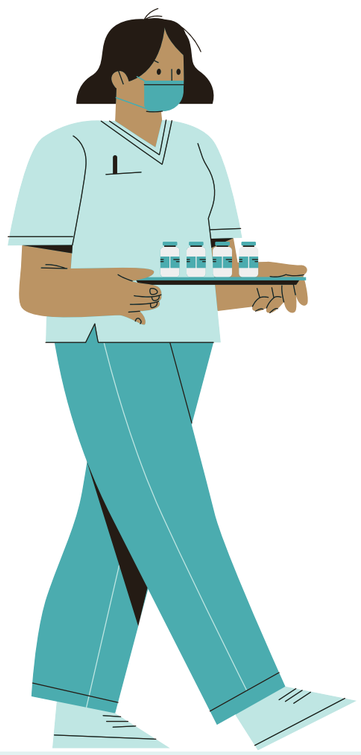


The *Socio-Economics* of *Disease*

Jason Lin

PH WITHOUT BORDERS

THE PROBLEM

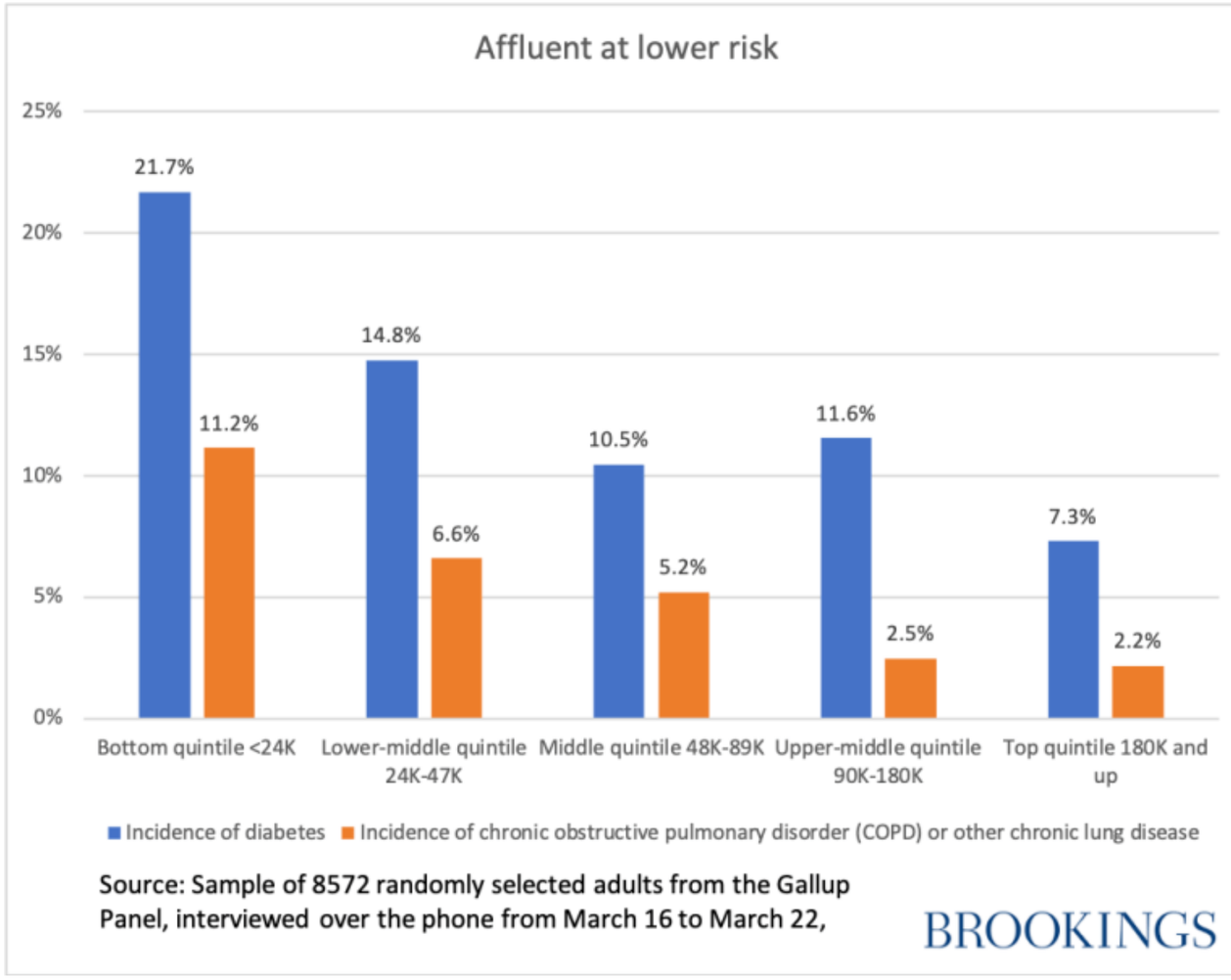
"People with lower SES continue to be the group that experiences the highest rates of morbidity and age-adjusted mortality from these more modern diseases, stimulated by risk factors such as poor nutrition, lack of exercise, and smoking that are more common in lower SES groups"

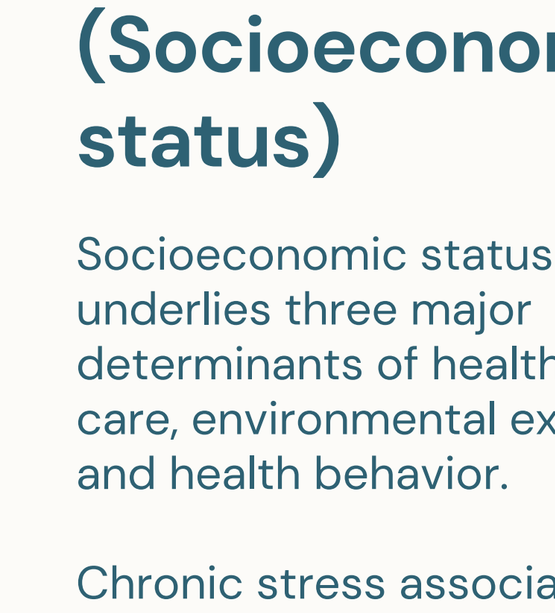
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3710744/

WHY SES? (Socioeconomic status)

Socioeconomic status (SES) underlies three major determinants of health: health care, environmental exposure, and health behavior.

