



Overcoming Stigma: The Human Side of Monkeypox Virus

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Abstract

Monkeypox (Mpx) virus is a zoonotic disease that was recently declared a public health emergency of international concern (PHEIC) by the World Health Organization (WHO).

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Symptoms of Mpx include fever, headache, muscle pain, and a rash which starts on the face and spreads to the rest of the body. The stigma surrounding the Mpx virus has been one of the greatest challenges in dealing with the disease. People with Mpx have been often shunned by their communities, and many are afraid to seek medical care for fear of ostracism. For those affected by the virus, this stigma can significantly impact their mental health and quality of life. It is further fueled by misinformation and societal norms. Hence, a multifaceted approach that includes education, awareness campaigns, and community engagement is needed to overcome the stigma associated with Mpx. Effective communication strategies are critical to the dispelling of rumors and the reduction of fear. Interventional measures need to be shaped according to the needs of those affected.

Keywords

Monkeypox · Virus · Stigma ·
Discrimination · Overcome · Prejudice

25.1 Introduction

Stigma occurs when a person or group of people observe a condition and view it as abnormal, often triggering negative thoughts and feelings

based on current, past, or imagined conditions (Helmus et al. 2019). These observations can lead to societal prejudice, detachment, stereotyping, and marginalization of stigmatized individuals. Stigmatization can manifest in various ways depending on an individual's situations, contexts, experiences, virtues, and objectives (Stangl et al. 2019). It can be thought of as occurring in three phases - emergence, growth, and spread. Left unchecked, stigma can have serious negative consequences for the stigmatized person or community and can lead to larger public health crises (Yang et al. 2022).

Stigmatization, a major social determinant of health, contributes to morbidity, mortality, and health disparities. It has been called the "hidden" burden of disease by the WHO (Weiss 2008). Stigma can be reflected in both attitudes and experiences and has cognitive, emotional, and behavioral components. Attitudes are often understood as perceived and anticipated (or internal) stigma. A person's understanding of how others are expected to act, think, or feel toward an individual, especially with a particular characteristic or identity is termed as perceived stigma. On the other hand, the expectation of experiencing a future stigma is called as anticipated stigma (Kane et al. 2019). Experiences, like attitudes, can include experienced or enacted stigmas that are motivated toward a specific trait of the individuals.

Disability due to illness or injury may result in disability benefits such as a pension or reserved parking space. Although the benefits could be attractive, in most countries, however, there is no access to any government assistance for the disables. Additionally, the high insurance premiums ensures that only a reserved section of the society can be considered as eligible for participation in the disability compensation schemes. In some cases, disabilities caused in a war/conflict or situations considered as bearing similar heroic status can bring the disabled person respect and prestige in the society. However, for the vast majority of disabled people, the disadvantages of disability outweigh the benefits. Limitations in the ability to participate in social life and to engage in activities that

provide personal happiness can be worrisome and depressing for a person with a disability (Sartorius 2007; Kane et al. 2019).

Several illnesses have been and are still stigmatized, including AIDS (acquired immunodeficiency syndrome), STDs (sexually transmitted diseases), leprosy, and pertinent skin conditions (such as psoriasis, vitiligo, and monkeypox) (Sartorius 2007; Ahmed et al. 2013). Mental illness and infectious disease patients represent the two of the most common medical diagnoses where stigma exists (Chime et al. 2022). However, among the two, psychiatric diagnoses are likely to carry a more deleterious stigma (and thus marginalization), impacting patients, their distant relatives, mental health care providers, and institutions.

Infectious diseases, unlike mental disorders, can cause widespread fear and marginalization against specific populations (Kane et al. 2019). According to a meta-analysis, the total prevalence of stigma throughout all studied outbreak populations (including Severe Acute Respiratory Syndrome/SARS, swine flu/H1N1, Middle East Respiratory Syndrome/MERS, Zika, Ebola, and Coronavirus Disease 2019/COVID-19) was 34%, with enacted stigma (36%) and perceived stigma (31%). Patients have the highest stigma prevalence (38%), followed by the general public (36%) and healthcare professionals (30%). Furthermore, it is more common in participants from low- and middle-income countries (37%) than in high-income countries (27%). People with a lower level of education also showed a higher prevalence of stigma than their counterparts (47% vs. 33%) (Yuan et al. 2022).

Intriguingly, the prevalence of stigma remains high even among the more educated. While the exact reason for this is complex, we believe a mix of social media disinformation and educational fragmentation may be primary causes. As we saw during the COVID-19 pandemic, the scientific community has resorted to epistemic intrusion, writing about topics in which they have no expertise (e.g., journalism students writing interpretations of COVID-19-related publications for leading newspapers without adequate and competent editorial supervision).

In the case of infectious diseases and skin diseases, stigma can be related to several factors. The most significant source of stigma is associated with transmission fears (instrumental stigma) and misconceptions about disease spread, particularly pre-existing negative views toward disadvantaged people (symbolic stigma) (Srinivasan et al. 2021). According to research, the magnitude and placement of skin diseases are primary determinants of external stigma. It could be concluded that the more noticeable the illnesses (e.g., face, hands), the stronger the stigma experienced by the patients. Another notable cause of stigma is the length of the disease's symptomatology, with a longer duration of illness associated with higher levels of stereotyping (Germain et al. 2021).

In addition to the prejudice, they experience in the healthcare system, people with such illnesses receive much less societal support than people with illnesses that are not stigmatized. In particular, people have considerable difficulties in organizing their lives when their illness results in an impairment which may lead to disability and handicap (Kane et al. 2019; Li et al. 2021). If their disorder has exacerbated an impairment that can result in disability and incapacities, it could lead to the affected individuals facing significant challenges in performing daily activities (Sartorius 2007). These findings are clearly a reminder that stigma remains an important public health issue. A pragmatic and comprehensive approach is needed to counter the destructive effects of infectious disease epidemics and to minimize the stigma associated with infection (Kim and Kim 2020).

25.2 Effects of Stigma on Mental Health and Quality of Life

Stigmatization and disability significantly impact the disabled group's physical and social standing (Gay 2004), both of which can result in psychological disorders, most notably depression, and chronic sadness, particularly in those who remain in the denial phase of grief. This could inevitably lead to functional limitations,

lowering people's overall, worsening function limitations, and reducing the disability compensation process (Sartorius 2007; Kane et al. 2019).

Stigma has a long tradition of affecting people's mental well-being and quality of life. Increased self-stigma and stigmatizing events have been associated with significantly more psychological distress and suicidality. These findings are supported by correlational testing, which showed significant correlations between mental health/suicidal parameters and self-stigma variables (Coelho and Pereira 2022). Subjective thoughts of stigma are characterized in patients with psychiatric disorders, whether psychosis or non-psychosis, with or without discrimination. The stigma is affiliated with the disease's diagnosis, treatment process, or media presentation. Furthermore, there is also documented physical violence in people with psychotic illnesses and drug addiction (Dinos et al. 2004). Discrimination has been observed in work, academic, and therapeutic intervention configurations (Reavley et al. 2017). An investigation of stigma on four diseases, including Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), leprosy, schizophrenia, and diabetes, revealed that the diabetes is far less affected by stigma than the others. These respondents described enacted stigma as a result of existing practices and policies and social, religious, gender, and cultural norms at the structural level. Individuals living with HIV and schizophrenia disclosed restrictive policies and procedures in healthcare facilities and severe breaches of human rights due to hospital policies and employment market prohibitions. The psychological impact is exacerbated in the young population, females, low education levels, poor self-rated health status, poverty status, frontline workers, and lack family support (Nursalam et al. 2020).

