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# Zoonotic Disease Investigations Acute and Communicable Disease

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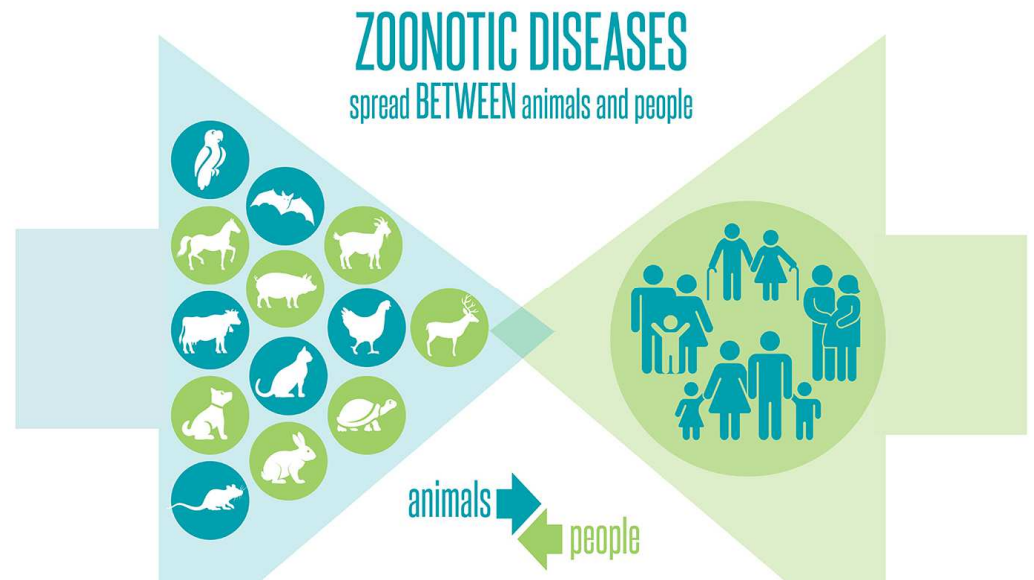
The logo for the Oregon Health Authority. It features the word "Oregon" in a smaller, orange, serif font, positioned above the word "Health" in a larger, dark blue, serif font. A thin blue horizontal line is positioned below "Health", and the word "Authority" is written in a smaller, orange, serif font below the line.

