



Barriers and facilitators of access to first-trimester abortion services for women in the developed world: a systematic review

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ABSTRACT

Objectives To identify the barriers and facilitators to accessing first-trimester abortion services for women in the developed world.

Methods Systematic review of published literature. CINAHL, PubMed, Proquest, MEDLINE, InformIT, Scopus, PsycINFO and Academic Search Premier were searched for papers written in the English language, from the developed world, including quantitative and qualitative articles published between 1993 and 2014.

Results The search initially yielded 2511 articles. After screening of title, abstract and removing duplicates, 38 articles were reviewed. From the provider perspective, barriers included moral opposition to abortion, lack of training, too few physicians, staff harassment, and insufficient hospital resources, particularly in rural areas. From the women's perspective, barriers included lack of access to services (including distance and lack of service availability), negative attitudes of staff, and the associated costs of the abortion procedure. Service access could be enhanced by increasing training, particularly for mid-level practitioners; by increasing the range of service options, including the use of telehealth; and by creating clear guidelines and referral procedures to alternative providers when staff have a moral opposition to abortion.

Conclusion Despite fewer legal barriers to accessing abortion services, the evidence from this review suggests that women in developed countries still face significant inequities in terms of the level of quality and access to services as recommended by the World Health Organization.

BACKGROUND

Induced abortion is a relatively common experience for women. Globally, one in five pregnancies is estimated to end in abortion.^{1 2} In 2008, more than 43 million abortions were performed

Key message points

- Despite fewer legal constraints than in the developing world, women and service providers in developed countries face barriers in relation to provision of abortion services and their access to them.
- Lack of local services, especially in rural areas, the need to travel, negative attitudes and lack of training opportunities constrain access to abortion.
- Increasing the range of service options, including the use of telemedicine and correct referral processes when staff have a moral opposition to abortion services, would enhance access.

worldwide, an abortion rate of 28 per 1000 women aged 15–44 years.³

Induced abortion can be medical or surgical.⁴ The World Health Organization's (WHO) recommended regime for early medical abortion involves a combination of mifepristone with misoprostol.⁴ Most abortions are performed surgically and in the first trimester of pregnancy.^{5–7}

Despite the abortifacient medication mifepristone being listed as an essential medicine by the WHO since 2005,⁸ access to medical abortion is still subject to international variations. Where medical abortion is more readily available it is widely used. For example in France, Scotland, Sweden and Switzerland, more than half of all abortions are performed using mifepristone.^{9 10} Conversely, restrictions on providers and on availability of medical abortion affects provision.^{11 12} For example, in Canada, where mifepristone is not licensed, medical abortion accounted



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for 4% of abortions in hospitals in 2009,¹² although some abortions are performed using methotrexate.

When performed legally and in a regulated environment, abortion is one of the safest elective medical interventions,^{1 4} yet access to abortion services is problematic. Even when abortion is legal and available, women in developed countries are restricted from accessing abortion services in many ways.¹³ Where abortion is located in the criminal code^{14 15} it creates a lack of confidence for both women and their doctors.^{16 17} It also hinders coordinated policy development, service delivery and equitable access to safe, legal and affordable abortion services.¹⁸

National variations around the availability and accessibility of abortion reflect the culture, economic status and religious beliefs of each country.¹⁹ In the Netherlands, France and Slovenia, abortion is relatively accessible in terms of facilities, fees and health insurance coverage. In Ireland, the Protection of Life during Pregnancy Act 2013 permits abortion only to save a woman's life. No abortion services are available in Ireland, so Irish women must travel abroad.

The provision of abortion services is an important clinical, public health and political issue for women worldwide. Around 60% of women live in countries that support women's decision to have an abortion without restriction.⁴ Abortion is prohibited, or allowed only to save a woman's life, in 72 countries.⁴ Countries with liberal abortion laws have low abortion rates^{1 4} but access to abortion is still constrained by social, economic and health system barriers, stigma and negative social attitudes.²⁰ Despite the well-known obstacles to access to and provision of abortion services, there is a significant gap in the literature surrounding accessibility of abortion services.

This paper draws on a systematic literature review to identify the factors that facilitate and hinder access to abortion services for women in developed countries in relation to first-trimester abortions, from the perspective of both the woman and the service provider.

