

Lower perceived concern for PrEP users, higher perceived risk for MSM with HIV: Perceived concern and risk of getting infected with monkeypox among MSM living in the Netherlands, July 2022

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Study objective

This study aimed to investigate the potential discrepancy between the actual risk and perceived risk and concern of a monkeypox infection. We seek to help determining if the current measures to curb the epidemic are successfully targeted or not in the Netherlands.

Background

The current monkeypox epidemic is most prevalent among men-who-have-sex-with-men (MSM). PrEP users and MSM with HIV (MSMHIV) are considered having the highest risk for monkeypox infection in the Netherlands and are being targeted for vaccination. Next to the epidemiological evidence, perceived concern/risk are also important correlates of prevention measures. It is thus relevant to examine which subpopulations among MSM consider themselves most at risk and are most concerned about monkeypox.

Methods

We conducted an online survey among 394 MSM living in the Netherlands. We first calculated the prevalence and standardized prevalence ratio (SPR) of high perceived concern/risk of monkeypox by the PrEP-use and HIV status. We then conducted two multivariable logistic regression analyses to investigate the perceived concern/risk of monkeypox and their potential socio-demographic, behavioral, health, and psycho-social determinants.

Key findings

Figure 1 and Table 1 summarized the descriptive results. In sum, a low and moderate monkeypox perceived risk and concern were obtained among MSM living in the Netherlands, and they differed by PrEP use status and HIV status.

Figure 2 summarized the key findings from the multivariable logistic regression analyses. Our models showed that non-PrEP users (aOR=2.55) were more likely to perceive high concern, while MSM who were retired (aOR=0.23) and who had chemsex recently (aOR=0.63) were less likely to perceive high concern. We also found that a higher perceived risk (aOR=2.97) and a higher concern (aOR=3.13) of monkeypox were correlated with each other.

Conclusions

In sum, only one-third of Dutch MSM considered themselves at a high risk of a monkeypox infection, and only half of them showed a high concern. We identified a potential discrepancy between the “actual risk” and the perceived risk and concern of monkeypox among MSM in this early stage of the monkeypox epidemic in the Netherlands, especially among PrEP users and MSMHIV. More refined public health communication strategies may be needed to improve the understanding and knowledge of the “actual risk” of monkeypox infections among these MSM sub-populations to encourage and facilitate improved health behavior.

