

# CHANGES IN THE PATTERN OF CONTRACEPTIVE USE IN AUSTRALIA

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# Categorization of contraceptives

## 'Traditional' methods:

- fertility-awareness methods (abstinence, rhythm, calendar method)
- withdrawal (coitus interruptus)
- setting-specific methods, e.g. use of herbs, amulets, douching, etc.

## 'Modern' methods:

- sterilisation (male and female)
- contraceptive pill (oral contraception)
- interuterine contraceptive device (IUD)
- injectables and implants
- barrier methods (condom, diaphragm)
- lactational amenorrhoea
- emergency contraception
- setting-specific methods, e.g. cervical cap, spermicide, contraceptive patch, etc.



Image by <a href="https://www.freepik.com/free-vector/collection-different-contraception-methods\_10048143.htm#query=contraception&position=35&from\_view=keyword&track=sph">Freepik</a>

# The rise of LARCs

Modern methods have changed. In many countries there has been a growth in the availability and use of 'Long-Acting Reversible Contraceptives' (LARCs).

## Types:

- Hormonal IUD (T-shaped device that is fitted inside the uterus, releases progesterone, lasts 5 years, 99.8% effective)
- Implant (inserted under the skin, releases progesterone, lasts 3 years, 99.9% effective)
- Injections (every 12 weeks, stops ovulation, 94-99.8% effective)

## Benefits:

- 'Set and forget'
- Long-acting
- Most effective types of contraception
- Immediately reversible upon removal
- Can be used by most women, even those with significant health issues

# Contraceptive use in Australia

Previous research has shown that contraceptive use varies over the reproductive life course (Gray and McDonald 2010; Gray and Arunachalam 2013), meaning that contraceptive use varies by:

- Reproductive history
- Childbearing intentions

In 2011, oral contraception was the most popular method (women at risk of pregnancy):

- Oral contraception 35%
- Condom 22%
- Tubal ligation 4%
- Vasectomy 9%
- IUD 3%, Injectable 2%, Implant 4%
- Withdrawal 2%, calendar method 2%

The use of LARCs was quite low

# Research questions

- Has type of contraceptive used changed in recent years?
- What are the individual characteristics associated with type of contraceptive use?
- Are reproductive life course factors associated with method used?

# Data

Household Income and Labour Dynamics in Australia (HILDA) panel dataset.

- 2005, 2008 , 2011, 2015, 2019
- women aged 18 to 45
- question asks about multiple method use
  - *which of the methods listed are you using that prevent pregnancy? Please identify all of the things you use or do (you only need to read out the number).*