Chronic stress associated with lower SES may also increase morbidity and mortality." - Healthaffairs.org





WHAT CAN BE DONE?

- Service to the Poor
- Public Health Social Work
- Government Welfare
- Education, Health, and Conform Services:

I.E: The lower the economic status the higher rates of Diabetes.

https://www.brookings.edu/blog/up-front/2020/03/27/class-and-covid-how-the-less-affluent-face-double-risks/?preview_id=792206

Source • Centers for Disease Control and Prevention (cdc.gov)

Difference and similarties between Delta and Omnicron

DELTA

- More severe symptoms
- 2-4 times less contagious

SIMILARTIES

- Similar symptoms incliuding sore throat, headache, runny nose

OMNICRON

- 2-4 times more contagious
- 91 percent less risk of death

Source; https://www.health.com/condition/infectious-diseases/coronavirus/omicron-vs-delta
https://www.deseret.com/coronavirus/2021/12/31/22861229/omicron-variant-vs-delta-different-covd-19-symptoms

Avian Flu

- Spreads primarily through contact with infected birds or surfaces.
- Rarely spreads from human to human.

H5N1

- Rare human infections with only 700+ cases since 2003.
- Very deadly with a 60% lethality rate

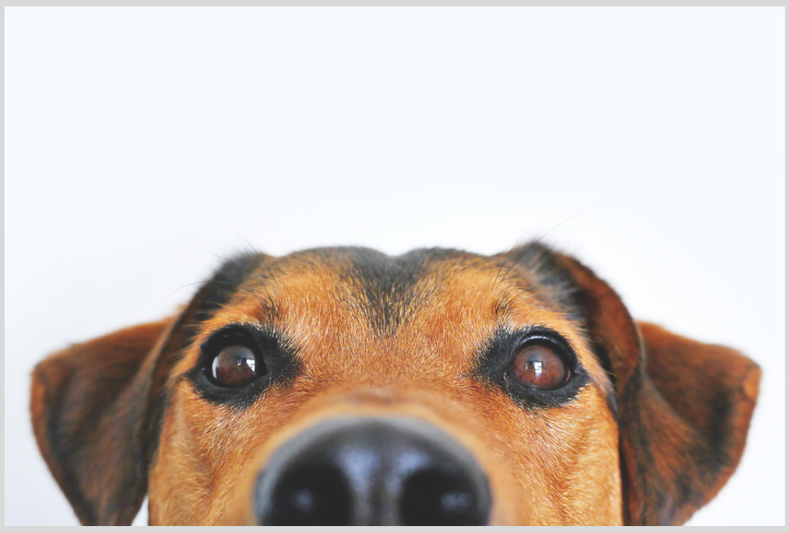
H7N9

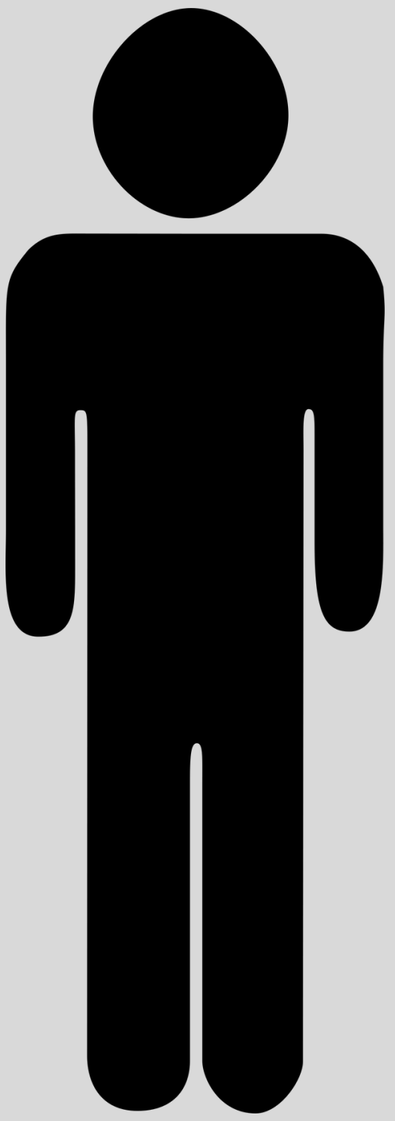
- First reported in China
- 6 epidemics since 2013
- 1565 total infections with about a 39% lethality rate

https://www.cdc.gov/flu/avianflu/h5n1-people.htm

https://www.cdc.gov/flu/avianflu/h7n9-virus.htm

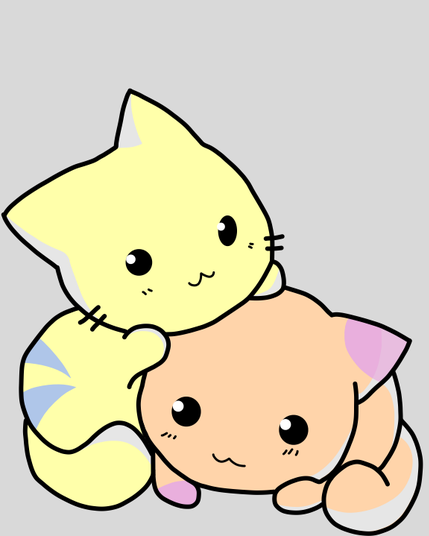
COVID transmission from human to animal

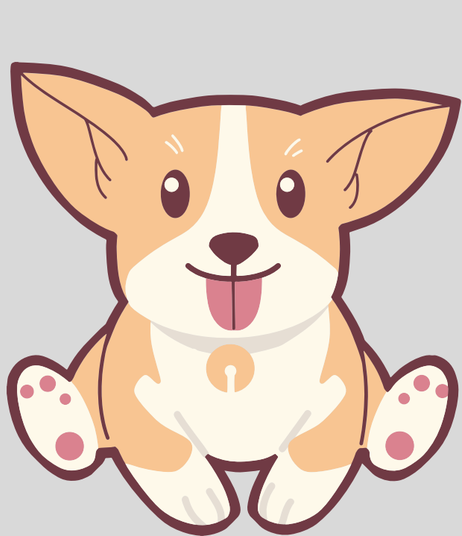




According to the CDC, "Recent experimental research shows that many mammals, including cats, dogs, ferrets, hamsters, pigs, and rabbits can be infected with the virus."

