Mpox knowledge, vaccination and intention to reduce sexual risk practices among men who have sex with men and transgender people : a cross-sectional study in Victoria, Australia

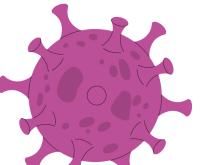
Eric P.F. Chow^{1,2,3}, Ranjit S Samra¹, Catriona S Bradshaw^{1,2,3}, Marcus Y Chen^{1,2}, Deborah A Williamson^{4,5,6}, Janet M Towns^{1,2}, Kate Maddaford^{1,2}, Finn Mercury¹, Christopher K Fairley^{1,2}

1. Melbourne Sexual Health Centre, Alfred Health, Melbourne, Victoria, Australia

- 2. Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, Victoria, Australia
- 3. Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Victoria, Australia
- Victorian Infectious Diseases Reference Laboratory, The Royal Melbourne Hospital at The Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia
- 5. Department of Infectious Diseases, The University of Melbourne at the Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia

6. Walter and Eliza Hall Institute, Melbourne, Victoria, Australia

INTRODUCTION



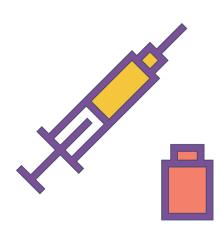
The first mpox case in Australia was reported in May 2022. As of November 10, 2022, there were 141 notified mpox cases in Australia, almost half (n=69) were reported in Victoria; and most cases had been diagnosed among men

RESULTS



Most reported they would reduce having sex with casual partners (53.9%), stop having chemsex (49.8%), stop attending SOPV (49.3%), and stop having group sex (45.3%) (Fig 2). A quarter (26.2%) reported they would increase condom use for anal sex but half (51.2%) would not change.

who have sex with men (MSM).



Data have shown that the first-generation smallpox vaccines are effective (~85%) at cross-protecting against mpox. In Victoria, Australia, free mpox vaccines (JYNNEOS® vaccine) have been available to eligible individuals since August 12, 2022.

AIM



To examine community understanding of mpox, attitudes towards vaccination, and potential changes in sexual practices due to the mpox outbreak among MSM and transgender people in Victoria, Australia.

METHODS



We conducted an online anonymous survey from Aug 24, 2022 to Oct 23, 2022. Individuals were eligible if they were (1) a man or trans woman who had sex with men; (2) aged \geq 18 years old; and (3) currently living in Victoria, Australia. Participants were recruited from a sexual health clinic and the community.



Participants were asked about their understanding and knowledge of mpox, vaccination uptake and intentions to change sexual practices.

Fig 2. Proportion of study participants who would change their sexual practices because of the mpox outbreak.

- I will increase 🛛 I will not change (had engaged in the past 12 months) 🔄 I will not change (had not engaged in the last 12 months) I will reduce I will stop
- Using drugs for the purpose of sex Attending sex on premises venues Having group sex Having sex with casual partner(s) Having anal sex without a condom Having sex with a condom

