Zoonotic Disease Investigations
Acute and Communicable Disease

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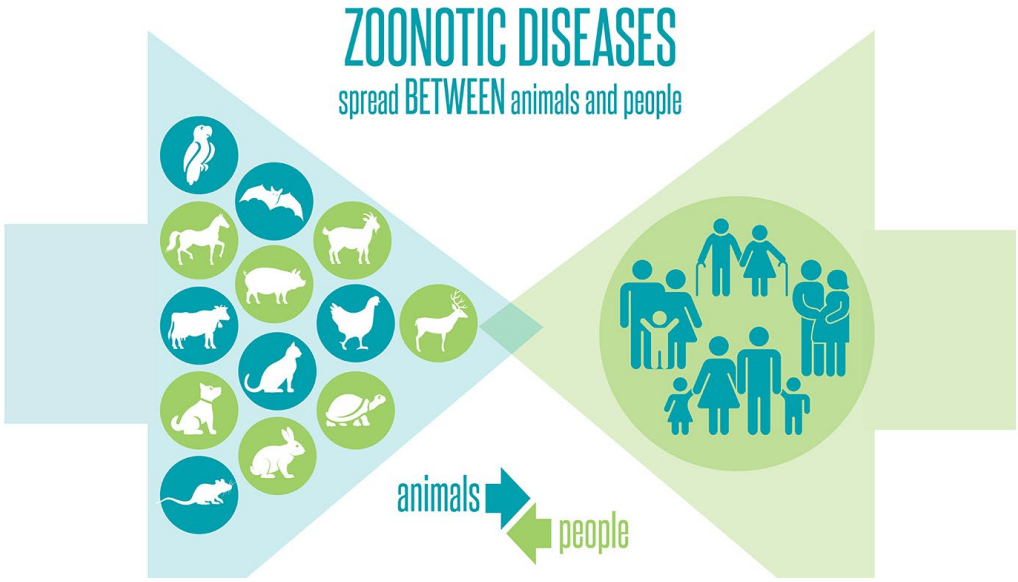
Oregon Health Authority

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

Zoonotic Disease Transmission



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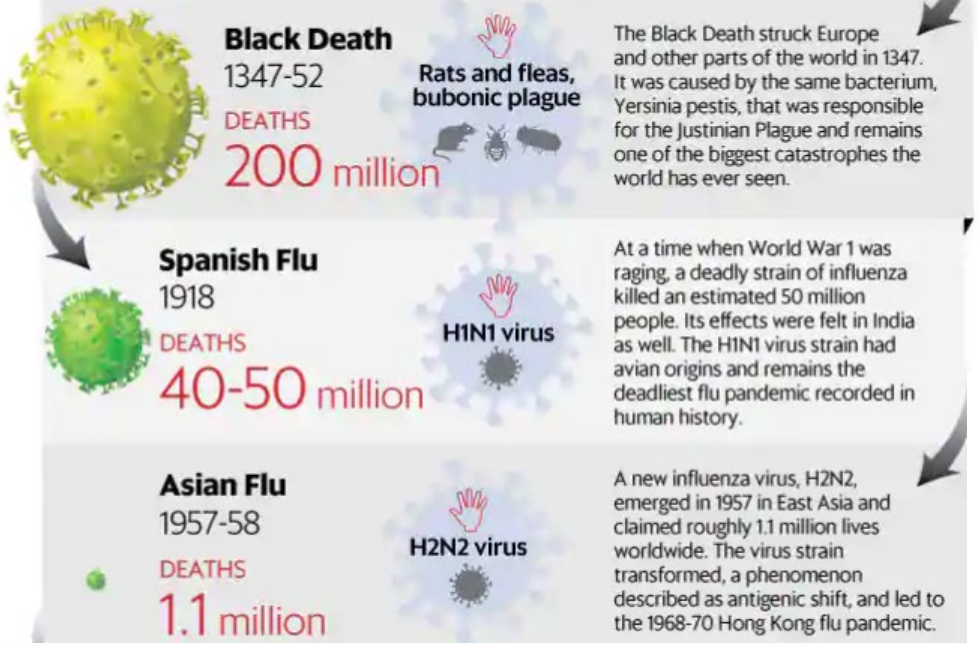
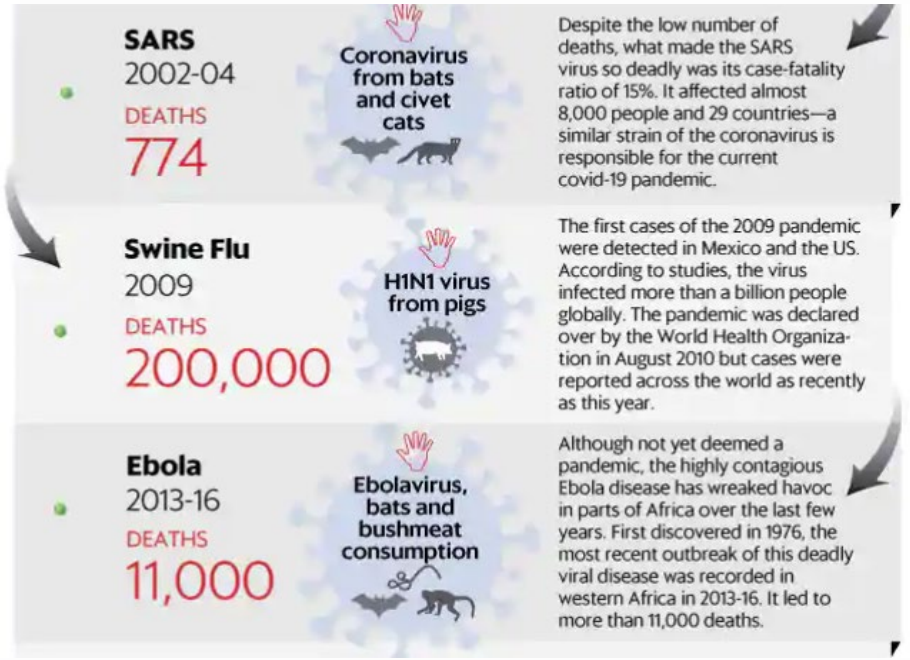
A BRIEF HISTORY OF OUTBREAKS