METHODS

We searched CINAHL, PubMed, Proquest, MEDLINE, InformIT, Scopus, PsycINFO and Academic Search Premier databases. Citation searches of the bibliographies of relevant articles were also undertaken using Google Scholar. Searches were restricted to the English language, the developed world, quantitative, qualitative and studies synthesising diverse evidence between 1993 and 2014. See online-only Supplementary Material Appendix 1 for a sample search strategy.

Quality assessment of the literature was undertaken by both authors, using the "Standard Quality Assessment Criteria"²¹ (see online-only Supplementary Material Appendix 2). Each article was independently reviewed and quality assessed by both authors. Each item was scored according to the degree that the

specific criteria were met. Papers are reported as high quality (all or most of the criteria fulfilled), good quality (many of the criteria fulfilled) or poor quality (few of the criteria fulfilled).

First-trimester abortions are examined specifically as abortion beyond the first trimester has more legal constraints that specifically influence access. The review excludes women's reasons for abortion,^{22 23} abortion in adolescence,^{24 25} late-stage abortion,⁵ access issues in relation to safe abortion,²⁰ women in developing countries^{3 26} or countries where abortion is legally restricted^{27 28} as the contextual social and legal access issues were likely to vary too much between settings.

ANALYSIS

We drew on the principles of thematic analysis²⁹ to identify barriers and facilitators to access to abortion services from the woman's and provider's perspectives. Through a collaborative process the authors identified key factors which are discussed under separate headings below. This method integrates the findings from all of the included papers.²⁴

RESULTS

The initial search yielded 2251 articles. After screening title, abstract and removing duplicates, 58 articles were deemed eligible for full-text screening. Both authors independently reviewed all papers against the inclusion criteria. Both authors discussed their decision-making and any discrepancies of studies eligible for inclusion. Of the 58 full text articles, 18 were excluded because they did not focus on access issues from either a woman's or provider's perspective. See Figure 1 for a modified Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagram.³⁰

Of the 38 included papers, one was mixed methods, six were qualitative, five were review of secondary data and 26 were quantitative articles. The qualitative studies involved focus groups and interviews. The quantitative studies were primarily survey based and only four randomised survey participants. There were no experimental studies.

Included papers were from the USA (22), Canada (5), Australia (2), New Zealand (1), France (1), Norway (2), Sweden (1), Northern Ireland/Norway (1) and the UK (3). The results of the quality assessment and characteristics of the primary papers included in this review are outlined in Table 1.

Chapter 3 in the WHO guidelines for *Safe Abortion: Technical and Policy Guidance for Health Systems*¹ establishes a series of principles that support safe abortion services, and for guidelines that facilitate access to safe abortion services to the full extent of the law. The guidance specifies that to optimise access to safe abortion services, health services and systems need to: establish national standards and guidelines to facilitate access to safe abortion care to the full

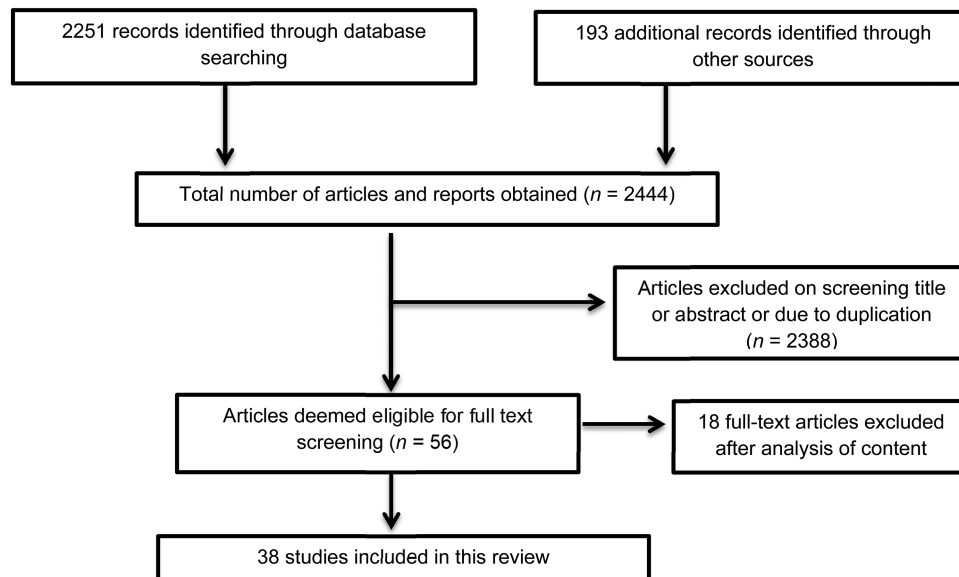


Figure 1 Modified Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagram.³¹

extent of the law; ensure appropriate training and monitoring of health providers, including mid-level (non-physician) practitioners; financing of abortion services; timely access to services for women at the appropriate stage of their pregnancy; and access to appropriate equipment and medication. The results of this review are structured to reflect these broad principles.

