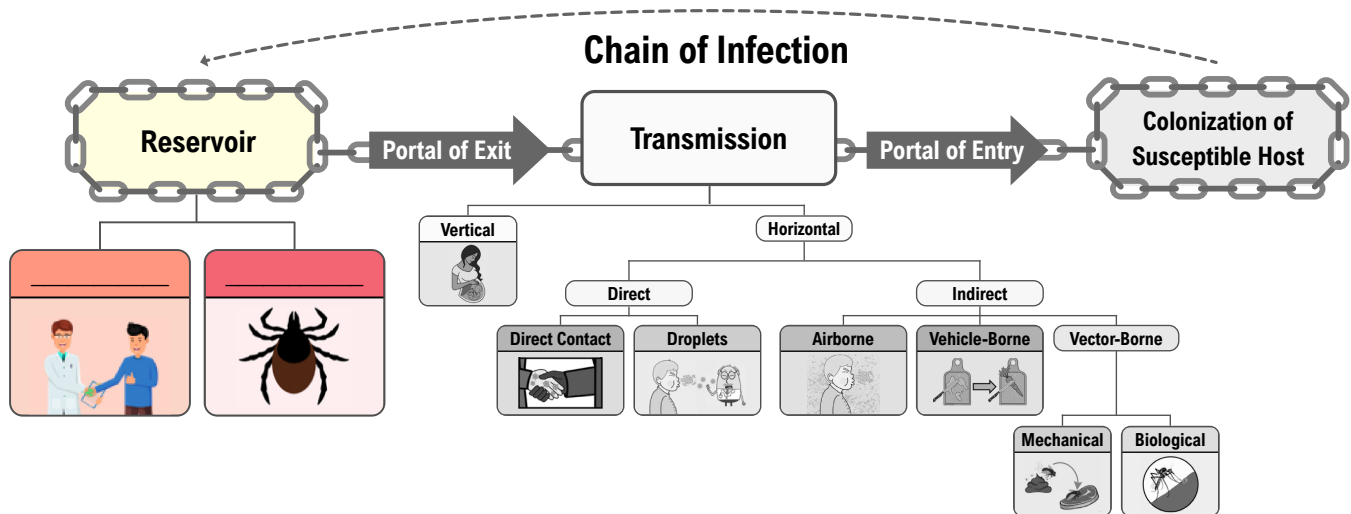


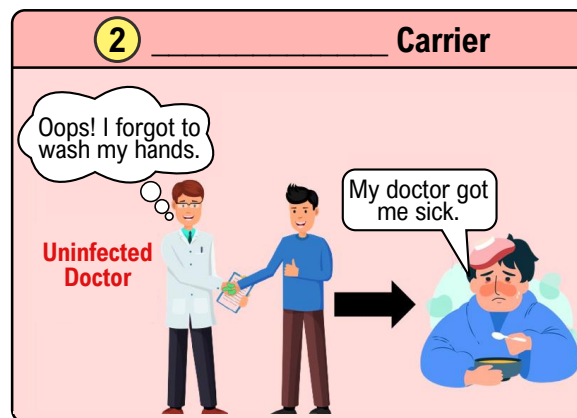
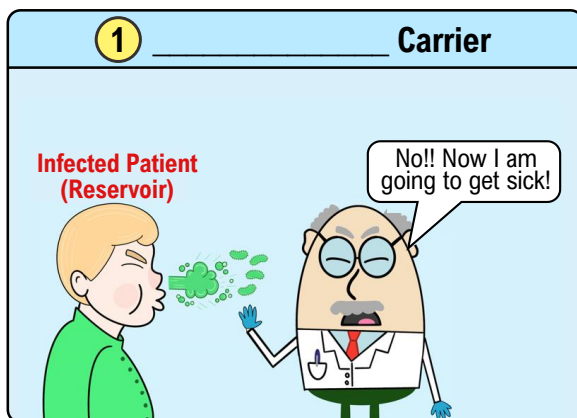
TOPIC: RESERVOIRS OF INFECTION

- ◆ Recall: _____: the natural habitat where the pathogen persists long-term (lives, grows, & multiplies).
 - Can be either *human* or *non-human* (e.g. other animals, or inanimate/environmental objects).



