

Postpartum contraception in Australia: opportunities for increasing access in the primary care setting

Rhea Singh^{A,B,*} and Jessica R. Botfield^{A,B}

For full list of author affiliations and declarations see end of paper

***Correspondence to:**

Rhea Singh
SPHERE NHMRC Centre of Research
Excellence, Monash University, Melbourne,
Vic., Australia
Email: rhea.singh1404@gmail.com

Received: 24 May 2023
Accepted: 10 October 2023
Published: 26 October 2023

Cite this:

Singh R and Botfield JR (2024)
Australian Journal of Primary Health 30,
PY23101.
doi:[10.1071/PY23101](https://doi.org/10.1071/PY23101)

© 2024 The Author(s) (or their
employer(s)). Published by
CSIRO Publishing on behalf of
La Trobe University.
This is an open access article distributed
under the Creative Commons Attribution-
NonCommercial-NoDerivatives 4.0
International License (CC BY-NC-ND).

OPEN ACCESS

ABSTRACT

In Australia, 20% of pregnancies occur within the first year after birth and most are unintended. Both unintended pregnancies and short interpregnancy intervals (<12–18 months) can have adverse effects on maternal, infant, and child health. Access to postpartum contraception reduces the risk of unintended pregnancies and short interpregnancy intervals, and supports women in pregnancy planning and birth spacing. In this forum article, we describe how postpartum contraception is currently provided in Australia and highlight opportunities for improving access in the primary care setting.

Keywords: family planning, general practice, long-acting reversible contraception, patient-centred care, postpartum care, postpartum contraception, primary health care, public health: practice, reproductive health services, women's health services.

Introduction

In Australia, over 20% of pregnancies occur within the first year after birth, and most of these are unintended (Yang *et al.* 2019). This can be attributed to difficulties in accessing effective contraceptive methods (Zerden *et al.* 2015; Holden *et al.* 2018) and misunderstandings about the efficacy of breastfeeding and fertility resumption post-birth (Speroff and Mishell 2008). Unintended pregnancies can adversely affect maternal and child physical and psychological health (Gipson *et al.* 2008), and short interpregnancy intervals (<12–18 months) are similarly associated with increased risk of adverse maternal, infant and child health outcomes compared to births after 18 months (Kozuki *et al.* 2013; Ahrens *et al.* 2019). Access to contraception in the postpartum period can reduce unintended pregnancies and short interpregnancy intervals and support pregnancy planning and birth spacing (Cooper and Cameron 2018a).

This forum article describes how postpartum contraception is currently provided in primary care in Australia and highlights opportunities to increase access to assist women in managing their ongoing needs for contraception and safely achieve their desired pregnancy spacing. We use the term 'women' in this article to mean people who identify as women and who have health needs pertaining to services relating to contraception. However, we recognise that some people assigned female at birth who have these health needs may identify as non-binary or may have variations in sex characteristics.

Challenges of postpartum contraception provision in the primary care setting

Postpartum contraception refers to the initiation of contraception within the first 12 months after giving birth (World Health Organization 2013). Most contraceptive methods can be initiated safely from childbirth onwards by both breastfeeding and non-breastfeeding women, apart from combined hormonal methods (i.e. combined oral contraceptive pill, contraceptive patch, vaginal ring) (Faculty of Sexual and Reproductive Healthcare 2016). Unlike in the United Kingdom (UK) and United States (US) (American College of Obstetricians and Gynaecologists' Committee on Obstetric Practice 2016;

Faculty of Sexual and Reproductive Healthcare 2017), there are no evidence-based guidelines or policies on postpartum contraception in Australia (Brodribb *et al.* 2013; Cheney *et al.* 2021). This means the roles and responsibilities of maternity care providers such as midwives, nurses, obstetricians and general practitioners (GPs) in providing postpartum contraception information and services are not clear.

In Australia, postpartum contraception can potentially be accessed in several ways, with the most common way being with a GP or private obstetrician at the 6-week postnatal check, or at subsequent visits (Milroy and Frayne 2022). GPs are well-placed to offer postpartum contraception information and services given their often convenient location in the community and ongoing relationship with the woman, which can offer them intimate knowledge of the woman's circumstances and medical history (Brodribb *et al.* 2013; Henderson *et al.* 2016). GPs can also provide continuous family-centred care for the mother, infant and other family members (Brodribb *et al.* 2013).