Oregon  
Health  
Authority

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

## Zoonotic Disease Transmission

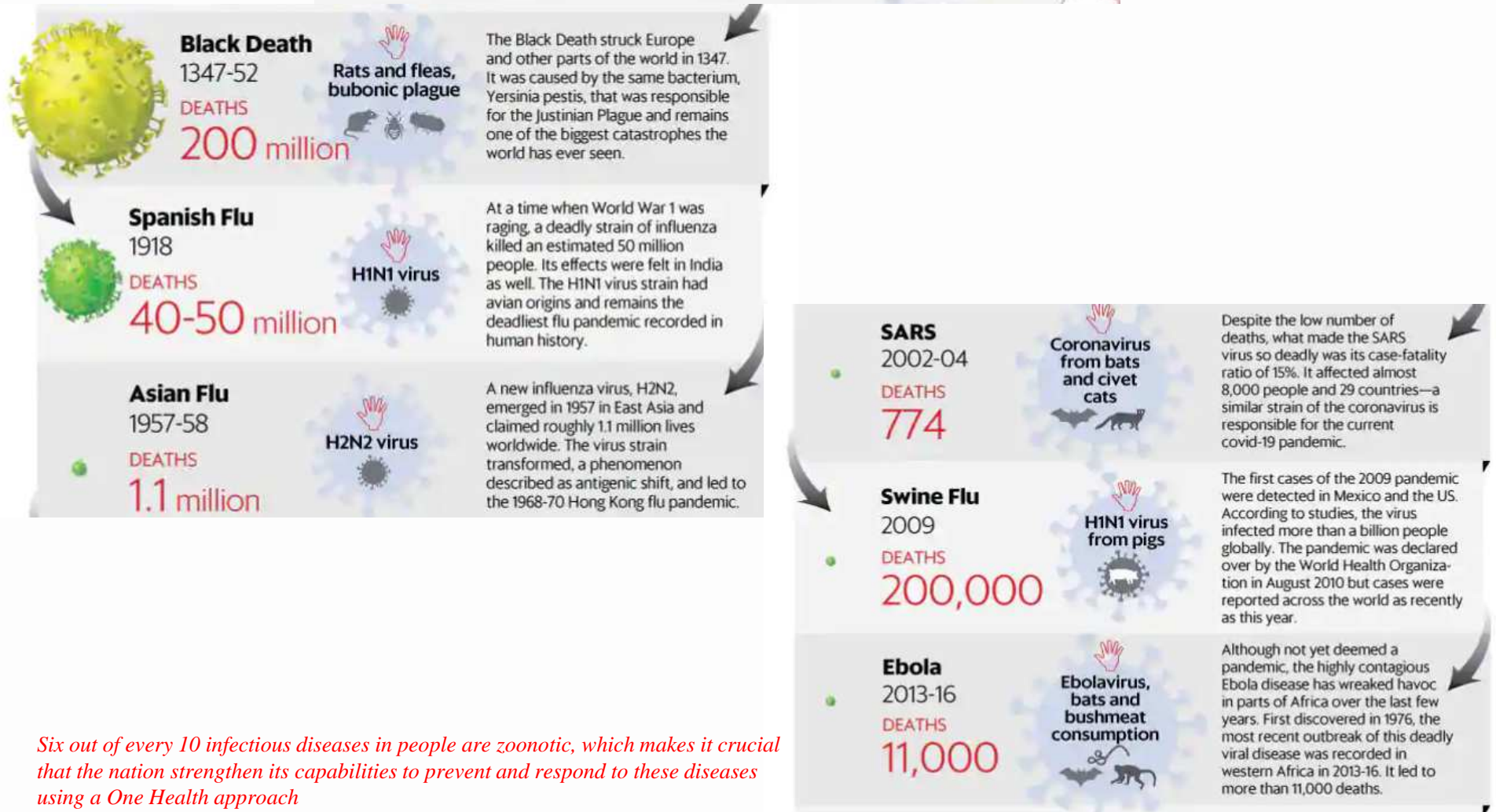


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# A BRIEF HISTORY OF OUTBREAKS

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



## 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

## IN PUBLIC HEALTH DIVISION REPORT PUBLIC HEALTH DIVISION REPORTING FOR CLINICIANS

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## LABORATORIA

### 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.<sup>5</sup>

Civil penalties shall be imposed.

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

s must report diagnoses of diseases and conditions lab-confirmed and etable. The parallel obviate the clinician's vis (e.g., uncommon animal bites, pesticide poisoning, identified by labs.

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- 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<sup>1</sup> ☹️  
Bacillus cereus  
biovar anthracis<sup>1</sup> ☹️  
Bordetella pertussis  
Borrelia  
Brucella<sup>3</sup> ☹️  
Burkholderia mallei<sup>3</sup> ☹️  
Burkholderia pseudomallei<sup>3</sup> ☹️  
Campylobacter  
Chlamydia trachomatis  
Chlamydia psittaci  
Clostridium botulinum<sup>3</sup> ☹️  
Clostridium tetani  
Corynebacterium diphtheriae ☹️  
Coxiella burnetii<sup>3</sup> ☹️  
Ehrlichia  
Enterobacteriaceae family isolates that are resistant to any carbapenem antibiotics by current CLSI breakpoints<sup>7,8</sup> ☹️  
Escherichia coli, enterotoxigenic (E. coli O157 and other serogroups)<sup>8</sup> ☹️  
Francisella tularensis<sup>3</sup> ☹️  
Grimontia  
Haemophilus ducreyi  
Haemophilus influenzae ☹️  
Legionella  
Leptospira  
Listeria monocytogenes  
Mycobacterium bovis  
Mycobacterium tuberculosis ☹️