Regrettably, stigma and discrimination can also come from family and friends, which substantially impacts social relationships (Rai et al. 2020). Ultimately, the implications of stigma can be divided into four categories: social (relationship troubles, diminished standing in society

and opportunity), behavioral (isolation), psychological (anxiety, depression, stress, self-blame), and medical (medical care avoidance and treatment disruption) (Ohlsson-Nevo and Karlsson 2019; Rai et al. 2020). This could also be classified based on the source of stigma, either from personal, public, family, employment, and healthcare professional (professional stigma) (Subu et al. 2021).

An assessment of COVID-19 cases revealed that a higher level of stigma was more likely related to the quality of life and mental health than a lesser level of stigma. This is more common in men, civil servants, army personnel, teachers, or lecturers (Wahyuhadi et al. 2022). Visible skin disorders, such as leprosy, lead to physical harassment, particularly from sufferers' friends, due to noticeable lesions or deformities, which causes them to be labeled ugly (Rai et al. 2020).

Stigma negatively influences one's physical well-being in addition to its psychological effect. A meta-analysis showed a correlation between HIV-related stigma and a greater range of physical symptoms, which could raise the likelihood of poor declined physical health (Rueda et al. 2016). Meanwhile, a study of cystic fibrosis patients found that stigma was negatively related to pulmonary function, which could jeopardize patients' clinical status (Oliver et al. 2014). Stigma and social isolation may also indirectly influence mortality risks and life expectancy by influencing lifestyle behaviors, medication adherence, and timely utilization of medical resources (Hawkey and Cacioppo 2003; Dregan et al. 2020).

25.3 Monkeypox and Stigma

As fears of the COVID-19 pandemic receded, nations around the world were grappled with concerns about the epidemic spread of Monkeypox (Mpox) cases (Mitjà et al. 2023). There have been approximately 68,265 laboratory-confirmed cases of Mpox in 106 countries worldwide during the current Mpox outbreak. According to WHO's October 2022 update on global trends in Mpox outbreaks, stigma has

been associated with men who identify as gay, bisexual, or other men who have sex with men (MSM; almost 90%) (Farahat et al. 2022b). The cases were mainly reported in the WHO European and American regions, with the USA, Brazil, Spain, France, UK, and Germany as the predominant contributors of confirmed cases (März et al. 2022; Yang 2022).

The name "Monkeypox" has traditionally been associated with stigma and has reduced the social standing of the infected (Taylor 2022). In itself, "Monkeypox" is a misnomer since Mpox did not jump the species gap only or solely from monkeys. Though the source of the virus has been identified as rodents and small mammals, the ultimate source of the virus is still uncertain (Kaler et al. 2022). It has been demonstrated that Mpox infection was first discovered in a macaque colony in Denmark in 1958. In addition, we know that the virus may spread between animals and infects humans via an intermediate host (Tarín-Vicente et al. 2022). The 2003 US Midwest outbreak was preceded by monkeypox transmission from intermediate hosts to humans. It is believed that domestic prairie dogs become infected with the virus by coming in contact with infected rodents shipped from Ghana to the USA (Hutson et al. 2007). Though the exact source host of Mpox remains unknown, evidence suggests that humans, like human beings, are accidental hosts (Yang 2022).

The stigma is further exacerbated by the possible association of sexual contact as a primary mode of transmission of Mpox, and its common association with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) as a comorbidity (März et al. 2022). This discovery has ultimately discredited these communities. In addition, the guidelines have also identified these communities as a priority group to be targeted for intervention to limit the spread of Mpox. This substantially changes the socio-political dimensions of the Mpox outbreak, primarily through the introduction of structural discriminatory practices and inequalities against people who identify as lesbian, gay, bisexual, transgender, queer, and intersex (LGBTQI+).

Counterproductively, the focus of public health awareness on a particular demographic group can create feelings of passivity in those not belonging to that group—the assumption that they are not at threat and thus do not need to take precautions or seek help (The Lancet Infectious Diseases 2022). This has been one of the crucial drivers of the current Mpox outbreak.

Regarding exposure, there appear to be several modes of transmission of smallpox, all involving direct contact with infected animals, people, or objects (Farahat et al. 2022b). Respiratory droplets or direct contact with the mucocutaneous lesions of infected patients are the basis of spread. However, person-to-person transmission of Mpox remains rare. Body fluids such as saliva, respiratory secretions, or exudates from mucocutaneous lesions are the most common modes of animal-to-human zoonotic transmission. However, determining the exact source of human exposure can be difficult in areas where animal contact is common, such as domestic rodent infestation and bushmeat hunting and preparation. Another source of exposure could be viral shedding through feces (Kaler et al. 2022; Thornhill et al. 2022).

The first known case of Mpox-associated stigma was described in a 27-year-old Nigerian man who tested positive in Phuket, Thailand, on July 18, 2022 (the first reported case in Thailand). The man turned off his phone and was untraceable for almost a week before his phone signal was traced to the Thai-Cambodian border. During this search, the man had already visited two entertainment venues and had sexual contact with several women. A total of 142 people were tested for possible Mpox infection, with the source of all traceable back to this case (Sah et al. 2022). According to the WHO, stigma can manifest in different forms (Table 25.1). People often stigmatize others without being aware that they're doing so and without any malicious intent on their part. Furthermore, without realizing how it might affect them, people automatically make judgments about others (World Health Organization 2022b).

25.3.1 Stigmatization of the African Communities

Mpox has been described as endemic in central and western African rainforests. Consequently, these regions are considered a reservoir for Mpox, coinciding with the home of the presumed host, ground squirrels (Neubauer et al. 1998). The spread of the infection was not limited to Africa but occurred for the first time outside of Africa in 2003 in the USA through several species of ground squirrels, such as the African rose and the Gambian giant rat, which were imported from West Africa through Accra, Ghana. This was interpreted as Africa causing the spread of Mpox inside and outside Africa, thus stigmatizing African countries (Likos et al. 2005).

In Africa, new cases of the MPox virus have been reported with severe implications, such as in 2017 in Nigeria when over 200 confirmed and 500 suspected cases of Mpox were recorded. Additionally, thousands of cases and hundreds of deaths have been reported in the Democratic Republic of Congo (DRC) over the past decade (Kozlov 2022). In 2020, 7,376 Mpox cases and 203 confirmed deaths occurred, with a case fatality rate of 2.8%. Similarly, in 2021, 3050 cases of Mpox with 87 deaths were detected, resulting in a case fatality rate of 2.9%. According to Centre for Disease Prevention and Control (CDC) Africa statistics, at least 6883 Mpox cases have been detected on the continent since the beginning of 2022. A total of 5992 of these cases were suspected and 891 were confirmed, resulting in 173 deaths (Africa Centres for Disease Control and Prevention 2022). The number of deaths in Africa significantly exceeds the number of deaths in northern countries, as was the case in the current outbreak when less than ten deaths have occurred in the global north. Simultaneously, the case fatality rose significantly in Africa to 3.1% (Manirambona et al. 2023).

