urgency designation has been assigned to each of the topics. Here is the description of the legend:

- Health Alert (red): highest level of importance, time-sensitive information
- Health Advisory (orange): high level of importance, contains new recommendations or actionable items
- Health Update (yellow): important, but does not contain recommendations or actionable items
- Health Information (green): for preventive messaging information purposes

The entire bulletin can be viewed and downloaded at <http://kernpublichealth.com/>. Please call (661) 321-3000 for questions. Thank you for your commitment to the health of the community.

Respectfully,

Claudia Jonah, MD
Health Officer

EBOLA

Significance level: Health Information (green), WHO declared an end on July 2, 2017.

What is it? Ebola is a rare and deadly disease caused by infection with one of the Ebola virus species. Ebola can cause disease in humans and nonhuman primates (monkeys, gorillas, and chimpanzees). Ebola viruses are found in several African countries, outbreaks have appeared sporadically in various countries in Africa. On April 22, 2017, a case presented with symptoms and died on arrival. May 11, 2017, the Democratic Republic of the Congo alerted international public health agencies of a cluster of suspected cases Ebola Virus Disease (EVD). As of June 15, there have been 8 confirmed cases. Ebola is spread through direct contact (of broken skin or mucous membranes) with blood or bodily fluids, contaminated objects, infected bats or primates, or sexual contact with a man who has recovered from Ebola. A person infected with Ebola Virus is not contagious until symptoms appear. Symptoms include fever, severe headache, fatigue, muscle pain, weakness, diarrhea, vomiting, stomach pain, and unexplained bleeding or bruising. Symptoms may appear anywhere from 2 to 21 days after exposure to the virus, but the average is 8 to 10 days. Typically EVD case fatality is 50%, but varies from 25% to 90% in past outbreaks



You can only get Ebola from

- The body fluids of a person who is sick with or has died from Ebola.
- Objects contaminated with body fluids of a person sick with Ebola or who has died of Ebola.
- Infected fruit bats and primates (apes and monkeys).
- And, possibly from contact with semen from a man who has recovered from Ebola (for example, by having oral, vaginal, or anal sex).



How can I prevent it? Currently, there is no FDA-approved vaccine available for Ebola. Risk for Ebola infection can be reduced by:

- Practicing universal hygiene when there is exposure to blood and other body fluids
- Not handling items that may have come in contact with an infected person's blood or body fluids
- Avoiding funeral or burial rituals that require handling the body of someone who has died from Ebola
- Avoiding contact with bats and nonhuman primates or blood, fluids, and raw meat prepared from these animals
- Avoiding facilities where Ebola patients are being treated
- Monitoring your health for 21 days following return from areas with transmission of Ebola and seeking medical care immediately if you develop symptoms

Healthcare workers who may be exposed to people with Ebola should follow these steps:

- Wear appropriate personal protective equipment (PPE)
- Practice proper infection control and sterilization measures
- Isolate patients with Ebola from other patients
- Avoid direct contact with the bodies of people who have died from Ebola
- Notify health officials if you have had direct contact with the blood or body fluids of a person with Ebola

WATER SAFETY

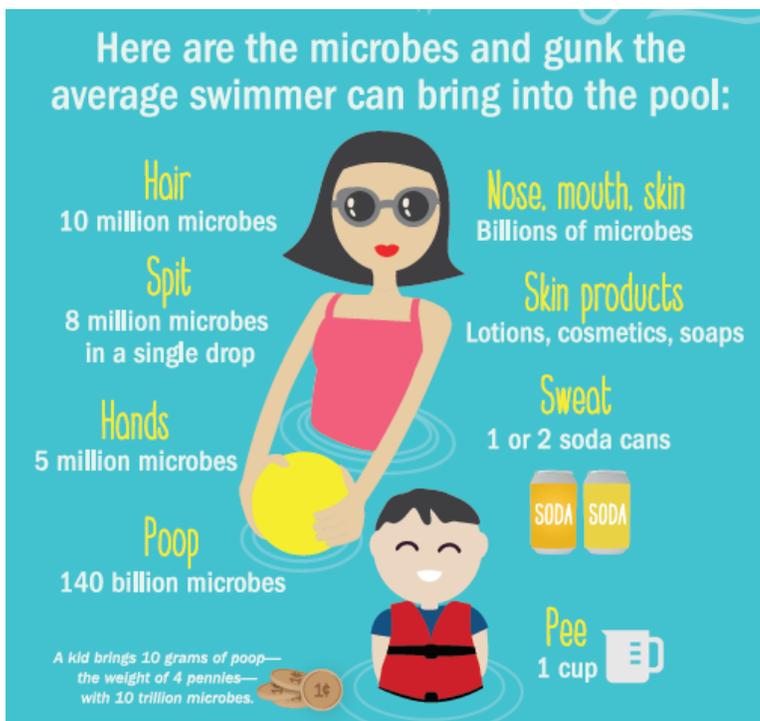
Significance level: Health Alert (red); 8 deaths in the Kern River as of 7/13/17