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.





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

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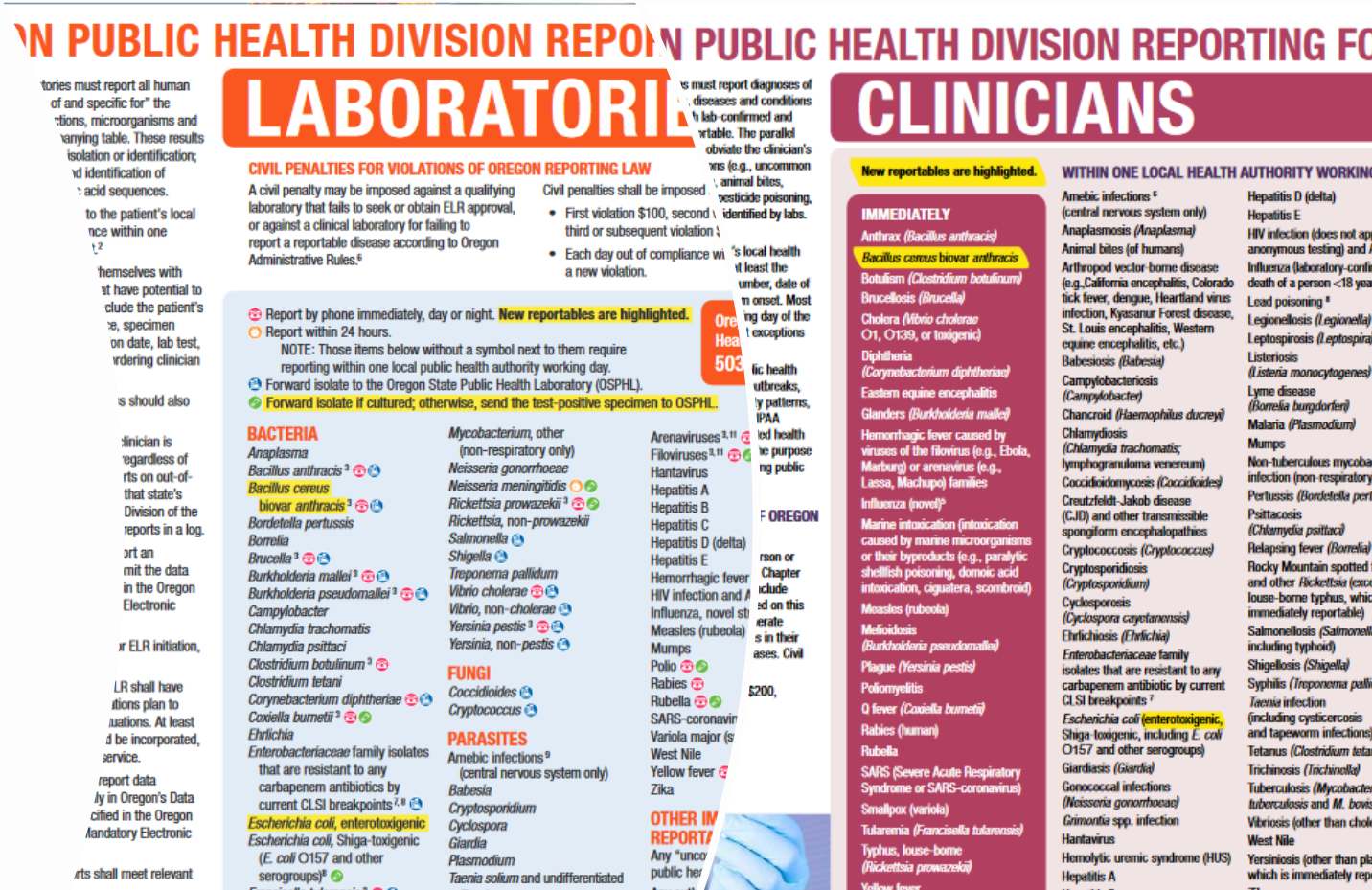
What do we track