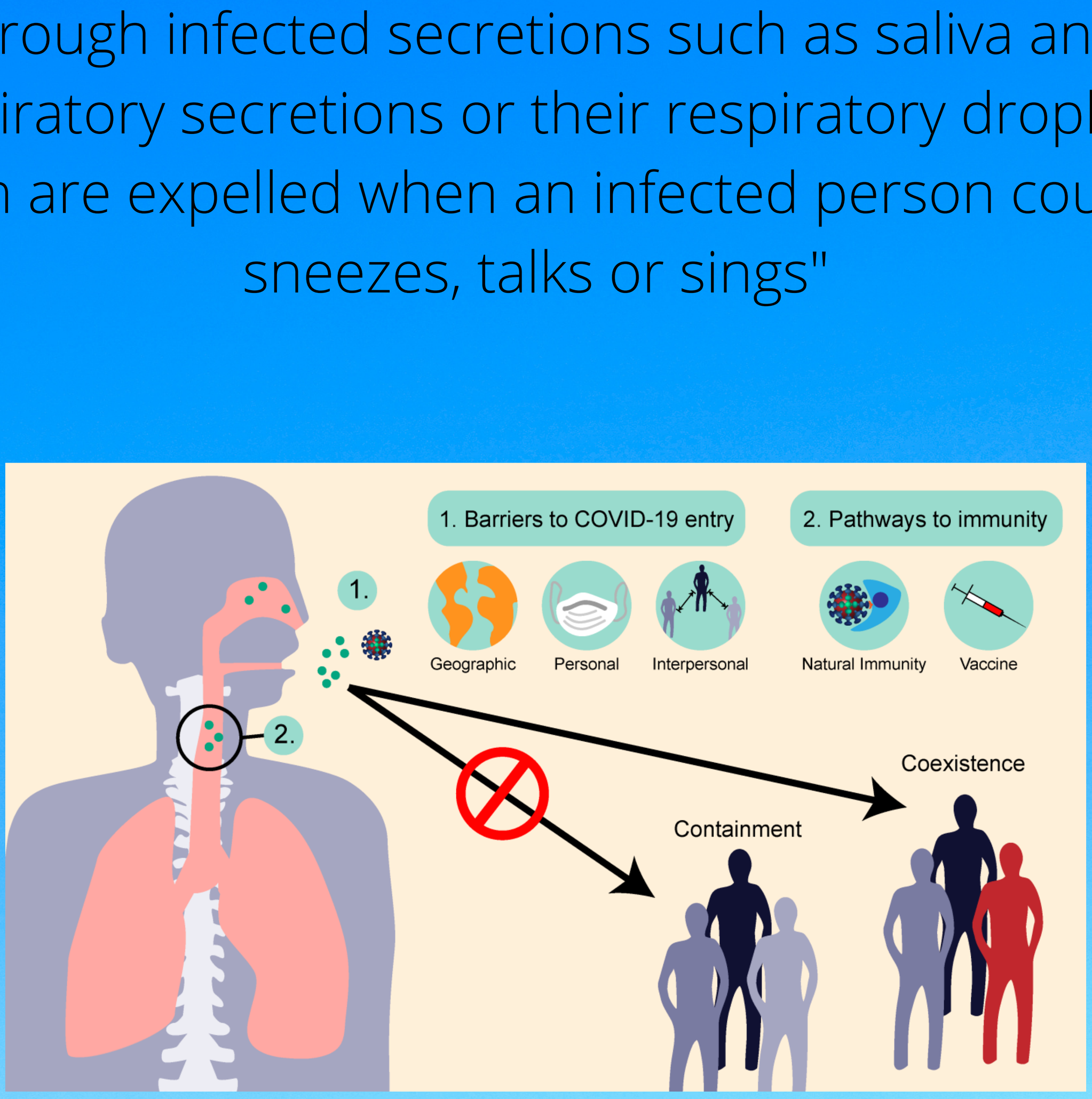
Be mindful of the pandemic and keep your pets safe!





Covid Transmission from Human to Human - Joseph

"Transmission of SARS-CoV-2 can occur through direct, indirect, or close contact with infected people through infected secretions such as saliva and respiratory secretions or their respiratory droplets, which are expelled when an infected person coughs, sneezes, talks or sings"



Trasmission of Zoonotic Diseases

Nathan Bao

Ways Diseases can Spread Between Animals and Humans

Direct Contact - exposure to the saliva, blood, urine, or other bodily fluids of an animal

