

IN FOCUS

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2022 Multicountry Outbreak of Monkeypox

Introduction

In May 2022, the International Health Regulations (IHR) Focal Point for the United Kingdom notified the World Health Organization (WHO) that an individual who travelled from the United Kingdom to Nigeria had a confirmed case of monkeypox. The disease has since spread to more than 75 countries and territories; as of August 5, the U.S. Centers for Disease Control and Prevention (CDC) reported more than 28,000 cases worldwide. Almost 90% of the reported cases were from 10 countries: the United States (27%), Spain (18%), Germany (10%), the United Kingdom (10%), France (9%), Brazil (5%), the Netherlands (3%), Canada (3%), Portugal (3%), and Italy (2%). All related deaths have occurred in Nigeria (3) and Central African Republic (2). In July, several Members of Congress sent letters to President Biden urging his Administration to declare a Public Health Emergency (PHE) and to accelerate the federal response to the outbreak. The WHO Director-General declared monkeypox a Public Health Emergency of International Concern (PHEIC) on July 23, 2022, and U.S. Department of Health and Human Services (HHS) Secretary Xavier Becerra declared the outbreak a PHE on August 4, 2022. For more on the domestic response, see CRS In Focus IF12186, U.S. Domestic Response to the 2022 Monkeypox Outbreak.

Monkeypox Discovery and Transmission

Monkeypox is a viral zoonosis (a virus transmitted to humans from animals) from the same family of viruses that cause smallpox and carry similar symptoms, including fever, swelling of the lymph nodes, fatigue, muscle aches, rashes, and lesions. The symptoms usually resolve on their own after two to four weeks. Severity varies according to age, extent of virus exposure, and patient health status. The disease is transmitted from one person to another by close contact with lesions, body fluids, respiratory droplets, or contaminated materials, such as bedding.

The name monkeypox originates from its discovery in monkeys in a Danish laboratory in 1958. The first human case was identified in a child in the Democratic Republic of the Congo in 1970. Various animal species are susceptible to the monkeypox virus, though scientists are uncertain about the origin of the virus and how its circulation is maintained in nature. Eating undercooked meat and other animal products of infected animals is a possible risk factor.

Until the current global outbreak began, monkeypox was generally limited (endemic) to West and Central Africa (as outlined in red in **Figure 1**). The identification of cases without any travel history to endemic areas is unprecedented. With the exception of countries in West and Central Africa, the ongoing outbreak is primarily occurring among men who have sex with men (MSM) with multiple sexual partners.

Global Control Efforts

The IHR Emergency Committee on monkeypox, which advises the WHO Director-General on declaring a PHEIC, met twice to discuss the outbreak: in June, when there were more than 3,000 cases in 47 countries, and in July, when there were more than 16,000 cases in 75 countries. The committee determined at the first meeting that the event was not a PHEIC and could not reach a consensus on the matter at the second meeting. For more on IHR and PHEIC, see CRS In Focus IF12139, *U.S. Proposals to Amend the International Health Regulations*.

On July 23, 2022, WHO Director-General Tedros Ghebreyesus determined the monkeypox outbreak was a PHEIC, noting, "Although I am declaring a public health emergency of international concern, for the moment this is an outbreak that is concentrated among men who have sex with men, especially those with multiple sexual partners. That means that this is an outbreak that can be stopped with the right strategies in the right groups. It's therefore essential that all countries work closely with communities of men who have sex with men, to design and deliver effective information and services, and to adopt measures that protect the health, human rights and dignity of affected communities."

The Director-General provided a number of recommendations to stop transmission, including (1) engage and protect affected communities; (2) intensify surveillance and public health measures; (3) strengthen clinical management and infection prevention and control in hospitals and clinics; and (4) accelerate research into the use of vaccines, therapeutics, and other tools.

