The response of the Tokyo Metropolitan Government to Mpox

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1. What is Mpox - Category IV Infectious Disease -

- Japan now refers to "Monkeypox" as "Mpox"
- based on a revision to the Order for Enforcement of the Act on the Prevention of Infectious Diseases (May 26, 2023)
- Reported in patients who have not traveled to previously endemic countries since May 2022
- The World Health Organization (WHO) declared a Public Health Emergency of International Concern (PHEIC) on July 23, 2022 due to the continued disease spread. The PHEIC was declared over on May 11, 2023

Mpox Symptoms

(Source: Ministry of Health, Labour and Welfare, and the National Institute of Infectious Diseases)

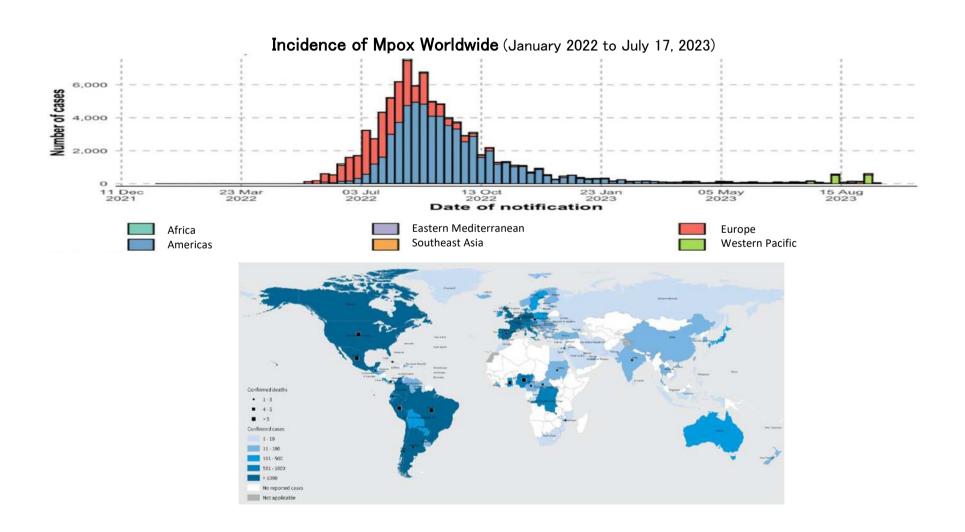
- Caused by the Mpox virus.
- Prevalent throughout central and western Africa since the discovery of infection in humans in 1970
- The virus can be divided largely into two groups: the Congo Basin clade (clade I), and the West African clade (clade II)
 - Clade II has two further subclades: clade IIa and clade IIb
 - Clade I is often more severe than clade II, and is more contagious from person to person
 - (Clade II has been detected in cases in Japan)
- Humans have become infected through contact with rodents and squirrels from Africa, as well as monkeys, rabbits, and other animals that carry the virus
 - Coming into contact (including sexual contact) with skin lesions, bodily fluids, or the blood of an infected person or animal, prolonged exposure to droplets in close proximity to a patient, or contact with a patient's bedding or bed clothes can cause infection
- Symptoms generally develop after an incubation period of 6-13 days following exposure to the virus (max 5-21 days)
 - Symptoms, such as fever, headache, and swollen lymph nodes, last 0-5 days. A rash appears 1-3 days after the fever
 - In most cases, symptoms persist for 2-4 weeks and resolve on their own. However, the symptoms may turn into severe illness depending on the degree of exposure
- In Japan, the main method of treatment is symptomatic treatment, as there is no specific treatment for Class IV Infectious Diseases under the Act on the Prevention of Infectious Diseases. However, Europe has approved the drug Tecovirimat as a therapeutic agent, and is currently running clinical trials

2. Incidence of Mpox in Patients Worldwide

(Source: Ministry of Health, Labour and Welfare, the National Institute of Infectious Diseases, and various municipal websites)

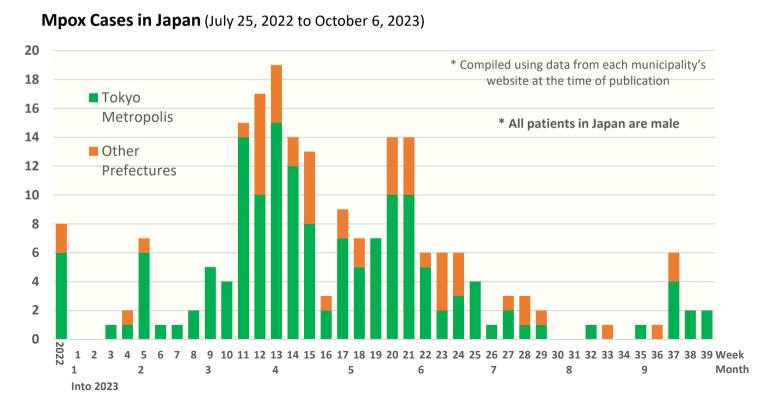
- More than 90,000 cases have been reported worldwide since the epidemic began in May 2022.

