

GLOBAL MAP OF PANDEMIC RISK

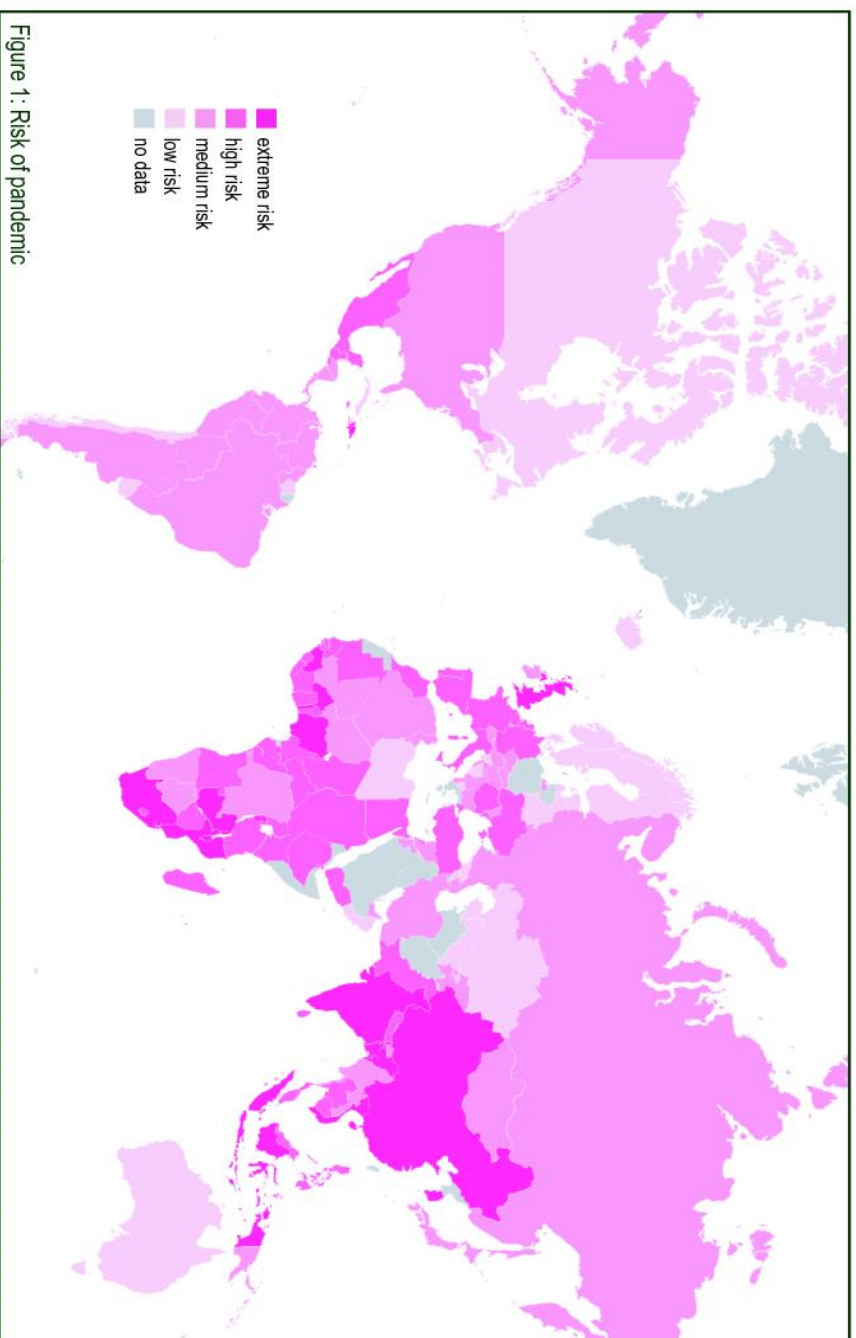


Figure 1 : Risk of pandemic

Maplecroft's Global map of pandemic risk explores the risk of pandemic in 161 countries around the world (Figure 1). The map shows that countries in southeast Asia, western Europe and Africa are most at risk. Maplecroft has devised a Pandemic Risk Index to measure this risk which consists of three components, each shown on the maps below:

- Risk of Emergence - the risk of emergence of a new disease in each country (Figure 2).
- Risk of Spread - the risk of the spread of such a disease to and within that country (Figure 3).
- Capacity to Contain - the capacity of that country to contain an outbreak of disease (Figure 4).

In all cases darker colours represent higher levels of risk. For full details of how the Pandemic Risk Index is constructed and a full list of sources visit <http://maps.maplecroft.com/pandemics>.