At the time of the 2017 outbreak in Nigeria, there were claims that the viral spread was concentrated only in rural areas due to direct contact between hunters and animals. However, after 2017, the virus was detected in urban centers as

Table 25.1 Different forms of stigma manifestation in the community

Stigma Manifestation	Explanation ^a	Examples from the Mpox Outbreak
Stereotyping	A set idea that people have about what someone or something is like, especially an idea that is wrong	Historically, Black people (especially of African descent) have been called as “monkey”. This leads to racial stereotyping
Hostility	An occasion when someone is unfriendly or shows that they do not like something	People were terminated from their jobs without notice when the affected individuals informed their supervisors about the need for quarantine period after a positive diagnosis
Judgement	The ability to make decisions, or the act of developing an opinion, especially after careful thought	People with other skin conditions that manifest with scars and marks (e.g., neurofibromatosis) were frequently reported to be judged as having Mpox infection
Negative attitude	A negative feeling or opinion about something or someone, or a way of behaving that is caused by this	Multiple surveys have shown that people thought that the current Mpox outbreak is being exaggerated by the health authorities
Negative portrayal	The way that someone or something is described or represented in a painting, film, book, or other artistic work in a negative sense	Multiple media outlets published reports on Mpox with depictions of individuals with dark/African complexion. This was extremely concerning since the news reported outbreaks in North American and European countries. Real-life hospital images were not being circulated to preserve the purity of the white race
Negative Perception	A negative belief or opinion, often held by many people and based on how things seem	Members of the MSM community had a negative perception about Mpox spread which often led them to abstain completely from sexual activities and/or social life. Furthermore, the general community had a negative perception of the MSM community

^aAs defined by the Cambridge Dictionary (available from <https://dictionary.cambridge.org/>)

well. Reports of infected people developing genital lesions started to emerge, suggesting that the virus may have been transmitted through sexual contact. Initially, the sexual transmission was considered an unusual mode of transmission. However, this rampant spread could be credited to the inaccurate handling of endemicity in the pre-2017 period, thereby underestimating the emergence and spread of the virus (Yinka-Ogunleye et al. 2019). Furthermore, the global scientific community largely ignored the number of infections and deaths in Africa over time. Only a limited number of interventional studies and treatment protocols were under consideration.

Despite the fact that Africa was identified as the primary source of Mpox transmission, there has still been no significant progress toward making a Mpox vaccine (Farahat et al. 2022c).

Apart from the limited diagnostic capabilities, the harassment and stigma of these communities in Africa may also be a factor in the lack of earlier detection of infection among MSM members. In many African societies, open discussion of sexual habits is forbidden. Additionally, the lack of social acceptance of MSM members, along with the abuse associated with it, has been linked to a poor state of mind and interpersonal life (Zahn et al. 2016). Reports

have suggested that their identity has been revealed even in the health care system, which has led to a reduction in the medical services that they should be receiving (Secor et al. 2015). This has systematically resulted in infected people not being prioritized for medical and other services for this group of people. As a result, the virus spread and the affected group developed a fear of seeking health care to avoid stigma, negatively impacting their mental health.

Historical insights reveal that HIV/AIDS and monkeypox share similarities in global and local responses to these diseases. South Africa is a prime example as it faced global stigma related to HIV/AIDS. The most significant events of stigma were the murder of activist Gugu Dlamini in December 1998 after the announcement that she had HIV infection (Cameron 2000). Furthermore, children with HIV/AIDS were denied access to school. People were rejected by their families and excluded or threatened with exclusion from employment, the community, and the military (Li et al. 2008; Yabes et al. 2021). A systematic review of HIV stigma and depressive symptoms found that stigma and mistreatment of people living with HIV have serious negative consequences, including depressive symptoms. All patterns of stigma were found to be associated with depressive symptoms in people living with HIV/AIDS. The results varied, with one study confirming that indicators of depression did not manifest until 36 months. Other studies predicted that AIDS patients with depressive symptoms would experience stigma within 12 months, suggesting a bidirectional relationship (MacLean and Wetherall 2021).

25.3.2 Stigmatization of the Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Pansexual, Two-Spirit, Asexual, and Ally (LGBTQIA+) Individuals

Among Mpox cases with available data, 97.5% were male with 89.9% of the affected identifying themselves as gay, bisexual, or MSM members.

In 87.2% of cases, sexual transmission was suspected (Yang 2022). Epidemiologic studies have shown that gay, bisexual, and MSM communities are the most affected groups by Mpox infections (Liu et al. 2022). Another study looked at 528 confirmed cases between April 27 and June 24, 2022, in 16 countries, including 84 in the Americas and 444 in the European Union (EU), Israel, and Australia. 527 of the 528 Mpox patients were men, 96% were gay, and 2% were bisexual. HIV/AIDS was reported as a comorbid condition in 41.0% of patients. Meanwhile, gonorrhea, chlamydia, or syphilis were documented as co-infections in 23% of patients for whom such information was readily available (Thornhill et al. 2022). The study went on to report that sexual contact was the most likely mode of transmission in 95% of cases. Prior to being diagnosed, 103 of the 528 patients with Mpox had participated in large gatherings (such as Pride events). In the month prior to assessment, 169 people reported having sex on site, and 106 reported having “chemsex” (i.e., sex while under the influence of drugs). Both oro- and ano-receptive sex were associated with significantly higher rates of Mpox-caused tonsillitis and proctitis, respectively (Tarín-Vicente et al 2022).

As a result of these findings, much of the international and European response to the outbreak has been focused on gay, bisexual, and MSM communities. The WHO issued special “Public Health Advice for Gay, Bisexual and Other Men Who Have Sex with Men” on May 25, followed by similar guidelines issued by the European Centre for Disease Prevention and Control (ECDC) on June 10, 2022. A preferred focus on these communities was discussed and advised by the WHO’s Monkeypox International Health Regulations (IHR) Emergency Committee such as employing tailored contact tracing and vaccination initiatives (Manirambona et al. 2023).

WHO’s advice on risk communication to address the stigma and prejudice associated with Mpox focuses primarily on language suggestions and ignores the issue of structural discrimination and health inequities faced by LGBTQIA+ people. The WHO announcement

in June 2022 stated that monkeypox disease would be renamed to address stigma fears. The International Code of Virus Classification and Nomenclature (ICVCN), however, lists stability as an essential pillar of viral nomenclature, making this change difficult. As a result, the WHO stated in August 2022, that the Mpox variants will be renamed as Clade I from the Congo Basin (Central African) clade and Clade II from the West African region (Tarín-Vicente et al. 2022; Manirambona et al. 2023). Further developments on nomenclature will be discussed later in this chapter.

