

TITLE

The epidemiological profile of mpox cases in Rio de Janeiro, Brazil: changes over time during the 2022 outbreak

PRESENTER

Mayara Secco Torres Silva

AUTHORS

M. Secco Torres Silva¹, T. Silva Torres¹, C. Coutinho¹, E. Mesquita Peixoto¹, A.P. Lovetro Santana¹, M. Braga Mesquita¹, F.C. R. Ismério Moreira¹, S. Wagner Cardoso¹, E. Portela Nunes¹, V. Gonçalves Veloso¹, B. Grinsztejn¹, INI-Fiocruz Mpox Study

INSTITUTIONS

¹Instituto Nacional de Infectologia Evandro Chagas (Fiocruz), Rio de Janeiro, Brazil

BACKGROUND: Mpox emerged as a public health emergency of international concern in May, 2022. By January 27, 2022, diagnosed globally; 12.5% of them in Brazil. Understanding the mpox transmission dynamics in Brazil is relevant to pre responses at the country level. This study aimed to analyze the characteristics of confirmed mpox cases and the pattern of transmission in Rio de Janeiro according to time of diagnosis.

METHODS: Prospective, observational cohort study of individuals with confirmed mpox followed at a major referral center in Rio de Janeiro, Brazil. We compared sociodemographic, clinical, and behavioral data among individuals diagnosed in two time periods: (1) August 2022 (first phase); (2) September–December 2022 (second phase). Chi-squared or Fisher's tests for qualitative variables and t-test for quantitative variables were used.

RESULTS: Between June and December 2022, 416 participants had confirmed mpox, the majority between June and August 2022 (n=262). Overall, median age was 34 years (IQR: 28–40), 91.9% were cisgender men (n=382/416), 62.3% self-declared as black or pardo, 87.4% were men who have sex with men (MSM) (n=326/373). Compared to cases diagnosed during the first phase, the frequency of localized exanthema increased during the second phase, whereas it declined among cisgender men and MSM. The frequency of anogenital lesions remained stable across phases. Overall, localized exanthema was more frequent, but localized exanthema increased during the second phase (Table).

	June – August 2022 (n = 262)	September – December 2022 (n = 154)	Total (n = 416)
Median age (IQR)	33 (28,39)	35 (28,42)	34 (28,40)
<i>Cisgender men</i>	252/262 (96.2%)	130/154 (84.4%)	382/416 (91.9%)
Gender <i>Cisgender women</i>	10/262 (3.8%)	13/154 (8.4%)	23/416 (5.5%)
<i>Travesti or TGW</i>	0 (0)	11/154 (7.2%)	11/416 (2.6%)
MSM	215/232 (93%)	111/141 (79%)	326/416 (87%)
Reported sex in the 30 days before starting symptoms	210/231 (91%)	127/144 (88%)	337/375 (90%)
<i>Localized</i>	69/248 (28%)	60/149 (40%)	129 (32%)
Exanthema <i>Disseminated</i>	179/248 (72%)	89/149 (60%)	269/397 (68%)
Anogenital lesions	191/262 (73%)	115/154 (75%)	306 (74%)

CONCLUSIONS: The intersection of sexual networks seems to play an important role in mpox transmission dynamics and spread, as shown by the largest number of MSM in the first phase and the increased number of cases in women diagnosed during the second phase. The increased frequency of localized exanthema might be related to greater awareness of the array of clinical presentations by clinicians. Prompt mpox identification and diagnosis are essential to fully understand the dynamics of the mpox outbreak.