Wet Market and COVID-19 Factsheet

1. What is a Wet Market and what is a Live Market? How do they differ?
US Live Markets are tightly regulated establishments that mainly sell poultry and follow strict separation of areas where live animals are kept, areas where animals are slaughtered, and areas where meat is harvested, packed and sold. US Live Markets are adhering to the same animal health, veterinary, and sanitary standards as any abattoir or meat processing establishment. Wet Markets, which are mostly found in Asian and African countries, are traditional establishments where a number of different domestic and wild animal species may be sold, including snakes, turtles, different birds, badgers, hedgehogs, beavers, pangolins, bats, wild boars, palm civets as well as sometimes primates. There typically is limited separation of different live animals, nor tends there to be separation of areas for slaughter and selling. In addition, humans often live in these markets, including in close proximity to animals, allowing for direct transmission of zoonotic diseases between animals and humans.

2. How are Wet Markets connected to the pandemic of COVID-19?
The origin of the COVID-19 pandemic was traced to a wet market in Wuhan, China. Wet markets are known to sell several species of live animals, including wild animals. This environment where live wild and domestic animals are present near humans for prolonged time is considered a good environment where zoonotic viruses can spillover from animals to humans. Wet markets were also suspected to be the origin in previous outbreaks; for example, SARS and avian influenza.

3. Do Live Markets represent a higher risk of COVID-19?
None of the domestic animal species sold at live markets, like chicken, are susceptible to infection with COVID-19 virus and are not considered a likely vehicle of transmission to humans. Contamination of meat by a worker or a customer that is infectious and shedding the virus is also considered highly unlikely. If contamination was to occur, the contamination would be expected to be minimal; both in terms of number of active viral particles, as well as quantity of potentially contaminated meat. Minimal risk represented by a low potential contamination is additionally reduced because the virus is highly unstable outside of the host and is inactivated at a rapid rate on meat and other surfaces. The main path of transmission for this virus is from person-to-person through respiratory droplets which means the risk at a live market is expected to be comparable to the risk in any other public environment. Live markets should follow the general mitigation strategies to control the risk, including maintaining social distancing, regular handwashing, wearing face covering, not touching the face, and controlling access to symptomatic people.

4. Do Live Markets have the potential to start a new pandemic?
Live Markets and products sold at Live Markets have no contact with wild animals considered to be potential reservoirs of novel viruses, hence Live Markets are not considered to represent an enhanced risk to start a new pandemic. Since Live Markets in the US sell mostly poultry, agencies like USDA and CDC considered the potential of viral outbreak, like avian influenza, to start from an environment like Live Poultry Market. The conclusion was that while human infections are possible, infections with avian influenza viruses in general are rare. In those rare occasions when infections with avian influenza virus do occur, the infection does not spread easily to other people. As a result of this limited spread, the infections have a low potential to result in development of human epidemic or pandemic. US is considered to have the strongest avian influenza surveillance program in the world; this program together with avian influenza response plans that are in place on a Federal and State level assure the food supply and general public remains safe.

Visit the Institute for Food Safety at Cornell University's website for more information.
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5. Meat and Poultry processing plants represent one of the biggest clusters of COVID-19 in the country; is this connected to live animals and animal food products, the same problem as with Wet Markets?

The live animals that are suspected to be involved in the start of the COVID-19 are not the same as animals processed in meat and poultry plants. Animals suspected to be involved in the start of COVID-19 are bats, pangolin, palm civet, and other species of wild animals that are mostly not native to US or not harvested for meat in US. The clusters of COVID-19 that were recently identified in meat and poultry processing plants are result of how these processing plants operate. Meat slaughter and processing requires a lot of manual labor which results in a lot of people working in close proximity making social distancing, the main mitigation strategy, difficult to maintain. Large meat and poultry processors often also represent the main employer in the local community, which means that any transmissions in the community are also likely to be reflected in the number of cases within these plants. Meat and poultry plant associated COVID-19 cases are due to human-to-human transmission and not due to transmission from the animals slaughtered or processed.

6. Is meat packaged in the store safe?

Contamination of meat by a worker or a customer that is infectious and shedding the virus is considered highly unlikely. If contamination was to occur, the contamination would be expected to be minimal; both in terms of number of active viral particles as well as quantity of potentially contaminated meat. Minimal risk represented by a low potential contamination is additionally reduced because the virus is highly unstable outside of the host and is inactivated at a rapid rate on meat and other surfaces. In addition, raw meat is typically cooked prior to consumption, and the virus is inactivated by proper cooking temperatures for meat and poultry. The virus also is rapidly inactivated by stomach acid and there is no evidence of foodborne transmission of COVID-19.