- We have rules that require the report of different conditions
- Such as but not limited to
- Anthrax
- Rabies
- Plague
- Avian flu and other infectious conditions



N PUBLIC HEALTH DIVISION REPO

N PUBLIC HEALTH DIVISION REPORTING FO

LABORATORI

CLINICIANS

CIVIL PENALTIES FOR VIOLATIONS OF OREGON REPORTING LAW

A civil penalty may be imposed against a qualifying laboratory that fails to seek or obtain ELR approval, or against a clinical laboratory for failing to report a reportable disease according to Oregon Administrative Rules.[6]

Civil penalties shall be imposed

- First violation $100, second
- third or subsequent violation
- Each day out of compliance wi a new violation.

Report by phone immediately, day or night. New reportables are highlighted.

Report within 24 hours.

NOTE: Those items below without a symbol next to them require reporting within one local public health authority working day.

Forward isolate to the Oregon State Public Health Laboratory (OSPHL).

Forward isolate if cultured; otherwise, send the test-positive specimen to OSPHL.

BACTERIA

Anaplasma
Bacillus anthracis[3]
Bacillus cereus biovar *anthracis*[3]
Bordetella pertussis
Borrelia
Brucella[3]
Burkholderia mallei[3]
Burkholderia pseudomallei[3]
Campylobacter
Chlamydia trachomatis
Chlamydia psittaci
Clostridium botulinum[3]
Clostridium tetani
Corynebacterium diphtheriae
Coxiella burnetii[3]
Ehrlichia
Enterobacteriaceae family isolates that are resistant to any carbapenem antibiotics by current CLSI breakpoints[7,8]
Escherichia coli, enterotoxigenic
Escherichia coli, Shiga-toxigenic (*E. coli* O157 and other serogroups)[8]
Francisella tularensis[3]
Grimontia
Haemophilus ducreyi
Haemophilus influenzae
Legionella
Leptospira
Listeria monocytogenes
Mycobacterium bovis
Mycobacterium tuberculosis
Mycobacterium, other (non-respiratory only)
Neisseria gonorrhoeae
Neisseria meningitidis
Rickettsia prowazekii[3]
Rickettsia, non-*prowazekii*
Salmonella
Shigella
Treponema pallidum
Vibrio cholerae
Vibrio, non-*cholerae*
Yersinia pestis[3]
Yersinia, non-*pestis*

FUNGI

Coccidioides
Cryptococcus

PARASITES

Amebic infections[9] (central nervous system only)
Babesia
Cryptosporidium
Cyclospora
Giardia
Plasmodium
Taenia solium and undifferentiated *Taenia* spp.
Trichinella

PRION DISEASES

Creutzfeldt-Jakob disease (CJD), other prion diseases

VIRUSES

Arboviruses[10]
Arenaviruses[3,11]
Filoviruses[3,11]
Hantavirus
Hepatitis A
Hepatitis B
Hepatitis C
Hepatitis D (delta)
Hepatitis E
Hemorrhagic fever
HIV infection and
Influenza, novel st
Measles (rubeola)
Mumps
Polio
Rabies
Rubella
SARS-coronavir
Variola major (s
West Nile
Yellow fever
Zika

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New reportables are highlighted.