Human Reservoirs: Carriers of Disease

- ◆ _____: organism capable of *transmitting* pathogens; may not show signs & symptoms.
 - 1) Active Carrier:** _____ person that sheds the pathogen & can transmit the disease.
 - **Asymptomatic Carrier:** *active carrier* that does _____ show signs or symptoms.
 - 2) Passive Carrier:** _____-infected but *contaminated* person that *mechanically* transmits pathogens.
 - E.g. a healthy doctor forgets to wash their hands after treating an infected patient.



TOPIC: RESERVOIRS OF INFECTION

PRACTICE

Which of the following statements about active disease carriers is false?

- a) Active carriers are always infected with the disease (unlike passive carriers).
- b) Active carriers may be symptomatic or asymptomatic.
- c) Active carriers are always symptomatic.
- d) All of the above are false.

PRACTICE

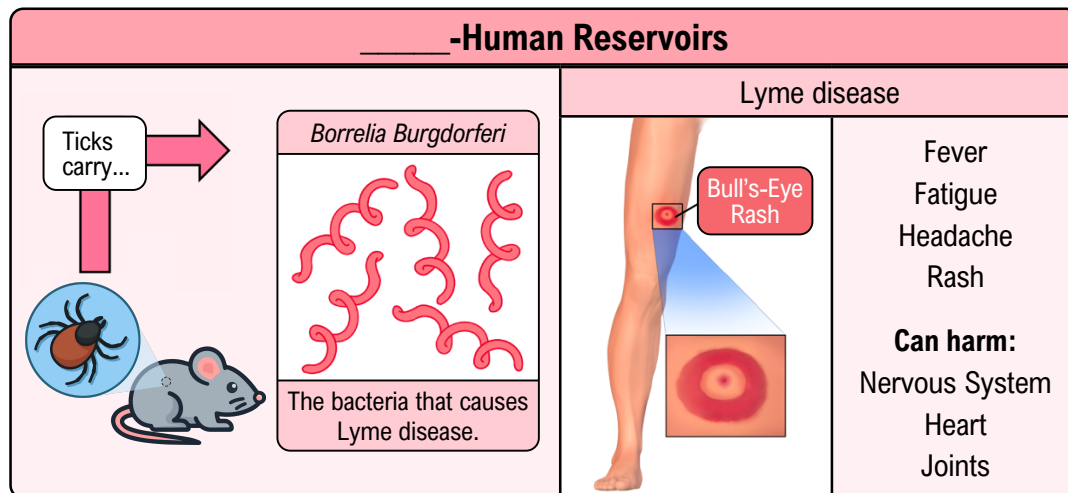
SARS-CoV-2 virus (Covid-19) is a very contagious virus and most individuals infected by the virus show symptoms. However, some people infected with the disease do not show symptoms at all. These people are:

- | | | |
|------------------------------------|-----------------------------------|------------|
| a) Passive, symptomatic carriers. | c) Active, symptomatic carriers. | e) b or c. |
| b) Passive, asymptomatic carriers. | d) Active, asymptomatic carriers. | f) c or d. |

TOPIC: RESERVOIRS OF INFECTION

Non-Human Reservoirs

- ◆ Non-human reservoirs are the source of MANY diseases & are very difficult to control.
 - Environmental reservoirs like _____ & _____ are the most common & problematic.
- ◆ **Zoonoses:** diseases that *originate* in an _____ but can be transmitted *directly* or *indirectly* to a human.
 - Examples include *rabies* (dogs), *plague* (fleas), *salmonellosis* (poultry), & *Lyme disease* (mice).



PRACTICE

The following answer choices list a disease followed by the primary organism(s) that carries that disease. Which of the following is not an example of a zoonotic disease?

- | | |
|--------------------------------------|--|
| a) Measles virus; humans. | c) <i>Yersinia pestis</i> (plague); rodents and fleas. |
| b) Rabies virus; all mammal species. | d) West Nile virus; birds and mosquitos. |

PRACTICE

A tick infected with *Borrelia burgdorferi* bacteria bites a human and transfers the bacteria to the human. The human soon shows signs of Lyme disease. The wound the tick makes on the human's skin is the pathogen's:

- | | |
|--------------------|------------------------|
| a) Portal of exit. | c) Portal of entry. |
| b) Reservoir. | d) Chain of infection. |