Appropriate training and monitoring of health providers, including mid-level (non-physician) practitioners

Attitudes of current health care providers

The quality and accessibility of abortion services are influenced by health care provider attitudes to abortion. Not surprisingly, there are international, regional and professional variations in attitudes to abortion. Comparisons need to be treated cautiously because of different approaches to survey administration.

Reported rates of opposition to abortion ranged from a high of 35% in rural physicians in Idaho, USA, who opposed abortion because of religious beliefs and community opposition,³¹ compared to the majority of practising midwives and gynaecologists in Sweden supporting abortion.³² Around 20% of practising general practitioners (GPs) surveyed in the UK were anti-abortion,³³ although 60% of supporters believed the law should be liberalised to give women the right to choose an abortion without restriction or reason.³³

Moral opposition to abortion

Several studies explored provider attitudes towards abortion and abortion law.^{31–33} Of British GPs surveyed, 20% with anti-abortion beliefs felt they should not have to declare this to a woman seeking access to abortion services.³³ Similarly, over 35% of rural physicians surveyed from Idaho, USA reported a moral opposition to abortion and unwillingness to

refer to another provider.³¹ As only 2/114 family physicians surveyed perform surgical abortions it was not surprising that 80% of physicians in this study had moral objections to abortion. Reasons for not providing abortion services were religious and community opposition.³¹

Negative attitudes of non-physician staff restricted access to abortion.^{34–35} One study reported an unwillingness of nurses to deliver abortion services.³⁴ Another identified staff conflicts and service delivery barriers amongst operating theatre nurses or anaesthetists unwilling to provide abortion services in rural hospitals in the USA.³⁵ Additionally, staff attitudes impacted negatively on the women's experiences of abortion services.^{36–37} More than 10% of Canadian women said that staff at abortion clinics were rude,³⁷ and almost half of women surveyed reported a lack of support from the physician and clinical team.³⁶

Conscientious objection was specifically explored in three studies of health professionals.^{38–40} Some GPs in Norway reported ambivalence towards their own refusal practices related to a non-absolutist conscientious objection stance illustrated by willingness to make certain compromises to refer women.³⁹ Although most physicians surveyed in the USA did not report an objection to abortion in general, abortion for gender selection was not supported by 75% of participants.³⁸ Obstetricians and gynaecologists in the USA asked to comment on a vignette of a physician's refusal of a requested medical abortion found that whilst almost half the participants supported the conscientious refusal by the vignette doctor, support decreased when the doctor disclosed objections to patients, particularly for male participants.⁴⁰

Future health care providers

Eight studies explored the attitudes of future service providers towards abortion.^{38–41–47} Attitudes were