Misconceptions surrounding Mpox in the general public are similar to AIDS (which was initially referred to as “gay-related immune deficiency (GRID),” “gay cancer,” or “gay plague”). They have the potential to perpetuate discriminatory preconceptions of gay and bisexual men as “promiscuous” and “predatory.” Expanded stigma is likely to worsen gay and bisexual men’s health and economic inequalities and potentially ruin efforts to combat the current Mpox outbreak (Manirambona et al. 2023; Liu et al. 2022).

25.4 Overcoming the Stigma

Without a doubt, eliminating stigma and discrimination is a daunting and time-consuming task. In this regard, regrettably, the health sector is a crucial industry employing many people that don’t actively engage in stigma mitigation and efforts to eradicate discriminatory behavior (Sartorius 2007). General hospital authorities, for example, frequently deny having a psychiatry or mental health department, thus turning away patients seeking care (Ellison et al. 2022). Doctors who are not engrossed in mental healthcare may make fun of the mentally ill, peer psychiatrists, and psychiatric disorders while remaining oblivious to the possible consequences of their language, particularly against people with schizophrenia (Brower 2021).

This has been associated with the relative ignorance of stigmatization and discrimination prevention during the learning and training

processes. Furthermore, physicians frequently dismiss physical complaints from people with mental illnesses, resulting in subpar services and predispositions to ignore whatever people might say (Sartorius 2007). It is important to reflect on one’s own conduct and actions to guarantee that they don’t contribute to stigmatization and subsequent discrimination. Healthcare professionals should instead support others’ attempts to reduce stigma and its negative consequences or initiate such efforts whenever possible (Nyblade et al. 2019).

Stigma is a real issue for the general public. Individuals are sometimes motivated by stigma to dread, refuse, avoid, and discriminate against those suffering from specific diseases, most notably mental illness. Stigmatization can take many forms, including social exclusion, housing restrictions, and workplace discrimination (Parcesepe and Cabassa 2013). Thus, involving in advocacy, improving education, and advocating for policy and legislative changes at the community level can help achieve change, although several programs continue to pose uncertain, confined, or short-term effects of both large- and small-scale interventions (Pescosolido et al. 2021; Farahat et al. 2022a).

The goal of any intervention must be focused on counteracting erroneous information about the stigmatized diseases. However, targeting numerous at-risk and under-educated populations living in remote areas, particularly in the least developed nations, is a tough challenge. In the long run, it may lead to either intentional or accidental non-compliance to recommended preventive measures and postponed health-seeking attitudes. Furthermore, it is critical to increase confidence in affected populations toward their respective governments, which remains low in many countries. Thus, the essential measures to intrude into these phenomena are tailored campaigns, educational programs, and the dissemination of accurate medical composition to increase public awareness about stigmatized diseases and their transmission (Farahat et al. 2022a). The objective can be accomplished using various media, including flyers and posters, concerted radio, and television programs.

Parliaments occasionally propose legislations that aids in reducing disparities in the property market, the employment market, and other areas of daily life (Dregan et al. 2020).

Sometimes, these initiatives cannot originate from faraway nations but from neighboring countries working together to distribute and exchange accurate information, schemes, and infrastructure aid (Farahat et al. 2022a). Implementing broader anti-poverty and stigma efforts has been shown to enhance life expectancy among individuals suffering from serious mental illness by about 10% (Dregan et al. 2020). Giving greater importance to screening and vaccinating MSM will help to reduce the stigma associated with MSM in Africa. Working to destigmatize MSM increases access to medical care and other health services, such as vaccinations, working to improve their health and well-being and reducing inequities (Burki 2022). With the growing emphasis on the Mpox pandemic, the Africans will profit from community outreach, infrastructure testing, and vaccine prioritization, which will benefit the entire world (Manirambona et al. 2023).

25.4.1 The Health Stigma and Discrimination Framework

Developed by Stangl et al. (2019), The Health Stigma and Discrimination Framework (HSDF) enables health authorities to standardize, compare, study, and develop interdisciplinary interventions in the broadest sense. According to the HSDF, quantifiable health and social outcomes such as incidence, mortality, quality of life, and social inclusion can be explained by exploring different levels of stigma development in the society (Table 25.2).

The model is superior to other existing frameworks since it doesn't differentiate between "stigmatized" and "stigmatizer" and unlike the traditional psychological approaches, HSDF targets the origins of structural stigma. The model also considers the possibility of positive outcomes from the experiences of perceived

stigma like the fostering of resilient feelings and formation of patient rights, support, and advocacy groups (Kerrigan et al. 2015; Trapence et al. 2012). An example in the context of Mpox outbreak is the grouping led by the drugmaker Gilead Sciences, Inc (California, USA) which pledged \$5 million USD to combat misinformation, support public health education, and provide vaccination services globally (Gilead Sciences 2022).

25.4.2 Tackling Mpox Stigma

Stigmatization of monkeypox patients, especially those identifying as MSM resulted in their fear of obtaining the necessary healthcare (Yang et al. 2022). Stigmatization may justify the actions of exclusionary or aggressive verbal violence against stigmatized patients, which results in their social isolation (Sah et al. 2022). It is clear that more effective measures need to be developed and implemented to destigmatize the monkeypox disease (Table 25.3).

Firstly, determining the methods of transmission of the disease could help to reduce the stigma, social division, and lack of health equality. Vague, incorrect, and unconfirmed information can be used as an excuse to attack the population at risk and cause a general structure. Previous studies have reported that Mpox virus can be transmitted through broken skin, respiratory system, eyes, nose, or mouth (animal or human) (Liu et al. 2022; Kumar et al. 2022). Furthermore, aerosols could play an important role as a secondary transmission (Saied 2022) along with transmission by touching contaminated materials (Farahat et al. 2022c). Therefore, it's inappropriate to draw a direct link between the Mpox infection and homosexuality.

Secondly, validated evidence-backed scientific information about the Mpox disease should be advertised using targeted marketing strategies. The terminology used to describe the disease has been crucial in establishing stigmatization. In the 1980s, the media described HIV as "homosexual immune deficiency virus" and "gay cancer", which strengthened the stigma related

Table 25.2 The Health Stigma and Discrimination Framework in the context of Mpox outbreak

Key areas of intervention	Examples
<i>Level 1</i>	
Drivers	Drivers includes factors that promote health-related stigma. Examples include fear of contact with MSM individuals, stigmatization of same-sex sexual relations, stereotyping, devaluing of sex workers
Facilitators	Facilitators act as balancing factors to drivers by reducing the spread of stigma. These factors could be positive or negative. Positive facilitators include widespread availability of protections (condoms), while negative facilitators include societal taboo against same-sex sexual relations including laws prohibiting the same (in some countries)
<i>Level 2</i>	
Stigma Marking	Stigma marking occurs in regards with stereotyping of certain sections of the society like the targeting of MSM community members, Black people, and sex workers. The stigma marking also intersects with other associated stigmas against alcohol abuse, substance abuse, race, and occupation
<i>Level 3</i>	
Stigma Experiences	Experiences are defined as lived realities such as judgement, hostilities, and negative portrayal. Verbal abuse like gossips, tormenting statements are part of stigma experiences. Social exclusion, employment termination, poor healthcare, and self-stigma are other experiences
Stigma Practices	The manifestations of the experiences from the point of view of the stigmatizer are included in the stigma practices. These include stigma and discriminatory practices as described earlier
<i>Level 4</i>	
Affected Individuals	Stigma practices and experiences determine the outcomes that the affected individuals deal with. Difficulty getting justice, access, and acceptability of healthcare services, and adherence to treatment guidelines and public health precautions are examples under this category
Organizations and Institutions	These outcomes also affect organizations like law enforcement bodies, social protection services, and healthcare services