However, although GPs are ideally placed to discuss and provide postpartum contraception, there are limitations to this. Data from the UK and US suggest attendance rates at GP postpartum visits are generally low (Ogburn *et al.* 2005; McKinney *et al.* 2018), particularly for younger women and those from lower socioeconomic backgrounds (Danilack *et al.* 2019; Li *et al.* 2022) who may also be at higher risk of an unintended pregnancy (Rassi *et al.* 2013; Rowe *et al.* 2016). This is likely to be the case in Australia as well (Brodribb *et al.* 2013). Reasons for low attendance rates include lack of time and fatigue from caring for a newborn, competing priorities (e.g. post-operative wound care, breastfeeding, infant health), and transportation or other access difficulties (Henderson *et al.* 2016). For those who do attend postpartum GP visits, contraception may not be discussed in detail or at all during that appointment, and particular methods (e.g. long-acting reversible contraception (LARC)) may not be immediately available as they often require additional visits with the GP or referral to another service for insertion (Li *et al.* 2023; Mazza *et al.* 2023). The need for multiple appointments can be highly inconvenient, particularly in the postpartum period, and a considerable barrier to access (Lunniss *et al.* 2016). In addition to these challenges, waiting until the 6-week postnatal check (or later) to discuss and initiate contraception may leave some women at risk of unintended pregnancy in the early postpartum period. Over 40% of women will have resumed vaginal sex before 6 weeks (McDonald and Brown 2013), and women who are not exclusively breastfeeding can become pregnant from 21 days postpartum (Speroff and Mishell 2008).

There are other ways of receiving postpartum contraception information and services in the primary care setting in addition to GP visits, some of which are available in some parts of Australia and others which have yet to be trialled in the Australian context. These include antenatal contraception discussions and counselling (Cameron *et al.* 2017), including

providing information about immediate postpartum LARC insertion (Cooper and Cameron 2018b), provision during routine postnatal home visits with midwives or nurses (Croan *et al.* 2018), provision during other appointments that occur postnatally (e.g. co-locating with well-baby checks) (Haider *et al.* 2020), and pharmacy-led contraception counselling and supply (Buckingham *et al.* 2021). These methods may support timely access to postpartum contraception information and services and are each described below.

Opportunities to increase access to postpartum contraception in primary care

Antenatal contraceptive counselling

Antenatal contraceptive counselling can raise awareness of optimal interpregnancy intervals and appropriate contraception options and facilitate contraceptive decision-making (Cameron *et al.* 2017). International postpartum contraception guidelines recommend that contraceptive counselling should be routinely provided as part of antenatal care (American College of Obstetricians and Gynaecologists' Committee on Obstetric Practice 2016; Faculty of Sexual and Reproductive Healthcare 2017). In-depth contraceptive discussions on the postnatal ward can be challenging (as it is often a low priority for women; there may be a lack of privacy on shared wards with frequent visitors, and women often have a short duration of stay) (McCance and Cameron 2014; Walker *et al.* 2021) and delaying discussions further puts women at risk of unintended pregnancy, as previously described (Heller *et al.* 2016). Antenatal contraceptive counselling could address these issues by providing women with time to consider their options and be better informed to decide on their preferred contraception early in the postpartum period.

All maternity providers seeing women antenatally, including midwives, GPs and obstetricians, ideally have a role in facilitating contraception discussions. Midwives are particularly well-placed to provide contraceptive counselling given their frequent contact with women across their pregnancy journey (Botfield *et al.* 2021). Although midwife-led antenatal contraceptive counselling is feasible for midwives to deliver, acceptable to women, and associated with an increased uptake of contraceptive methods after delivery (Cameron *et al.* 2017; Walker *et al.* 2021; Botfield *et al.* 2022a), not all Australian midwives have the knowledge or support to provide detailed contraceptive counselling (Botfield *et al.* 2021). Less than one-fifth of midwives have received formal training in contraception counselling in Australia (Botfield *et al.* 2021).

To improve access to in-depth antenatal contraceptive counselling, all maternity providers should have access to appropriate education and training to provide them with the necessary knowledge and skills to facilitate these discussions (Botfield *et al.* 2021; Walker *et al.* 2021). Additionally, despite

Australian women expressing a general preference for their GP or midwife to provide antenatal counselling (Li *et al.* 2023), it is currently not a part of routine care. Further research in relation to this is warranted to better understand how primary care providers can integrate antenatal contraceptive counselling into routine antenatal appointment.

