Received: 2 April 2022 | Revised: 27 September 2022 | Accepted: 30 September 2022

DOI: 10.1111/ajr.12937

QUALITY IMPROVEMENT REPORT

AJRH National Rural Health Alliance WILEY

Co-design of a nurse-led model of care to increase access to medical abortion and contraception in rural and regional general practice: A protocol

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Funding information
National Health and Medical Research Council, Grant/Award Number: 1153592

Abstract

Problem: Women in rural and regional Australia experience a number of barriers to accessing sexual and reproductive health care including lack of local services, high costs and misinformation.

Setting: Nurse-led task-sharing models of care for provision of long-acting reversible contraception (LARC) and early medical abortion (EMA) are one strategy to reduce barriers and improve access to services but have yet to be developed in general practice.

Key measures for improvement: Through a co-design process, we will develop a nurse-led model of care for LARC and EMA provision that can be delivered through face-to-face consultations or via telehealth in rural general practice in Australia.

Strategies for change: A co-design workshop, involving consumers, health professionals (particularly General Practitioners (GPs) and Practice Nurses (PNs)), GP managers and key stakeholders will be conducted to design nurse-led models of care for LARC and EMA including implant insertion by nurses. The workshop will be informed by the 'Experience-Based Co-Design' toolkit and involves participants mapping the patient journey for service provision to inform a new model of care.

Effects of change: Recommendations from the workshop will inform a nurse-led model of care for LARC and EMA provision in rural general practice. The model will provide practical guidance for the set-up and delivery of services.

Lessons learnt: Nurses will work to their full scope of practice to increase accessibility of EMA and LARC in rural Australia.

KEYWORDS

abortion, co-design, contraception, nursing, primary care

1 | INTRODUCTION

There are significant barriers to accessing effective contraception and abortion services in Australia.[1] Compared to their metropolitan counterparts, women living in rural and regional areas face additional barriers to access including a lack of local services, misinformation, increased costs, increased stigma and issues around confidentiality.[1] Long-acting reversible contraceptives (LARC; intrauterine devices and subdermal implant) are more than 99% effective at preventing pregnancy[2] and are an acceptable contraceptive method to users.[3] Increased access to LARC would increase reproductive choices and provide a safe and effective method for people to prevent pregnancy and exercise their reproductive autonomy.[4]

Access to early medication abortion (EMA) in Australia is also challenging, particularly for those living in rural and regional areas. In Australia, the composite regimen of mifepristone and misoprostol (licensed as MS-2 Step™) for the purpose of EMA is available through the Pharmaceutical Benefits Scheme[5] and has been deemed safe and effective by the World Health Organisation.[6] However, access in rural and regional Australia is limited. Women currently face a number of barriers including lack of local services, issues around confidentiality and stigma, lack of access to unbiased education and information around abortion and pregnancy choices, conscientious objection, long waiting times and lack of providers registered to prescribe MS-2 Step™.[7–9] Only 3059[10] of 34 358 GPs registered with the Australian Health Practitioner Regulation Agency (AHPRA) in Australia[11] were registered to prescribe MS-2 Step™ in December 2021, with high variation in prescriber location across Australia. Approximately 30% of women aged 15–54 years lived in a level 3 statistical area (SA3s) where MS-2 Step™ had not been prescribed by a GP in 2019.[12] This extended up to 50% of women in remote Australia.[12] As a result, many women in rural and regional areas must travel significant distances to private clinics, which can be costly.[7]

Nurse-led models of care (MoC), in which nurses play a larger role in EMA and LARC provision, are safe and effective, and present an opportunity to increase access to EMA and LARC in general practice.[13–17] Nurse-led MoC have been shown to be more cost-effective, improve collaboration between GPs and nurses in general practice, increase nurse job satisfaction and increase access for patients.[13,18] Practice nurse (PN) and GP task-sharing models have been implemented successfully in the community health setting in Australia[19]; however, they are yet to be developed for or indeed implemented or evaluated in General Practice.[20]

What this paper adds:

- A co-design process for a new nurse-led model of care for provision of sexual and reproductive health care in rural and regional general practice
- Methodology for an adaptation of the innovative Experience-based Co-Design framework
- An adapted process to conduct research with rural, regional and remote participants via Zoom due to the COVID-19 pandemic

What is already known on this subject:

- Women and people who can get pregnant living in rural and regional Australia face greater access barriers to sexual and reproductive health care than those in metropolitan areas
- Nurse-led models of care can be utilised to increase access to these services in general practice
- A nurse-led model co-designed with consumers, providers and key stakeholders is more likely to be acceptable, sustainable, evidence-based and feasible

1.1 | Rationale

Incorporating the patient experience into the development and delivery of health services through co-design can improve numerous outcomes for patients and providers including improved patient health outcomes and preventative care.[21] Experience-Based Co-Design (EBCD) has emerged as a leading methodology combining a user-centred focus (experience base) with a process of collaborative transformation (co-design).[22] The aim of the EBCD methodology is to ensure patients and staff are at the centre of the effort to improve health care and service delivery. The approach is an innovative way to engage consumers and health professionals to ensure that MoC address the needs of patients and are acceptable, sustainable, evidence-based and feasible.[22] Utilising the EBCD framework to design the nurse-led MoC will ensure that the patient experience is incorporated into the design, and thus develop a model that is more likely to be acceptable to patients and providers and feasible in Australian rural and regional general practice.

1.2 | Specific aim

To co-design an adaptable nurse-led MoC for EMA and LARC provision in rural and regional general practice in Australia.

2 | METHODS

2.1 | Study design

The co-design and development of a nurse-led model will be conducted as stage 1 of the ORIENT Trial, a Medical Research Future Fund (MRFF) funded step-wedged randomised controlled trial testing the effectiveness of a nurse-led MoC to improve access to long-acting reversible contraception and medical abortion for rural and regional women (1200453 MRFF Funder number).

The development and implementation of the MoC is informed by the 'Experience-Based Co-design' toolkit developed by the Consumers Health Forum of Australia (CHF).[22] This study follows extensive research for the ORIENT trial, addressing the first three components of the EBCD framework (gathering, understanding and improving the experience) (see Figure 1).

2.1.1 | Gathering the experience

The trial investigators have gathered the experience through semi-structured interviews with patients[23] and providers[20,24,25] and a roundtable discussion of Australian experts,[4] and have conducted a systematic review of the literature,[26] providing key evidence on current provision of EMA and LARC in general practice.

2.1.2 | Understanding the experience

A large randomised controlled trial of online education and rapid referral to LARC insertion[27] and a patient journey audit of nurse-led MoC delivered in community health and family planning services[19] has aided an understanding of the lived experience. The patient journey audit involved a retrospective clinical audit at a Community Health Service in regional Australia, aiming to explore and understand the characteristics and demographics of women attending the EMA service, their gestation length and eventual outcome of the pregnancy.

A scoping review of nurse-led models of task-sharing and telehealth in primary care has also been conducted.[28]

2.1.3 | Improving the experience

This considerable prior research will inform a two-pronged study aiming to improve the experience through:

a. Holding a stakeholder workshop with consumers, health professionals (particularly GPs and PNs), general practice managers and key stakeholders including health organisations and policy-makers to co-design a nurse-led collaborative MoC that involves the processes for both the provision of EMA and contraceptive implant insertions by nurses (where appropriate) and can be implemented through face-to-face consultations or via telehealth in general practice; and
b. Qualitative semi-structured interviews with PNs, GPs and Practice Managers (PMs) to ascertain the feasibility and acceptability of the model

2.1.4 | Co-design of a nurse-led model of care

A stakeholder workshop will be conducted with ORIENT investigators, consumers, health professionals (particularly GPs and PNs), PMs and key stakeholders including health organisations and policy-makers. Due to the COVID-19 pandemic, the 1-day workshop will be held via Zoom video conferencing. The workshop will be facilitated by Chief Investigator of the ORIENT study, Professor Danielle Mazza, who will initially provide an overview of the day and the current funding options for nurse-led models in general practice. The facilitator will then introduce two expert keynote speakers who will discuss the barriers and facilitators of nurse-led LARC and EMA provision in general practice. One researcher (JM) will present the results of a scoping review of nurse and midwife involvement in task-sharing and telehealth models in primary care.[28] Participants will be encouraged to ask questions with the raise hand function and engage with the presentations via the chat function on Zoom.

