

# Update on select infections: Malaria, Vibriosis, Leprosy

October 2023

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# Malaria

MALARIA IS A SERIOUS DISEASE



- **Causative organism(s):** *Plasmodium spp.*
- **Vector:** *Anopheles spp.*
- **Incubation period:** 7 days to 12 mos [10 days – 4 wks]
- **Symptoms:** fever, chills, headaches, myalgias, fatigue
- **Diagnostics:** antigen testing; blood smear
- **Treatment:** artemisin-based, chloroquine/primaquine
- **Prevention:** chemoprophylaxis started prior to travel [chloroquine, atovaquone-proguanil, doxyxycline]
- **Travel associated to endemic countries**
- **Most cases in the U.S. reported summer to early fall**

# Malaria in the U.S. and Clark County



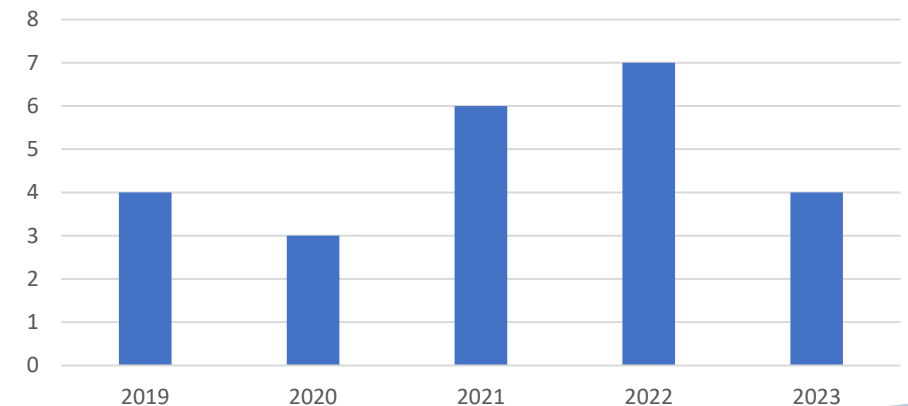
## U.S. Malaria:

- ~2000 imported cases yearly
- 9 cases of local transmission  
(as of 8/23/23)
  - Florida (*P. vivax* x7)
  - Texas (*P. vivax* x1)
  - Maryland (*P. falciparum* x1)
- 2003 – 8 cases in Florida

## • SNHD Malaria:

- Travel prophylaxis
- SNHD EH mosquito program
- Health Advisory Network
- Disease investigation

Malaria reported cases, Clark County, NV  
2019 to 09/27/23



# Vibriosis



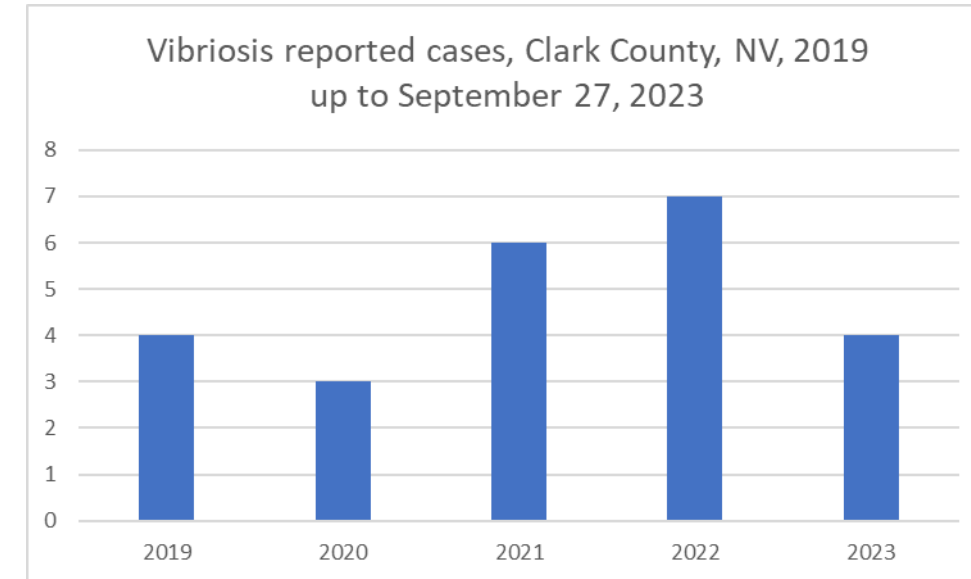
- **Causative organism(s):** *Vibrio parahaemolyticus*, *Vibrio vulnificus*, *Vibrio alginolyticus*
- **Vector / Transmission:**
  - Eating raw/undercooked contaminated seafood (oysters)
  - Having an open wound while swimming in salt/brackish water
- **Incubation period:** within 24 hours of ingestion
- **Symptoms:**
  - watery diarrhea, abdominal cramping, n/v, fever and lasts about 3 days
  - wound or soft tissue infections, hemorrhagic bullae, may require amputation
- **Diagnosis:** stool, wound, blood cultures
- **Treatment:**
  - supportive care for mild GI symptoms
  - Ceftazidime plus doxycycline or ciprofloxacin
  - Wound debridement
- **At risk:**
  - Have liver disease, cancer, diabetes, HIV, or thalassemia
  - Receive immune-suppressing therapy for the treatment of disease
  - Take medicine to decrease stomach acid levels
  - Have had recent stomach surgery
- **Cases reported around May through October**

# Vibriosis in the U.S. and Clark County



- 80,000 cases yearly  
(52,000 food contamination)
- 100 deaths yearly
- as of 09/27/2023
  - CT – 3 cases, 2 fatalities
  - FL – 41 cases, 9 fatalities  
(2022: 74 cases, 17 fatalities)
  - NY – 1 fatality
  - NC – 3 fatalities
  - MO – 1 fatality

## • Vibriosis SNHD



# Leprosy (Hansens Disease)



- **Causative organism(s):** *Mycobacterium leprae*
- **Vector:** nine-banded armadillo
- **Transmission:** droplet (but prolonged contact required)
- **Incubation period:** 9 mos – 20 yrs [3-5 yrs]
- **Symptoms:** discolored skin patches, nodules, thick skin, painless ulcers, nerve damage (numbness/weakness), stuffy nose, nosebleeds
- **Treatment:** dapsons, rifampin, AND clofazime
- Affects ages 5 to 15 years or >30 years
- 95% have natural immunity



# Leprosy in the U.S. and Nevada



- ~100 cases yearly [150-200]
- Increased reports 2023
  - Florida ~34% of new cases are locally acquired vs zoonotic (2015-2020)
  - ~20 cases a year
- Leprosy SNHD
  - 8 cases reported from 2010 to 09/27/23
  - no cases reported in 2023