Sample size= **9,971 (pooled)**



Household, Income and Labour  
Dynamics in Australia

# Method

## Summary statistics (crosstabulation – percentage using method)

- Year
- Age
- Education

## Logistic Regression

- Use of any contraception method v non-use

## Logistic Regression (restricted to those using contraception)

- Whether respondent uses contraceptive method or not

# Method (continued)

## Dependent variables:

Model 1: Use contraception vs non-contraceptive use

Model 2: Pill vs other contraceptive methods

Model 3: Condom vs other contraceptive methods

Model 4: LARCs vs other contraceptive methods

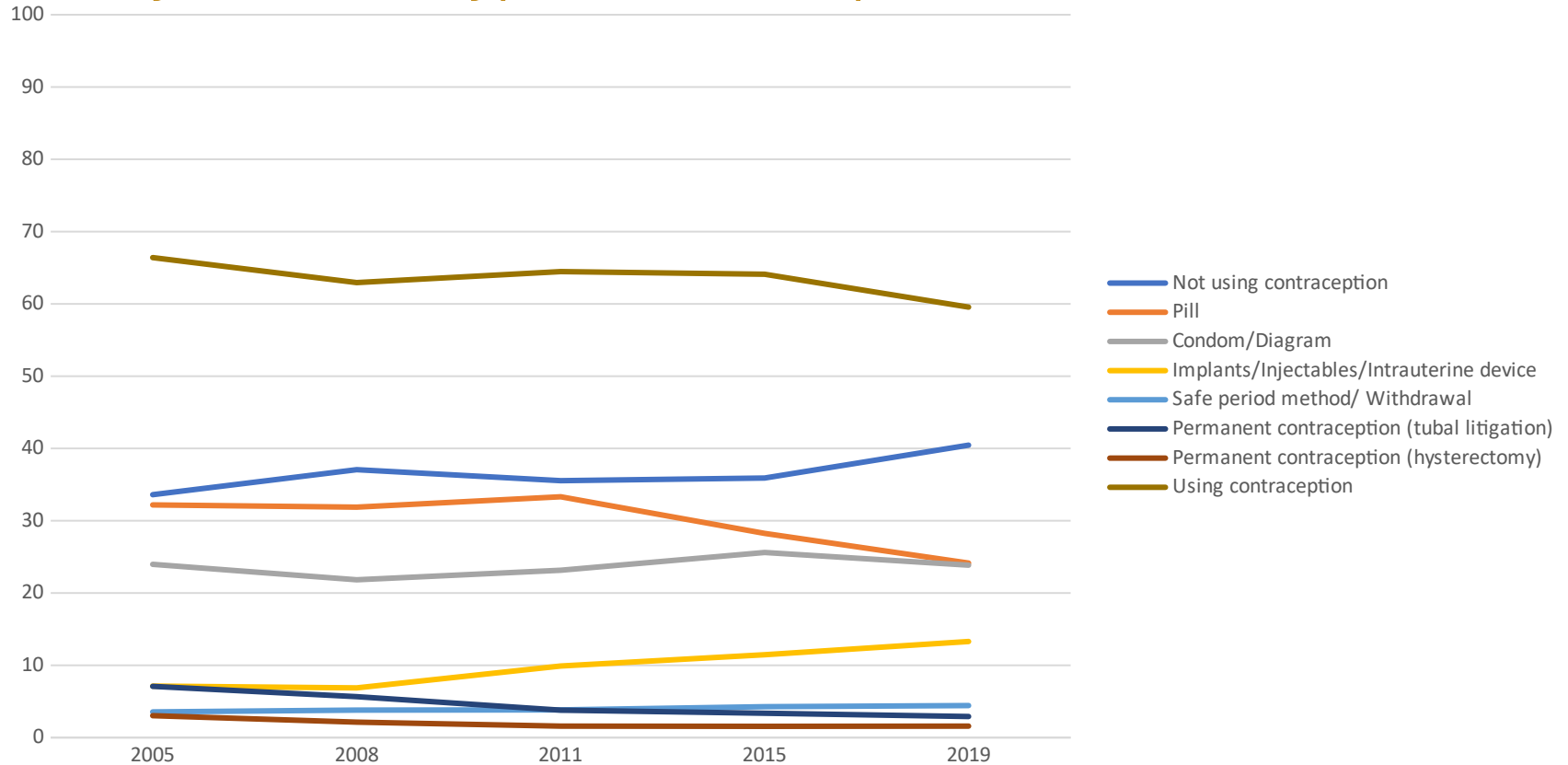
Model 5: Safe period method/ Withdrawal vs other contraceptive methods

