MPOX VACCINE COVERAGE AND FACTORS ASSOCIATED WITH ANY, PARTIAL AND FULL VACCINATION AMONG AUSTRALIAN GAY AND BISEXUAL MEN FROM NATIONAL BEHAVIOURAL SURVEILLANCE

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Background:
We examined characteristics associated with mpox vaccine uptake among gay, bisexual and other men who have sex with men (GBMSM), the primary target group for Australian vaccination programs following the mid-2022 global outbreak.

Methods:
Vaccine uptake was assessed using national, repeated behavioural surveillance data of GBMSM (2022–23). Logistic regression examined: (1) no vaccination vs. partial/full vaccination, and (2) partial vs. full vaccination.

Results:
Among 8,161 participants (83.9% gay, 94.7% cisgender male) who reported casual sex and no mpox diagnosis, 55.6% were unvaccinated, 13.5% received one mpox vaccine dose, and 30.9% two doses. Any vaccination was associated with: being >30 years old (*aOR*=1.25, 95%CI=1.10–1.43), living in suburbs with an estimated >5% gay male residents (*aOR*=1.41, 95%CI=1.24–1.60), being university-educated (*aOR*=1.25, 95%CI=1.11–1.42), greater social engagement with gay men (*aOR*=1.56, 95%CI=1.37–1.78), greater mpox knowledge (*aOR*=13.95, 95%CI=8.22–23.68), being a PrEP user vs. a HIV-negative non-user (*aOR*=3.28, 95%CI=2.85–3.76), testing for HIV in the last year vs. not (*aOR*=2.41, 95%CI=2.04–2.84), having >10 recent sexual partners (*aOR*=1.52, 95%CI=1.31–1.79), and meeting sex partners overseas (*aOR*=1.52, 95%CI=1.32–1.76). Bisexual participants were less likely to be vaccinated than gay men (*aOR*=0.72, 95%CI=0.59–0.89). Compared to partially-vaccinated participants, fully-vaccinated GBMSM were more likely to be: >30 years old (*aOR*=1.63, 95%CI=1.36–1.94), university-educated (*aOR*=1.24, 95%CI=1.04–1.47), PrEP users or people living with HIV vs. non-PrEP-users (*aOR*=1.42, 95%CI=1.17–1.73 and *aOR*=1.62, 95%CI=1.16–2.26, respectively), and tested for HIV in the last year (*aOR*=1.73, 95%CI=1.31–2.28). Fully-vaccinated participants were less likely to be born in Asia or Central/South America than Australia (*aOR*=0.62, 95%CI=0.48–0.81 and *aOR*=0.56, 95%CI=0.39–0.82, respectively).

Conclusion:
Socially-connected GBMSM at potential risk of mpox were more likely to be vaccinated. 30% of participants did not complete the vaccine schedule. Encouraging younger, overseas-born Asian and Latinx GBMSM to complete the vaccine schedule could help prevent future outbreaks.

Disclosure of Interest Statement:
The Centre for Social Research in Health and The Kirby Institute receive funding from the Australian Government Department of Health. This study was supported by funding from a National Health and Medical Research Council Partnership Project (GNT2002625), support from Australian state and territory health departments, and surveillance funding from the Australian Government Department of Health. No pharmaceutical funding was received for this research.