

## **Sexual activities and changing condoms during group sex among men who have sex with men in Melbourne, Australia**

Lew C<sup>1,2</sup>, Fairley CK<sup>1,2</sup>, Tran J<sup>1,2</sup>, Phillips TR<sup>1,2</sup>, Maddaford K<sup>1</sup>, Chen MY<sup>1,2</sup>, Bradshaw CS<sup>1,2,3</sup>, Chow EPF<sup>1,2,3</sup>

<sup>1</sup> Melbourne Sexual Health Centre, Alfred Health, Melbourne, Victoria, Australia

<sup>2</sup> Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, Victoria, Australia

<sup>3</sup> Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Victoria, Australia

### **Background:**

While numerous studies have reported the proportion of men who have sex with men (MSM) engaging in group sex; few have described sexual activities men participate in and whether men change condoms when changing partners during group sex. This study aimed to examine the characteristics of group sex, the sexual activities men engaged in and their condom use during group sex.

### **Method:**

We conducted a cross-sectional survey among MSM attending a sexual health clinic in Melbourne, Australia, between May 2019 and March 2020. Participants were asked whether they had participated in group sex (sex involving more than two participants) within the past three months, the number of people involved, the sexual activities they engaged in and their condom use during the most recent group sex.

### **Results:**

Of 1071 men surveyed, median age was 31 (IQR=26-38) and almost half (48.0%) were Australian-born. More than a quarter (26.8%,  $n=287$ ) had engaged in group sex in the past three months, the median number of group sex events was 2 (IQR=1-3) and the median number of people involved was 3 (IQR=3-4), including the participant. Fellatio was the most common activity in group sex (94.4%,  $n=271$ ), followed by kissing (85.7%,  $n=246$ ), anal sex (79.8%,  $n=229$ ) and anilingus (67.9%,  $n=195$ ). Of those who had anal sex, the proportion of men who always used condoms and changed condoms between partners was 27.0% (48/178) for insertive and 32.3% for receptive (52/161) anal sex. Compared with men not on PrEP, men living with HIV (aOR=2.7, 95% CI: 1.4-5.3) and men on PrEP (aOR=3.2, 95% CI: 2.3-4.5) had higher odds of engaging in group sex, after adjusting for confounders.

### **Conclusion:**

Two-thirds of MSM did not use condoms or did not change condoms between partners during group sex which suggests a need for safer sex strategies amongst this population group.