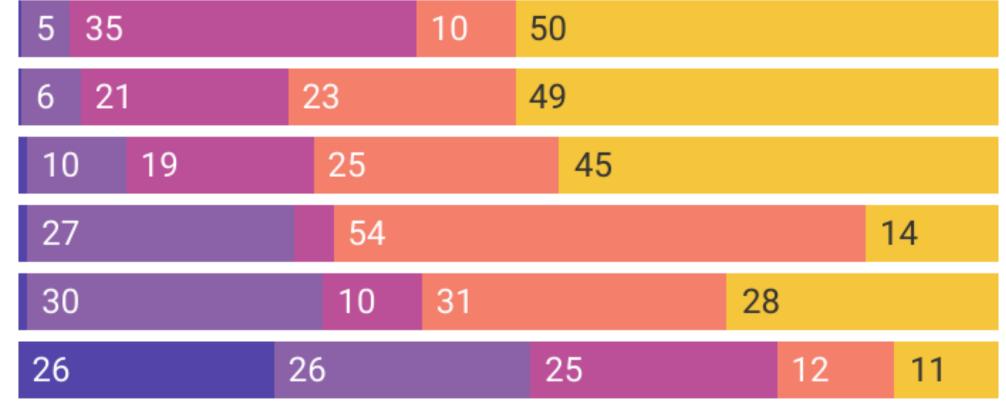


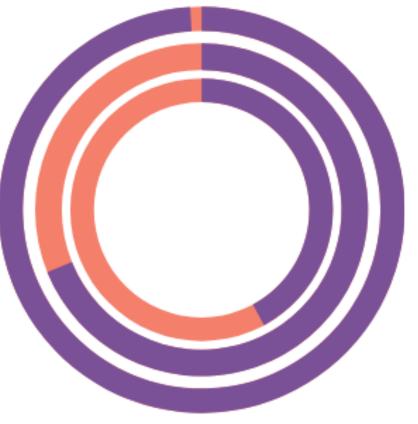
Fig 3. Weekly confirmed mpox cases diagnosed at the Melbourne Sexual Health Centre, 20 June to 30 October 2022.





Univariable and multivariable logistic regression was performed to examine the factors associated with mpox vaccine uptake.

RESULTS



- A total of 537 participants were included, most of whom were MSM (99.1%)
- 68.9% of the participants were recruited from a sexual health clinic.
- The median number of male partners in the last 12 months was 10 (IQR 4-20).
- 42.1% reported having an STI diagnosis other than HIV in the last 12 months.

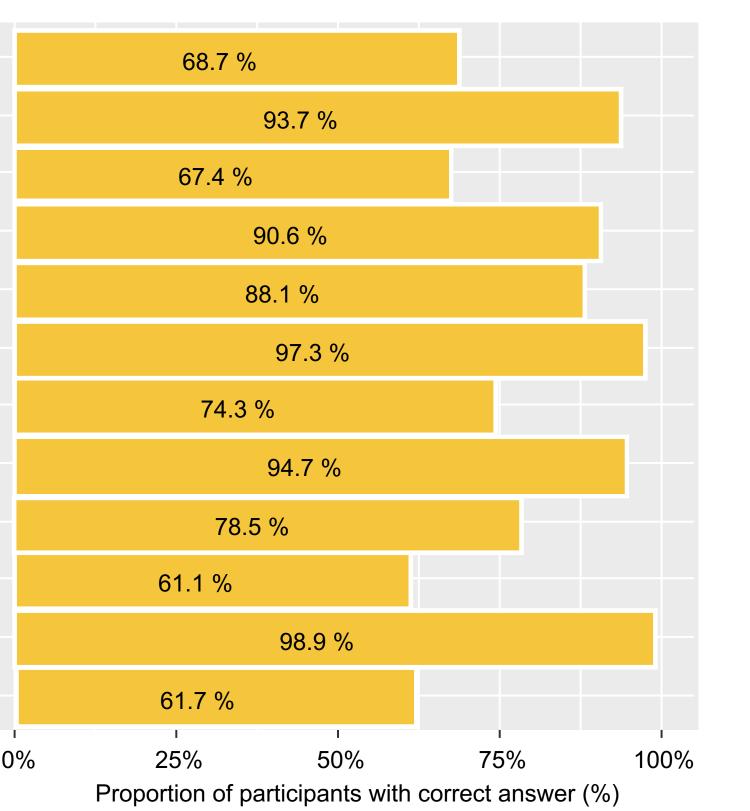
Study participants had a good knowledge of mpox. Of the 12 mpox knowledge questions, the median score of correct answers was 10 (IQR 8-11) (Fig 1).

