A BRIEF HISTORY OF ZOONOTIC DISEASES

A zoonotic disease is a disease that spreads between animals and humans. According to the CDC, 3 out of every 4 new or emerging infectious diseases in people come from animals. COVID-19 is said to have originated in a bat before jumping to an intermediate host, and then to humans. But this isn’t the first time our interactions with animals has resulted in a public health crisis. For instance, in 2002, the outbreak of SARS (Severe Acute Respiratory Syndrome) originated in civets before infecting humans. Avian influenza, also known as bird flu, began as an infection, likely in aquatic birds, before being transmitted to chickens and turkeys, and then humans. Outbreaks of Ebola are believed to be associated with the consumption of wild animals, like bats. The spread of swine flu in humans was first discovered in pigs in 1918. According to the CDC, the Spanish flu outbreak of 1918, one of the worst pandemics in recent history, was caused by an H1N1 virus with genes of avian origin that resulted in the deaths of more than 50 million people worldwide.

FACTORY FARMS: BREEDING GROUNDS FOR DISEASE

COVID-19 is thought to have spread from wet markets in China. Wet markets are places where live animals such as fish, chickens, dogs, and wild animals are often slaughtered and sold for human consumption directly to consumers.

Factory farming—the standard method of agriculture for raising animals for food—is a large industrialized operation that houses tens of thousands of animals in intensive, unsanitary conditions. Although there are several differences between the wet markets of China and US factory farms, they have one thing in common—they are both ideal breeding grounds for the emergence and spread of highly infectious zoonotic diseases.

94% OF ALL ANIMALS RAISED FOR FOOD ARE ON FACTORY FARMS

Photo: Andrew Skowron • Open Cages

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THE NEXT REAL RISKS

Bird Flu (HPAI)
Currently, there is a very real risk of a pandemic outbreak from a pathogen that is already circulating on poultry farms around the world—bird flu, a Highly Pathogenic Avian Influenza (HPAI). A strain of HPAI was recently detected on turkey farms in South Carolina. The Center for Health Security at John Hopkins says that “of the infectious disease threats that the world faces, avian influenza viruses ranked among the most alarming”. Strains of HPAI that have infected people resulted in a mortality rate as high as 60%. Although the current viral strains are unable to pass from human-to-human, scientists say that it’s only a matter of time if we continue to treat animals as we do now.

Antibiotic Resistance
According to the CDC, antibiotic resistance is one of the greatest global public health challenges of our time. The industry’s overuse of non-therapeutic antibiotics undermines the efficacy of crucial drugs in human medicine. The World Health Organization (WHO) estimates that 700,000 people die worldwide each year due to drug resistant diseases—enough people to fill 13 Yankee Stadiums each year. That’s even, tragically, close to 4 times more lives than that taken by COVID-19 as of April 23, 2020.

REBUILDING OUR BROKEN FOOD SYSTEM
It is clear that our current food system is in desperate need of repair and that immediate changes are needed to prevent future disease outbreaks. So how do we go about building a safer food system? To start, we can encourage major meat producers, like Tyson Foods, Perdue, and Pilgrim’s Pride, to adopt animal welfare reforms, such as the Better Chicken Commitment. These standards require cleaner conditions and healthier birds with stronger immune systems, and moves away from dirty, dangerous live-shackle slaughter practices. We should also demand that these giant corporations end the use of non-therapeutic antibiotics on factory farms.

Overall, we need to transition our food system away from intense factory farming and towards plant-based products that are healthier, more sustainable, and are less likely to result in human health risks and possible pandemics. Get started by checking out EatingVeg.org today!
94% of animals, or 130 billion animals worldwide are raised on factory farms where many are crammed into tiny cages and where all are forced to live in overcrowded, poorly ventilated, and unsanitary sheds with tens of thousands of others. These conditions cause chronic stress, which suppresses the animals’ immune systems, making them incredibly susceptible to infection. Their exposure to bodily fluids, waste, ammonia, and contaminated air particles facilitates the rapid spread of pathogens from animal to animal.

Animals on today’s industrial farms are bred and fed to grow as large as possible, with the least amount of food, in the least amount of time. This extreme growth causes chronic stress, which lowers their immune system, dramatically decreasing their ability to fight infection. Because these animals are essentially genetic clones of one another, pathogens are able to race through the population without meeting any resistance in the form of genetic variants that might help prevent its spread.

Deforestation and habitat loss, largely as a result of animal agriculture, speeds up the interactions we have with wild animals, increasing the exposure of humans and domesticated animals to wild viruses.

80% of antibiotics in the US are administered to farmed animals, often for non-therapeutic purposes, and often to compensate for the poor living conditions of animals. Exposing bacteria to low doses of antibiotics over time enables bacteria to adapt and mutate such that antibiotics are no longer an effective means of treatment for animals, or humans.