Mycobacterium, other (non-respiratory only)  
Neisseria gonorrhoeae  
Neisseria meningitidis ☹️  
Rickettsia prowazekii<sup>3</sup> ☹️  
Rickettsia, non-prowazekii  
Salmonella  
Shigella ☹️  
Treponema pallidum  
Vibrio cholerae ☹️  
Vibrio, non-cholerae ☹️  
Yersinia pestis<sup>3</sup> ☹️  
Yersinia, non-pestis ☹️

### FUNGI

Coccidioides  
Cryptococcus ☹️

### PARASITES

Amebic infections<sup>9</sup> (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

### VIROSES

Arboviruses<sup>10</sup>

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## CLINICIANS

New reportables are highlighted.

### 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 flavivirus (e.g., Ebola, Marburg) or arenavirus (e.g., Lassa, Machupo) families  
Influenza (novel)  
Marine intoxication (intoxication caused by marine microorganisms or their byproducts (e.g., paralytic shellfish poisoning, domoic acid intoxication, ciguatera, scombrotoxin)  
Measles (rubeola)  
Meloidosis (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)

WITHIN ONE LOCAL HEALTH AUTHORITY WORKING

Amebic infections<sup>9</sup> (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)  
Chlamydia  
Chlamydia trachomatis; lymphogranuloma venereum  
Coccidioidomycosis (Coccidioides)  
Creutzfeldt-Jakob disease (CJD) and other transmissible spongiform encephalopathies  
Cryptococcosis (Cryptococcus)  
Cryptosporidiosis (Cryptosporidium)  
Cyclosporiasis (Cyclospora cayentensis)  
Ehrlichiosis (Ehrlichia)  
Enterobacteriaceae family isolates that are resistant to any carbapenem antibiotic by current CLSI breakpoints<sup>7</sup>  
Escherichia coli (enterotoxigenic, Shiga toxinogenic, 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 apply to anonymous testing) and A  
Influenza (laboratory-confirmed death of a person <18 years)  
Lead poisoning<sup>4</sup>  
Legionellosis (Legionella)  
Leptospirosis (Leptospira)  
Listeriosis (Listeria monocytogenes)  
Lyme disease (Borrelia burgdorferi)  
Malaria (Plasmodium)  
Mumps  
Non-tuberculous mycobacterial infection (non-respiratory)  
Pertussis (Bordetella pertussis)  
Psittacosis (Chlamydia psittaci)  
Relapsing fever (Borrelia)  
Rocky Mountain spotted fever and other Rickettsia (except louse-borne typhus, which is immediately reportable)  
Salmonellosis (Salmonella, including typhoid)  
Shigellosis (Shigella)  
Syphilis (Treponema pallidum)  
Tinea infection (including cysticercosis and tapeworm infections)  
Tetanus (Clostridium tetani)  
Trichinosis (Trichinella)  
Tuberculosis (Mycobacterium tuberculosis and M. bovis)  
Vibriosis (other than cholera)  
West Nile  
Yersiniosis (other than plague which is immediately reportable)  
Zika

### FOOTNOTES

<sup>1</sup> In addition to reporting updates, please be aware of new OAR 333.019.01 requiring health care professionals to observe standard precautions as described in Centers for Disease Control and Prevention's Guidelines for Isolation Precautions: Transmission of Infectious Agents in Healthcare Settings (2007) <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