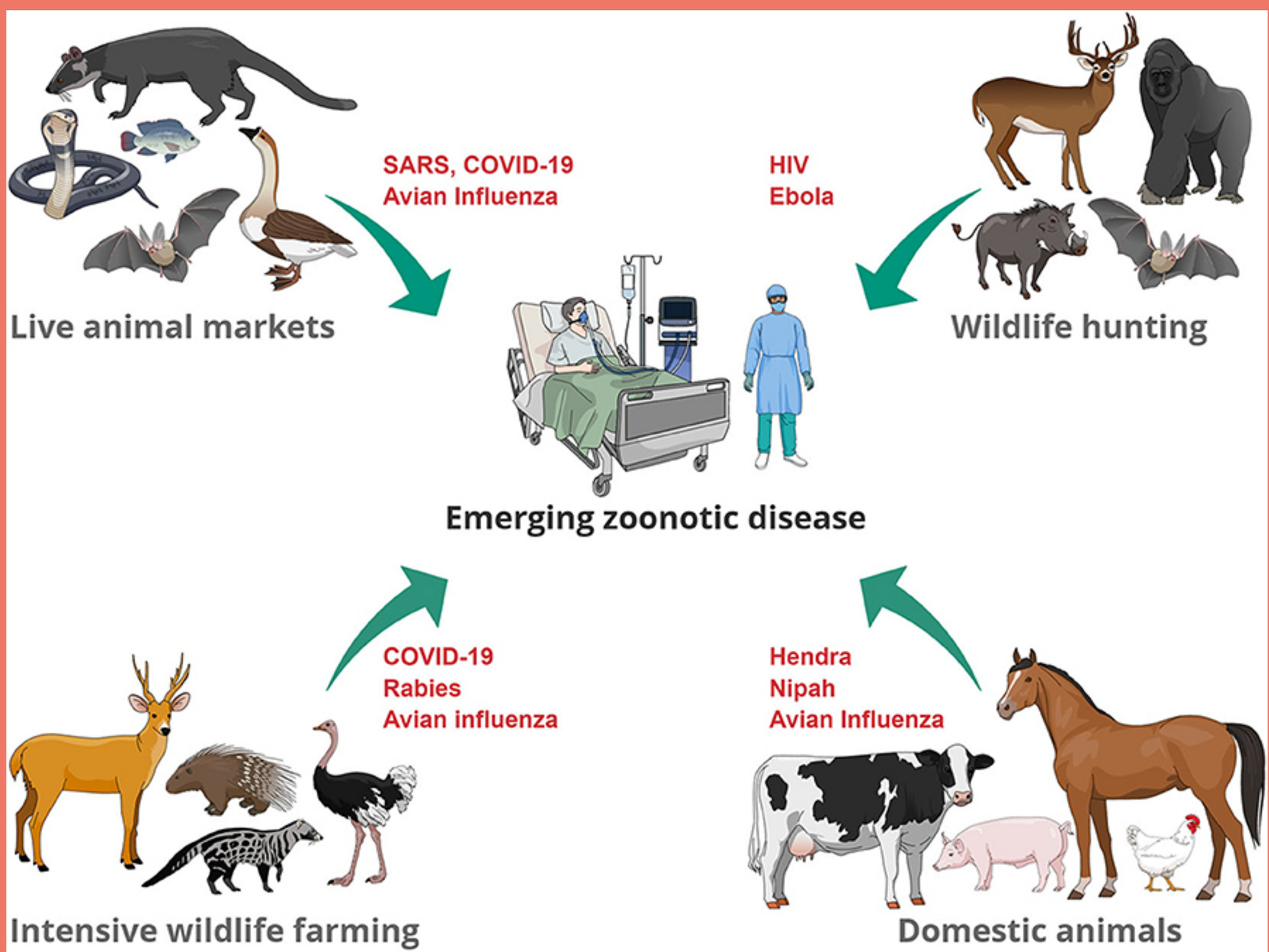
Indirect Contact - Coming into contact with areas where animals have been/live(examples include chicken coops, aquarium tank water, etc.)

Vectors - Being bitten by an organism carrying the disease or another organism carrying the disease(for example, ticks and mosquitos)

Foodborne - Eating contaminated food such as undercooked meat and eggs, raw fruits and vegetables contaminated with feces, and unpasteurized, or raw, milk.

Waterborne - By drinking or coming into contact with water that is contaiminated with the waste of infected animals

Due to modern farming practices and increased contact between humans and wildlife, zoonotic diseases are much more likely to emerge today than ever before.



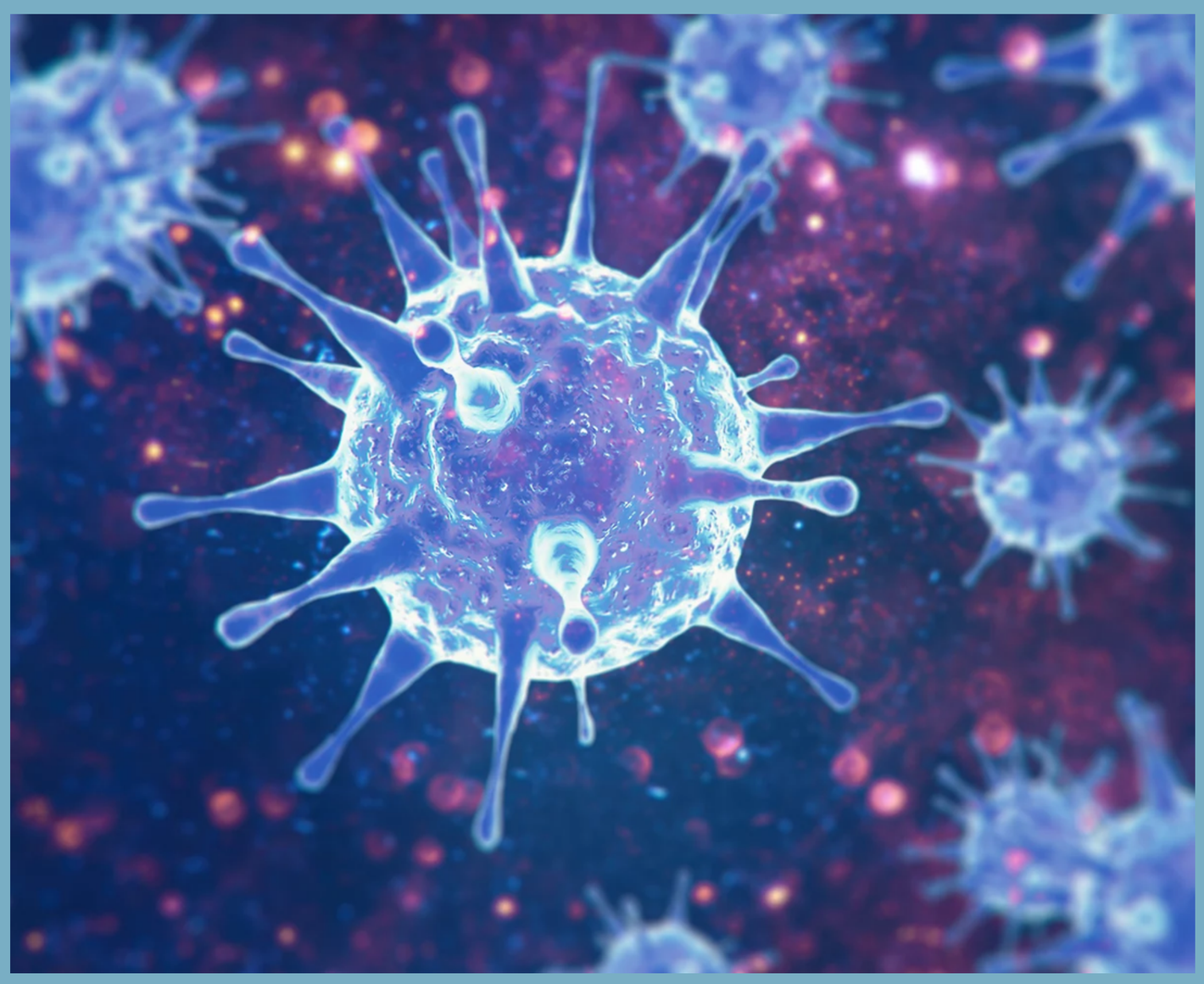
The Effect of Climate Change on Infectious Diseases

