

Global Health Hotspots: Mpox Surges, mRNA Frontiers, and Climate's Toll

Global Health · Answer Key · 8 Questions

1. As of late 2024, what specific clade of the mpox virus has been identified as causing outbreaks in the Democratic Republic of the Congo and spreading to neighboring countries, leading to a Public Health Emergency of International Concern (PHEIC) declaration by the WHO on August 14, 2024?

- A) Clade Ia
- B) Clade IIb
- C) Clade Ib**
- D) Clade III

2. Beyond its role in combating COVID-19, mRNA vaccine technology is being rapidly developed for various applications. Which of the following is NOT a prominent area of current mRNA vaccine research and development?

- A) Personalized cancer immunotherapy
- B) A universal influenza vaccine
- C) Treatments for autoimmune and genetic disorders
- D) Traditional vaccines for eradicated diseases like smallpox**

3. The World Health Organization (WHO) declared an end to the COVID-19 Public Health Emergency of International Concern (PHEIC) on which date, citing a sustained downward trend in cases and pressure on health systems?

- A) May 5, 2022
- B) January 30, 2023
- C) May 5, 2023**
- D) August 14, 2024

4. Recent reports highlight the significant health impacts of climate change. Which of the following is a direct consequence of extreme heat events linked to climate change?

- A) Increased incidence of vector-borne diseases
- B) A rise in suicides and psychiatric hospitalizations**
- C) Disruptions in agricultural productivity only
- D) A decrease in food insecurity

5. The global outbreak of mpox, which began in May 2022, saw a declaration of a PHEIC by the WHO in July 2022. When was this PHEIC status for the *multi-country outbreak of mpox* declared over?

A) May 2023

B) August 2024

C) December 2022

D) March 2023

6. The rapid advancement of mRNA vaccine technology has led to explorations beyond infectious diseases. Which of these applications is a key area of focus for mRNA cancer vaccines?

A) Developing universal vaccines for all cancer types

B) Targeting specific tumor cells by encoding neoantigens for personalized immunotherapy

C) Preventing cancer recurrence through broad immune system activation without specific targets

D) Enhancing chemotherapy delivery mechanisms

7. Concerns are rising about the impact of social media on youth mental health. According to recent research, what is a significant factor contributing to negative mental health outcomes among adolescents spending extensive time on social media?

A) Increased physical activity and outdoor engagement

B) Reduced exposure to cyberbullying and online harassment

C) Social comparison due to idealized online portrayals

D) Enhanced real-world social interactions and community building

8. The WHO declared an upsurge of mpox in the Democratic Republic of the Congo and neighboring countries as a Public Health Emergency of International Concern (PHEIC) on August 14, 2024. This followed an earlier PHEIC declaration for a different mpox outbreak in July 2022. What was a key characteristic of the 2022 mpox outbreak that led to the initial PHEIC declaration?

A) Its origin was exclusively in non-African countries.

B) It spread rapidly via sexual contact across a range of countries where the virus had not been seen before.

C) It was caused by a novel airborne transmission strain.

D) It primarily affected elderly populations.