## Independent variables:

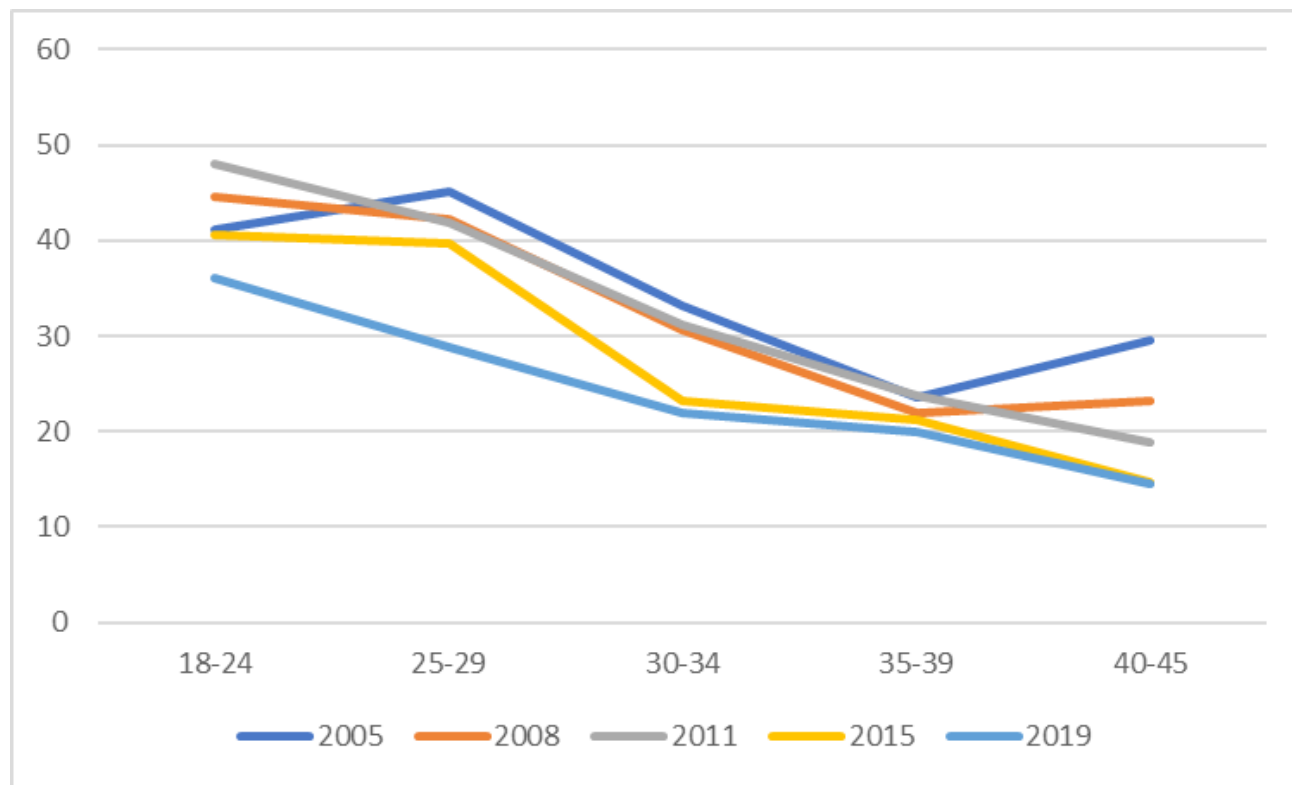
Age group	Parity	Childbearing desires	Highest education level	Relationship status	Residence	Country of birth	Aboriginal or Torres Strait Islander
18-24 (ref)	No child (ref)	Low desire for a child (<=4)	Year 11 or lower	Married (ref)	Major city (ref)	Australia (ref)	No
25-29	One child		Year 12/higher certificate (ref)	Cohabiting			
30-34							
35-39	2+ children	Want a child (5+) (ref)	University	Single	Regional or remote	Overseas	Yes (ref)
40-45							



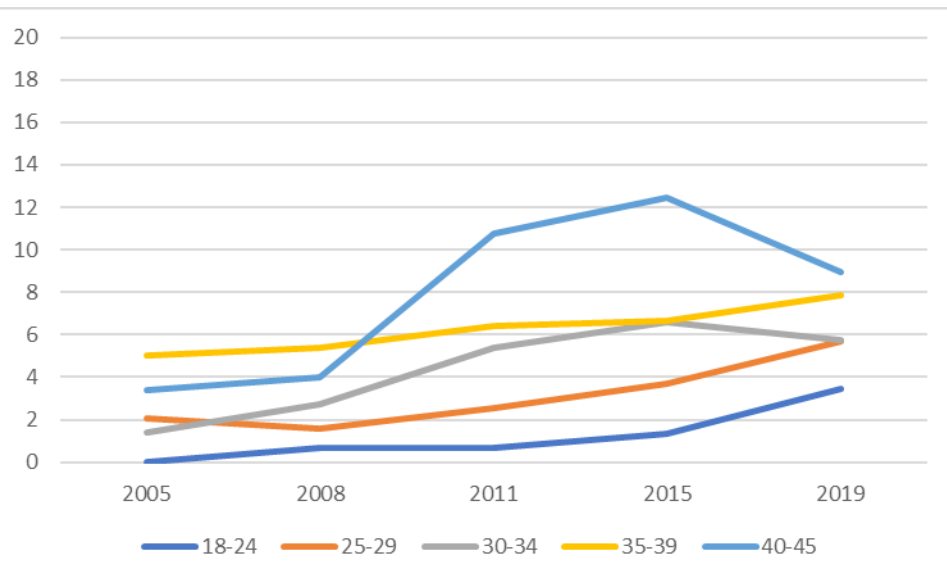
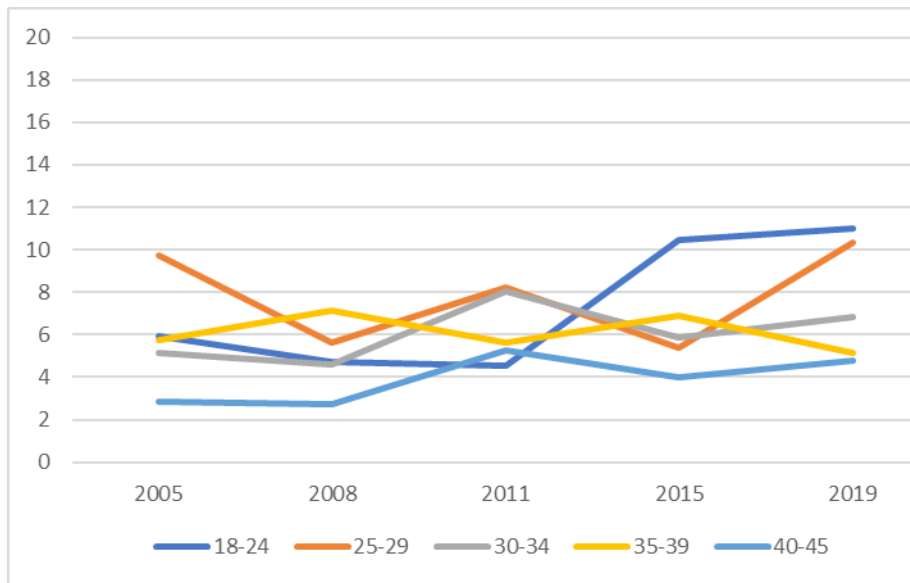
# Summary statistics: Type of contraception over time



