

1. You are prescribed to take oral antibiotics for two weeks, but they are causing slight diarrhea and you are tempted to stop taking them after feeling better a week into the treatment. What do you do and why? My answer: Keep taking the antibiotics and go to the doctor for checkup if that helps. Antibiotics kill antibiotic-prone strains and give the immune system time to destroy the antibiotic-resistant strains. Stop taking antibiotics too soon means that the immune system did not have enough time to kill off the resistant strains.

2. Describe three factors that may explain why there are newly emerging infectious diseases.

My answer:

- More travel/transportation: Traveling has never been easier. Not only traveling to places of the same country is easier due to cars and public transportation, but we can now go across countries and continents by boat or planes
- higher human density: There is more of us because population constantly doubled on top of each other and people are not spread out of the available land. Cities are an example of high density
- increased transmission: there are new diseases with different ways of transmission. Person to person, vector, sexual, environmental. This is also likely to occur in higher density.

3. Provide characteristics of *Aedes aegypti* and list four examples of viral diseases transmitted by this mosquito species.

My answer:

- A day mosquito, doesn't out at dusk or night, and doesn't need a lot of water to be able to reproduce/live off of.
- Symptom: headache, fever, rash, swelling, muscle pain, severe joint pain
- Diseases: yellow fever, dengue
 - Yellow fever: causes hepatitis, inflammation of liver
 - chikungunya:
 - Dengue: extensive inflammation of hemorrhagic fever causes bleeding
 - Zika: impacts fetal development (microcephaly: reduce development of brain)

4. You are managing the distribution of public health funding related to COVID-19. You have been given the go-ahead to bump up funding to one aspect of public health to have a positive impact on the current pandemic. Which would you choose and why?

My answer: Sanitation: Even here in America, some places have poor sanitation and I also realized that it is something that is not talked about as much as the other aspects. I see people drinking off of tap water, not wash their hands after using the bathroom, and what normal poop is. I experienced lactose intolerance all my life but I just noticed it this year. All my life I have had bad poops but did not know they were bad. I just thought that everyone else experienced the same. By spreading more awareness, I hope these experiences would decrease.