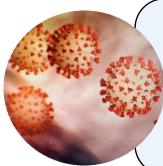


The World's Deadliest Viruses

www.Richterhc.com 216-593-7140



Sars-CoV-2 (COVID-19)

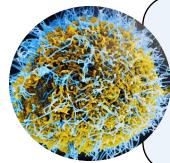
First Identified: 2019 Mortality Rate: 6%

Route of Transmission: airborne, droplet, contact

Symptoms: fever, cough, shortness of breath, fatigue, muscle or body aches, loss of taste or smell, nausea, vomiting, diarrhea, & congestion

Current Outbreaks: 2020 global pandemic

Infections: 6.11 M (2020)
Incubation Period: 5-14 Days
Deaths: 370,000 (2020)
Vaccine: No licensed vaccine



Ebola Virus Disease (EVD)

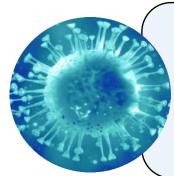
First Identified: 1976 Mortality Rate: 65%

Route of Transmission: blood, body fluids, or tissue, contact with contaminated objects, infected fruit bats, apes, or monkeys

Symptoms: fevers, aches, fatigue, vomiting, hemorrhage, & bruising

Current Outbreaks: Democratic Republic of Congo 2018- present Infections: 3406 (2019) Deaths: 2243 (2019)

Incubation Period: 2-21 Days **Vaccine:** No licensed vaccine



Influenza A, B, & C Viruses

First Identified: 1933 (first isolated) Mortality Rate: 1%

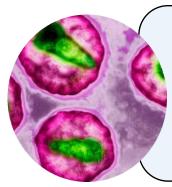
Route of Transmission: airborne and contact with infected surfaces

Symptoms: fever, cough, sore throat, congestion, headache, & fatigue

Current Outbreaks: seasonal October through April each year

Infections: 39-56 M (2018-2019)
Incubation Period: 1-4 Days

Deaths: 24-62K (2018-2019)
Vaccine: first in 1940's



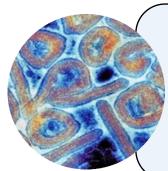
Human Immunodeficiency Virus (HIV)

First Identified: 1983 Mortality Rate: 95% after 10 years Transmission: blood, semen, rectal or vaginal fluids, & breast milk Symptoms: sore throat, swollen glands, muscle aches, rash, nausea,

night sweats vomiting, & diarrhea

Current Outbreaks: global epidemic ongoing

Infections: 74.9 M as of 2018
Incubation Period: 40-60 Days
Deaths: 32 M as of 2018
Vaccine: No licensed vaccine



Marburg Virus (Hemorrhagic Fever)

First Identified: 1967 Mortality Rate: 23% - 90%

Route of Transmission: contact with blood, body fluids, or tissue of a

person who is infected or died for Marburg

Symptoms: fevers, bleeding, shock, organ failure, & death

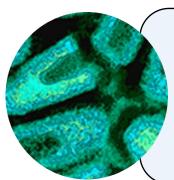
Current Outbreaks: 2014 Uganda

Infections: 1 (2014)

Deaths: 1 (2014)

Incubation Period: 5-10 Days

Vaccine: No licensed vaccine



Rabies Virus

First Identified: 18th C BC Mortality Rate: 100% once symptomatic

Transmission: saliva of infected animals

Symptoms: irritability or aggressiveness, confusion, bizarre or strange

thoughts, or hallucinations, muscle spasms, seizures, & paralysis

Current Outbreaks: 95% of cases occur in Africa

Infections: 100,000 (2017-2018)

Deaths: 59,000 per year
Incubation Period: 3-8 week

Vaccine: 1885