Table 1 Characteristics of the primary papers included in this review

Reference/country	Quality	Data collection method	Sample size	Participants	Focus of study	Perspective
Mixed method article						
Weiebe and Sandhu ⁵³ Canada	Good	Survey and interviews	n=402 Interviews n=39 Convenience	Women accessing abortion clinics	Barriers to access abortion	W
Qualitative articles						
Harvey <i>et al.</i> ⁶² USA	Good	Focus groups	n=73 3 groups	Women from family planning clinics	Medical abortion knowledge	W
Bessett <i>et al.</i> ⁵⁵ USA	Low	Interviews	n=39	Women eligible for subsidised insurance	Barriers to obtaining funds; impact on timely abortion	W
Dennis and Blanchard ⁵⁴ USA	High	Interviews	n=68	Providers from 15 states with restrictive Medicaid funding	Evaluate Medicaid abortion policies	P
Dressler <i>et al.</i> ³⁵ Canada	Good	Interviews	n=20	Rural and urban physician abortion providers	Experiences of rural and urban physician abortion providers	P
Grindlay <i>et al.</i> ⁵⁹ USA	High	Interviews	n=25	Staff and users of Planned Parenthood clinics	Acceptability of telemedicine for medical abortion	W and P
Nordberg <i>et al.</i> ³⁹ Norway	Low	Interviews	n=7	Christian GPs	Conscientious objection to abortion referrals	P
Quantitative articles						
Henshaw ⁵⁶ USA	High	Survey	n=1525	Non-hospital abortion providers	Factors hindering access to abortion service	P
Rosenblatt <i>et al.</i> ³¹ USA	Poor	Survey	n=138	Physicians, specialists	Attitudes and practices	P
Ferris <i>et al.</i> ⁶⁵ Canada	Good	Survey	n=301	Health professionals from provider and non-provider hospitals	Variations in availability and distribution of abortion services	P
Hammarstedt <i>et al.</i> ³² Sweden	Good	Survey	n=444	Midwives and gynaecologists	Views on legal abortion	P
Rosenblatt <i>et al.</i> ⁴² USA	Poor	Survey	n=219	University medical students	Attitudes towards abortion	PP
Francome and Freeman ³³ UK	High	Survey	n=702	GPs from British Medical Association	Attitudes towards abortion	P
Henshaw and Finer ² USA	High	Survey	n=1819 facilities	Non-hospital abortion providers	Delivery of services and number performed	P
Moreau <i>et al.</i> ³⁶ France	High	Interviews	n=480	Population based	Patterns of care	W
Shotorbani <i>et al.</i> ⁴¹ USA	Good	Survey	n=312	Health science students	Intention to provide abortion services	PP
Kade <i>et al.</i> ³⁴ USA	Poor	Survey and interviews	n=20	Physicians and nurse managers	Nurse attitudes to abortion	P
Hwang <i>et al.</i> ⁴³ USA	High	Survey	n=1176	Licensed advanced practitioners	Intention to provide abortion services	PP
Schwarz <i>et al.</i> ⁴⁴ USA	Low	Survey	n=212	Medical residents in training	Willingness to provide medical abortion	PP
Nickson <i>et al.</i> ⁵⁰ Australia	Good	Survey	n=1244	Women from 8 major abortion providers	Extent and cost of travel	W
Sethna and Doull ³⁷ Canada	Good	Survey	n=1022	Women who accessed private clinic	Cost, distance, experiences	W
Gleeson <i>et al.</i> ⁴⁶ UK	Low	Survey	n=300	Medical students	Attitudes towards abortion	PP
Shochet and Trussell ⁵⁸ USA	High	Interviews	n=208	Women who accessed private clinics	Method selection, provider preference	W
Steele ⁴⁵ Northern Ireland and Norway	Low	Survey	n=145	Medical students	Comparison of attitudes	PP

Continued

Table 1 Continued

Reference/country	Quality	Data collection method	Sample size	Participants	Focus of study	Perspective
Jones and Kooistra ⁵² USA	High	Survey	n=2344 facilities	Current and potential providers facilities	Incidence and access to service	P
Godfrey <i>et al.</i> ⁵⁷ USA	Good	Survey	n=299	Women attending 2 abortion clinics	Factors influencing women's choice	W
Frank ³⁸ USA	Poor	Survey	n=154	Family medicine, physician residents, faculty	Conscientious refusal	P
Grossman <i>et al.</i> ⁶¹ USA	High	Survey	n=578	Women seeking medical abortion from 6 clinics	Acceptability of telemedicine compared with face-to-face service provision	W
Hagen <i>et al.</i> ⁴⁸ Norway	Low	Survey	n=514	Medical students	Attitudes towards abortion	PP
Page <i>et al.</i> ¹¹ USA	Good	Survey	n=102	Women attending community health clinic	Attitudes to medical abortion	W
Rasinski <i>et al.</i> ⁴⁰ USA	Good	Survey	n=1154	Obstetricians, gynaecologists, physicians	Conscientious refusal	P
Strickland ⁴⁷ UK	Poor	Survey	n=733	Medical students	Conscientious objection	PP
Norman <i>et al.</i> ⁶³ Canada	Good	Surveys and interviews	n=39	Rural and urban abortion providers	Distribution, practice and experiences	P
Review of secondary data sources						
Dobie <i>et al.</i> ⁶⁴ USA	High	Population data and abortion reports	Compared decade	NA	Comparison of availability and outcomes of abortion services	W and P
Nickson <i>et al.</i> ⁵¹ Australia	Good	Health data	Women who claimed Medicare	NA	Use of interstate abortion service	W
Silva and McNeill ⁴⁹ New Zealand	Good	Population data and abortion service	Regional councils n=16	NA	Geographic access	W
Yunzal-Butler <i>et al.</i> ⁶⁷ USA	High	Population health data	n=667 633 procedures	NA	Trends in medical abortion	W and P
Grossman <i>et al.</i> ⁶⁰ USA	High	Abortion clinic data	n=17 956 encounters	NA	Compared telemedicine model to service delivery in clinics	W and P