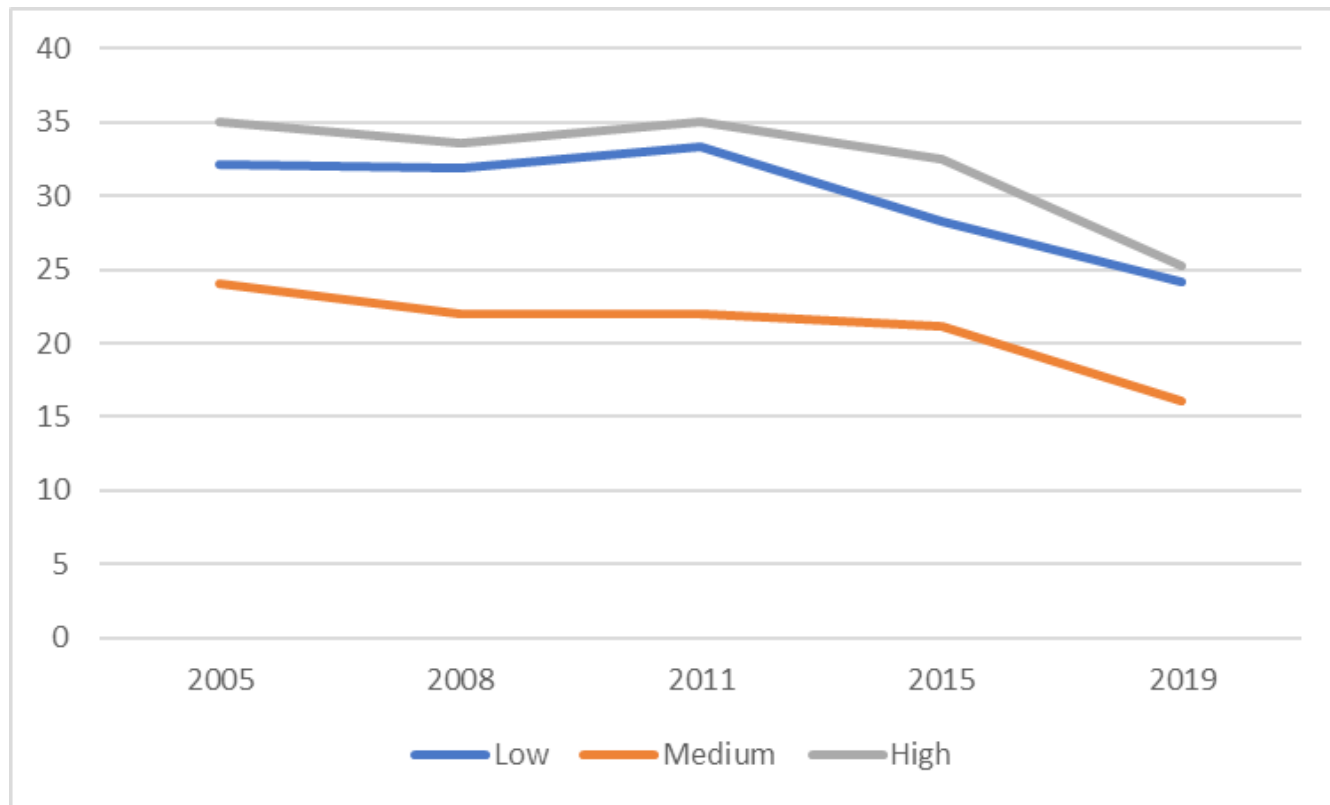
## Summary statistics: Per cent using oral contraception by age group