Tyler Zhao

- Warmer temperatures increase transmission of vector-borne diseases (malaria, dengue)

- Rising temperatures also causes increased precipitation, which increases the range within which a disease can find a home

A large number of diseases are known to be climate-sensitive, such as malaria, dengue flavor, and cholera



Basic Disease Prevention Measures
Alina Huang

Measures to better prevent against sicknesses and protect others around you:

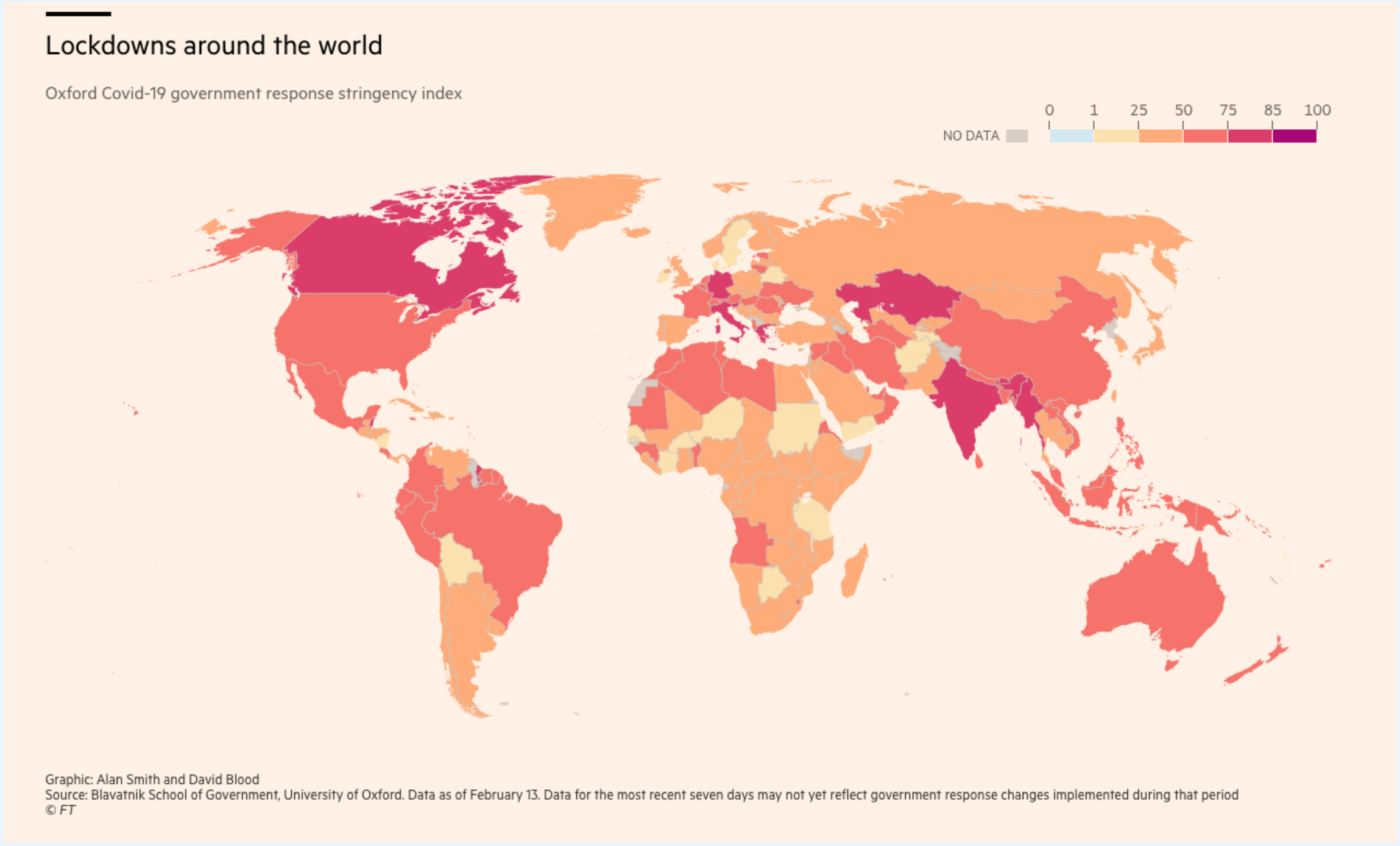
1. Get a good sleep schedule to maintain a healtheir body.
2. Wash your hands, with soap, often (especially before meals and after using the restroom!)
3. Vaccinate yourself.
4. Prepare & handle food safely when cooking.
5. When coughing/sneezing, do so into your elbow/sleeve.
6. Stay home if sick as you're more vulerable when sick & also to prevent spreading it to others.

