Elsevier has created a Monkeypox Information Center in response to the declared public health emergency of international concern, with free information in English on the monkeypox virus. The Monkeypox Information Center is hosted on Elsevier Connect, the company's public news and information website.

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Monkeypox- a global emergency: What nations should learn from recent COVID-19 pandemic? – Correspondence

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Dear Editor,

Monkeypox virus, a zoonotic DNA virus, was first detected in Grivet in Denmark in 1958 [1]. Monkeypox, a rare disease caused by this monkeypox virus, was declared as a global public health emergency by World Health Organization (WHO) in July 2022 [2]. Monkeypox was earlier been endemic to African countries, but on an alarming rate, it is now spreading to many non-African countries [3]. As on 27th July 2022, WHO recorded 19,178 laboratory confirmed cases in 78 member states, and the ten most affected countries accounting for 88.4% cases so far are Spain, United States of America, Germany, United Kingdom, France, Netherlands, Canada, Brazil, Portugal, and Italy (Fig. 1A). According to the data available on the WHO website, only 6099 cases (31.8%) out of 19,178 cases had information on sexual orientation, furthermore, for 13, 893 cases with available data that the infection was predominantly hitting males (Fig. 1B). Information on the case profiles is summarized in Fig. 1B. WHO classify cases into total confirmed cases, total probable cases, and total deaths, European region was at the top for total confirmed cases, while the total 5 deaths were reported from the African region only (Fig. 1C).

The data provided by UK Health Security Agency (UKHSA), showed that out of 152 men who filled in the questionnaire, 151 were tagged/identified to be men having sex with men (MSM) and having multiple sex partners. Peiro-Mestres et al. from Spain studied 147 clinical samples of 12 MSM patients infected with monkeypox, and found that nearly all the bodily fluids like saliva, rectal, nasopharyngeal, semen, urine, and faeces had a positive monkeypox DNA load, with saliva being positive in all the cases [4]. NOE et al. reported the clinical and virological features from two infected cases from Germany and suggested sexual interactions as a route for this infection. Both these patients were also identified as MSM [5]. Furthermore, Antinori et al. studied four infected cases, and all these patients were in the category of MSM. Researchers have previously reported on viruses being detected in semen of individuals but there was no history of sexually transmitting these viruses [6]. Though the majority of monkeypox patients were MSM, no exception could be made for the heterosexual community [7,8]. Thus, there should not be any stigmatization of the MSM population. As the monkeypox DNA can be present in urine and faeces, this imposes a big threat for nations where health hygiene is not up to standard and having a high number of poor populations living in slum areas.

With uncontrolled social media in most nations, piling up of misinformation related to the various outbreaks is very common. When such false and misleading information reaching to the public and laypersons, it can create a havoc or another dimension of social stigma [7]. For instance, there have been unsubstantiated myths to associate monkeypox infection with COVID-19 vaccination [9]. These unsubstantiated myths can become a problem for tackling a new emerging virus like monkeypox, and can also develop hesitancy in the public towards COVID-19 vaccination [10]. When people get false information from the social media, it becomes very difficult subsequently to convince the population that the misinformation is just a myth [11–13].

For developed or developing nations, it was not wrong to say that COVID-19 infection have been underestimated, if we look back towards the situations since 2020 [14]. Despite the imposition of strict lockdowns, face masks, and fast rates of COVID-19 vaccinations in some countries, the SARS-CoV-2 infection spreads at a faster rate, possibly due to emerging variants, rapid mutations, and co-morbidities. Sanitary conditions and high-density populations are a big problem for many countries to practically handle such outbreaks. However, if people did cooperate and governments of different countries did unite together, the situation of COVID-19 outbreaks would perhaps have been different [15].

It was through a historic achievement for the combined efforts of scientists, pharmaceutical companies, and various government agencies that COVID-19 vaccines could be launched within such a short span of time. However, during the COVID-19 outbreak, the lower- and middle-income countries were commonly and repeatedly being ignored for the distribution of COVID-19 vaccines or in providing necessary aids in curbing the SARS-CoV-2 threat [16]. By providing a small fraction of aids to these countries is just not sufficient to eliminate the problem. Further lockdown and other restrictions have worsen the economic conditions in these countries [17].

