
Zoonotic Disease Investigations Acute and Communicable Disease

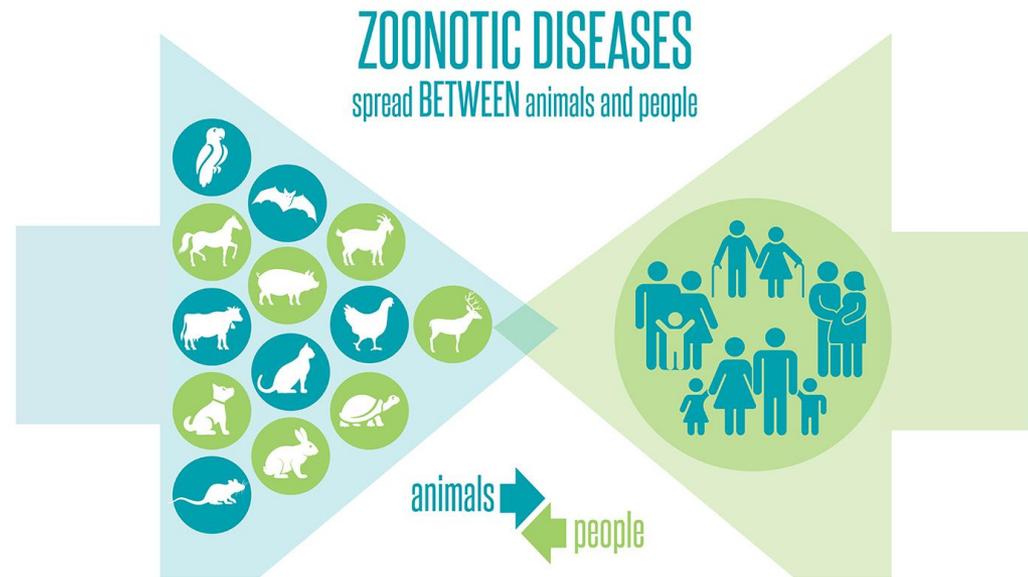
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Health
Oregon
Authority

Seventy-five percent of all new infectious diseases originate from nonhuman animals.

Zoonotic Disease Transmission



Oregon
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A BRIEF HISTORY OF OUTBREAKS

Covid-19 is not the first pandemic to hit the world. Here's a look at the complex relationship humans have had with deadly viruses and infectious diseases.

Black Death

1347-52

DEATHS

200 million

Rats and fleas,
bubonic plague

The Black Death struck Europe and other parts of the world in 1347. It was caused by the same bacterium, *Yersinia pestis*, that was responsible for the Justinian Plague and remains one of the biggest catastrophes the world has ever seen.

Spanish Flu

1918

DEATHS

40-50 million

H1N1 virus

At a time when World War 1 was raging, a deadly strain of influenza killed an estimated 50 million people. Its effects were felt in India as well. The H1N1 virus strain had avian origins and remains the deadliest flu pandemic recorded in human history.

Asian Flu

1957-58

DEATHS

1.1 million

H2N2 virus

A new influenza virus, H2N2, emerged in 1957 in East Asia and claimed roughly 1.1 million lives worldwide. The virus strain transformed, a phenomenon described as antigenic shift, and led to the 1968-70 Hong Kong flu pandemic.

SARS

2002-04

DEATHS

774

Coronavirus
from bats
and civet
cats

Despite the low number of deaths, what made the SARS virus so deadly was its case-fatality ratio of 15%. It affected almost 8,000 people and 29 countries—a similar strain of the coronavirus is responsible for the current covid-19 pandemic.

Swine Flu

2009

DEATHS

200,000

H1N1 virus
from pigs

The first cases of the 2009 pandemic were detected in Mexico and the US. According to studies, the virus infected more than a billion people globally. The pandemic was declared over by the World Health Organization in August 2010 but cases were reported across the world as recently as this year.

Ebola

2013-16

DEATHS

11,000

Ebolavirus,
bats and
bushmeat
consumption

Although not yet deemed a pandemic, the highly contagious Ebola disease has wreaked havoc in parts of Africa over the last few years. First discovered in 1976, the most recent outbreak of this deadly viral disease was recorded in western Africa in 2013-16. It led to more than 11,000 deaths.

Six out of every 10 infectious diseases in people are zoonotic, which makes it crucial that the nation strengthen its capabilities to prevent and respond to these diseases using a One Health approach

The zoonotic diseases of most concern in the U.S.