A number of tools will then guide the co-design process:

Prototyping

Prototyping is used to test new processes and services to see if they will work[22] (CHF). An adaption of the CHF toolkit prototype activity will be utilised.[22] Based on existing literature and discussion with key stakeholders, a number of draft MoC will be presented by stakeholder representatives as prototypes to workshop participants. These draft models will be a step-by-step summary identifying the key processes and key stakeholders involved.

Patient journey mapping

Following the model prototype session, participants will be divided into Zoom Breakout Rooms, in smaller "solutions groups" of 8–10 people: each room with a mix of participant groups. This is to ensure that the needs of each group can be identified, and reduces the influence of expert power, in which the presence of experts in the

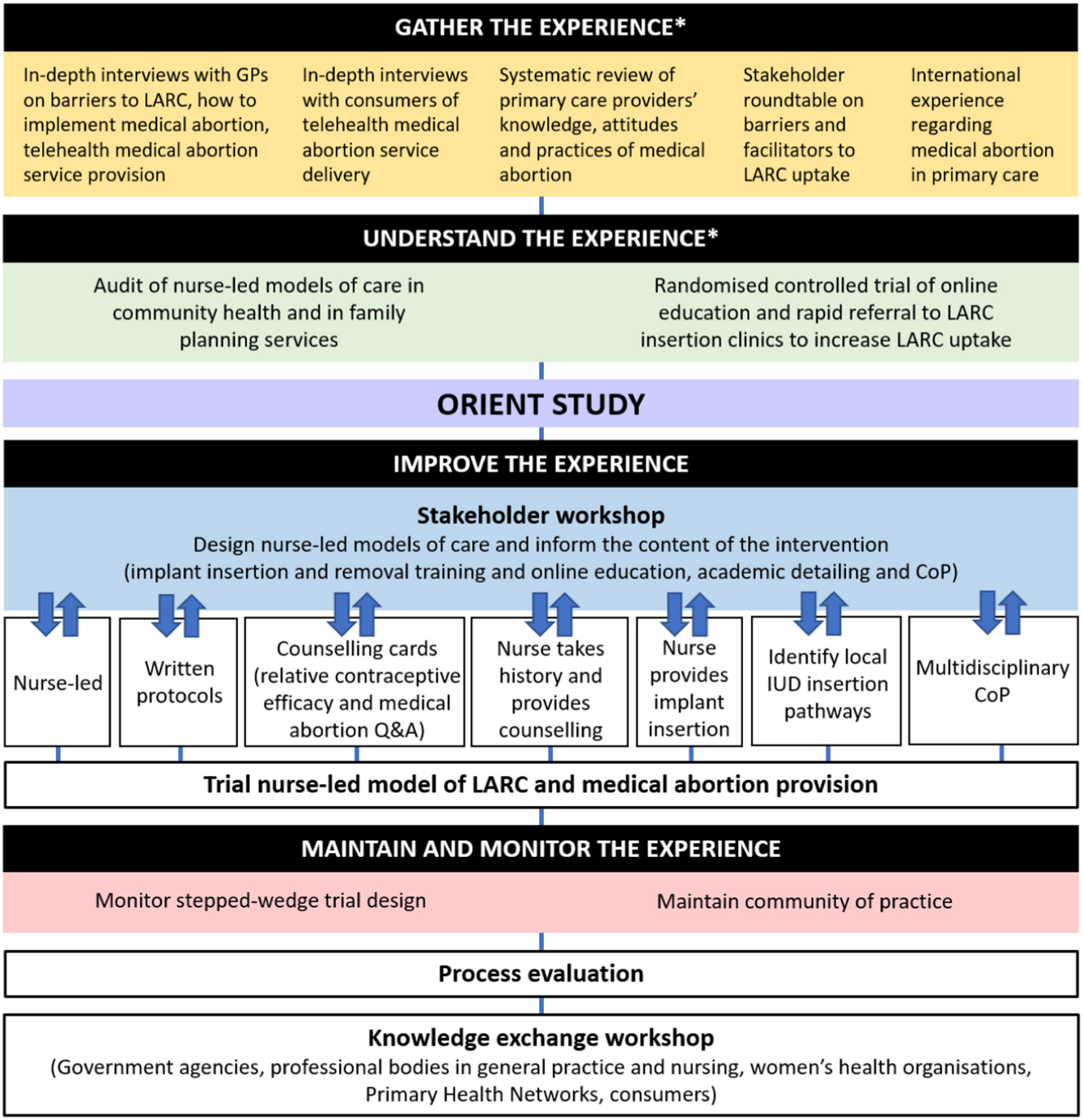

FIGURE 1 ORIENT Trial co-design process aligned with guidelines from the CHF (*completed domains)

field may inhibit input by those who do not identify as an expert,[29] especially in front of the larger group. The expert facilitator of each "solutions group" will ask participants to step through the patient journey and make recommendations at each step of EMA and LARC service delivery with consideration of the prototypes and what would be the most appropriate MoC for a rural or regional general practice setting.

Once each group has completed their brainstorm, the facilitator will conduct a combined group discussion and step through the patient journey to gain consensus on recommendations for the most feasible and acceptable MoC.

2.1.5 | Feasibility and acceptability

To inform the implementation of the co-designed nurse-led MoC, semi-structured interviews will be conducted with PNs, GPs and PMs to ascertain whether the model

is feasible for implementation in the rural and regional general practice setting, and to gather recommendations to facilitate its integration into practice service provision. The researchers will develop a set of key questions to guide the interviews; however, due to the flexibility of a semi-structured approach,[30] additional topics and questions may emerge.

2.2 | Participants and recruitment

Consumers, health professionals, PMs and key stakeholders will be invited to participate in the workshop by targeted recruiting through ORIENT partners. Recruitment will occur Australia-wide, and potential participants will be invited based on their role and organisation. We will focus recruitment on individuals who have lived and/or worked in rural and regional Australia; however, some metropolitan-based individuals may be invited if their expertise is relevant, for example, medical abortion provision. We will also invite organisations based in rural and regional areas, as well as those that are national and/or state-wide.