Table 25.3 Approaches for reducing stigma based on WHO’s recommendations

Recommendations for reducing the stigma	
Use of inclusive and neutral terms	Listening to the needs of the affected individuals (empathy)
Introspection of one’s own attitude, bias, and behavior	Countering misinformation
Share first-hand experiences of affected individuals	Engaging social influencers
Portraying diverse groups of communities in social media	Supporting ethical journalism

to HIV in the following forty years (Singer 1994). Old and religious beliefs lead to fear of infection by touching HIV-positive patient (Fauk et al. 2021a). This seems to be happening again with the Mpox disease, with the sole difference being the ease of access to information, including fake news and biased media.

Hence, publishing accurate information about the disease can remove social perceptions of Mpox virus being transmitted majorly due to the so-called sexual misbehaviors (Fauk et al. 2021b; Farahat et al. 2022a). Thirdly, the emotion- and fear-charged language should be avoided. Flashy, exciting titles and non-validated

opinions shouldn't be used to attract interaction on social media. Instead, a cautious and neutral or comprehensive language should be used. Finally, it is important for the government to keep the public informed and educated about Mpox so that individuals can gain a more complete understanding of the disease (März et al. 2022). The fear and discrimination associated with the virus will gradually disappear once the public is well informed.

25.4.3 Renaming of Monkeypox: WHO's Effort in Reducing Stigma

The WHO announced that they would rename the virus and the disease it causes, following a letter published on 10th June 2022 by more than 30 scientists worldwide requesting that their nomenclature be revised (Taylor 2022). This caught WHO's attention and recognition of the unequal global interest that was being given to the virus. This caused a policy change as announced on 17th June 2022 that the number of cases and deaths in Africa and the rest of the world would not be separately reported, leading to the required unified response (WHO Director-General 2022). Previously reported Mpox infections in Europe and the USA were usually isolated cases stemming from travel to Africa or being in contact with an exotic animal such as a rodent, squirrel, or non-human primate. Unlike the cases discovered in Africa, the current outbreak in Europe and North America has been thought to most likely be sustained by human-to-human transmission (Cabanillas et al. 2022). Contrastingly, most cases in Africa are reported to be independent zoonotic events.

After researchers published a proposal to change the name of the strains of the Mpox virus (the West African and the Congo Basin clade), the Director-General of the WHO, Dr. Tedros Adhanom Ghebreyesus, offered support for the changes to reduce stigma. The meeting concluded with a promise "to announce the new names as soon as possible" (WHO Director-General 2022). In line with

international best practices, names should be chosen to minimize any unnecessary negative impact on trade, travel, tourism, or animal welfare and avoid offending any cultural, social, national, regional, professional, or ethnic groups (Happi et al. 2022). The International Committee on the Taxonomy of Viruses is responsible for the nomenclature of the virus. The WHO then discussed the possible renaming of monkeypox virus clades with experts and technical advisory groups in pox-virology and evolutionary virology. Consultation with the WHO Advisory Committee for Variola Virus Research was part of this process (Taylor 2022).

On 23rd July 2022, the Director-General of the WHO clarified that the current Mpox outbreak is a public health emergency of international concern (PHEIC) (World Health Organization 2022a). WHO further committed to partnering with countries to address the outbreak as quickly as possible. Subsequently, calls were made highlighting the need for meaningful modifications to the 2005 IHR (International Health Regulations), including ways to improve the process of declaring a PHEIC. Although monkeypox was declared as a PHEIC, efforts should be geared toward implementing the right strategies to curb the outbreak. Due to its supposed affiliation with the MSM community, lessons from the initial spread of HIV proved influential. Civil society organizations, including those with experience working with people living with HIV, were invited to work with international organizations to combat the stigma and discrimination (Smith et al. 2017; World Health Organization 2022a). In November 2022, WHO officials, finally, announced a new name for the monkeypox virus—the Mpox virus (World Health Organization 2022c).

25.5 Conclusion

The stigma associated with the Mpox virus is a significant public health challenge that must be addressed to ensure that those affected receive the care and support they need. The human side of the Mpox virus cannot be ignored.

Overcoming the stigma associated with the disease is essential for ensuring that those affected receive the care and support they need to recover. Due to the multifaceted manifestation of stigma and discriminatory practices, the current outbreak requires a collaborative effort that engages communities, promotes accurate information, and empowers individuals to act.