Control Efforts in Europe

As of August 5, monkeypox transmission was highest in Spain (4,942 cases), Germany (2,887), the United Kingdom (2,859), France (2,423), Netherlands (879), Portugal (710), and Italy (545). These countries deployed similar mitigation measures, including contact tracing, testing, provision of interim guidelines for curbing community transmission, and vaccine rollouts for susceptible groups. On June 14, 2022, the European Commission announced that it had, for the first time, used the European Union (EU) budget to purchase almost 110,000 vaccines for monkeypox control in the EU, Norway, and Iceland. The vaccines are authorized to protect adults against smallpox, but Member States are granting national exemptions for their use against monkeypox.

Control Efforts in the United States

On June 28, 2022, the White House announced the first phase of the national monkeypox vaccine strategy. The strategy, along with other parts of the national response, will be coordinated by the National Security Council Directorate on Global Health Security and Biodefense (White House Pandemic Office). The national response focuses on expanding access to diagnostic tests and accelerating the production and distribution of vaccines. As of August 5, U.S.-reported monkeypox cases reached 7,510, with 84% reported in a dozen states: New York (1,862), California (826), Florida (633), Texas (606), Illinois (602), Georgia (596), the District of Columbia (283), Pennsylvania (205), New Jersey (188), Maryland (182) Washington (175), and Massachusetts (157). The Biden Administration has committed to controlling monkeypox worldwide through technical assistance and funding, as previous administrations had during earlier monkeypox outbreaks in Nigeria and the Democratic Republic of Congo

Global Vaccine Access Issues

(DRC).

Some observers are urging manufacturers to ensure that countries in Africa, where the disease has been endemic for decades, have access to vaccines that may be used for smallpox and monkeypox control should they need it. Others point out that most countries on the continent have not reported any cases and that only Nigeria and Democratic Republic of the Congo have reported more than a dozen cases, 101 and 131 cases, respectively.

Health experts are also debating the prudent use of stockpiled vaccines. In 1980, WHO established the Smallpox Vaccine Emergency Stockpile (SVES) to ensure the "vaccine could be rapidly deployed and administered in response to any future outbreaks." WHO is responsible for maintaining capacity and expertise to respond to a reemergence of smallpox and for preserving a stockpile at WHO headquarters in Switzerland. The bulk of the stockpile, however, is held by donor countries (France, Germany, Japan, New Zealand, and the United States) in their respective national stockpiles for use in time of international need, upon request by WHO. In 2002, the World Health Assembly adopted Resolution 55.16, calling for the reinforcement of stockpile resources for future PHEICs. Last updated in 2017, the WHO operational framework outlines conditions for tapping the SVES. Given that smallpox vaccines are effective against monkeypox and that WHO has declared the ongoing global monkeypox outbreak to be a PHEIC, several countries have announced plans to draw from their national stockpiles. It is unclear the extent to which they are following the SVES guidelines.

Issues for Congress to Consider

On July 26, 2022, U.S. Representative Ritchie Torres introduced H.Res. 1286, *Expressing the Sentiment of Congress that the Department of Health and Human Services should declare the monkeypox outbreak a public health emergency*. Among other things, the resolution called for the federal government to accelerate the use of all available tools to mitigate the spread of the virus. Now that the HHS Secretary has made a PHE declaration, HHS may access appropriations to the Public Health Emergency Fund for monkeypox control. Should Congress provide additional funds, Members may debate the appropriate balance of resources in domestic and international settings.

The Danish biotech company Bavarian Nordic is the primary manufacturer of smallpox and monkeypox vaccines. With the EU, the United States, and other undisclosed countries placing bulk orders with the company, some observers are concerned about the capacity of low- and middle-income countries (LMIC) to access doses. Given that the outbreak remains primarily concentrated in affluent countries, Congress may consider how ongoing global health security efforts could be leveraged to prevent further spread to LMIC.

Airi Price, a CRS summer intern, contributed to this In Focus.



Figure I. Monkeypox Cases Reported Worldwide (as of August 5, 2022)

Source: Created by CRS from CDC, 2022 Global Map & Case Count, accessed on August 5, 2022.

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