GP, general practitioner; NA, not applicable; P, provider, PP, potential provider; W, woman.

generally positive, with pro-choice attitudes, willingness to provide abortion services, for the service to be expanded to non-physicians and to attend training programmes reported.^{38 41–46}

In California, around a quarter of licensed advanced practice clinicians wanted training to be able to provide medical abortion.⁴³ Almost half the trainee medical residents surveyed from the San Francisco Bay area indicated willingness to provide medical abortion but 35% of trainee gynaecologists, 74% of family practitioners and 84% of internists were concerned about inadequate backup access to vacuum aspiration services. Predictors of positive attitudes included a belief that mifepristone was very safe and that women needed the service.⁴⁴

In one study over 60% of medical students surveyed in the UK were pro-choice. Their beliefs correlated positively with willingness to be involved in abortion procedures.⁴⁶ Two studies on medical students' attitudes in the UK found that most supported the right to conscientious objection which was higher in Muslim students compared to other religious

groups,⁴⁸ and despite an objection to abortion few were unwilling to perform the procedure.³⁸

Abortion on demand was acceptable to almost 90% of Norwegian medical students surveyed. More favourable attitudes were apparent in the final years of training compared to first-year students, when 27% wanted to exercise their right to conscientious objection.⁴⁸

A comparison of the abortion attitudes of medical students in Northern Ireland and Norway found significant differences. Almost 80% of Norwegian students were pro-abortion compared to less than 15% in Northern Ireland, reflecting differences in religious, legal and educational experiences.⁴⁵

Financing of abortion services

Costs of travel

The direct and indirect costs of travel – including time away from work or studies; extended arrangements for child care; transport, accommodation and cost of meals; poor continuity of care and significant time away from home – were identified in four studies.^{37 49–51}

Cost of abortion procedure

The cost of abortion procedures was identified as a barrier in four studies.^{2 37 52 53} Almost 20% of Canadian women who accessed an abortion clinic reported that the fees were too high.³⁷ One study specifically explored the experiences of Medicaid abortion coverage and the impact on low-income abortion clients⁵⁴ and another study explored women's experiences of accessing subsidised insurance funds for abortion.⁵⁵ In the USA, hospital-based abortions cost around six times that of non-hospital abortions and increase sharply beyond a gestational age of 12 weeks. Almost 75% of women self-fund their abortions.² Research undertaken in 15 USA states revealed that in only two states were 97% of submitted claims funded, and women with low incomes experienced significant challenges to access affordable and timely care.⁵⁴ Women who qualify for Medicaid have delays in reimbursement, which sometimes prohibits them from accessing abortion.⁵⁶ Delays in accessing resulted in an inability to access an abortion; later abortions for some women; and inability to access a medical abortion.⁵⁵

In the USA in 2008, medical abortion at 10 weeks was reported to be more expensive than surgical abortion except in facilities with smaller caseloads that possibly specialised in medical abortion and charged more for surgical abortion because of training and equipment.⁵² Conversely, possible reasons for higher fees for medical abortion were linked to the 'newer technology' and high cost of the drugs.⁵²

Timely access to services for women at the appropriate stage of their pregnancy

Access to abortion services was influenced by a range of factors, including service and appointment availability and proximity, gestational limits on service provision, and choice and type of facility.

Appointment availability

Lack of appointment availability for abortion services was reported in three Canadian studies^{37 53 56} and number of abortion centres contacted was reported in one French study.³⁶ More than 35% of Canadian women reported that no appointments were available when they first contacted the abortion service, which caused critical inconvenience.³⁷ However, a 1992 study of non-hospital abortion providers found that the time between first contact with the service and the receipt of the abortion was quite short, 50% within 4 days.⁵⁶ A Canadian study reported that waiting times for an abortion are significantly shorter in private clinics than for government-funded services, and 85% of women said that they would be willing to pay for an earlier abortion.⁵³