Having a contraceptive plan in place for after birth can also facilitate the provision of immediate postpartum contraception (i.e. insertion of an intrauterine device (IUD) or contraceptive implant immediately after placental delivery or up to 48 h after delivery), if desired and available (Zapata *et al.* 2015; SPHERE Centre of Research Excellence 2022). Immediate postpartum IUD or implant insertion is feasible, safe and cost-effective for both breastfeeding and non-breastfeeding mothers and has high continuation rates (Mwalwanda and Black 2013; Ireland *et al.* 2014; Wilson *et al.* 2014; Washington *et al.* 2015; Cooper *et al.* 2020). The benefits include immediate contraceptive cover (Mwalwanda and Black 2013), less painful insertion given the cervix is already dilated and the ongoing effects of labour analgesia (Sonalkar and Kapp 2015), and convenience as it removes the need for extra appointments in the postpartum period (Cooper *et al.* 2018). Primary care providers can play a role in raising awareness of this service during the antenatal period so women can make an informed choice about their contraception and fertility intentions. However, it must be noted that immediate postpartum LARC insertion is not routinely available in most Australian hospitals due to several factors (Cheney *et al.* 2021), including maternity staff's busy workload, the limited number and availability of staff trained to insert LARC in the maternity setting, and time pressures within these services for early discharge (Cooper *et al.* 2018; Gallagher *et al.* 2019; Cooper *et al.* 2020), all of which are out of the scope of this article to discuss further.

Provision during postnatal home visits

A range of postnatal maternity care models exist within and across jurisdictions in Australia (Australian Institute of Health and Welfare 2023). In all jurisdictions, most models provide at least one postnatal home visit from a midwife and/or child and family health nurse after discharge from hospital (Australian Institute of Health and Welfare 2023). Home visits therefore provide an additional opportunity to discuss and facilitate postpartum contraception access by providing contraception education, supporting breastfeeding and advising on criteria for effective lactational amenorrhea, obtaining prescriptions, or arranging/referring for an implant or IUD insertion. An Australian study found that a postnatal home-visiting service undertaken by certified nurse-midwives who provided teenage mothers with contraceptive information and support in accessing contraceptive methods (i.e. making appointments with family planning services) was associated with increased knowledge and use of contraception (Quinlivan *et al.* 2003). Although routine postnatal home

visits could therefore provide an important opportunity to deliver contraception education and support access to postpartum contraception in the community, this aspect of postnatal reproductive health care during home visits is not common practice in Australia (Botfield *et al.* 2022b).

There is also potential for midwives and nurses to undertake contraceptive implant insertions during home visits, which may be a convenient and more accessible option for many women in the postpartum period (Uhm *et al.* 2016; Croan *et al.* 2018). Contraceptive implant insertions during routine postnatal home visits has been found to be safe, feasible and acceptable to providers and women in international settings (Uhm *et al.* 2016; Croan *et al.* 2018; Gallimore *et al.* 2019), with one UK study finding that 87% of women preferred to have the implant inserted at home and 100% recommending home insertion for others (Croan *et al.* 2018). Further, despite being unable to use subdermal lidocaine for pain relief in the home setting due to the low risk of anaphylaxis, topical anaesthetic spray (ethyl chloride) has been shown to be a safe, effective and acceptable alternative to women (Croan *et al.* 2018). Although the safety and acceptability of undertaking contraceptive implant insertions in home settings has been established internationally (Uhm *et al.* 2016; Croan *et al.* 2018; Gallimore *et al.* 2019), feasibility and acceptability has not been explored in the Australian context.

Co-location of services postnatally

Linking contraceptive services with infant care in primary care is another strategy explored internationally to optimise the provision of postpartum contraception (Caskey *et al.* 2016; Kumaraswami *et al.* 2018; Haider *et al.* 2020), which could be implemented in Australia. In Australia, each state/territory has its own maternal and child health (MCH) service where community nurses provide care during a child's development from 0 to 5 years (Raising Children 2022). In Victoria, for example, in a child's first year of life, well-baby visits usually occur after discharge from the hospital with a home visit, then at 2 weeks, 4 weeks, 8 weeks, 4 months, 8 months and 1 year (Department of Health 2021). Given the frequency of these visits and that some of these visits are before the standard 6-week postnatal check, the well-baby visit may be a timely opportunity to also provide contraception education. Well-baby visits typically have a high rate of attendance (over 97% in Victoria) (Department of Health and Human Services 2019), and may therefore be the most regular and consistent contact mothers have with the health system.