What is it? Water safety is a concern in many bodies of water, not just in a recreational swimming pool. Not only is water safety important to practice when kids are around, but it is also important in other circumstances. Specifically, this year there has been a lot of rain and snowfall leading to rising levels of water in the Kern River and other bodies of water throughout California. Unfortunately, there have been a number of deaths in the river and we want the public to be advised against swimming in the river. Strong undercurrents can be masked by calm appearing surface water.



WATERBORNE ILLNESSES

Significance level: Health Alert (red) Toxin producing blue-green algae at Kissack and Paradise Coves 6/28/17.



What is it? Many different microbes can survive in water and since water related activities peak in the summer time, there is also a correlated peak in waterborne illnesses. While disinfectants are in the water at all recreational water facilities, there still is a risk of becoming ill. In recent years, there has been a rise in Cryptosporidium outbreaks related to swimming pools and water playgrounds. Cryptosporidium and E. coli infections are the most common illnesses

How can I prevent it? It is important to take some steps to prevent from spreading germs to others and vice versa. Follow these 4 steps for healthier swimming and summer fun:

- Stay out of the water if you have diarrhea
- Shower before you get into the water
- Don't pee or poop in the water
- Don't swallow the water

MOSQUITO-BORNE ILLNESSES

Significance level: Health Update (orange)

What is it? In the winter and spring months, Kern County received a lot of rain which increases the amount of standing water available for mosquitoes to lay their eggs in. West Nile Virus (WNV) is the most common virus identified in mosquitoes in Kern County. WNV infection is asymptomatic in about 80% of people. When symptoms develop they are often mild and include fever, headache, nausea, vomiting, swollen lymph glands, and skin rash on chest, stomach, or back. Less than one percent of people develop severe neurological illness as a result of WNV infection. Additionally, much of our population travels to countries where there is risk of Zika virus infection. While the risk of establishing active Zika virus transmission in Kern County is very low, it is important to be aware of the risk while traveling.

How can I prevent it? There are steps that can be taken to decrease the risk of acquiring a mosquito-borne infection. It is recommended to dump any standing water and scrub the inside of vessels to reduce areas where mosquitoes can breed. Additionally, using an insect repellent that contains DEET when outdoors, wearing loose fitting clothing, and repairing or replacing screens that have tears or holes. The risk of Zika infection is very low locally, however precautions taken while traveling to areas where there is active Zika virus transmission will reduce the risk of acquiring infection. Zika can be passed through sex to his or her partner. Additionally, women planning to become pregnant and pregnant women should avoid any non-essential travel to areas with Zika transmission and abstain from or use barrier methods during sex with those who have traveled to an area with Zika transmission in order to avoid Zika related birth defects.



VALLEY FEVER (COCCIDIOIDOMYCOSIS)

Significance level: Health Update (orange)

August is Valley
Fever Awareness Month!