WITHIN ONE LOCAL HEALTH AUTHORITY WORKING

IMMEDIATELY

Anthrax (Bacillus anthracis)
Bacillus cereus biovar *anthracis*
Botulism *(Clostridium botulinum)*
Brucellosis *(Brucella)*
Cholera *(Vibrio cholerae* O1, O139, or toxigenic)
Diphtheria *(Corynebacterium diphtheriae)*
Eastern equine encephalitis
Glanders *(Burkholderia mallei)*
Hemorrhagic fever caused by viruses of the filovirus (e.g., Ebola, Marburg) or arenavirus (e.g., Lassa, Machupo) families
Influenza (novel)[5]
Marine intoxication (intoxication caused by marine microorganisms or their byproducts (e.g., paralytic shellfish poisoning, domoic acid intoxication, ciguatera, scombroid)
Measles (rubeola)
Melioidosis *(Burkholderia pseudomallei)*
Plague *(Yersinia pestis)*
Poliomyelitis
Q fever *(Coxiella burnetii)*
Rabies (human)
Rubella
SARS (Severe Acute Respiratory Syndrome or SARS-coronavirus)
Smallpox (variola)
Tularemia *(Francisella tularensis)*
Typhus, louse-borne *(Rickettsia prowazekii)*
Yellow fever

Outbreaks and uncommon illnesses (any known or suspected common-source outbreak; any uncommon illness of potential public health significance)

Amebic infections[6] (central nervous system only)
Anaplasmosis *(Anaplasma)*
Animal bites (of humans)
Arthropod vector-borne disease (e.g.,California encephalitis, Colorado tick fever, dengue, Heartland virus infection, Kyasanur Forest disease, St. Louis encephalitis, Western equine encephalitis, etc.)
Babesiosis *(Babesia)*
Campylobacteriosis *(Campylobacter)*
Chancroid *(Haemophilus ducreyi)*
Chlamydiosis *(Chlamydia trachomatis;* lymphogranuloma venereum)
Coccidioidomycosis *(Coccidioides)*
Creutzfeldt-Jakob disease (CJD) and other transmissible spongiform encephalopathies
Cryptococcosis *(Cryptococcus)*
Cryptosporidiosis *(Cryptosporidium)*
Cyclosporosis *(Cyclospora cayetanensis)*
Ehrlichiosis *(Ehrlichia)*
Enterobacteriaceae family isolates that are resistant to any carbapenem antibiotic by current CLSI breakpoints[7]
Escherichia coli (enterotoxigenic, Shiga-toxigenic, including *E. coli* O157 and other serogroups)
Giardiasis *(Giardia)*
Gonococcal infections *(Neisseria gonorrhoeae)*
Grimontia spp. infection
Hantavirus
Hemolytic uremic syndrome (HUS)
Hepatitis A
Hepatitis B
Hepatitis C
Hepatitis D (delta)
Hepatitis E
HIV infection (does not ap anonymous testing) and
Influenza (laboratory-confi death of a person <18 yea
Lead poisoning [4]
Legionellosis *(Legionella)*
Leptospirosis *(Leptospira*
Listeriosis *(Listeria monocytogenes)*
Lyme disease *(Borrelia burgdorferi)*
Malaria *(Plasmodium)*
Mumps
Non-tuberculous mycoba infection (non-respiratory
Pertussis *(Bordetella pert*
Psittacosis *(Chlamydia psittaci)*
Relapsing fever *(Borrelia)*
Rocky Mountain spotted and other *Rickettsia* (exc louse-borne typhus, whic immediately reportable)
Salmonellosis *(Salmonell* including typhoid)
Shigellosis *(Shigella)*
Syphilis *(Treponema palli*
Taenia infection (including cysticercosis and tapeworm infections)
Tetanus *(Clostridium teta*
Trichinosis *(Trichinella)*
Tuberculosis *(Mycobacte tuberculosis* and *M. bovis*
Vibriosis (other than chol
West Nile
Yersiniosis (other than pl which is immediately rep
Zika

FOOTNOTES

1 In addition to reporting updates, please be aware of new OAR 333-019-0
requiring health care professionals to observe standard precautions as de
in Centers for Disease Control and Prevention's Guideline for Isolation Pre
Preventing Transmission of Infectious Agents in Healthcare Settings (200
https://www.cdc.gov/infectioncontrol/guidelines/isolation/

