

## **Trends in different contraception methods among women attending the Melbourne Sexual Health Centre from 2011-2020**

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### **Background:**

The efficacy and availability of contraceptives have considerably changed in the 2010s; providing women with more options that better suit their needs. This study aimed to describe the trends in contraceptive use in women of reproductive age attending the Melbourne Sexual Health Centre (MSHC) in 2011-2020.

### **Methods:**

Women aged 18-49 years attending MSHC for the first time in 2011-2020 were included. Women were asked whether they had used any contraception and the methods of contraception. Methods of contraception were also categorised into four categories: long-acting reversible contraceptives (LARC) (e.g. implant and intrauterine device), moderately effective contraceptives (e.g. oral contraceptives and diaphragm), less effective contraceptives (e.g. condoms and withdrawal) and no contraceptive as per the CDC guidelines. Multivariable logistic regression models were used to examine the factors associated with the use of moderate-high efficacy contraceptives.

### **Results:**

A total of 38,288 women were included with a median age of 25 (IQR 22-29). Between 2011 and 2020, there was a decreasing trend in using condom (63.3% to 56.1%,  $p_{\text{trend}} < 0.001$ ) and oral contraceptives (27.2% to 20.5%,  $p_{\text{trend}} < 0.001$ ); whilst there was an increasing trend in using implant (4.6% to 6.0%,  $p_{\text{trend}} = 0.002$ ) and intrauterine device (2.8% to 11.8%,  $p_{\text{trend}} < 0.001$ ). Increasing age was associated with decreased odds of using moderate-high efficacy contraceptives ( $p_{\text{trend}} < 0.001$ ). Compared with Oceanian-born women, Asian women (aOR=0.63, 95% CI 0.56-0.72) and Middle Eastern women (aOR=0.60, 95% CI 0.48-0.74) were less likely to use moderate-high efficacy contraceptive methods, whilst European women (aOR=1.23, 95% CI 1.07-1.41) and North American women (aOR=1.51, 95% CI 1.22-1.87) were more likely to use moderate-high efficacy contraceptives.

### **Conclusion:**

Among women attending a sexual health service less effective contraceptives (e.g. condom and oral contraceptive) decreased, whilst LARC use increased. Further research is required to understand the cultural or ethnic disparities in methods of contraception for future family planning programs.

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