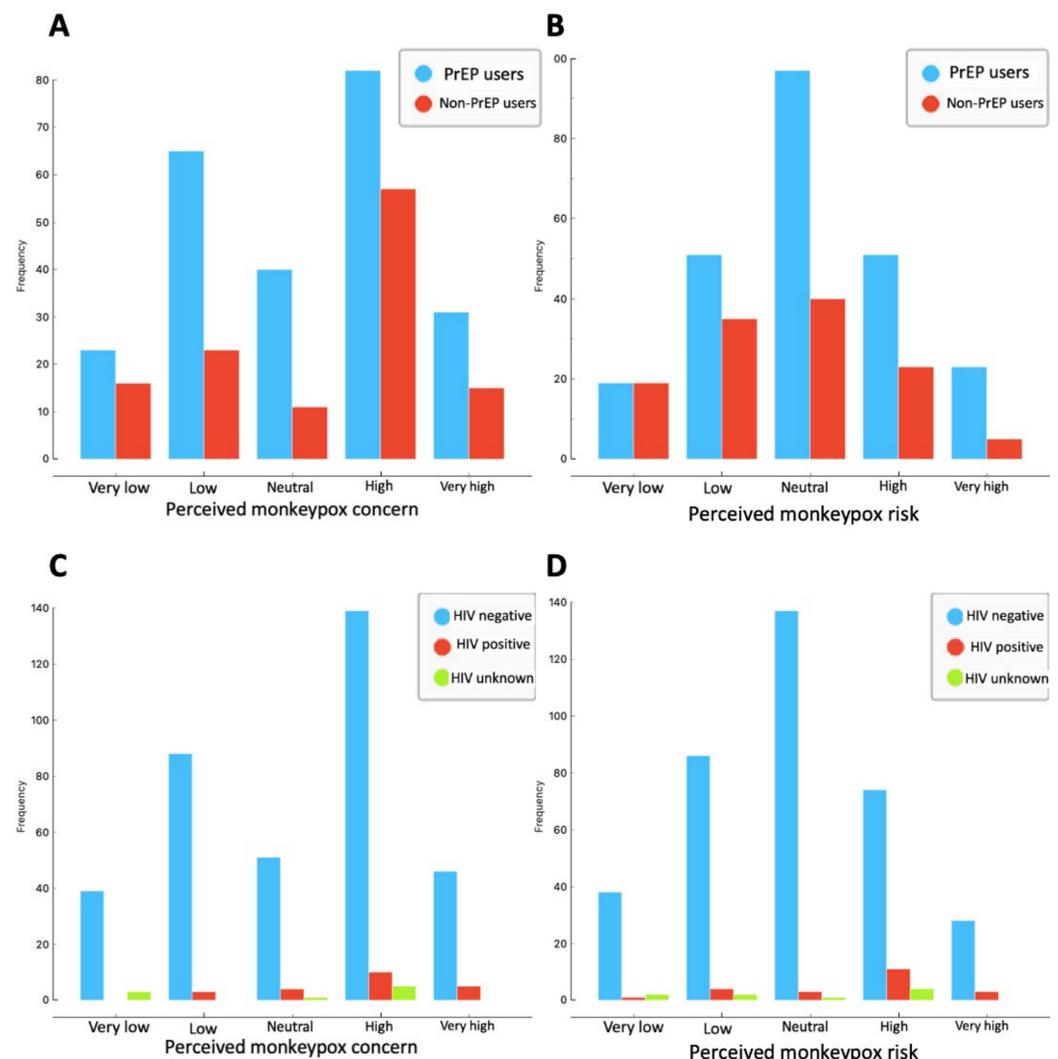


Figure 1. Distribution of (A) perceived monkeypox concern among MSM by PrEP-use status, (B) perceived monkeypox risk among MSM by PrEP-use status, (C) perceived monkeypox concern by HIV status and (D) perceived monkeypox risk among MSM by HIV status.

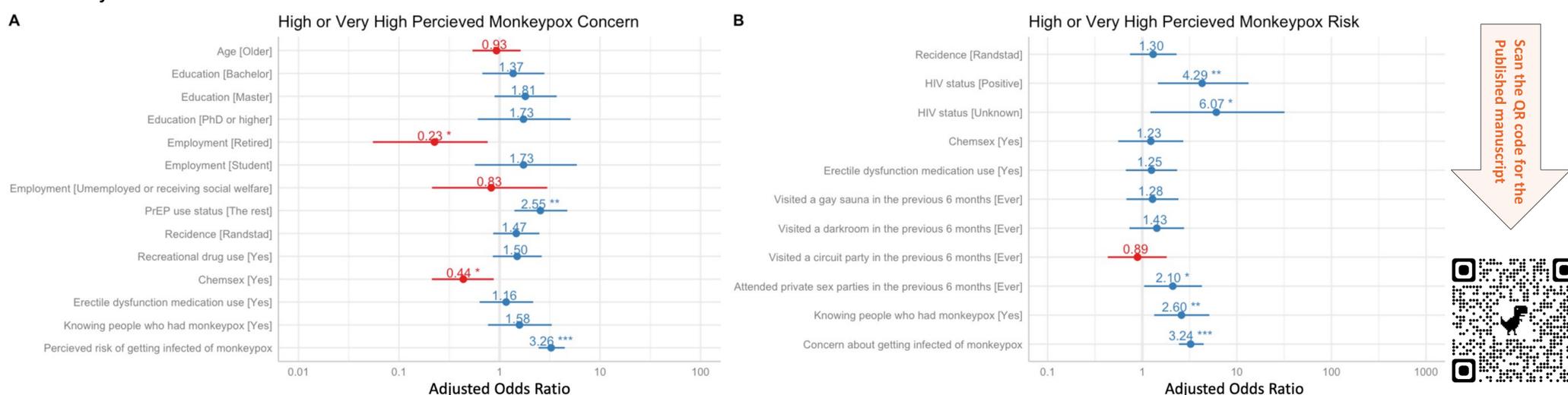
Note: two endpoints were measured on a 1–5 Likert scale (with 1 = “Very low” and 5 = “Very high”).

Table 1 Prevalence and standardised prevalence ratio of perceived concern and risk of monkeypox among MSM in the Netherlands, July 2022

Sub-population	Perceived concern of monkeypox (High/very high vs. rest of scale) *					Perceived risk of monkeypox (High/very high vs. rest of scale) *				
	n	Prevalence (%)	95%CI	SPR	95%CI	n	Prevalence (%)	95%CI	SPR	95%CI
Total sample (N=394)	205	52.03	47.10;56.92	NA	NA	120	30.46	26.12;35.17	NA	NA
PrEP users (N=241)	113	46.89	40.69;53.19	0.83	0.68;0.99	74	30.71	25.22;36.79	1.09	0.86;1.36
Non-PrEP users (N=122)	72	59.02	50.14;67.34	1.05	0.82;1.30	28	22.95	16.38;21.16	0.82	0.54;1.15
HIV positive (N=22)	15	68.18	47.31;83.63	1.31	0.73;2.05	14	63.64	42.95;80.27	2.09	1.14;3.32
HIV negative (N=363)	185	50.96	45.84;56.07	0.98	0.84;1.13	102	28.10	23.72;32.93	0.92	0.75;1.11
HIV status unknown/undisclosed (N=9)	5	55.56	26.67;81.12	1.06	0.34;2.21	4	44.44	18.88;73.33	1.45	0.38;3.23

Note: CI: confidence interval; NA: not applicable; PrEP: pre-exposure prophylaxis; SPR: standardised prevalence ratio. * 1–5 Likert scale, with 1 = extremely unlikely and 5 = extremely likely

Figure 2. Determinants of A) perceived concern and B) perceived risk of getting monkeypox among MSM in the Netherlands through multivariable logistic modelling analyses



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