Contraception counselling in conjunction with infant care is generally acceptable to postpartum women (Fagan *et al.* 2009; Caskey *et al.* 2016; Kumaraswami *et al.* 2018). Although this strategy does have limitations, including the often limited time available during well-baby visits (Caskey *et al.* 2016) and

the brief shift in focus away from the infant (Henderson *et al.* 2016), co-locating contraceptive care with infant care may be acceptable to many women and improve accessibility to postpartum contraception (Kumaraswami *et al.* 2018). In one American study, 95% of mothers felt comfortable discussing contraception with their infants' providers, and 79% reported being very likely to use a contraception prescription obtained at the well-baby visit (Kumaraswami *et al.* 2018). Furthermore, >80% of women in a randomised controlled trial in America evaluating postpartum contraception provision combined with infant care would recommend the service to a friend (Haider *et al.* 2020). One of the main reasons for women's satisfaction with this service was its convenience, as it reduced the number of healthcare professionals they had to visit during the busy postpartum period (Haider *et al.* 2020). However, the feasibility and acceptability of contraceptive counselling in conjunction with well-baby visits, and the training requirements and support needs of community health nurses, have yet to be explored in Australia.

Pharmacist-led contraception provision

Another strategy that could increase the accessibility to postpartum contraception in the primary care setting is for community pharmacists to provide comprehensive contraceptive counselling and contraceptive products. A scoping review examining the range of pharmacy-based initiatives addressing unintended pregnancy found that these initiatives could improve access to contraceptive products (Buckingham *et al.* 2021). International literature suggests that most consumers are satisfied with direct pharmacy access due to increased convenience and decreased costs (Gardner *et al.* 2008; Parsons *et al.* 2013). Similarly, Australian data have shown that women are confident in a pharmacist's ability to provide contraception and advice (Dev *et al.* 2023). Community pharmacists are seen by the Australian public as a trusted and valued part of the Australian healthcare system and therefore could be an unexplored resource for increasing access to reproductive health information for postpartum women (The Pharmacy Guild of Australia 2019).

Pharmacists have demonstrated a high willingness and interest in providing contraceptive care, although acknowledge several barriers to this becoming common practice including cost, resources and training opportunities (Buckingham *et al.* 2023). In Australia, several states are funding 12-month pilot programs to expand pharmacists' scope of practice including in prescribing hormonal contraception (New South Wales Health 2022; Queensland Health 2023; Victorian Department of Health 2023). The knowledge and recommendations gained from these pilot programs could help implement pharmacist-led contraceptive provision initiatives in Australia, which could improve women's access to contraception, including postpartum contraception.

Conclusion

The benefits of access to postpartum contraception are clear, including reduced risk of unintended pregnancies and short interpregnancy intervals, both of which are associated with poor maternal-child health outcomes, and improved autonomy among women who can consequently make a decision that best suits their fertility intentions. We have described in our forum article how postpartum contraception is most commonly provided in Australia, discussed the limitations of this, and provided examples of opportunities to increase access in the primary care setting and better meet the needs of women. These include routine antenatal contraceptive counselling by maternity providers, contraception discussions and services during postnatal home visits, co-location of contraceptive and infant services postnatally, and pharmacist-led contraception provision.

Given the current variability in postpartum contraception discussions and provision in Australia, we recommend including contraceptive counselling and LARC insertion upskilling and training in relevant GP, obstetric, midwifery and community nurse training programs. Maternal health policies must consider training and education opportunities for maternity providers, including midwives and nurses in the community. It will also be important to develop Australia-specific postpartum contraception clinical practice guidelines to support maternity providers and promote high-quality contraceptive care to all women after birth. Further research is needed to determine the feasibility, acceptability and cost-effectiveness of these strategies in the Australian context.