Choice of facility or setting

Five studies explored women's preferences for different models of abortion services.^{11 36 56–58} Women in Chicago and New York, USA were asked to specify

their service location preference for a first-trimester abortion. The majority (60%) preferred to see a doctor at a primary care clinic because they were comfortable with their known provider and the doctor was familiar with their medical history. Women who expressed a preference for an abortion at a dedicated clinic listed reasons such as "specialisation", "privacy and anonymity" when the procedure is "separate" from the usual source of care.⁵⁷ In a survey of a clinical sample of women in New York, the majority (87%) expressed a preference for receiving a medication abortion from their primary care doctor.¹¹ Another study found some women choose to travel for anonymity, lower fees or to access a surgical abortion which might not be available locally.⁵⁶ One study compared women's provider preferences (GP or obstetrician/gynaecologist) and abortion methods.⁵⁸ Most women expressed a preference for an obstetrician/gynaecologist; however, the choice of abortion method was the main predictor of service preference.⁵⁹

Provision of medical termination via telemedicine

A study in Iowa, USA explored provider acceptability of the provision of telemedicine for medical abortion.⁵⁹ Staff cited benefits such as greater reach of physicians, greater efficiency of resources, reduced travel, fewer cancellations due to travel and weather, greater appointment availability and location, and the ability to better meet time deadlines with narrow timeframes. A follow-up study comparing service delivery patterns before and after the introduction of telemedicine provision of medical abortion found an overall decrease in the abortion rate but an increase in the number of medical abortions and abortions before 13 weeks' gestation for women who lived more than 50 miles from the clinic.⁶⁰

One study compared the effectiveness and acceptability of medical abortion via telemedicine with standard, face-to-face care.⁶¹ Both models were comparable in relation to clinical outcomes and satisfaction. Factors that influenced women's decisions to have a medical abortion via telemedicine included a desire for a medical termination (71%), as early as possible (94%) and closer to home (69%). A qualitative analysis of the same telemedicine setting found that telemedicine was generally acceptable for medical termination as it reduced the need to travel, thereby reducing costs and enabling earlier access to the abortion.⁵⁹ Over 80% of women interviewed in New York at an internal medicine practice stated the importance of the availability of medical abortions, and if it was an option over 87% would consider having a medical abortion at the clinic.⁶²

Availability and acceptability of medical abortion

Three studies explored the acceptability of medical abortion.^{4 59 62} In a study of acceptability of mifepristone before it was approved for general usage, more than a third of women said they would choose

mifepristone if it was available.⁶² Women perceived it could increase anonymity of abortion as it can be between the provider and the woman.⁶² Despite few physicians providing abortion services in Iowa, USA, around one-quarter said they would prescribe mifepristone if it became available.³¹ Some 25% of licensed advanced clinicians in the USA were interested in receiving medical abortion training.⁴⁴

Gestational limits

This review focused on women's access to first-trimester abortion, up to 12 weeks' gestation. Most of the studies identified gestational limits only with regard to early- or late-stage abortion with minimal barriers to first-trimester abortion reported in four studies.^{2 37 41 52} In the USA, although 98% of the facilities provided services to women up to and including 8 weeks' gestation, fewer than half provide services at 13 weeks and many set limits between 11 and 12 weeks.² In Canada limits are more stringent, and only 36% of provider hospitals perform abortions up to a maximum gestational age of 12 weeks.³⁷

Lack of services in rural areas

Nine studies explored geographical obstacles to care and travel undertaken by women to access abortion providers.^{37 49-51 56 59 63 64} Women travel between 1 and 12 hours to access services. More than 15% of women in Canada travelled between 101 and 1000 kilometres to access an abortion provider.³⁷ Young women,^{37 50} indigenous women⁴⁹ and women on low incomes are disproportionately affected.³⁷ Women who travel are more likely to have an abortion later than 12 weeks' gestation compared to those who do not travel.⁶⁴ However, the introduction of medical abortion via telemedicine was found to increase rates of medical abortion among women living more than 50 miles from the nearest clinic offering surgical abortion.⁶⁰

The reasons that women in rural areas travel include: insufficient services in their local area; lack of doctors willing to perform abortions; confidentiality;⁴⁹⁻⁵¹ to access a provider who charges lower fees; or to access surgical abortion.⁵⁶