 While most cases, according to WHO, are found in males, there have also been cases reported in women and children
- Most cases of infection resolve on their own; however, children, pregnant women, and immunocompromised individuals may become seriously ill. There were 130 deaths worldwide between January 1, 2022, to May 2, 2023 (none of these deaths occurred in Japan)
- All cases of infection reported in Japan were in men



3.1 Mpox in Tokyo and in Japan

- A traveler who stayed in Europe from the end of June to the middle of July, 2022, visited a medical institution in Tokyo on July 25 due to fatigue upon returning to Japan
- A same-day sample was taken and tested positive for the Mpox virus (Japan's first case of infection)
- A small number of cases were subsequently confirmed throughout 2022, and numbers were increasing into 2023
- The number of reported cases in Tokyo increased from March 2023, but decreased from June



by municipality	
Municipality - Number of cases	
Tokyo Metropolis	150
Other prefectures	52
Total	208

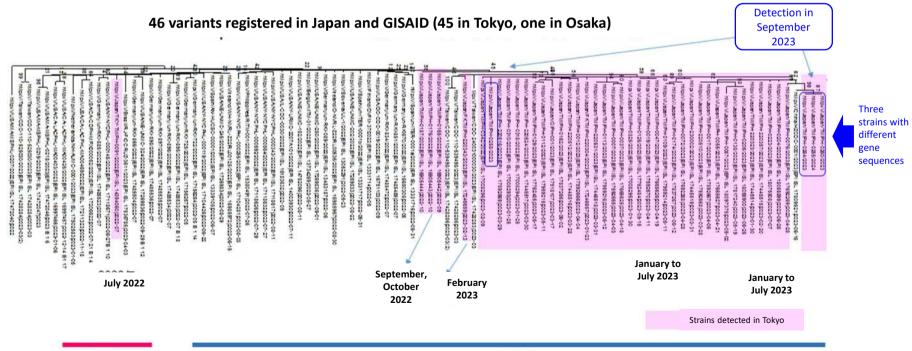
Number of cases

Number of Tokyo cases by age group Number of	
Age	cases
0-19,	1
20-29,	24
30-39,	57
40-49,	62
50-59,	8
60-69,	3
70+	1
Total	156

3.2 Genomic Sequencing of Samples From Patients in Tokyo (Analysis of Molecular Lineage)

From Analysis by the Tokyo Metropolitan Institute of Public Health

- Genomic sequencing was conducted on the 45 different strains of the mpox virus detected in cases in Tokyo
 - The first case from July 2022 was the B.1 strain
 - Those from September to October 2022, and after February 2023 were the B.1.3 strain
- The strain found in cases subsequent to September 2022 had accumulated a few mutations in the gene sequence; however, it was otherwise relatively close to the initial strain. Although the domestic epidemic ended at the end of 2022, the infection had spread from imported cases around February 2023
- Three of the four strains detected in September 2023 (the blue line) had different gene sequences from those detected in Japan so far



B.1

4.1 Initial Response and Response as the Infection Spread

TMG's Response (Initial Response)

- Requested medical support from designated Medical Institutions for Infectious Diseases (June 23, 2022)
- Built a system for conducting tests at the Tokyo Metropolitan Institute of Public Health
- Held the Tokyo iCDC One Health Approach Promotion Task Force (July 11, 2022)
 - Discussed measures to be taken in the event of an Mpox outbreak (risk assessment, TMG's response, etc.)
- Held the Tokyo Monkeypox Liaison Conference to share information (July 26, 2022) (Japan's first case of infection was confirmed in Tokyo on July 25)
 - * The Tokyo Monkeypox Liaison Conference was abolished on May 8, 2023, and amalgamated into the Tokyo Infectious Diseases Liaison Conference
- Advised the citizens of Tokyo regarding precautions against symptoms and sources of infection

TMG's Response (As the Infection Spread)

- Built systems for consultation and treatment
 - Built systems for consultation and treatment at TMG hospitals. Published these as designated medical institutions on TMG's website
 - Medical institutions: Hiroo Hospital, Komagome Hospital, Toshima Hospital, Ebara Hospital, Bokutoh Hospital, Tama Medical Center, Children's Medical Center, and Matsuzawa Hospital (8 hospitals in total)
 - Non-TMG medical institutions that agreed to publish information were also published on the TMG website
 Medical institutions: The University of Tokyo, The Institute of Medical Science, Keio University Hospital,
 and St. Luke's International Hospital
- Public Awareness
 - Held training sessions for medical institutions
 (June 2023 / Lecturer: Dr. Satoshi Kutsuna, Department of Infection Control, Graduate School of Medicine, Osaka University)
 - Created and distributed leaflets for event organizers and store owners in cooperation with relevant agencies* to educate high-risk groups (those identifying as men who have sex with men (MSM) with multiple sexual partners, bisexual people, etc., See next page)

^{*} The National Institute of Infectious Diseases, NCGM, MSM Community-based Organizations (CBOs), the Ministry of Health, Labour and Welfare, and local governments working together to disseminate information

4.2. TMG's Response

- Raising awareness and moving towards a response -

Educational leaflets





Moving towards a response

- Continue to raise awareness of infection prevention measures
- Use what we have learned from the Mpox outbreak to respond to emerging infectious diseases