References

- Ahrens KA, Nelson H, Stidd RL, Moskosky S, Hutcheon JA (2019) Short interpregnancy intervals and adverse perinatal outcomes in high-resource settings: an updated systematic review. *Paediatric and Perinatal Epidemiology* 33, O48–O59. doi:10.1111/ppe.12503
- American College of Obstetricians and Gynaecologists (2016) Immediate postpartum long-acting reversible contraception. Committee Opinion No. 670. *Obstetrics & Gynecology* 128, e32–e37. doi:10.1097/AOG.0000000000001587
- Australian Institute of Health and Welfare (2023) Maternity models of care in Australia, 2023. (Australian Institute of Health and Welfare: Canberra, ACT, Australia). Available at <https://www.aihw.gov.au/reports/mothers-babies/maternity-models-of-care/data>
- Botfield JR, Tulloch M, Contziu H, Phipps H, Bateson D, Wright SM, McGeechan K, Black KI (2021) Contraception provision in the postpartum period: knowledge, views and practices of midwives. *Women and Birth* 34, e1–e6. doi:10.1016/j.wombi.2020.07.013
- Botfield JR, Tulloch M, Contziu H, Wright SM, Phipps H, McGeechan K, Bateson D, Black KI (2022a) Feasibility, acceptability and sustainability of postpartum contraceptive implant provision by midwives in NSW public hospitals. *Women and Birth* 35, e439–e445. doi:10.1016/j.wombi.2021.11.002
- Botfield JR, Tulloch M, Contziu H, Bateson D, Phipps H, Wright SM, McGeechan K, Black KI (2022b) Who is responsible for postpartum contraception advice and provision? The perspective of hospital-based maternity clinicians in New South Wales, Australia. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 63, 464–468. doi:10.1111/ajo.13627