Provider experience

The initial service contact was also found to influence women's subsequent access to abortion.^{36 53} Women who first contacted a private gynaecologist, the most common situation in France, were more likely to be referred directly to the abortion service and experienced fewer time delays compared to women who first accessed their GP.³⁶ Less educated women who first accessed a GP had lengthier delays before accessing an abortion.³⁶ Although most Canadian women were referred to an abortion service by a physician, the results of qualitative interviews revealed that this was distressing for some women and caused interference to access for self-referral.⁵³ Ninety percent of French

women contacted only one abortion service where they subsequently had their abortion.³⁶

Harassment of women and providers

Harassment of staff and women is a well-known barrier to providing and accessing abortion services.^{2 43 52 63 65 66} Of all the abortion providers surveyed in the USA, 57% of non-hospital providers experienced anti-abortion harassment in 2008.⁵² Harassment was much higher in conservative rural areas such as the mid-West and Southern states.^{2 52}

Actual or potential harassment influences hospital and provider willingness to provide abortions.⁶⁵ One in five advanced clinicians identified fear of anti-abortion harassment as a perceived barrier to offering medical abortion.⁶⁵ In rural Canada, harassment and stigma were the main reason for the resignation of doctors and nurses providing abortion services.³⁵ Of the 163 provider and non-provider hospitals in Ontario, Canada almost half the provider hospitals reported experiencing harassment and 15% of physicians stated that harassment directly contributed to staff unwillingness to perform abortions.⁶⁵ Rural providers reported having to "fly under the radar" in small communities.⁶³

While harassment rates have generally declined since 2000,² the majority of abortion clinics (88%) and providers (61%) reported some harassment in 2008.⁵² The most common form of harassment was picketing.^{2 52}

Only one Canadian study reported harassment of women seeking access to an abortion clinic. Women who accessed an abortion provider were concerned for their safety because of anti-abortion protestors.³⁷

Access to appropriate equipment and medication

Lack of availability of, and barriers to, delivery of medical abortion

Five studies identify lack of availability of medical abortion in the USA, Canada and New Zealand^{35 49 52 63 67} and one explored barriers to the provision of medical abortion in the USA.⁴³

In the USA between 2001 and 2008, only 13% of facilities offered medical abortion in 2008 and most were offered at free-standing clinics (82%).⁶⁷ Rates of medical termination were lower in black and Hispanic populations.⁶⁷ In the USA, from 2001 to 2008 the number of hospitals and physician offices providing medical abortions decreased by 9% and 13%, respectively, whilst the number of non-specialised clinics increased by 23%.⁵²

In Canada, medical abortions accounted for 15% of all abortions in 2011.⁶³ In New Zealand, although medical termination was approved in 2001, only four clinics within 16 council regions offered this option in 2006.⁴⁹

One study reported barriers identified by nurse practitioners, physicians' assistants and certified nurse-midwives that would potentially influence the provision of medical abortion, if they were able to offer

this as part of their role.⁴³ Barriers included lack of training opportunities, uncertainty around legal restrictions, abortion not permitted by the facility, lack of physician backup and the increased cost of malpractice insurance.⁴³

Insufficient resources: lack of training, too few physicians, lack of hospital facilities

Six studies examined the resource issues influencing the delivery of abortion services;^{37 52 64 65} two focused specifically on rural issues.^{35 63} Lack of training, too few physicians and lack of hospital facilities were identified as factors limiting provision of abortion services.

Ferris *et al.*⁶⁵ found only half the hospitals had physicians who performed abortions in Ontario, Canada and almost one-third of physicians from these provider hospitals identified barriers to service delivery including limited operating room time, lack of availability of beds and too few physicians. Since the research was undertaken, hospital restructuring in Ontario has reduced the number of provider hospitals, further reducing abortion services.⁶⁵ Ageing providers combined with lack of training opportunities contribute to a lack of providers in Canada.³⁷

Jones and Kooistra⁵² point out that in the USA, one-third of women of reproductive age live in 87% of counties that lack providers.⁵³ Dobie *et al.*⁶⁴ report a decade-long decline in the number of abortion providers in Washington State.⁶⁵

Two Canadian studies highlight the lack of abortion service provision in rural areas and obstacles for rural providers: lack of staff, high demand for services, professional isolation and lack of replacement options.^{35 63}

DISCUSSION

The WHO estimates that around four unsafe abortions are performed for every 100 live births in developed countries,⁴ placing an avoidable burden of illness on women and society. Despite the safety and frequency with which legal, regulated abortions are performed, this review identifies several avoidable factors that limit the provision of, and access to, abortion services.