We will aim to recruit at least 10 participants in each of the consumer and service provider groups, alongside ORIENT investigators and other key stakeholders. Existing stakeholders and contacts through the SPHERE NHMRC Centre of Research Excellence in Sexual and Reproductive Health for Women in Primary Care (SPHERE) will be utilised to ensure purposive recruitment including the SPHERE Consumer Advisory Group. ORIENT partner organisations will also be invited. Potential participants will be invited via email and will be provided with an overview of the study and researcher contact details for further information. Invitees that provide interest in the study will be provided with an explanatory statement and informed consent form that can be signed electronically. These forms will be emailed/scanned to the student researchers' email address and stored on a Monash University secure drive.

Professional organisations will aid in recruitment of PNs, GPs and PMs for the feasibility and acceptability study by emailing study recruitment flyers through their networks and advertising through social media and newsletters. We will also utilise SPHERE networks and advertise through relevant Facebook groups. The advertisement will invite PNs, GPs and PMs with an interest in sexual and reproductive health and/or EMA and LARC provision to participate. We will also utilise snowballing[30] as the advertisement is shared through interested networks. Eligibility criteria include history of employment in rural, regional or remote general practice as a GP, a PN or PM. Interested parties will be sent additional information including an explanatory statement written in plain language and consent form via email. This includes data privacy and information about withdrawal from the study. As above, these forms will be emailed/scanned to the researchers' email address and stored on a Monash secure drive. Upon receipt of a signed informed consent, the researcher will schedule a time for a Zoom interview. We will aim to recruit 12–15 PNs, 12–15 GPs and 3–5 PMs unless data saturation is reached, and no new themes are identified. This is based on qualitative research guidelines suggesting that semi-structured/in-depth interviews require a minimum sample size of between 5 and 25 participants in a heterogeneous population.[31] Interview participants will be reimbursed for their time with online gift cards.