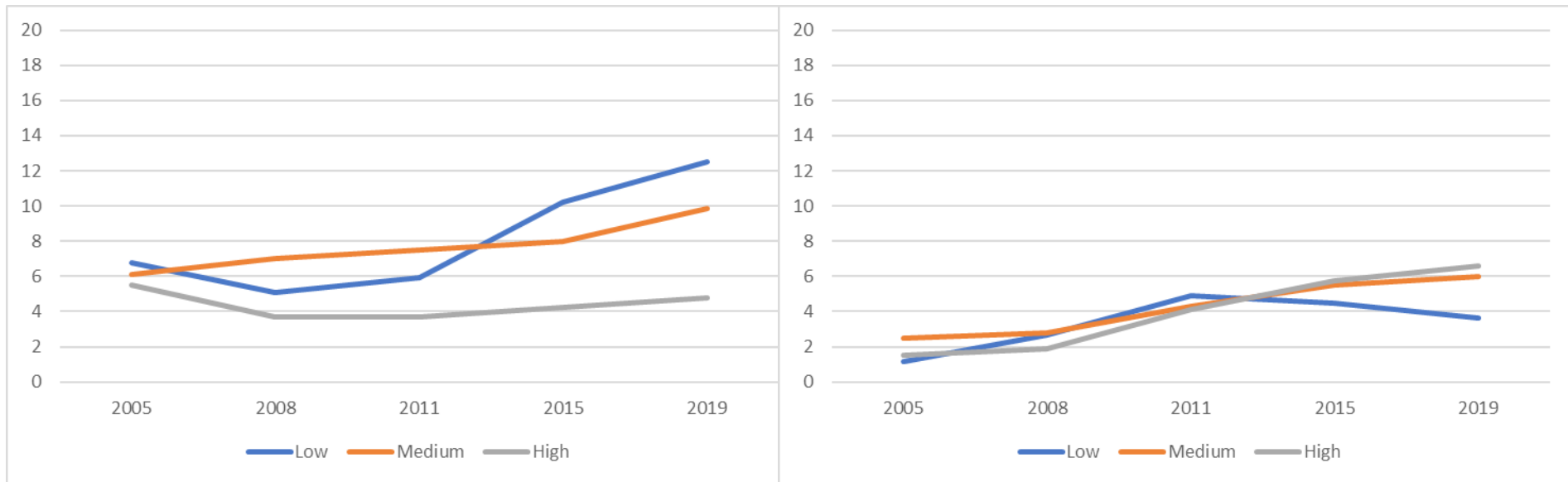
## Summary statistics: Per cent using implant/injection (left) or IUD (right) by age group