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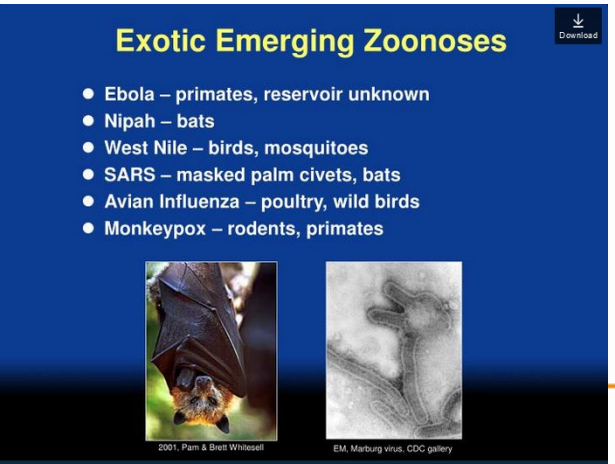
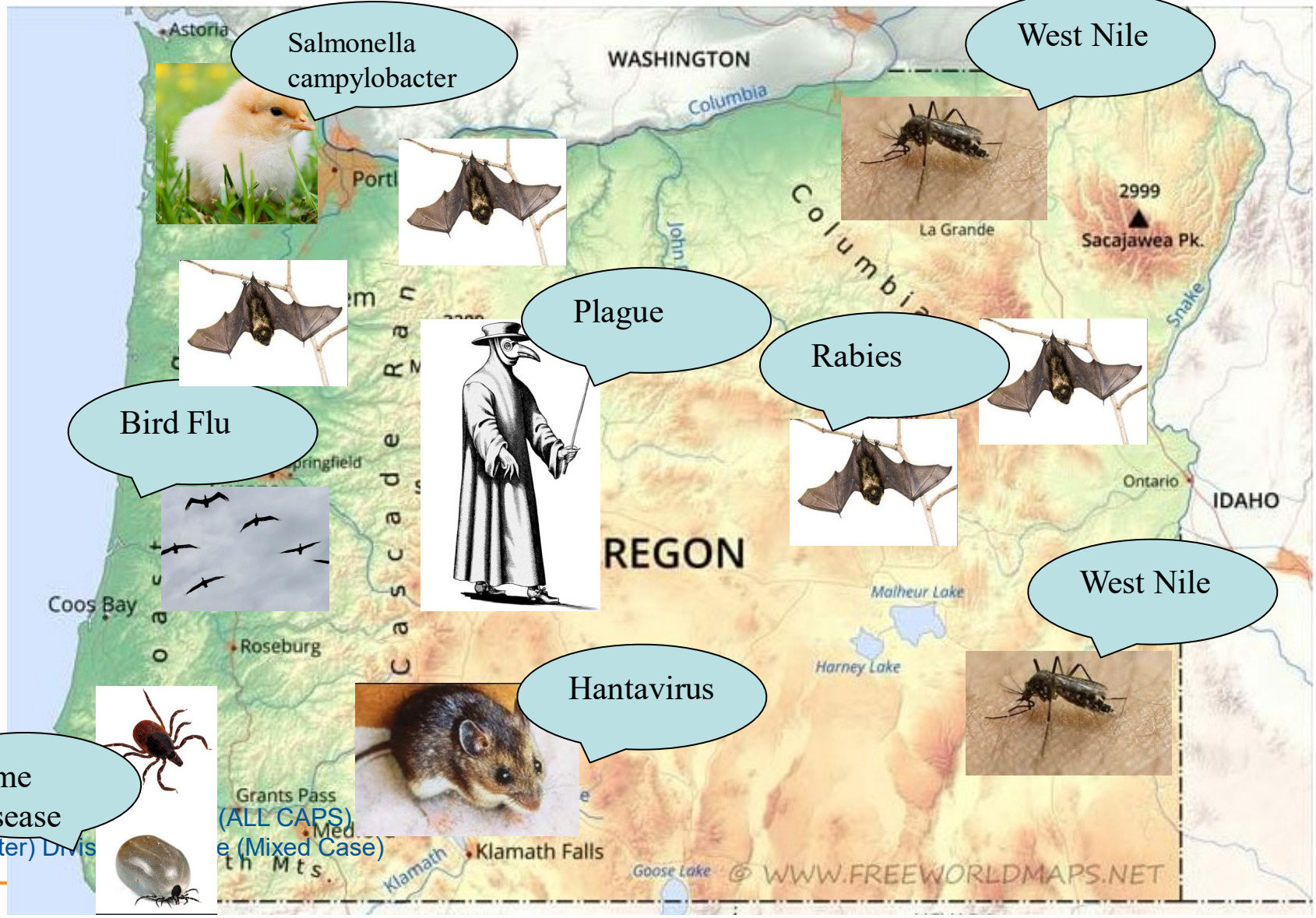
The zoonotic diseases of most concern in the U.S.

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





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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