- Zoonotic influenza
- Salmonellosis
- West Nile virus
- Plague
- Emerging coronaviruses (e.g., severe acute respiratory syndrome and Middle East respiratory syndrome)
- Rabies
- Brucellosis
- Lyme disease

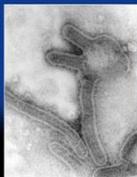


Exotic Emerging Zoonoses

- Ebola – primates, reservoir unknown
- Nipah – bats
- West Nile – birds, mosquitoes
- SARS – masked palm civets, bats
- Avian Influenza – poultry, wild birds
- Monkeypox – rodents, primates

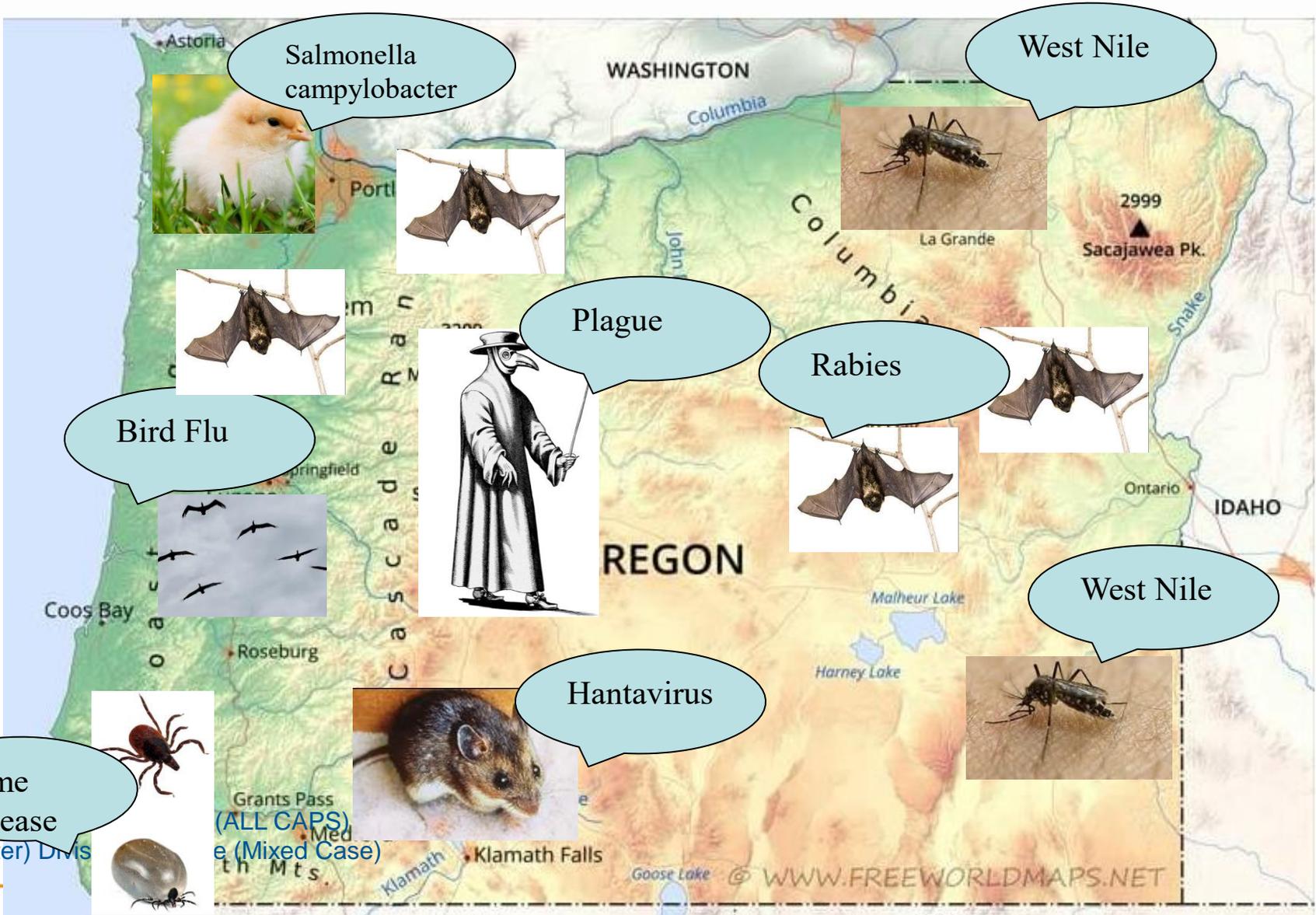


2001, Pam & Brett Whitzell



EM, Marburg virus, CDC gallery





Lyme Disease (Enter) Dms

(ALL CAPS) e (Mixed Case)

With animal importation other animals, such as ticks, may also come along.

What do Asian longhorned ticks look like?



Nymph and adult female, top view.



Nymph and adult female, underside.

What we know about Asian longhorned ticks

- Not normally found in the Western Hemisphere, these ticks were reported for the first time in the United States in 2017.
- Asian longhorned ticks have been found on pets, livestock, wildlife, and people.

Protect yourself, your pets, and your livestock

- Use Environmental Protection Agency (EPA)-registered insect repellents containing DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone. Always follow product instructions.
- Wear permethrin-treated clothing.

What to do if you think you have found an Asian longhorned tick

- Remove ticks from people and animals as quickly as possible.
- Save the ticks in rubbing alcohol in a jar or a ziplock bag, then:
 - Contact your health department about steps you can take to