- Brodrribb W, Zadoroznyj M, Dane A (2013) The views of mothers and GPs about postpartum care in Australian general practice. *BMC Family Practice* **14**, 139. doi:10.1186/1471-2296-14-139
- Buckingham P, Amos N, Hussaini SY, Mazza D (2021) Pharmacy-based initiatives to reduce unintended pregnancies: a scoping review. *Research in Social and Administrative Pharmacy* **17**, 1673–1684. doi:10.1016/j.sapharm.2021.01.016
- Buckingham PLM, Hussaini S, Soon J, Norman WV, Bateson D, Mazza D (2023) Improving access to quality contraceptive counselling in community pharmacy: examining the knowledge, attitudes and practices of community pharmacists in Australia. *BMJ Sexual & Reproductive Health* **49**, 87–96. doi:10.1136/bmjshr-2022-201623
- Cameron ST, Craig A, Sim J, Gallimore A, Cowan S, Dundas K, Heller R, Milne D, Lakha F (2017) Feasibility and acceptability of introducing routine antenatal contraceptive counselling and provision of contraception after delivery: the APPLES pilot evaluation. *BJOG: An International Journal of Obstetrics & Gynaecology* **124**, 2009–2015. doi:10.1111/1471-0528.14674
- Caskey R, Stumbras K, Rankin K, Osta A, Haider S, Handler A (2016) A novel approach to postpartum contraception: a pilot project of Pediatricians' role during the well-baby visit. *Contraception and Reproductive Medicine* **1**, 7. doi:10.1186/s40834-016-0018-1
- Cheney K, Dorney E, Black K, Grzeskowiak L, Romero E, McGeechan K (2021) To what extent do postpartum contraception policies or guidelines exist in Australia and New Zealand: a document analysis study. *Australian and New Zealand Journal of Obstetrics and Gynaecology* **61**, 969–972. doi:10.1111/ajo.13407
- Cooper M, Cameron S (2018a) Postpartum contraception. *The Obstetrician & Gynaecologist* **20**, 159–166. doi:10.1111/tog.12494
- Cooper M, Cameron S (2018b) Successful implementation of immediate postpartum intrauterine contraception services in Edinburgh and framework for wider dissemination. *International Journal of Gynecology & Obstetrics* **143**, 56–61. doi:10.1002/ijgo.12606
- Cooper M, Boydell N, Heller R, Cameron S (2018) Community sexual health providers' views on immediate postpartum provision of intrauterine contraception. *BMJ Sexual & Reproductive Health* **44**, 97–102. doi:10.1136/bmjshr-2017-101905
- Cooper M, McGeechan K, Glasier A, Coutts S, McGuire F, Harden J, Boydell N, Cameron ST (2020) Provision of immediate postpartum intrauterine contraception after vaginal birth within a public maternity setting: health services research evaluation. *Acta Obstetrica et Gynecologica Scandinavica* **99**, 598–607. doi:10.1111/aogs.13787
- Croan L, Craig A, Scott L, Cameron ST, Lakha F (2018) Increasing access to contraceptive implants in the postnatal period via a home insertion service by community midwives. *BMJ Sexual & Reproductive Health* **44**, 61. doi:10.1136/jfprhc-2017-101749
- Danilack VA, Brousseau EC, Paulo BA, Matteson KA, Clark MA (2019) Characteristics of women without a postpartum checkup among PRAMS participants, 2009–2011. *Maternal and Child Health Journal* **23**, 903–909. doi:10.1007/s10995-018-02716-x
- Department of Health (2021) Maternal and child health service guidelines. (Victorian Government: Melbourne, Vic., Australia)
- Department of Health and Human Services (2019) Maternal & Child Health Services Annual Report 2017–2018. (Victorian Government: Melbourne, Vic., Australia)
- Dev T, Buckingham P, Mazza D (2023) Women's perspectives of direct pharmacy access to oral contraception. *Australian Journal of Primary Health* **29**, 235–243. doi:10.1071/PY22212
- Faculty of Sexual and Reproductive Healthcare (2016) UK medical eligibility criteria for contraceptive use (UK MEC). Available at <https://www.fsrh.org/documents/ukmec-2016/>
- Faculty of Sexual and Reproductive Healthcare (2017) FSRH guideline: contraception after pregnancy. Available at <https://www.fsrh.org/documents/contraception-after-pregnancy-guideline-january-2017/>
- Fagan EB, Rodman E, Sorensen EA, Landis S, Colvin GF (2009) A survey of mothers' comfort discussing contraception with infant providers at well-child visits. *Southern Medical Journal* **102**, 260–264. doi:10.1097/SMJ.0b013e318197fae4
- Gallagher B, Cameron ST, Craig A, Gallimore A, Lakha F (2019) Antenatal contraception counselling and provision of contraception after delivery for first-time young mothers enrolled with a Family Nurse Partnership programme. *BMJ Sexual & Reproductive Health* **45**, 243–248. doi:10.1136/bmjshr-2018-200214