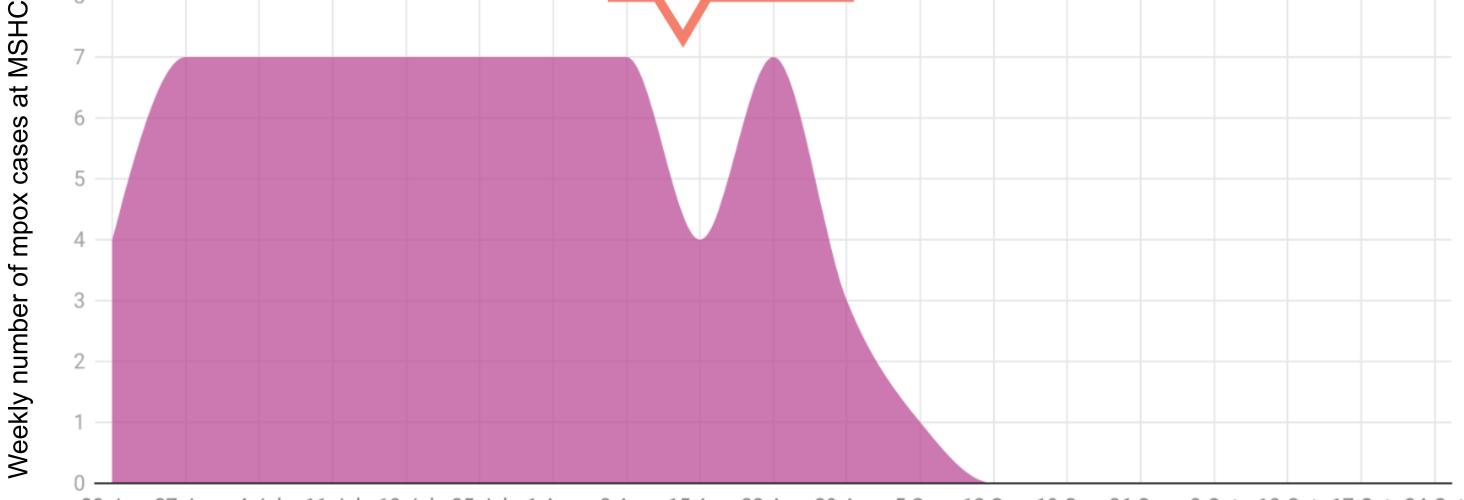
Fig 1. Knowledge of human mpox viral infection among 525 surveyed participants who had heard about mpox.

A smallpox vaccine is thought to be effective against human mpox

If an individual has mpox, the individual needs to abstain from sex -

Mpox is a self-limiting infection



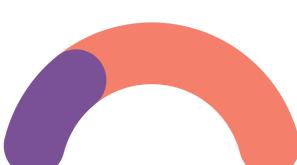


11-Jul 18-Jul 25-Jul 1-Aug 8-Aug 15-Aug 22-Aug 29-Aug 5-Sep 12-Sep 19-Sep 26-Sep 3-Oct 10-Oct 17-Oct 24-Oct

Week start date (2022)



61% of the mpox cases in Victoria were diagnosed at MSHC. The weekly mpox cases diagnosed at MSHC peaked in mid/late August, and it dropped significantly in early September after the implementation of the first phase of mpox vaccination program in mid-August (Fig 3).



36.6% had been vaccinated against mpox. Participants who had good knowledge of mpox had the highest odds of receiving mpox vaccine.

(i.e. can be resolved without taking any form of medicine)

A vaccine exists to prevent human mpox -

Flu-like illness (fever, chills, headache) is one of the signs or symptoms of human mpox Ulcers, blisters or sores on the skin and/or genitals are one of the signs or symptoms of human mpox Mpox can be transmitted through contact with _ contaminated clothing, bedding or towels

Mpox can be transmitted through sexual contact with an infected person -

Mpox can be transmitted through tongue kissing -

Mpox can be transmitted through breathing in respiratory droplets from an infected person

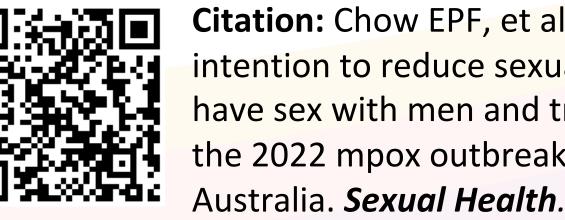
There are cases of human mpox cases occurring in Australia now -

Mpox is a not newly discovered virus -

Finn Mercury RN/RM **Research Nurse** Melbourne Sexual Health Centre 580 Swanston Street, Carlton, VIC 3053, Australia E: <u>fmercury@mshc.org.au</u> T: +61 (3) 9341 6272



One-third of high-risk participants and a substantial proportion of participants intended to reduce or stop certain practices which may explain the large reduction in mpox cases.



Citation: Chow EPF, et al. Mpox knowledge, vaccination and intention to reduce sexual risk practices among men who have sex with men and transgender people in response to the 2022 mpox outbreak: a cross-sectional study in Victoria, Australia. *Sexual Health.* In press. DOI: 10.1071/SH23075