References

- Africa Centres for Disease Control and Prevention (2022) Outbreak Brief #16: Monkeypox in African Union Member States. https://africacdc.org/wp-content/uploads/2022/10/AfricaCDC_MonkeypoxBrief-16_-26-October-2022-.pdf. Accessed 22th November 2022
- Ahmed A, Leon A, Butler DC, Reichenberg J (2013) Quality-of-life effects of common dermatological diseases. *Semin Cutan Med Surg* 32(2):101–109. <https://doi.org/10.12788/j.sder.0009>
- Brower KJ (2021) Professional stigma of mental health issues: physicians are both the cause and solution. *Acad Med* 96(5):635–640. <https://doi.org/10.1097/acm.0000000000003998>
- Burki T (2022) What does it mean to declare monkeypox a PHEIC? *Lancet Infect Dis* 22(9):1286–1287. [https://doi.org/10.1016/s1473-3099\(22\)00540-0](https://doi.org/10.1016/s1473-3099(22)00540-0)
- Cabanillas B, Valdelvira R, Akdis CA (2022) Monkeypox outbreak in Europe, UK, North America, and Australia: a changing trend of a zoonotic disease. *Allergy* 77(8):2284–2286. <https://doi.org/10.1111/all.15393>
- Cameron E (2000) The deafening silence of AIDS. *Health Hum Rights* 5(1):7–24
- Chime PE, Okoli PC, Chime EN, Anekpo CC, Ozougwu AO, Ofojebe PC (2022) Diseases associated with stigma: a review. *Open J Psychiatry* 12(2):129–140
- Coelho MS, Pereira H (2022) The impact of stigmatizing experiences and self-stigma on mental health and suicidal behavior: results from the community of Portuguese language countries. *Int J Psychol Psychol Ther* 22(2):185–196
- Dinos S, Stevens S, Serfaty M, Weich S, King M (2004) Stigma: the feelings and experiences of 46 people with mental illness: qualitative study. *Br J Psychiatry* 184(2):176–181
- Dregan A, McNeill A, Gaughran F, Jones PB, Bazley A, Cross S, Lillywhite K, Armstrong D, Smith S, Osborn DPJ, Stewart R, Wykes T, Hotopf M (2020) Potential gains in life expectancy from reducing amenable mortality among people diagnosed with serious mental illness in the United Kingdom. *PLoS ONE* 15(3):e0230674. <https://doi.org/10.1371/journal.pone.0230674>
- Ellison AG, Jansen LAW, Nguyen F, Martina A, Spencer J, Wierdsma AI, Kathol RG, van Schijndel MA (2022) Specialty psychiatric services in US emergency departments and general hospitals: results from a nationwide survey. *Mayo Clin Proc* 97(5):862–870. <https://doi.org/10.1016/j.mayocp.2021.10.025>
- Farahat RA, Rackimuthu S, Umar TP, Siddiqui JA, Shrestha AB, Essar MY (2022a) Preparedness of South East Asia countries in view of monkeypox emergence: a call for action. *Lancet Reg Health Southeast Asia* 6:100074. <https://doi.org/10.1016/j.lansea.2022.100074>
- Farahat RA, Setti MO, Benmelouka AY, Ali I, Umar TP, Alabdallat Y, Abdelaal A, Dergaa I (2022b) Monkeypox emergence and hosting a safe FIFA World Cup 2022 in Qatar: challenges and recommendations. *Int J Surg* 106:106935. <https://doi.org/10.1016/j.ijssu.2022.106935>
- Farahat RA, Umar TP, Khan SH, Shrestha AB, Kamran A, Essar MY, El-Sokkary RH (2022c) Preparedness of Eastern Mediterranean countries in view of monkeypox emergence during the COVID-19 pandemic: a call for action. *Int J Surg* 105:106878. <https://doi.org/10.1016/j.ijssu.2022.106878>
- Fauk NK, Hawke K, Mwanri L, Ward PR (2021a) Stigma and Discrimination towards people living with HIV in the context of families, communities, and health-care settings: a qualitative study in Indonesia. *Int J Environ Res Public Health* 18(10). <https://doi.org/10.3390/ijerph18105424>
- Fauk NK, Ward PR, Hawke K, Mwanri L (2021b) HIV stigma and discrimination: perspectives and personal experiences of healthcare providers in Yogyakarta and Belu, Indonesia. *Front Med (Lausanne)* 8:625787. <https://doi.org/10.3389/fmed.2021.625787>
- Gay H (2004) Social integration and employees with a disability: their view. *Disabil Stud Q* 24(1)
- Germain N, Augustin M, François C, Legau K, Bogoeva N, Desroches M, Toumi M, Sommer R (2021) Stigma in visible skin diseases—a literature review and development of a conceptual model. *J Eur Acad Dermatol Venereol* 35(7):1493–1504. <https://doi.org/10.1111/jdv.17110>
- Gilead Sciences (2022) Gilead sciences and a coalition of LGBTQ+ and human rights-focused organizations mobilize to address Monkeypox Public Health Emergency. <https://www.gilead.com/news-and-press/press-room/press-releases/2022/8/gilead-sciences-and-a-coalition-of-lgbtq-and-human-rights-focused-organizations-mobilize-to-address-monkeypox-public-health-emergency>. Accessed 5 Mar 2023
- Happi C, Adetifa I, Mbala P, Njouom R, Nakoune E, Happi A, Ndodo N, Ayansola O, Mboowa G, Bedford T, Neher RA, Roemer C, Hodcroft E, Tegally H, O’Toole Á, Rambaut A, Pybus O, Kraemer MUG, Wilkinson E, Isidro J, Borges V, Pinto M, Gomes JP, Freitas L, Resende PC, Lee RTC, Maurer-Stroh S, Baxter C, Lessells R, Ogwell AE, Kebede Y, Tessema

- SK, de Oliveira T (2022) Urgent need for a non-discriminatory and non-stigmatizing nomenclature for monkeypox virus. *PLoS Biol* 20(8):e3001769. <https://doi.org/10.1371/journal.pbio.3001769>
- Hawley LC, Cacioppo JT (2003) Loneliness and pathways to disease. *Brain Behav Immun* 17(Suppl 1):S98-105. [https://doi.org/10.1016/S0889-1591\(02\)00073-9](https://doi.org/10.1016/S0889-1591(02)00073-9)
- Helmus K, Schaars IK, Wierenga H, De Glint E, Van Os J (2019) Decreasing stigmatization: reducing the discrepancy between “Us” and “Them”. An intervention for mental health care professionals. *Front Psychiatry* 10:243
- Hutson CL, Lee KN, Abel J, Carroll DS, Montgomery JM, Olson VA, Li Y, Davidson W, Hughes C, Dillon M, Spurlock P, Kazmierczak JJ, Austin C, Miser L, Sorhage FE, Howell J, Davis JP, Reynolds MG, Braden Z, Karem KL, Damon IK, Regnery RL (2007) Monkeypox zoonotic associations: insights from laboratory evaluation of animals associated with the multi-state US outbreak. *Am J Trop Med Hyg* 76(4):757–768
- Kaler J, Hussain A, Flores G, Kheiri S, Desrosiers D (2022) Monkeypox: a comprehensive review of transmission, pathogenesis, and manifestation. *Cureus* 14(7):e26531. <https://doi.org/10.7759/cureus.26531>
- Kane JC, Elafros MA, Murray SM, Mitchell EMH, Augustinavicius JL, Causevic S, Baral SD (2019) A scoping review of health-related stigma outcomes for high-burden diseases in low- and middle-income countries. *BMC Med* 17(1):17. <https://doi.org/10.1186/s12916-019-1250-8>
- Kerrigan D, Kennedy CE, Morgan-Thomas R, Reza-Paul S, Mwangi P, Win KT, McFall A, Fonner VA, Butler J (2015) A community empowerment approach to the HIV response among sex workers: effectiveness, challenges, and considerations for implementation and scale-up. *Lancet* 385(9963):172–185. [https://doi.org/10.1016/S0140-6736\(14\)60973-9](https://doi.org/10.1016/S0140-6736(14)60973-9)
- Kim S, Kim S (2020) The crisis of public health and infodemic: analyzing belief structure of fake news about COVID-19 pandemic. *Sustainability* 12(23):9904
- Kozlov M (2022) Monkeypox in Africa: the science the world ignored. *Nature* 607(7917):17–18. <https://doi.org/10.1038/d41586-022-01686-z>
- Kumar N, Acharya A, Gendelman HE, Byrareddy SN (2022) The 2022 outbreak and the pathobiology of the monkeypox virus. *J Autoimmun* 131:102855. <https://doi.org/10.1016/j.jaut.2022.102855>
- Li L, Wu Z, Wu S, Jia M, Lieber E, Lu Y (2008) Impacts of HIV/AIDS stigma on family identity and interactions in China. *Fam Syst Health* 26(4):431–442. <https://doi.org/10.1037/1091-7527.26.4.431>
- Li Y, Zhang XW, Liao B, Liang J, He WJ, Liu J, Yang Y, Zhang YH, Ma T, Wang JY (2021) Social support status and associated factors among people living with HIV/AIDS in Kunming city, China. *BMC Public Health* 21(1):1413. <https://doi.org/10.1186/s12889-021-11253-2>
- Likos AM, Sammons SA, Olson VA, Frace AM, Li Y, Olsen-Rasmussen M, Davidson W, Galloway R, Khristova ML, Reynolds MG, Zhao H, Carroll DS, Curns A, Formenty P, Esposito JJ, Regnery RL, Damon IK (2005) A tale of two clades: monkeypox viruses. *J Gen Virol* 86(Pt 10):2661–2672. <https://doi.org/10.1099/vir.0.81215-0>
- Liu X, Zhu Z, He Y, Lim JW, Lane B, Wang H, Peng Q, Sun L, Lu H (2022) Monkeypox claims new victims: the outbreak in men who have sex with men. *Infect Dis Poverty* 11(1):84. <https://doi.org/10.1186/s40249-022-01007-6>
- MacLean JR, Wetherall K (2021) The Association between HIV-stigma and depressive symptoms among people living with HIV/AIDS: a systematic review of studies conducted in South Africa. *J Affect Disord* 287:125–137. <https://doi.org/10.1016/j.jad.2021.03.027>
- Manirambona E, Shomuyiwa DO, Musa SS, Lucero-Priso DE 3rd (2023) Monkeypox among men who have sex with men in Africa: the need for testing and vaccination beyond stigma. *J Med Virol* 95(1):e28121. <https://doi.org/10.1002/jmv.28121>
- März JW, Holm S, Biller-Andorno N (2022) Monkeypox, stigma and public health. *Lancet Reg Health Eur* 23:100536. <https://doi.org/10.1016/j.lanepe.2022.100536>
- Mitjà O, Ogoina D, Titanji BK, Galvan C, Muyembe JJ, Marks M, Orkin CM (2023) Monkeypox. *Lancet* 401(10370):60–74. [https://doi.org/10.1016/S0140-6736\(22\)02075-x](https://doi.org/10.1016/S0140-6736(22)02075-x)
- Neubauer H, Reischl U, Ropp S, Esposito JJ, Wolf H, Meyer H (1998) Specific detection of monkeypox virus by polymerase chain reaction. *J Virol Methods* 74(2):201–207. [https://doi.org/10.1016/S0166-0934\(98\)00099-8](https://doi.org/10.1016/S0166-0934(98)00099-8)
- Nursalam N, Sukartini T, Priyantini D, Mafula D, Efendi F (2020) Risk factors for psychological impact and social stigma among people facing COVID-19: a systematic review. *Syst Rev Pharm* 11(6):1022–1028
- Nyblade L, Stockton MA, Giger K, Bond V, Ekstrand ML, Lean RM, Mitchell EMH, Nelson RE, Sapag JC, Siraprasiri T, Turan J, Wouters E (2019) Stigma in health facilities: why it matters and how we can change it. *BMC Med* 17(1):25. <https://doi.org/10.1186/s12916-019-1256-2>
- Ohlsson-Nevo E, Karlsson J (2019) Impact of health-related stigma on psychosocial functioning in the general population: construct validity and Swedish reference data for the Stigma-related Social Problems scale (SSP). *Res Nurs Health* 42(1):72–81
- Oliver KN, Free ML, Bok C, McCoy KS, Lemanek KL, Emery CF (2014) Stigma and optimism in adolescents and young adults with cystic fibrosis. *J Cyst Fibros* 13(6):737–744. <https://doi.org/10.1016/j.jcf.2014.04.005>
- Parcesepe AM, Cabassa LJ (2013) Public stigma of mental illness in the United States: a systematic literature review. *Adm Policy Ment Health* 40(5):384–399. <https://doi.org/10.1007/s10488-012-0430-z>