2.3 | Data collection

One researcher (JM) will take notes throughout the co-design workshop, and the session will be recorded using the Monash University Zoom Account Cloud recording function to capture dialogue. A member of the research team will share their screen in each breakout room with a template for the patient journey mapping and will note down key aspects of the discussion. Participants will also be encouraged to write down any ideas on the chat function.

Semi-structured interviews will be conducted via Zoom video or audio due to the COVID-19 pandemic and travel restrictions in Australia. The researcher (Author 1) will first provide participants with an overview of the study, obtain verbal informed consent for the interview and its recording and answer any questions before commencing the interview. The researcher will briefly provide an overview of the MoC. Consented participants will receive this model as a table summary and flow chart prior to the interviews. A set of open-ended questions assessing acceptability and feasibility of the model will be used as the basis for the interview. The acceptability and feasibility study questions will aim to identify existing knowledge, any perceived barriers, suggestions to improve the model and any additional support for implementation. Interviews will be recorded and later transcribed for analysis (see Table 1).

2.4 | Data analysis

The workshop and interview recordings will be transcribed verbatim by the researcher or professional transcribing service. This includes individual and templates from each Breakout Room. Any text written in the chat box will also be included in the analysis. The transcripts from the semi-structured interviews will be

TABLE 1 Semi-structured interview with PNs, GPs and PMs

Domain	Semi-structured interview
Existing knowledge	Current role Knowledge of contraception and abortion provision
Acceptability	Acceptability of the model in general practice
Feasibility	Feasibility of the model in general practice
Perceived barriers and facilitators	Individual Organisational Government and policy

provided to participants for their review to ensure data accuracy prior to analysis. Reflexive thematic analysis guided by Braun and Clarke methodology[32] will be used to analyse the data for both the workshop and interviews. Thematic analysis examines qualitative data to generate meaning from the perspectives and experiences of participants.[32]

For data emerging from the co-design workshop, one author (Author 1) will independently analyse the discussions in NVivo using both inductive and deductive coding. We will deductively develop codes that are synonymous with steps in the patient journey to build the nurse-led model iteratively. In addition to steps in the model, we will use inductive coding for findings that may support the implementation of the model. Two further authors will independently assess the codes against the transcripts to ensure they accurately reflect the data. Following analysis of the workshop data, a set of key recommendations and a draft MoC will then be developed. These recommendations and MoC will then inform the feasibility and acceptability interviews with practice nurses.

2.5 | Participant data and study management

All participants (both for the workshop and semi-structured interviews) will be allocated a unique code for deidentification purposes. Verbal data from both the workshop and interviews will be audio recorded. These recordings will then be transcribed and stored as MS Word documents. Any written data will be compiled onto a MS Word document. All transcripts and workshop templates will be stored on Monash University password-protected computers and disposed of after 5 years in line with university protocol.

2.6 | Ethics and dissemination

The researchers will ensure that ethical procedures and research integrity is upheld. This includes ensuring participants are able to give informed consent that is free from coercion. Participants will be informed on how to withdraw from the study at any time. Pseudonyms will be used in any publicly available documents to deidentify participants. To protect the privacy of participants, all data where participants or their organisations could be identified will be deidentified and if relevant generalised to regions. This is particularly relevant for a study in rural and regional areas where limited organisations and health services may make data more easily identifiable. Ethics approval to undertake the research was obtained from the Monash University Human Research Ethics Committee (Project identification number: 27509).

Abstracts, conference papers and journal articles will all be made available to participants via email or post and links shared on social media.

3 | RESULTS

Recommendations from the workshop will inform development of an innovative collaborative nurse-led MoC for LARC and EMA provision in rural and regional general practice that is adaptable to individual practices. This MoC will provide practical guidance for practices in rural and regional Australia to set up and deliver a nurse-led model that allow nurses to deliver contraceptive implant insertions and EMA services, and that can be implemented through face-to-face consultations or via telehealth.

Qualitative interviews of PNs, GPs and PMs with rural and regional general practice experience will test the feasibility and acceptability of the model and will inform a further iteration of the MoC to be piloted and evaluated in future research.