As both monkeypox and smallpox are orthopoxviruses, so smallpox vaccine can provide some protective effects [1]. As smallpox infection

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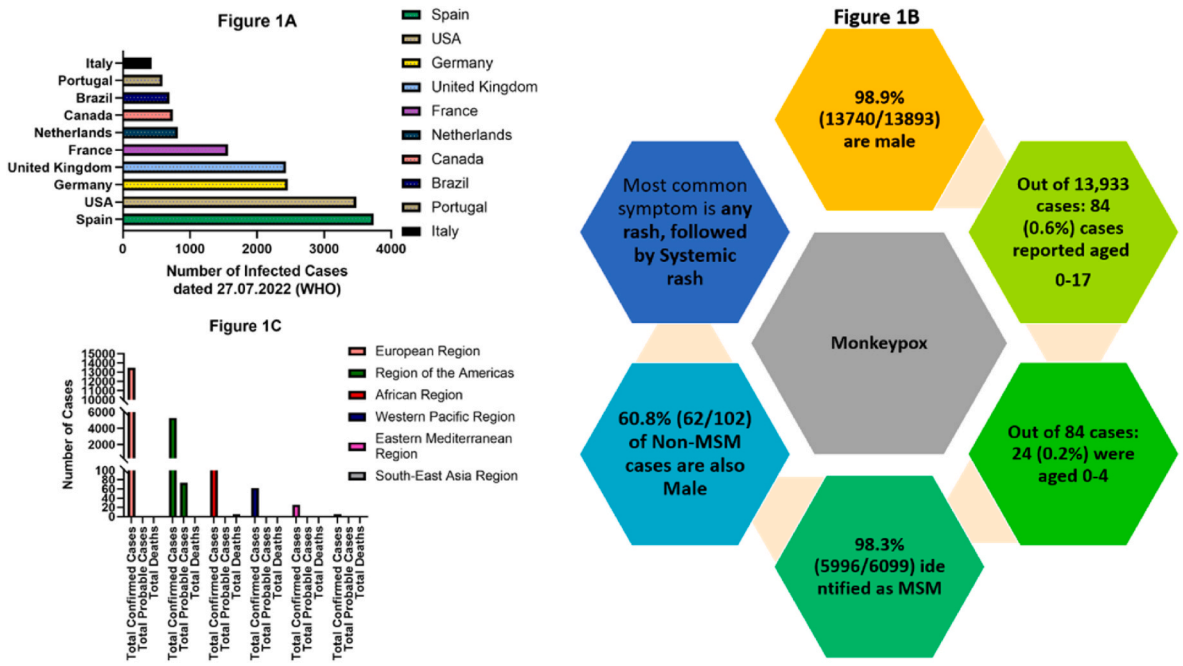

Fig. 1. 2022 Monkeypox Outbreak: Global Trends. A: Top ten countries with maximum number of monkeypox cases as on 27.07.2022. B: Case profiles of the infected patients globally. C: Cases and Deaths as per the WHO classified regions. Note: This information has been extracted from WHO website on 29.07.2022.

was successfully eradicated, and WHO had declared it as a globally eradicated infection in 1980 [18], countries have since stopped vaccinating people with smallpox vaccines.

Sexual activity is a common and justifiable act of human being and living organisms. Information on the relationship of sexual interaction with monkeypox infection is still limited, and it would be appropriate advice on protected sex. The role of parents to play is very important in this case, as most parents are hesitant to discuss such activities with their kids. Unnecessary travel and heavy gatherings should be avoided.

As urine and faecal samples have also been reported to have DNA loads of monkeypox virus, it is very important for developing countries to keep check on such areas where health hygiene are the key issues. Economic condition of any person do not decide whether he/she will get infected, as an infected poor person can work in an office and a house of rich people.

Ethical approval

Not applicable.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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