## Summary statistics: Per cent using oral contraception by education

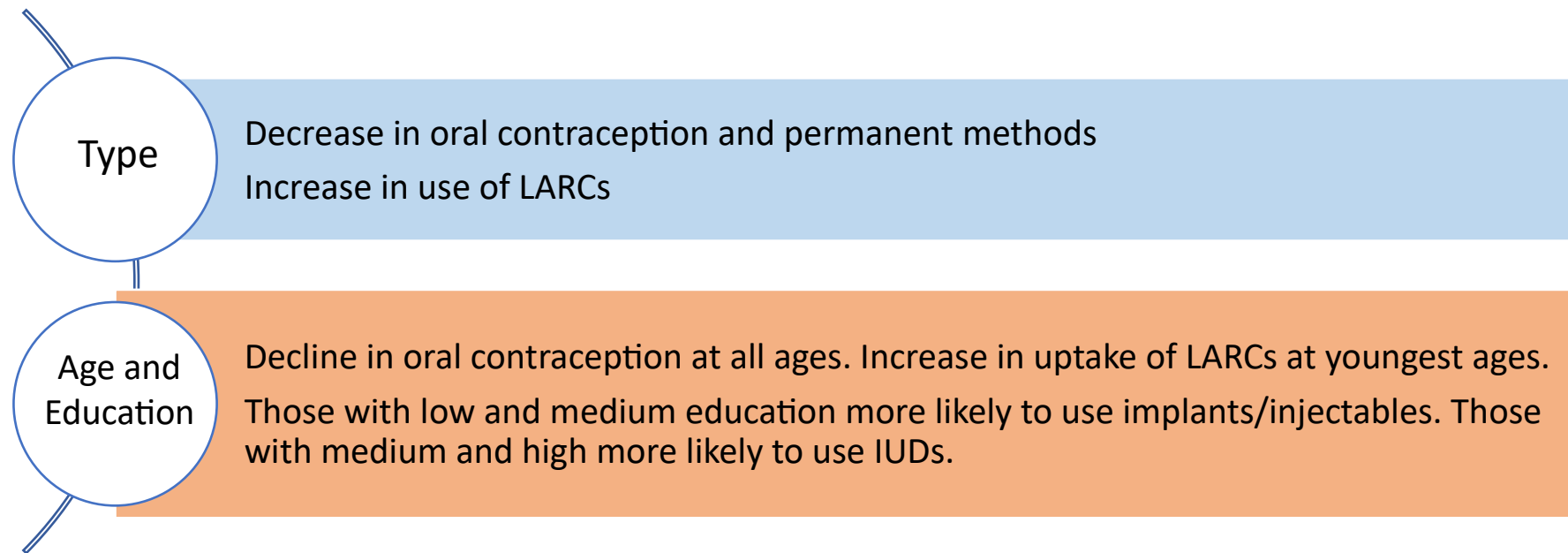


## Summary statistics: Per cent using implant/injection (left) or