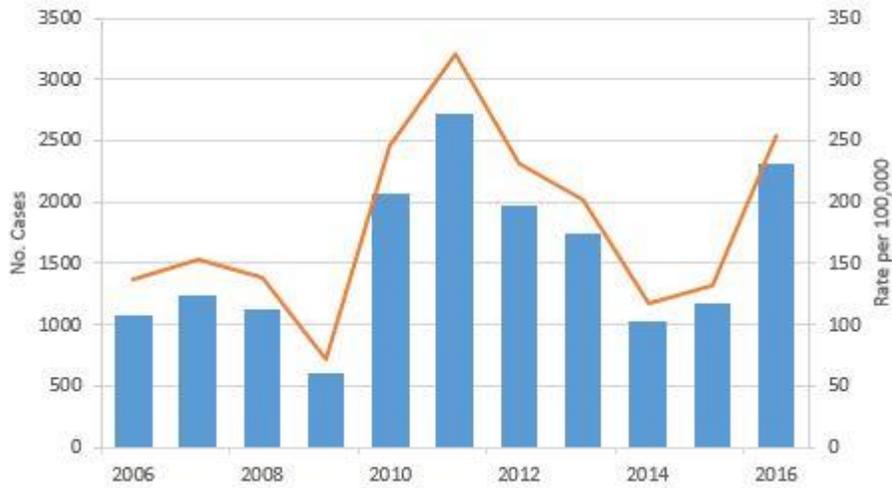
What is it? Valley Fever is endemic to Kern County and it is important to ensure there is awareness of this spore in our soil. Last year 2,310 residents were identified to have Valley Fever. These fungal spores grow in soil, humans are exposed when the soil is disturbed (i.e. earthquakes, winds, man-made activities, etc.) and becomes airborne. It is difficult to predict how weather and other environmental factors ultimately influences the number of cases we see in the following months, but rain during late winter and early spring can cause the fungus to grow. In the summer heat, the fungus changes to the spore form which can survive in the dry and hot summer weather. A majority, about 50-60%, of people with Valley Fever do not have any symptoms at all. About 40-50% have mild symptoms similar to the flu including: cough, fever, headache, chills, sweats, chest pain, and fatigue. Very few people (about 1%) develop a severe form of the disease which can extend beyond the lungs.



How can I prevent it? Living in an area where Valley Fever is endemic there is a risk of exposure, however there are measures that can be taken to reduce your chances of getting Valley Fever. Here are some ways to reduce your risk:

- Avoid being outdoors during windy conditions
- Avoid or wear protective equipment during activities in which a large amount of dust is generated (i.e. dirt biking)
- Minimize exposed soil by using hard ground cover or planting vegetation for ground cover
- Moisten soil prior to disturbing (gardening, construction etc.)
- When possible, provide filtered air to living and work spaces

Valley Fever Case Count and Rate Kern County, 2006-2016



NOROVIRUS

Significance level: Health Information (green)

What is it? Norovirus illness is a quick onset gastrointestinal illness notoriously called the “cruise ship virus.” It is the leading cause of outbreaks of diarrhea and vomiting in the United States. Typically symptoms include diarrhea, vomiting, nausea, and stomach pain, but can also include fever, headache, and body aches. Symptoms typically resolve within 24-72 hours. Norovirus can rapidly spread in congregate settings like retirement homes and schools. Recently, in Kern County there were three retirement facilities which had a bout with Norovirus-like illness. Unfortunately, stool samples were not tested for



confirmation. You can get infected by ingesting the virus from feces or vomit from an infected person. There are many different routes this can happen including consuming contaminated food or beverages, touching contaminated surfaces, or contact with an infected person. This virus is extremely contagious and there are many different types of the virus thus an individual typically will have a bout with the illness a few times in a lifetime.

How can I prevent it? There are steps that can be taken to prevent a norovirus infection.

protect yourself from norovirus



▶ wash your hands often



▶ when you are sick, don't prepare food or care for others



▶ cook shellfish to 140°F or higher



▶ rinse fruits & vegetables thoroughly



▶ after vomiting or having diarrhea, immediately clean & disinfect surfaces & wash soiled laundry





- Practice proper hand hygiene – alcohol-based hand sanitizers can be added in addition to hand washing, but it is not as a substitute, additionally the virus can be shed in stool for up to 2 weeks after your symptoms subside
- Wash fruits and vegetables and cook seafood thoroughly
- If sick, do not prepare or care for others who are ill – wait 2 days after symptoms subside to resume those activities
- Clean and disinfect contaminated surfaces
- Wash laundry thoroughly

RABIES

Significance level: Health Advisory (orange)

What is it? Rabies is a fatal disease transmitted from rabid animals. Many species can become rabid but the most common historically in Kern County are bats, raccoons, skunks, and foxes. Thus, it is a reminder for all who encounter wild animals to remain cautious especially if they display behavior from the norm. Rabies virus infects the central nervous system and, until recent years, once symptoms begin to show it is fatal. Early symptoms include fever, headache, and general weakness or discomfort. As it progresses more specific symptoms can arise like insomnia, anxiety, confusion, paralysis, excitation, hallucinations, agitation, increase in salivation, difficulty swallowing, and hydrophobia.