MAPLECROFT works with companies to address their social, environmental, economic and ethical responsibilities – through research, capacity-building and the development of innovative communication and management tools – including maps. Content provided as a PDF download from <http://maps.maplecroft.net>. Acknowledgement of original sources and further content is available online or on request from info@maplecroft.net

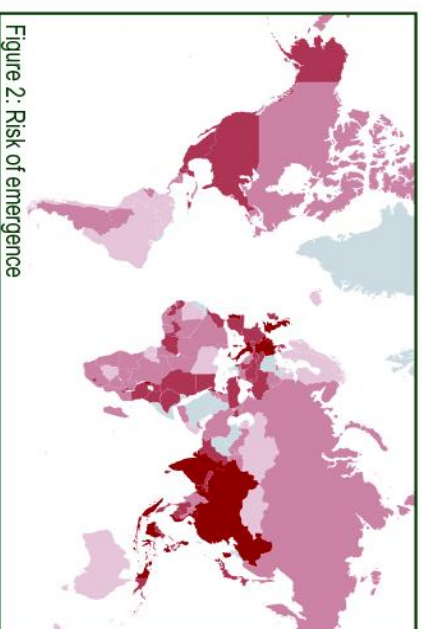


Figure 2: Risk of emergence

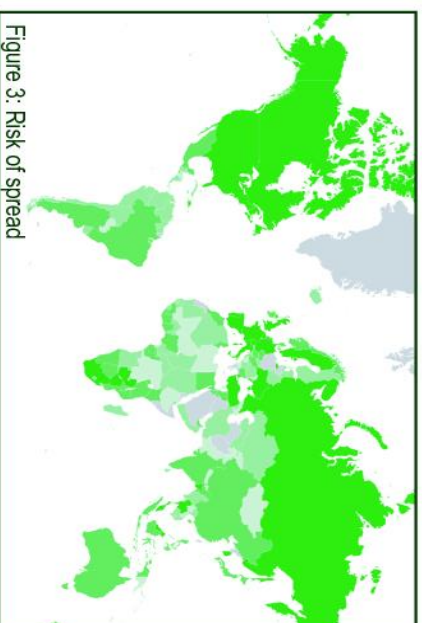


Figure 3: Risk of spread

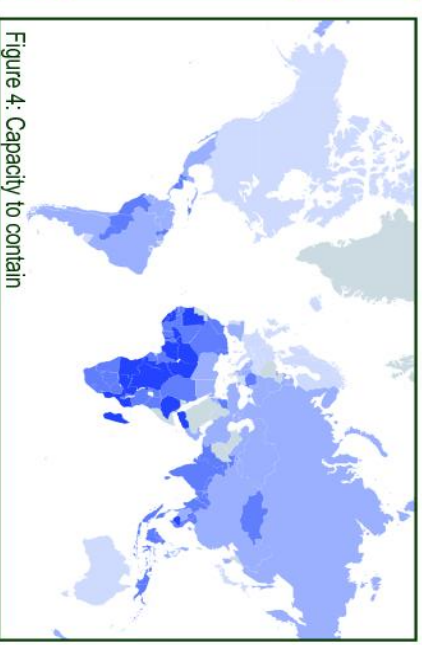


Figure 4: Capacity to contain

Pathogens Practice Quiz

1. Why do doctors suggest that people get a flu vaccine each year?

- a. Viruses replicate more rapidly over time
- b. Viruses can mutate from year to year
- c. Vaccines are absorbed by the body after a year
- d. Vaccines get stronger over time

2. Which is the best day to help prevent the flu from becoming a pandemic?

- a. Getting a vaccination
- b. Taking antibiotics
- c. Eating fruits and vegetables
- d. Washing hands often

3. Malaria is a common disease in many countries. What type of pathogen is malaria?

- a. A virus
- b. A bacterium
- c. A fungus
- d. A protist

4. How can the rate of an infectious disease be drastically reduced?

- a. By taking medication daily
- b. By preventing transmission between people
- c. By wearing clean clothing daily
- d. By performing dental hygiene three times each day

5. Which of the following shapes are most often found in bacteria microbes?

- A. polyhedrons
- B. squares
- C. cones
- D. rods

6. Jill got a case of chicken pox when she was three years old. After she got it, Jill's sister came down with chicken pox. What is chicken pox?

- A. an immune disorder
- B. an infectious disease
- C. a noninfectious disease
- D. a type of egg

7. Which type of pathogen is responsible for causing the flu, chicken pox, and yellow fever?

- A. viruses
- B. parasites
- C. fungi
- D. bacteria

8. Malaria is an infectious disease that can be acquired when a mosquito carrying the protist *Plasmodium falciparum* bites a human. In the transmission of malaria, which of the following is the disease vector?

- A. the malaria illness
- B. the protist *Plasmodium falciparum*
- C. the person
- D. the mosquito

9. Influenza, strep throat, measles, and the common cold are all infectious diseases. Which of the following methods can be used to avoid getting infectious diseases?

- A. not washing fruit before eating it
- B. touching an infected keyboard
- C. sharing a drink only with family members
- D. washing your hands before eating

10. Sabrina has the flu. Her neighbor suggests she get a prescription for an antibiotic, but Sabrina's mother says that antibiotics would not help in this situation. Why?

- A. The flu is caused by a virus, and it cannot be treated with an antibiotic.
- B. The flu is caused by a fungus, and it must be treated with an antifungal medication.
- C. The flu is caused by a parasitic worm, and it must be treated with an antihelmintic medication.
- D. The flu is caused by a bacterium, and it cannot be treated with an antibiotic.