4 | DISCUSSION

This protocol describes a co-design process to increase access to LARC and EMA services in rural and regional general practice. Incorporating the lived experience of patients and providers into the development and delivery of sexual and reproductive health services through a co-design can improve outcomes for patients and providers and support development of a MoC that is more likely to be feasible and acceptable.

4.1 | Strengths and Limitations

We designed our stakeholder "co-design" workshop to engage with the range of health care professional end users who would be directly engaged in implementing the model of care as part of the ORIENT trial and any new models of care the study results would suggest. We will recruit across Australia including rural, regional, remote and metropolitan areas, among all relevant health professional organisations. A strength of the research is that the MoC will provide a workflow process for delivering a LARC and EMA service that can be tailored to suit the needs of each individual practice, due to the variation in demographics, geography and legislation across Australian regional, rural and remote contexts.

A limitation of the study is that the co-design process focuses on a generalised population, and is not tailored for specific priority populations such as Aboriginal and Torres Strait Islander people, migrant and refugee groups and the LGBTQIA+ community. However, we will aim to recruit and engage rural and remote health care professionals alongside metropolitan counterparts including those serving Aboriginal and Torres Strait women and serving the wide range of other rural and remote populations, while recognising the additional challenges and workloads faced by rural and regional health workforces. In subsequent research, when the model is to be implemented in rural and regional general practices, the educational outreach team will work with the practice to tailor the model and to ensure that it is safe and appropriate for their patients including anything that needs to be done to make the model more culturally appropriate. Interviews will also be conducted with patients who receive care while the nurse-led model is implemented as part of the trial evaluation. Any recommendations from these interviews can be incorporated into future models with the intention to be scaled. Further, the model of care could be tailored for specific groups through additional co-design processes that are adapted, informed and lead by members of these population groups in order to tailor a MoC that is appropriate, safe and sensitive to the needs of these groups.

4.2 | Conclusion

Through the co-design process, a nurse-led MoC will be developed that aims to address key barriers to accessing effective contraception and abortion services for women and people who can get pregnant living in rural and regional Australia. We anticipate that this model will allow nurses to work to their full scope of practice, increase collaboration between PNs and GPs in general practice and increase accessibility of EMA and LARC services in rural and regional Australia.

AUTHOR CONTRIBUTIONS

AKS: conceptualization; methodology; supervision; writing – review and editing. DM: conceptualization; methodology; supervision; writing – review and editing. DB: methodology; writing – review and editing. JEM: conceptualization; methodology; visualization; writing – original draft; writing – review and editing. JT: methodology; writing – review and editing. KIB: methodology; writing – review and editing. WVN: methodology; writing – review and editing.

ACKNOWLEDGMENTS

We thank our colleague Nilab Hamidi who provided assistance with the ethics application for this study. Open access publishing facilitated by Monash University, as part of the Wiley - Monash University agreement via the Council of Australian University Librarians. [Correction added on 26 November 2022, after first online publication: CAUL funding statement has been added.]

FUNDING INFORMATION

This work is supported by the National Health and Medical Research Council Grant ID 1153592.

CONFLICT OF INTEREST

DM has received research funding, travel grants and honorarium from Bayer. DB has attended advisory boards for Organon and Bayer Health care and provided educational updates for Bayer Health care as part DBs role at Family Planning NSW. DB has not received personal remuneration for these activities. WVNs research is funded by the Government of Canada's Canadian Institutes of Health Research, the Public Health Agency of Canada and the Society of Family Planning. WVN was a member of the Board of Directors of the Society of Family Planning from 2016 to 2021.

ETHICAL STATEMENT

Ethics approval to undertake the research was obtained from Monash University Human Research Ethics Committee (Project identification number: 27509).

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How to cite this article: Moulton JE, Mazza D, Tomnay J, Bateson D, Norman WV, Black KI, et al. Co-design of a nurse-led model of care to increase access to medical abortion and contraception in rural and regional general practice: A protocol. Aust J Rural Health. 2022;30:876–883. doi: 10.1111/ajr.12937