- Pescosolido BA, Halpern-Manners A, Luo L, Perry B (2021) Trends in public stigma of mental illness in the US, 1996–2018. *JAMA Netw Open* 4(12):e2140202. <https://doi.org/10.1001/jamanetworkopen.2021.40202>
- Rai SS, Irwanto I, Peters RMH, Syurina EV, Putri AI, Mikhkhanova A, Naniche D, Zweekhorst MBM (2020) Qualitative exploration of experiences and consequences of health-related stigma among Indonesians with HIV, leprosy, schizophrenia and diabetes. *Kesmas J Kesehat Masy Nas (National Public Heal Journal)* 15(1):7–16
- Reavley NJ, Jorm AF, Morgan AJ (2017) Discrimination and positive treatment toward people with mental health problems in workplace and education settings: findings from an Australian National Survey. *Stigma Heal* 2(4):254
- Rueda S, Mitra S, Chen S, Gogolishvili D, Globerman J, Chambers L, Wilson M, Logie CH, Shi Q, Morassaei S, Rourke SB (2016) Examining the associations between HIV-related stigma and health outcomes in people living with HIV/AIDS: a series of meta-analyses. *BMJ Open* 6(7):e011453. <https://doi.org/10.1136/bmjopen-2016-011453>
- Sah R, Mohanty A, Reda A, Padhi BK, Rodriguez-Morales AJ (2022) Stigma during monkeypox outbreak. *Front Public Health* 10:1023519. <https://doi.org/10.3389/fpubh.2022.1023519>
- Saied AA (2022) Should not airborne transmission be ignored in the 2022 monkeypox outbreak? *Int J Surg* 104:106762. <https://doi.org/10.1016/j.ijso.2022.106762>
- Sartorius N (2007) Stigmatized illnesses and health care. *Croat Med J* 48(3):396–397
- Secor AM, Wahome E, Micheni M, Rao D, Simoni JM, Sanders EJ, Graham SM (2015) Depression, substance abuse and stigma among men who have sex with men in coastal Kenya. *AIDS* 29(Suppl 3):S251–259. <https://doi.org/10.1097/qad.0000000000000846>
- Singer M (1994) AIDS and the health crisis of the U.S. urban poor; the perspective of critical medical anthropology. *Soc Sci Med* 39(7):931–948. [https://doi.org/10.1016/0277-9536\(94\)90205-4](https://doi.org/10.1016/0277-9536(94)90205-4)
- Smith J, Mallouris C, Lee K, Alfvén T (2017) The role of civil society organizations in monitoring the global AIDS response. *AIDS Behav* 21(Suppl 1):44–50. <https://doi.org/10.1007/s10461-016-1579-3>
- Srinivasan K, Heylen E, Raj T, Nyblade L, Devadass D, Pereira M, Ekstrand ML (2021) Reduction in stigma drivers partially mediates the effect of a stigma reduction intervention among nursing students in India: the DriSti cluster randomized controlled trial. *J Acquir Immune Defic Syndr* 86(2):182–190. <https://doi.org/10.1097/qai.0000000000002543>
- Stangl AL, Earnshaw VA, Logie CH, van Brakel W, Simbayi C, Barré I, Dovidio JF (2019) The health stigma and discrimination framework: a global, cross-cutting framework to inform research, intervention development, and policy on health-related stigmas. *BMC Med* 17(1):31. <https://doi.org/10.1186/s12916-019-1271-3>
- Subu MA, Wati DF, Netrida N, Priscilla V, Dias JM, Abraham MS, Slewa-Younan S, Al-Yateem N (2021) Types of stigma experienced by patients with mental illness and mental health nurses in Indonesia: a qualitative content analysis. *Int J Ment Health Syst* 15:1–12
- Tarín-Vicente EJ, Alemany A, Agud-Dios M, Ubals M, Suñer C, Antón A, Arando M, Arroyo-Andrés J, Calderón-Lozano L, Casañ C, Cabrera JM, Coll P, Descalzo V, Folgueira MD, García-Pérez JN, Gil-Cruz E, González-Rodríguez B, Gutiérrez-Collar C, Hernández-Rodríguez Á, López-Roa P, de Los Ángeles Meléndez M, Montero-Menárguez J, Muñoz-Gallego I, Palencia-Pérez SI, Paredes R, Pérez-Rivilla A, Piñana M, Prat N, Ramirez A, Rivero Á, Rubio-Muñiz CA, Vall M, Acosta-Velásquez KS, Wang A, Galván-Casas C, Marks M, Ortiz-Romero PL, Mitjà O (2022) Clinical presentation and virological assessment of confirmed human monkeypox virus cases in Spain: a prospective observational cohort study. *Lancet* 400(10353):661–669. [https://doi.org/10.1016/s0140-6736\(22\)01436-2](https://doi.org/10.1016/s0140-6736(22)01436-2)
- Taylor L (2022) Monkeypox: WHO to rename disease to prevent stigma. *BMJ* 377:o1489. <https://doi.org/10.1136/bmj.o1489>
- The Lancet Infectious Diseases (2022) Reaching the vulnerable without stigma. *Lancet Infect Dis* 22(8):1091. [https://doi.org/10.1016/s1473-3099\(22\)00456-x](https://doi.org/10.1016/s1473-3099(22)00456-x)
- Thornhill JP, Barkati S, Walmsley S, Rockstroh J, Antinori A, Harrison LB, Palich R, Nori A, Reeves I, Habibi MS, Apea V, Boesecke C, Vandekerckhove L, Yakubovskiy M, Sendagorta E, Blanco JL, Florence E, Moschese D, Maltez FM, Goorhuis A, Pourcher V, Migaud P, Noe S, Pintado C, Maggi F, Hansen AE, Hoffmann C, Lezama JI, Mussini C, Cattelan A, Makofane K, Tan D, Nozza S, Nemeth J, Klein MB, Orkin CM (2022) Monkeypox virus infection in humans across 16 countries—April–June 2022. *N Engl J Med* 387(8):679–691. <https://doi.org/10.1056/NEJMoa2207323>
- Trapence G, Collins C, Avrett S, Carr R, Sanchez H, Ayala G, Diouf D, Beyrer C, Baral SD (2012) From personal survival to public health: community leadership by men who have sex with men in the response to HIV. *Lancet* 380(9839):400–410. [https://doi.org/10.1016/s0140-6736\(12\)60834-4](https://doi.org/10.1016/s0140-6736(12)60834-4)
- Wahyuhadi J, Efendi F, Al Farabi MJ, Harymawan I, Ariana AD, Arifin H, Adnani QES, Levkovich I (2022) Association of stigma with mental health and quality of life among Indonesian COVID-19 survivors. *PLoS ONE* 17(2):e0264218
- Weiss MG (2008) Stigma and the social burden of neglected tropical diseases. *PLoS Negl Trop Dis* 2(5):e237. <https://doi.org/10.1371/journal.pntd.0000237>

