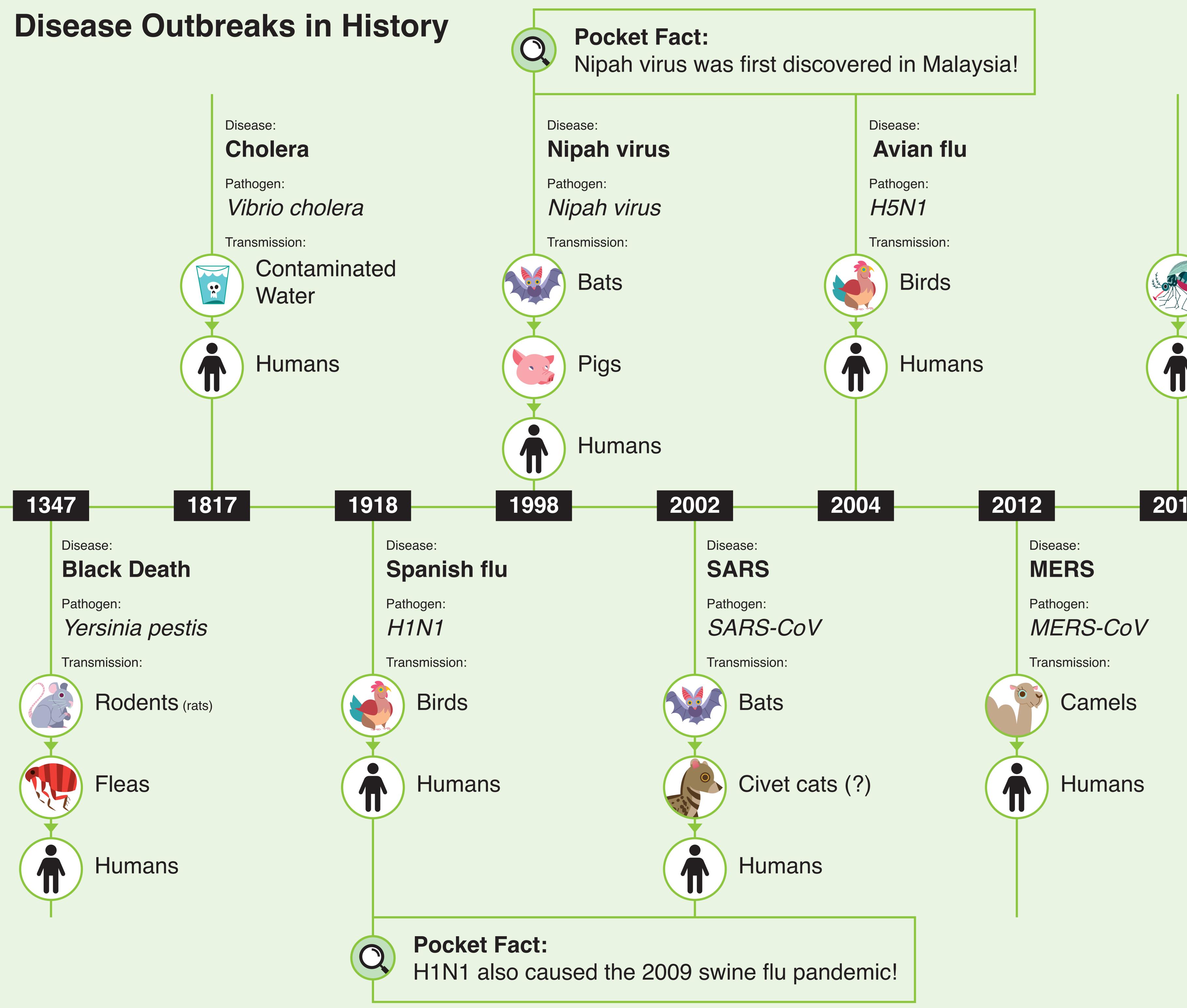


What are pandemics?

Pandemics are sudden disease outbreaks that spread to a large number of people across multiple countries.



DISEASE OUTBREAKS **Pandemics and Epidemics Around the World**



Pocket Fact:

number of people in a population, usually within a country.