- Gallimore A, Craig A, Cameron S, Milne D, Lakha F (2019) Developing the role of midwives as 'contraceptive champions' to support early access to effective postnatal contraception for women. *BMJ Sexual & Reproductive Health* **45**, 309–312. doi:10.1136/bmjshr-2018-200220
- Gardner JS, Downing DF, Blough D, Miller L, Le S, Shotorbani S (2008) Pharmacist prescribing of hormonal contraceptives: results of the Direct Access study. *Journal of the American Pharmacists Association* **48**, 212–226. doi:10.1331/JAPhA.2008.07138
- Gipson JD, Koenig MA, Hindin MJ (2008) The effects of unintended pregnancy on infant, child, and parental health: a review of the literature. *Studies in Family Planning* **39**, 18–38. doi:10.1111/j.1728-4465.2008.00148.x
- Haider S, Stoffel C, Rankin K, Uesugi K, Handler A, Caskey R (2020) A novel approach to postpartum contraception provision combined with infant care: a randomized, controlled trial. *Women's Health Issues* **30**, 83–92. doi:10.1016/j.whi.2019.12.001
- Heller R, Cameron S, Briggs R, Forson N, Glasier A (2016) Postpartum contraception: a missed opportunity to prevent unintended pregnancy and short inter-pregnancy intervals. *Journal of Family Planning and Reproductive Health Care* **42**, 93–98. doi:10.1136/jfprhc-2014-101165
- Henderson V, Stumbras K, Caskey R, Haider S, Rankin K, Handler A (2016) Understanding factors associated with postpartum visit attendance and contraception choices: listening to low-income postpartum women and health care providers. *Maternal and Child Health Journal* **20**, 132–143. doi:10.1007/s10995-016-2044-7
- Holden EC, Lai E, Morelli SS, Alderson D, Schulkin J, Castleberry NM, McGovern PG (2018) Ongoing barriers to immediate postpartum long-acting reversible contraception: a physician survey. *Contraception and Reproductive Medicine* **3**, 23. doi:10.1186/s40834-018-0078-5
- Ireland LD, Goyal V, Raker CA, Murray A, Allen RH (2014) The effect of immediate postpartum compared to delayed postpartum and interval etonogestrel contraceptive implant insertion on removal rates for bleeding. *Contraception* **90**, 253–258. doi:10.1016/j.contraception.2014.05.010
- Kozuki N, Lee ACC, Silveira MF, Victora CG, Adair L, Humphrey J, Ntozini R, Black RE, Katz J, Child Health Epidemiology Reference Group Small-for-Gestational-Age-Preterm Birth Working Group (2013) The associations of birth intervals with small-for-gestational-age, preterm, and neonatal and infant mortality: a meta-analysis. *BMC Public Health* **13**, S3. doi:10.1186/1471-2458-13-S3-S3
- Kumaraswami T, Rankin KM, Lunde B, Cowett A, Caskey R, Harwood B (2018) Acceptability of postpartum contraception counseling at the well baby visit. *Maternal and Child Health Journal* **22**, 1624–1631. doi:10.1007/s10995-018-2558-2
- Li Y, Kurinczuk JJ, Gale C, Siassakos D, Carson C (2022) Evidence of disparities in the provision of the maternal postpartum 6-week check in primary care in England, 2015–2018: an observational study using the Clinical Practice Research Datalink (CPRD). *Journal of Epidemiology and Community Health* **76**, 239–246. doi:10.1136/jech-2021-216640
- Li CK, Botfield J, Amos N, Mazza D (2023) Women's experiences of, and preferences for, postpartum contraception counselling. *Australian Journal of Primary Health* **29**, 229–234. doi:10.1071/PY22163
- Lunniss H, Cameron S, Chen ZE (2016) Views of general practitioners on providing contraceptive advice and long-acting reversible contraception at the 6-week postnatal visit: a qualitative study. *Journal of Family Planning and Reproductive Health Care* **42**, 99–106. doi:10.1136/jfprhc-2015-101198
- Mazza D, Watson CJ, Taft A, Lucke J, McGeechan K, Haas M, McNamee K, Peipert JF, Black KI (2023) Pathways to IUD and implant insertion in general practice: a secondary analysis of the ACCORD study. *Australian Journal of Primary Health* **29**, 222–228. doi:10.1071/PY22265
- McCance K, Cameron S (2014) Midwives' experiences and views of giving postpartum contraceptive advice and providing long-acting reversible contraception: a qualitative study. *Journal of Family Planning and Reproductive Health Care* **40**, 177–183. doi:10.1136/jfprhc-2013-100770
- McDonald EA, Brown SJ (2013) Does method of birth make a difference to when women resume sex after childbirth? *BJOG: An International Journal of Obstetrics & Gynaecology* **120**, 823–830. doi:10.1111/1471-0528.12166
- McKinney J, Keyser L, Clinton S, Pagliano C (2018) ACOG committee opinion no. 736: optimizing postpartum care. *Obstetrics & Gynecology* **132**, 784–785. doi:10.1097/AOG.0000000000002849