IUD (right) by education

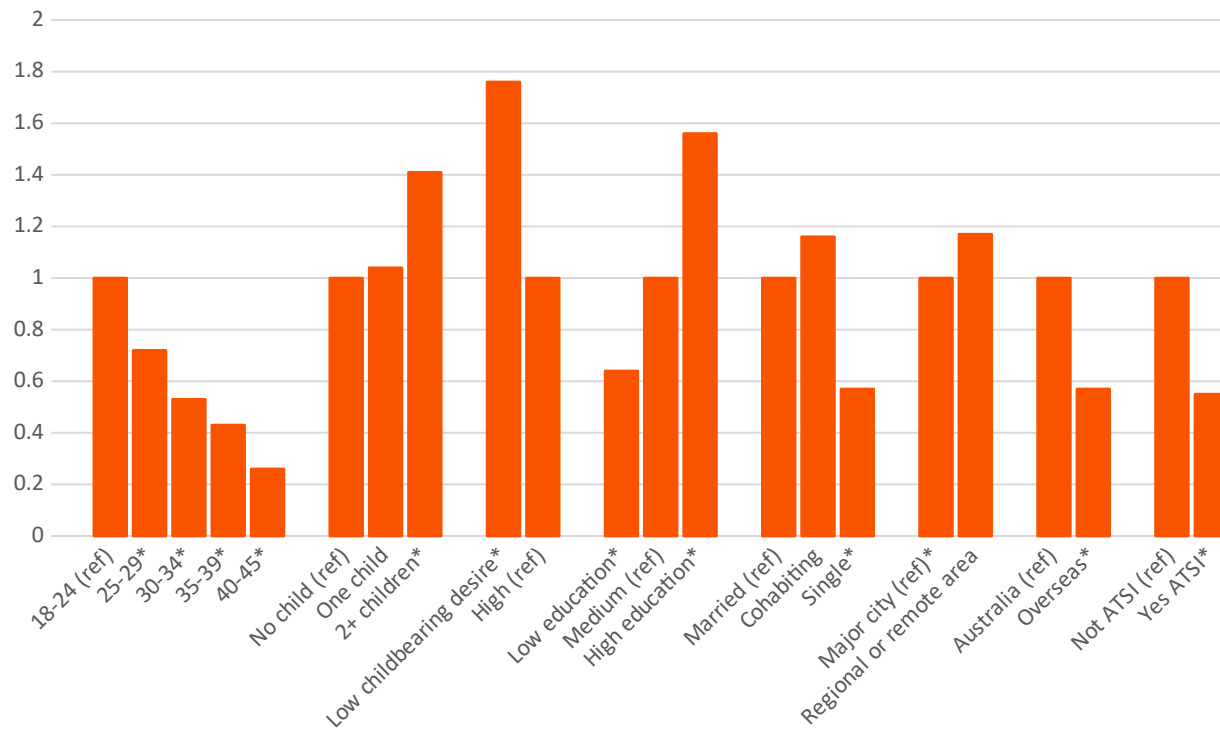


# Summary statistics

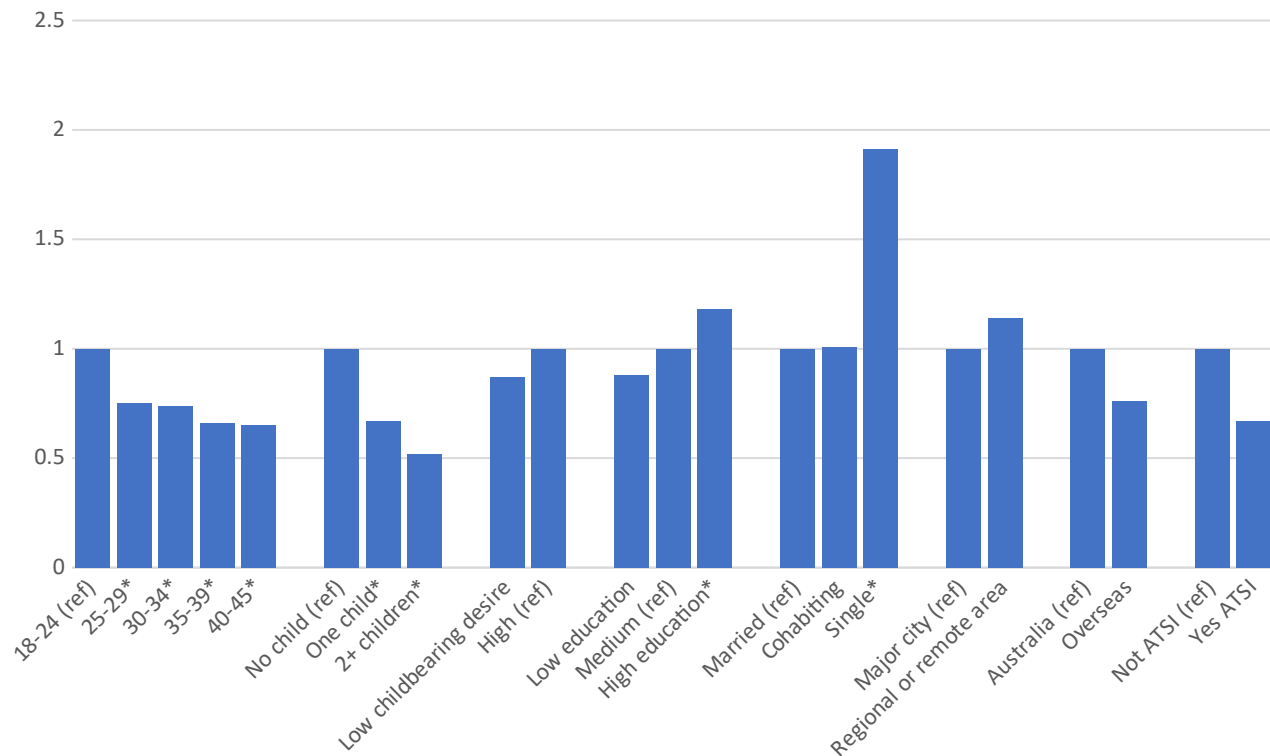
Shifts in contraceptive use over time.