Stats:

- Data from three large cross-sectional epidemiological studies show that sleeping five or less hours per night increased mortality risk from all causes by ~15%.
- Research shows that washing hands with soap and water could reduce deaths from diarrheal disease by up to 50%. In addition, if everyone routinely washed their hands, 1 million deaths a year could be prevented.
- Immunization prevents 4-5 million deaths every year.
- Each year, unsafe food causes 600 million cases of foodborne diseases, and 420k deaths.

Sources: C.D.C., Harvard med edu, W.H.O.

Forced Lockdown



https://ig.ft.com/coronavirus-lockdowns/

COVID-19 pandemic and lockdown measurements led to social isolation that affected the mental health of the general population severely all over the world, causing an increase in mental distress (2), depression and anxiety through the lockdown, sometimes associated with changes in feelings and lifestyle that include reduced physical activity, unhealthy eating habits, inadequate sleep quality and consistency of loneliness.

https://www.frontiersin.org/articles/10.3389/fped.2021.660033/full#:~:text=COVID%2D19%20pandemic%20and%20lockdown,in%20feelings%20and%20lifestyle%20that

COVID'S EFFECTS ON MENTAL HEALTH

Olivia Gao

Effects of the constant need to self isolate

Boredom

With no where to go and nothing to do at home, people tend to become extremely bored

Loneliness

Being trapped at home in complete social isolation causes people to feel loniness

Anxiety

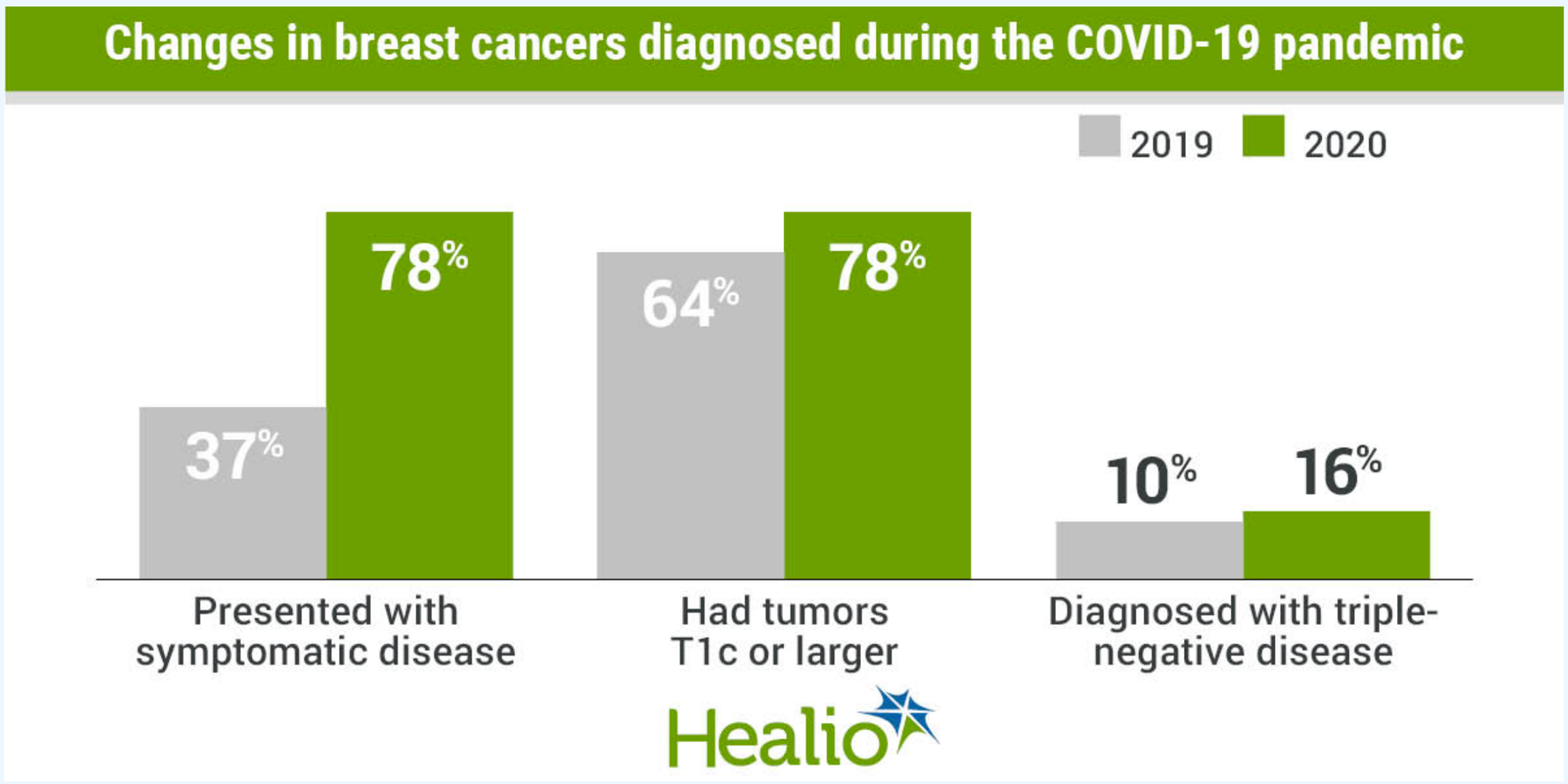
Often times people start worrying about the future and what's in hold for them with nothing they can do about the situation

Depression

With all this lost hope and promises of the future,people become sad, which progresses into depression

Cancer

and the *Pandemic*



"From a total of 398,579 adult patients with cancer identified in the N3C cohort, 63,413 (15.9 percent) were diagnosed as COVID-positive.