- Milroy T, Frayne J (2022) Postnatal care: the general practitioner visit. *Australian Journal of General Practice* 51, 105–110. doi:10.31128/AJGP-02-21-5835
- Mwalwanda CS, Black KI (2013) Immediate post-partum initiation of intrauterine contraception and implants: a review of the safety and guidelines for use. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 53, 331–337. doi:10.1111/ajo.12095
- New South Wales Health (2022) Pharmacy reform to expand community health care. (New South Wales Government). Available at https://www.health.nsw.gov.au/news/Pages/20221113_00.aspx#:~:text=The%20landmark%20reform%20will%20expand,a%20range%20of%20other%20conditions
- Ogburn JA, Espey E, Stonehocker J (2005) Barriers to intrauterine device insertion in postpartum women. *Contraception* 72, 426–429. doi:10.1016/j.contraception.2005.05.016
- Parsons J, Adams C, Aziz N, Holmes J, Jawad R, Whittlesea C (2013) Evaluation of a community pharmacy delivered oral contraception service. *Journal of Family Planning and Reproductive Health Care* 39, 97–101. doi:10.1136/jfprhc-2012-100304
- Queensland Health (2023) North Queensland community pharmacy scope of practice pilot. (Queensland Government). Available at <https://www.health.qld.gov.au/ahwac/html/nqpharmacypilot/overview>
- Quinlivan JA, Box H, Evans SF (2003) Postnatal home visits in teenage mothers: a randomised controlled trial. *The Lancet* 361, 893–900. doi:10.1016/S0140-6736(03)12770-5
- Raising Children (2022) Child and family health nurse. (Raising Children Network). Available at <https://raisingchildren.net.au/guides/a-z-health-reference/child-family-health-nurse>
- Rassi A, Wattimena J, Black K (2013) Pregnancy intention in an urban Australian antenatal population. *Australian and New Zealand Journal of Public Health* 37, 568–573. doi:10.1111/1753-6405.12098
- Rowe H, Holton S, Kirkman M, Bayly C, Jordan L, McNamee K, McBain J, Sinnott V, Fisher J (2016) Prevalence and distribution of unintended pregnancy: the Understanding Fertility Management in Australia National Survey. *Australian and New Zealand Journal of Public Health* 40, 104–109. doi:10.1111/1753-6405.12461
- Sonalkar S, Kapp N (2015) Intrauterine device insertion in the postpartum period: a systematic review. *The European Journal of Contraception & Reproductive Health Care* 20, 4–18. doi:10.3109/13625187.2014.971454
- Speroff L, Mishell DR Jr (2008) The postpartum visit: it's time for a change in order to optimally initiate contraception. *Contraception* 78, 90–98. doi:10.1016/j.contraception.2008.04.005
- SPHERE Centre of Research Excellence (2022) Increasing access to effective contraception in Australia: a consensus statement. (SPHERE: Vic., Australia)
- The Pharmacy Guild of Australia (2019) National Rural Health Commissioner's discussion paper for consultation: rural allied health quality, access and distribution – options for Commonwealth policy reform and investment. (The Pharmacy Guild of Australia: Canberra, ACT, Australia)
- Uhm S, Pope R, Schmidt A, Bazella C, Perriera L (2016) Home or office etonogestrel implant insertion after pregnancy: a randomized trial. *Contraception* 94, 567–571. doi:10.1016/j.contraception.2016.06.018
- Victorian Department of Health (2023) Victorian community pharmacist statewide pilot. (Victorian Government). Available at <https://www.health.vic.gov.au/primary-care/victorian-community-pharmacist-statewide-pilot>
- Walker SH, Hooks C, Blake D (2021) The views of postnatal women and midwives on midwives providing contraceptive advice and methods: a mixed method concurrent study. *BMC Pregnancy and Childbirth* 21, 411. doi:10.1186/s12884-021-03895-2
- Washington CI, Jamshidi R, Thung SF, Nayeri UA, Caughey AB, Werner EF (2015) Timing of postpartum intrauterine device placement: a cost-effectiveness analysis. *Fertility and Sterility* 103, 131–137. doi:10.1016/j.fertnstert.2014.09.032
- Wilson S, Tennant C, Sammel MD, Schreiber C (2014) Immediate postpartum etonogestrel implant: a contraception option with long-term continuation. *Contraception* 90, 259–264. doi:10.1016/j.contraception.2014.05.006
- World Health Organization (2013) Programming strategies of postpartum family planning. World Health Organization, Geneva, Switzerland. Available at https://apps.who.int/iris/bitstream/handle/10665/93680/9789241506496_eng.pdf
- Yang JM, Cheney K, Taylor R, Black K (2019) Interpregnancy intervals and women's knowledge of the ideal timing between birth and conception. *BMJ Sexual & Reproductive Health* 45, 249–254. doi:10.1136/bmjshr-2018-200277
- Zapata LB, Murtaza S, Whiteman MK, Jamieson DJ, Robbins CL, Marchbanks PA, D'Angelo DV, Curtis KM (2015) Contraceptive counseling and postpartum contraceptive use. *American Journal of Obstetrics and Gynecology* 212, 171.e1–171.e8.
- Zerden ML, Tang JH, Stuart GS, Norton DR, Verbiest SB, Brody S (2015) Barriers to receiving long-acting reversible contraception in the postpartum period. *Women's Health Issues* 25, 616–621. doi:10.1016/j.whi.2015.06.004

Data availability. Data sharing is not applicable as no new data were generated or analysed during this study.

Conflicts of interest. The authors declare no conflicts of interest.

Declaration of funding. This research did not receive any specific funding.

Author affiliations

^ASPHERE NHMRC Centre of Research Excellence, Monash University, Melbourne, Vic., Australia.

^BSchool of Public Health and Preventive Medicine, Department of General Practice, Monash University, Melbourne, Vic. 3004, Australia.