### Exotic Emerging Zoonoses

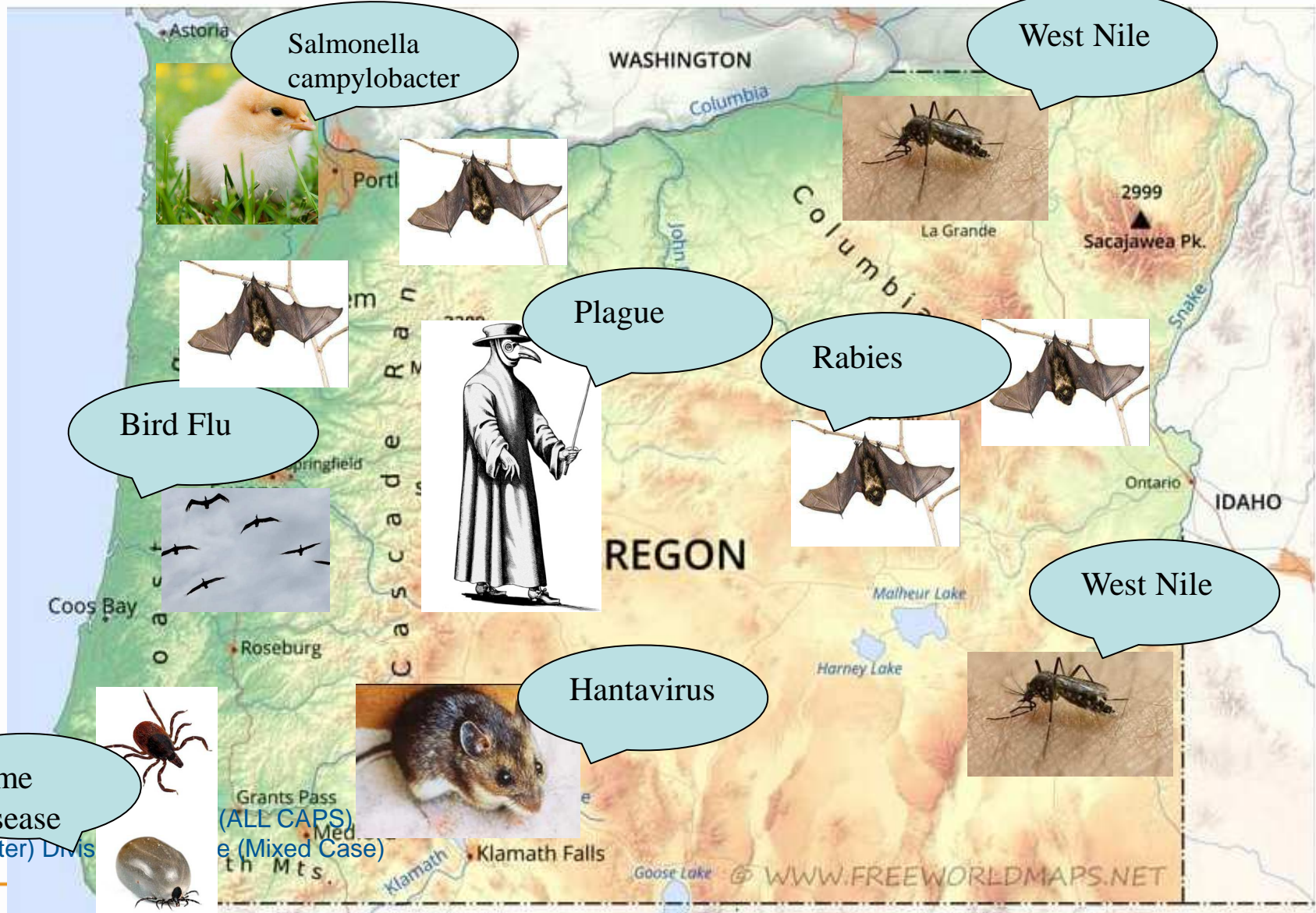
- Ebola – primates, reservoir unknown
- Nipah – bats
- West Nile – birds, mosquitoes
- SARS – masked palm civets, bats
- Avian Influenza – poultry, wild birds
- Monkeypox – rodents, primates

2001, Pam & Brett Whitwell

EM, Marburg virus, CDC gallery







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