"COVID-19 positivity was significantly associated with an increased risk of all-cause mortality. Among COVID-positive patients, several characteristics were associated with an increased risk of all-cause mortality:"

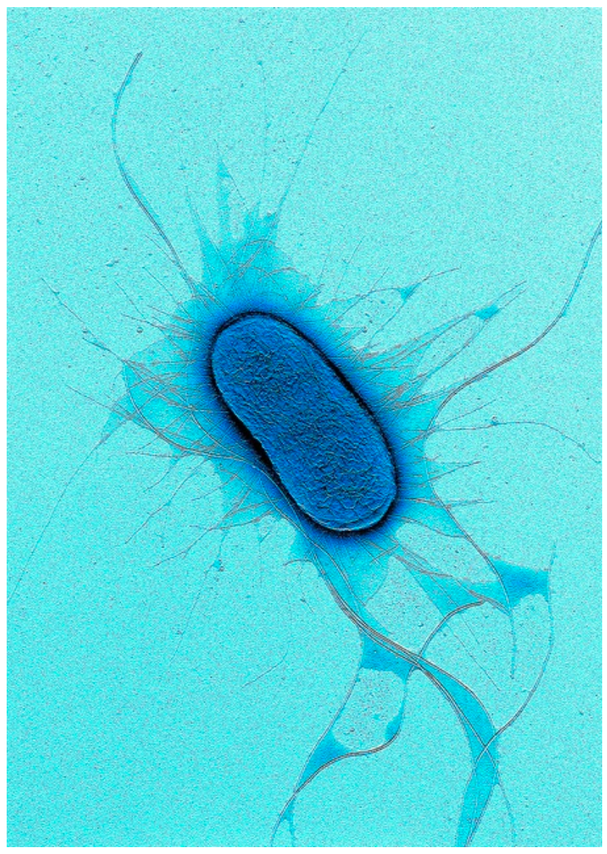
See:

https://www.uab.edu/news/research/item/12100-how-does-covid-19-affect-patients-with-cancer-largest-u-s-study-shares-first-results

https://www.nbcnews.com/think/opinion/covid-s-impact-cancer-care-turning-oncologists-worst-fears-reality-ncna1257743

https://www.pennmedicine.org/news/news-blog/2021/april/covids-impact-on-cancer-care-comes-more-into-focus#:~:text=April%2020%2C%202021&text=Since%20last%20March%2C%20we've,months%20of%20the%20pandemic%20alone.

Bacteria, Viruses, Fungi, and Parasites



All diseases are caused by one of the four types of organisms listed above, and some can be transmissible. Some of the well known diseases each can cause are:

Bacteria:

- Tuberculosis
- Tetanus
- Pneumonia

Viruses:

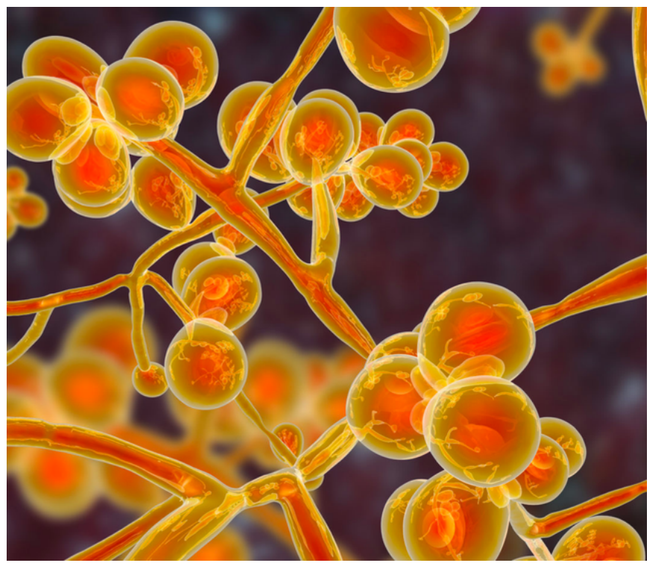
- Flu(Influenza)
- Chickenpox
- HIV/AIDS

Fungi:

- Athlete's foot
- Yeast infection
- Ringworm

Parasites:

- Malaria
- Giardia infections
- Toxoplamosis

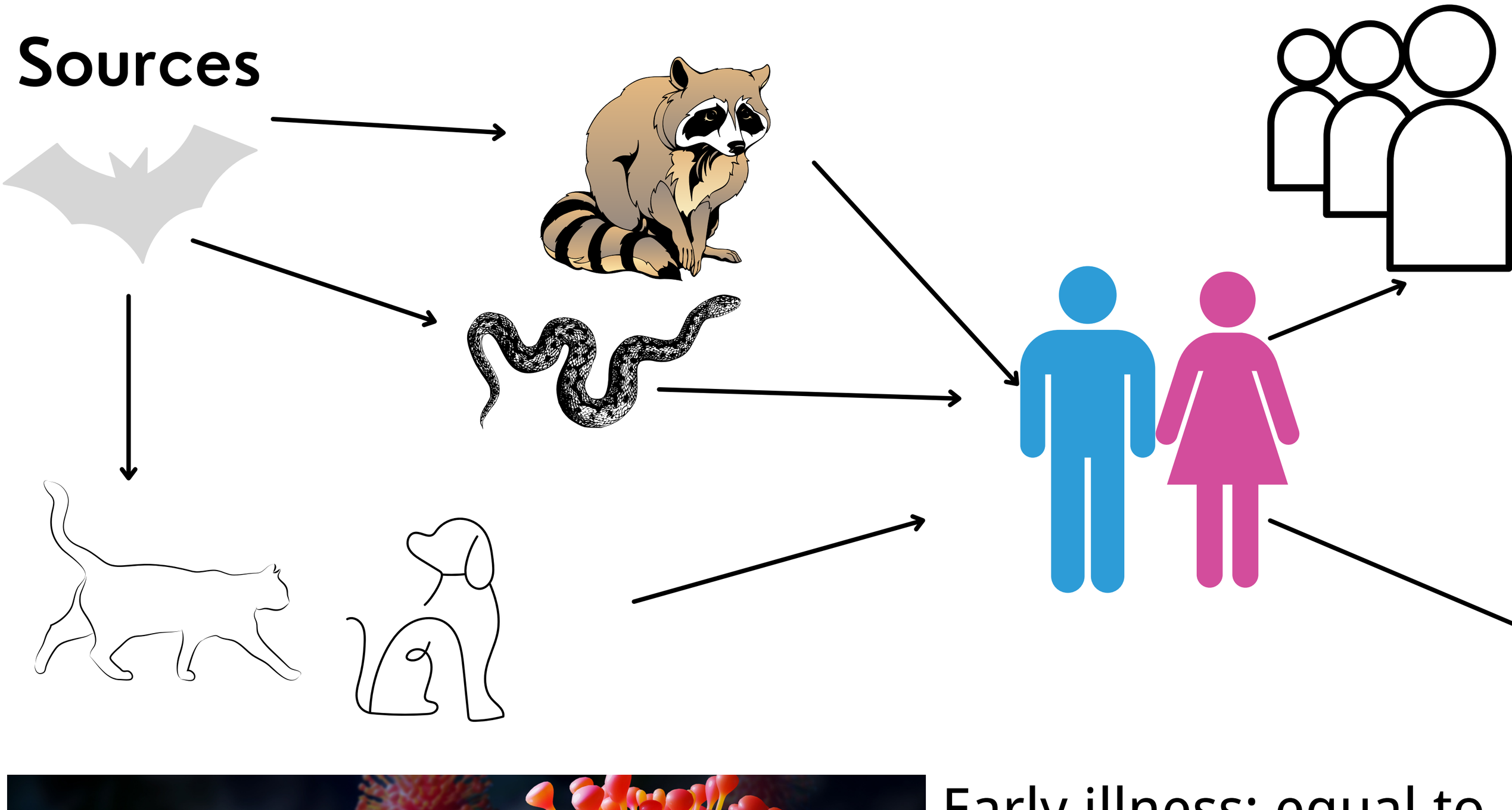


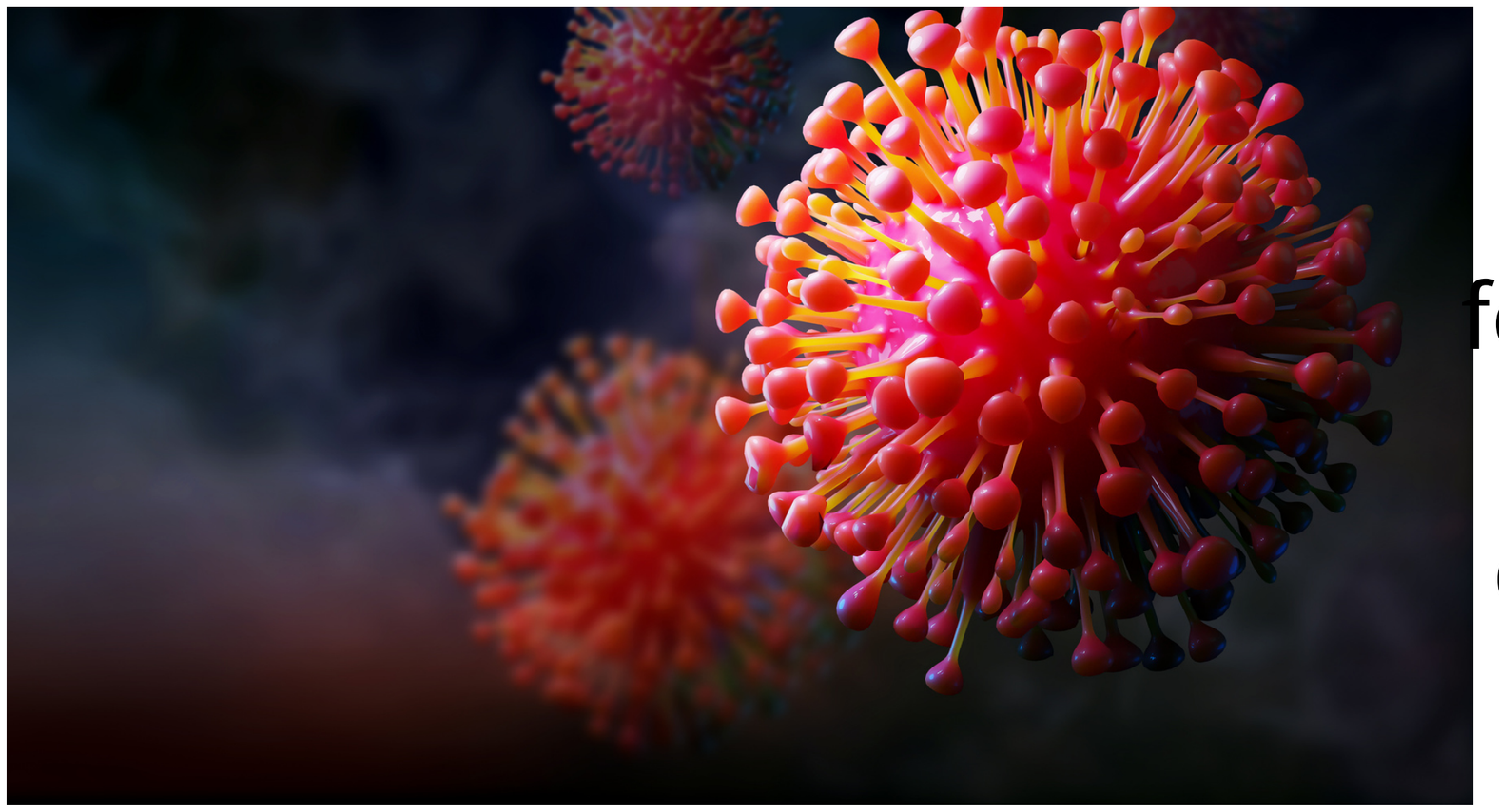
Severe acute respiratory syndrome (SARS)

Kevin Yang

a viral respiratory disease of zoonotic origin caused by severe acute respiratory syndrome coronavirus

Sources





Early illness: equal to or more than 2 o the following: chills, rigors, myalgia, diarrhea, sore throat (self-reported or observed)