## Logistic regression (odds ratios): Use of any contraception by background factors, 2019.

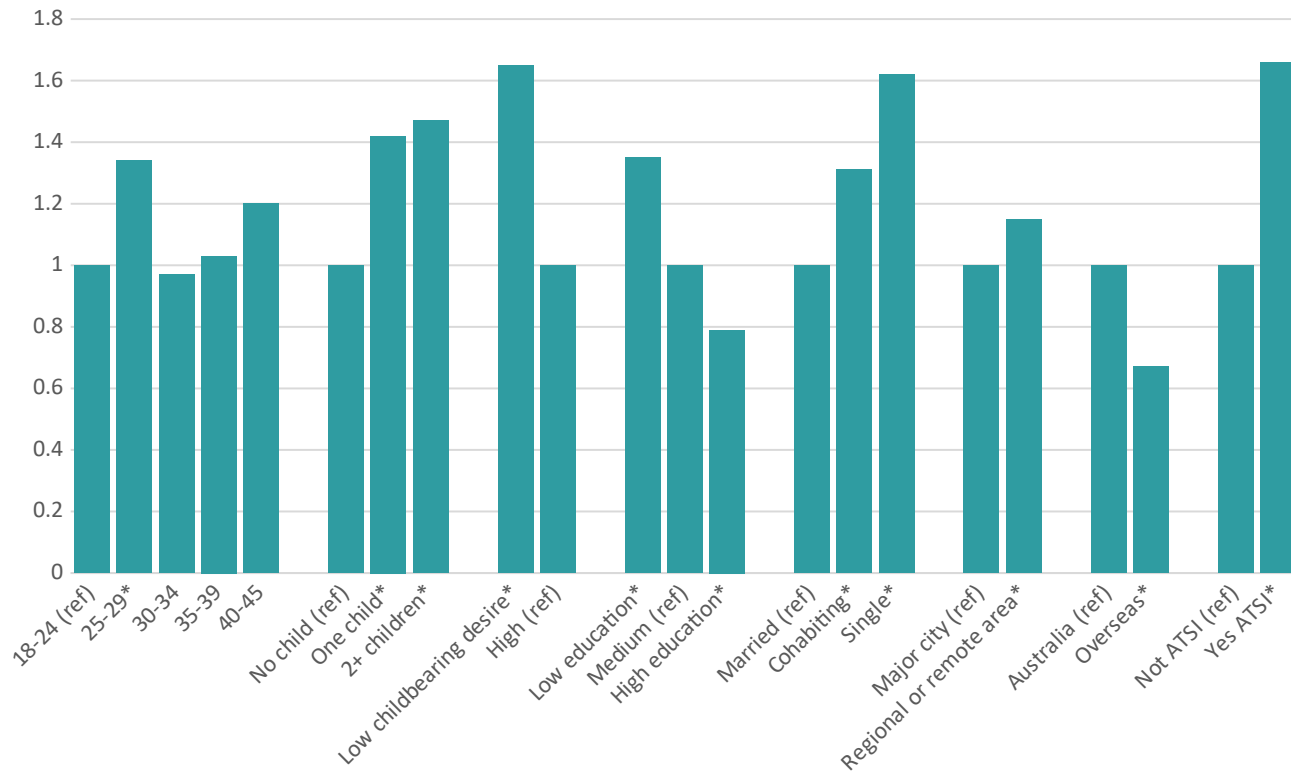


# Logistic regression (odds ratios): Use of oral contraception by background factors, 2019.





# Logistic regression (odds ratios): Use of LARCs by background factors, 2019.



# Multivariate results

Method use varies by age, parity, reproductive intentions, and other characteristics.



## Pill

Higher use by <25s, those with no children, higher education, and singles.

## LARC

Higher use by 25-29s and 40+, those with at least one child, lower childbearing desires, lower education, cohabiting or single, living in a regional or remote area, and Aboriginal and Torres Strait Islanders.  
Less likely to be used by those from overseas.

# Conclusion

Contraceptive method use has changed over the period 2005 through 2019 with the rise of new and more effective options. Importantly, method use does not just vary by age, but also reproductive life course.

- The most notable findings show that permanent methods such as tubal ligation and hysterectomy are declining in use, while the use of LARCs is increasing
- The use of more effective methods occur when people have a child, and when they have a low desire to have a child or more children
- In the early 2000s, younger respondents tended to use implants/injectibles, while women at the end of their reproductive years tended to use IUDs.
  - This appears to be changing, with a noticeable uptake of IUD use in those <25.
  - Further analysis will investigate the characteristics of this in models separating implants/injectables with IUDs.
- The use of more effective options should lead to greater control over the number and timing of having children

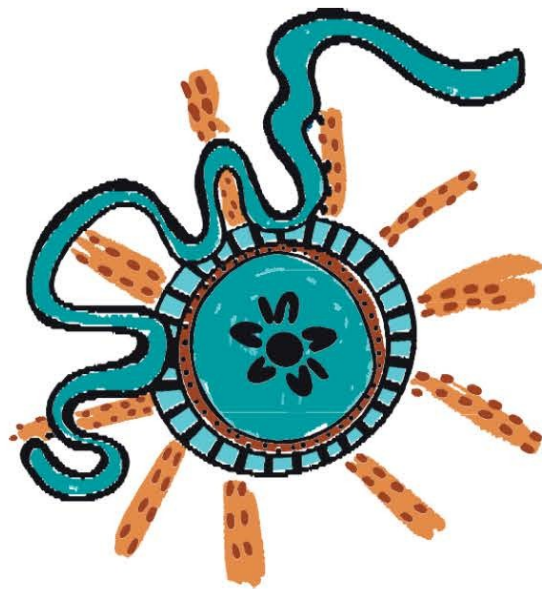
# Acknowledgement

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