Epidemics are sudden disease outbreaks that spread to a large

Disease: Zika fever

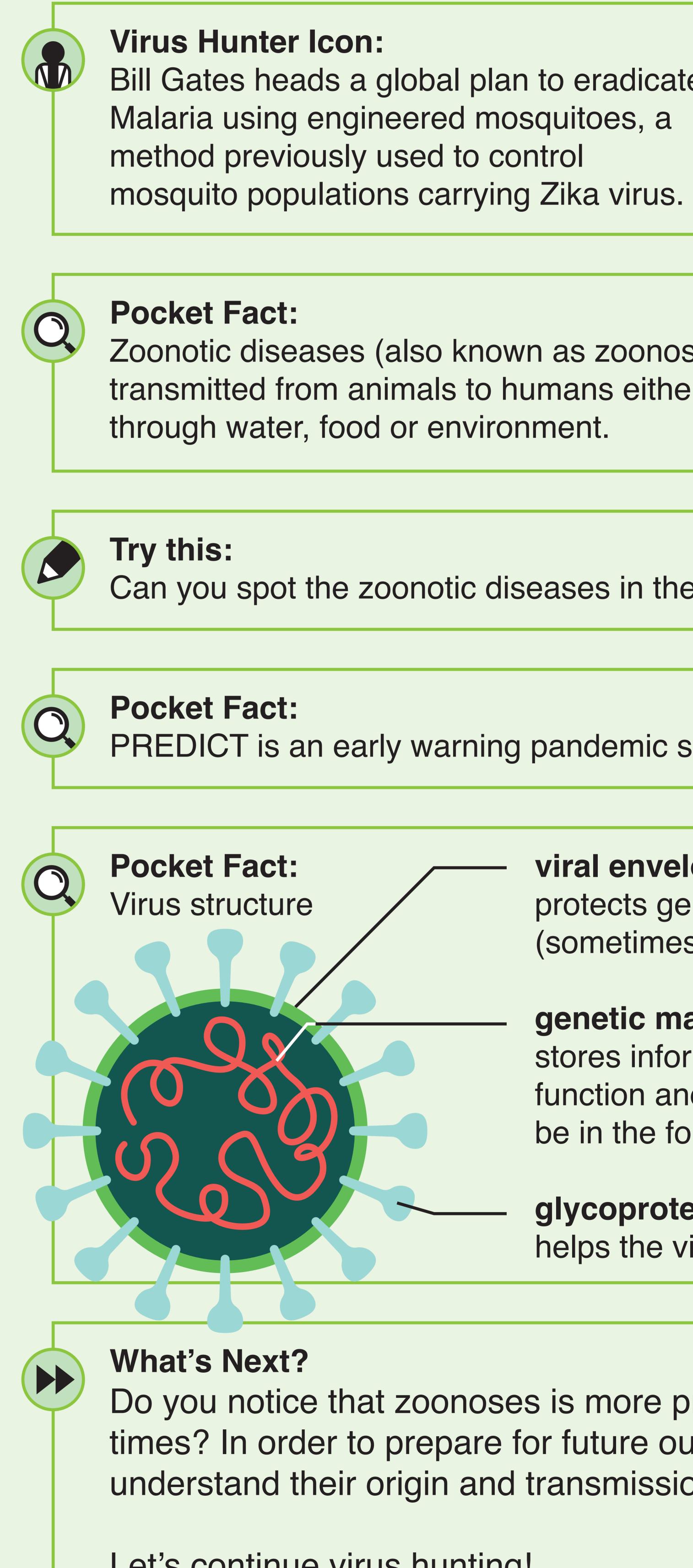
Pathogen: Zika virus

Transmission:

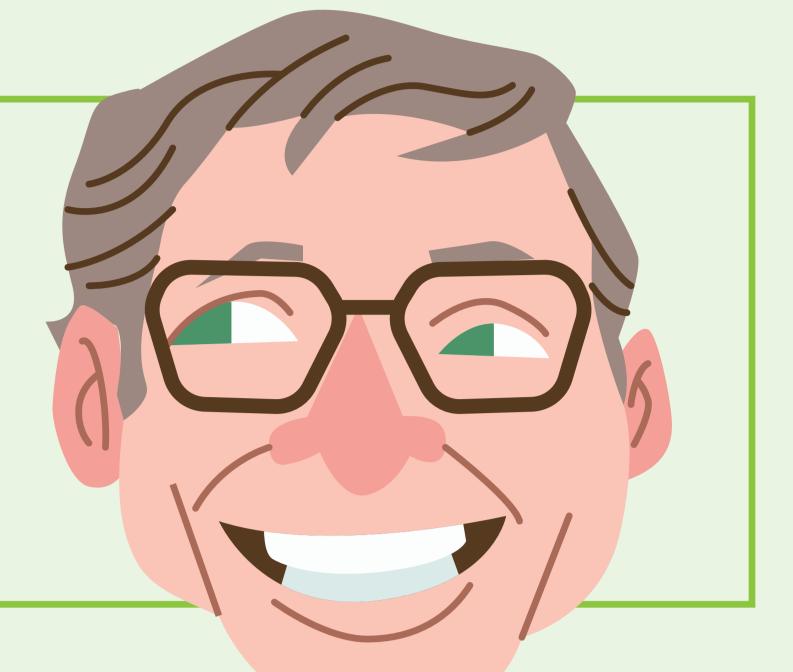
Mosquito

Humans

15	19
	Disease: COVID-19
	Pathogen: SARS-CoV-2
	Transmission:
	Bats
	Wildlife (?)
	Humans



Bill Gates heads a global plan to eradicate



Zoonotic diseases (also known as zoonoses) are diseases transmitted from animals to humans either directly or indirectly

Can you spot the zoonotic diseases in the timeline?

PREDICT is an early warning pandemic system funded by USAID.

viral envelope:

protects genetic material (sometimes not present in a virus)

genetic material:

stores information for the virus to function and construct itself (may be in the form of DNA or RNA!)

glycoprotein:

helps the virus attach & infect cells

Do you notice that zoonoses is more prevalent in recent times? In order to prepare for future outbreaks, we must understand their origin and transmission better!

Let's continue virus hunting!

OUTBREAKS

Ebola virus

- First appeared in Nzara and Yambuku in 1976
- Latest outbreak in Democratic Republic of the Congo in 2018 to 2019

Coronavirus (SARS-CoV-2)

• First appeared in Hunan seafood market in China Caused the global pandemic at the end of 2019



Bats



Bats are believed to be the key reservoir of the virus

Transmission



Contact with body fluids of infected individuals; including urine, saliva, sweat, vomit and feces

Contact with objects contaminated with body fluids of infected individuals



Close contact with infected individuals



Through respiratory droplets of infected individuals; including while talking, coughing or sneezing





Contact with infected animals and individuals



Unprotected sex with infected individuals



Contact with objects contaminated with respiratory droplets



Infected individuals with no symptoms can also spread the virus

Common symptom