How can I prevent it? Pre-exposure prophylaxis against the rabies virus is the best defense for those who may commonly encounter wild animals, for example veterinarians and those who work in animal control.

Additionally, for those who might not have a considerable risk in daily life, there is post-exposure prophylaxis (PEP). It is recommended for those who have been exposed to a potential or confirmed rabid animal. There are more general steps people can take to protect themselves and their animals. They include:

- Do not approach, handle, or attempt to feed any unfamiliar animals
- Never adopt or bring wild animals into your home
- Discourage wild animals from loitering around your home by keeping garbage in a closed container and promptly disposing of uneaten pet food
- Seal holes or gaps in your home where bats or other animals could enter
- Keep up to date on rabies vaccinations for cats, dogs, and ferrets – vaccinating your animals prevents them from getting the virus from a wild animal, thus reducing the risk of transmission to their owner or other humans
- Supervise pets when outdoors or keep them indoors
- Spay or neuter domestic animals to reduce the number of stray animals that may not be cared for or vaccinated



RESPIRATORY DISTRESS FROM WILDFIRES

Significance level: Health Update (yellow)

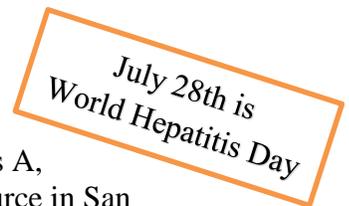
What is it? Air quality deteriorates when there is a wildfire in our county or surrounding areas. Due to the geography of the valley, air quality is of particular concern. It is important for those who have sensitive airways and/or have other respiratory concerns to take precautions. Currently, there are several fires burning in the surrounding counties.

How can I prevent it? Respiratory distress can occur when there are factors contributing to poorer air quality in the valley. Time spent outdoors should be limited dependent upon the air forecast. Caution should be exercised to prevent respiratory distress.

HEPATITIS

Significance level: Info Service (green)

What is it? There are different types of viral hepatitis, the most common are hepatitis A, B, and C. Recently, there have been outbreaks of Hepatitis A with an unidentified source in San Diego and Santa Cruz counties in a mostly drug using and transient population. In San Diego County, many have been hospitalized and five deaths have occurred as well in relation to this outbreak. Typically Hepatitis A is acquired from a food source, however it is transmissible when there is lack of hygiene and proper sanitation in other scenarios as well. Hepatitis B can be transmitted via birth, sex, drug paraphernalia, personal hygiene items, and blood exposure. Transmission of Hepatitis C is similar to Hepatitis B, however contracting it via personal hygiene items, and sex is understood to be less common.



How can I prevent it? There are vaccines that provide immunity against Hepatitis A and B, however one does not exist for Hepatitis C. There is post-exposure prophylaxis for Hepatitis B which can prevent infections.

Additionally, there is treatment available now for Hepatitis C which does eliminate the virus, essentially providing a cure. Those born between 1945 and 1965 should consider being screened for Hepatitis C.



SEXUALLY TRANSMITTED DISEASES

Significance level: Health Update (yellow)

What is it? An infection transmitted through sexual contact, caused by bacteria, viruses, or parasites. Not all STDs are curable (i.e. HIV, Human Papillomavirus, genital herpes), but STDs caused by bacteria or parasites can be treated. An increasing number of Kern County women are contracting syphilis and passing it on to their babies. Syphilis is a sexually transmitted disease, and you can be infected without noticing any symptoms and therefore pass it to others without knowing it. Historically in Kern County, syphilis was primarily diagnosed in men who have sex with men, but in recent years it has disproportionately affected women of child-bearing age. As many as 40% of babies born to women with untreated syphilis are stillborn or die from the infection as a newborn, according to the CDC. Congenital syphilis cases have increased exponentially over the past three years and Kern County's rates are 500% higher than the State average. In 2015, there were 28 cases of congenital syphilis in Kern County and 6 of those cases resulted in death. Kern County has higher rates of congenital syphilis than any other county in California. With community interventions Kern County rates have plateaued and continued efforts are needed to return congenital syphilis to zero.

How can I prevent it? Pregnant women should get early prenatal care and have their doctor test them for syphilis. In most cases, syphilis is easily treated with antibiotics and pregnant women who test positive should receive treatment right away.