- WHO Director-General (2022) WHO Director-General's statement on the report of the Meeting of the International Health Regulations (2005) Emergency Committee regarding the multi-country monkeypox outbreak. Monkeypox outbreak represents evolving threat that needs collective response. [https://www.who.int/director-general/speeches/detail/who-director-general-statement-on-the-report-of-the-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-multi-country-monkeypox-outbreak](https://www.who.int/director-general/speeches/detail/who-director-general-statement-on-the-report-of-the-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-multi-country-monkeypox-outbreak). Accessed 22 Nov 2022
- World Health Organization (2022a) WHO Director-General declares the ongoing monkeypox outbreak a Public Health Emergency of International Concern. <https://www.who.int/europe/news/item/23-07-2022-who-director-general-declares-the-ongoing-monkeypox-outbreak-a-public-health-event-of-international-concern>. Accessed 20 Nov 2022
- World Health Organization (2022b) WHO publishes public health advice on preventing and addressing stigma and discrimination related to mpox. <https://www.who.int/news/item/11-12-2022-who-publishes-public-health-advice-on-preventing-and-addressing-stigma-and-discrimination-related-to-mpox>. Accessed 5 Mar 2023
- World Health Organization (2022c) WHO recommends new name for monkeypox disease. <https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease>. Accessed 22 Dec 2022
- Yabes JM Jr, Schnarrs PW, Foster LB Jr, Scott PT, Okulicz JF, Hakre S (2021) The 3 levels of HIV stigma in the United States military: perspectives from service members living with HIV. *BMC Public Health* 21(1):1399. <https://doi.org/10.1186/s12889-021-11462-9>
- Yang Z (2022) Monkeypox: a potential global threat? *J Med Virol* 94(9):4034–4036. <https://doi.org/10.1002/jmv.27884>
- Yang Z, Liu X, Zhu Z, Zhang L, Han S, Fu Y, Lu H (2022) Combating stigma and health inequality of Monkeypox: experience from HIV. *Infect Drug Resist* 15:5941–5943. <https://doi.org/10.2147/idr.S383471>
- Yinka-Ogunleye A, Aruna O, Dalhat M, Ogoina D, McCollum A, Disu Y, Mamadu I, Akinpelu A, Ahmad A, Burga J, Ndoreraho A, Nkuzimana E, Manneh L, Mohammed A, Adeoye O, Tom-Aba D, Silenou B, Ipadeola O, Saleh M, Adeyemo A, Nwadiutor I, Aworabhi N, Uke P, John D, Wakama P, Reynolds M, Mauldin MR, Doty J, Wilkins K, Musa J, Khalakdina A, Adedeji A, Mba N, Ojo O, Krause G, Ihekweazu C (2019) Outbreak of human monkeypox in Nigeria in 2017–18: a clinical and epidemiological report. *Lancet Infect Dis* 19(8):872–879. [https://doi.org/10.1016/s1473-3099\(19\)30294-4](https://doi.org/10.1016/s1473-3099(19)30294-4)
- Yuan K, Huang XL, Yan W, Zhang YX, Gong YM, Su SZ, Huang YT, Zhong Y, Wang YJ, Yuan Z, Tian SS, Zheng YB, Fan TT, Zhang YJ, Meng SQ, Sun YK, Lin X, Zhang TM, Ran MS, Wong SY, Rüschen N, Shi L, Bao YP, Lu L (2022) A systematic review and meta-analysis on the prevalence of stigma in infectious diseases, including COVID-19: a call to action. *Mol Psychiatry* 27(1):19–33. <https://doi.org/10.1038/s41380-021-01295-8>
- Zahn R, Grosso A, Scheibe A, Bekker LG, Ketende S, Dausab F, Iiping S, Beyrer C, Trapance G, Baral S (2016) Human rights violations among men who have sex with men in Southern Africa: comparisons between legal contexts. *PLoS ONE* 11(1):e0147156. <https://doi.org/10.1371/journal.pone.0147156>

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