The most appropriate method of termination depends on the stage of the pregnancy, the woman's preference, the clinical judgement and technical ability of the practitioner, and local availability of resources and infrastructure.⁶⁸ However, variations around each of these factors have the potential to limit access to abortion for women. In addition, there is a complex interplay between women's preferences, service availability and the context in which the services are provided.

Medical termination has the potential to increase access to abortion; however, this option is not widely available, and may be more expensive than surgery.^{6 67 69} Expanding the range of abortion

providers to different settings, including telemedicine, may reduce obstacles for women accessing an abortion service. The provision of medical abortion via telemedicine had clear benefits for the woman and the provider with excellent clinical outcomes.⁶¹ Furthermore, if women could procure safe medical abortifacients from non-physician providers¹³ outside their local community, or in an outpatient medical setting, termination then becomes a private decision between the doctor and the patient,⁶² which is less susceptible to the outside scrutiny of external conservative anti-abortion attitudes and pressures.⁵⁹ If abortions were integrated into other mainstream health services for women, several of the difficulties in obtaining and providing access may be reduced.²

Women living in rural areas, who travel long distances to services, who are on low incomes or from minority groups experience particular inequities when they seek access to abortion care. In this review, travel and waiting for appointments were the main impediments for women to accessing timely abortion.^{37 50} Silva and McNeill⁴⁹ note an international trend where abortion services are concentrated in metropolitan areas, with fewer doctors.

Abortion services are hindered by lack of opportunities for training and lack of providers. Those willing to provide services may experience harassment, professional isolation, lack of support from their community and staff within the hospital system who impact negatively on service delivery. Expanding clinical training opportunities for physicians and non-medical practitioners could help to ameliorate the abortion provider shortage. However, whilst health and medical students report a positive attitude towards abortion, intentions may not translate into the provision of abortion services, particularly for practitioners in rural areas who work in conservative communities.

Negative attitudes and beliefs of health professionals towards abortion create obstacles for women seeking access to abortion. The WHO guidance specifically addresses the issue of conscientious objection by health care providers. Whilst acknowledging their right to not conduct the abortion, that right "does not entitle them to impede or deny access to lawful abortion services because it delays care for women, putting their health and life at risk" (p. 69).¹ The provider must refer women to an appropriately trained and accessible provider. If that is not possible and the woman's life is in danger, the health care provider must provide the woman with a safe abortion.

Harassment is a significant factor that hinders delivery of abortion services and women's access to a provider. Whilst Ferris *et al.*⁶⁵ suggest that early termination, either medical or surgical, performed in non-hospital settings may lessen physician harassment, results from this review indicate that harassment remains a common obstacle to the provision of abortion services in all settings. To overcome this, laws

need to be enforced that prohibit the most overt and damaging harassment and allow access to abortion services.⁵²

For most women, an unplanned pregnancy and the decision to have an abortion constitutes a stressful situation, yet contrary to public perception, abortion is not significantly associated with short- or long-term psychological distress.^{70 71} However, it is essential that women making these decisions should not be subject to unnecessary hardship as a result of their choice.⁷² A large Australian study of women's experiences of unplanned pregnancy and abortion highlighted the complex personal and social contexts within which reproductive events must be understood, and the need for increased ease of access to coordinated services that reduce inequalities, are sensitive and responsive to women's needs, and reduce stigma and shame.⁷³

Limitations of the review

Abortion services sit within a complex social, legal and ethical framework, therefore this review has deliberately taken a narrow focus to identify barriers and facilitators to abortion services that are relevant in the more homogenous context of developed countries for women of legal age in the first trimester of pregnancy. In establishing this scope, we have ignored a great deal of literature that may have established a more detailed picture of the issues faced by women in complex settings who try to access abortion services. There are challenges in providing an overview from heterogeneous countries with different social and legal contexts. Findings may have been different if articles published in languages other than English were included. It is interesting that well-known barriers such as stigma, difficulties in importing and licensing mifepristone/misoprostol, complex referral systems that prevent self-referral, doctors' signature and committee decision requirements were not identified in the research examined.

Although the majority of research was from the USA, the perspectives of the provider and the woman are fairly equally represented. The quantitative studies did not include any interventions or experimental studies; they were mainly descriptive surveys and only one randomised survey of participants. There were minimal qualitative studies. The challenging context of abortion services also means that there is limited high-quality research evidence informing issues of access.

The findings of this review suggest that there is relatively limited research about barriers to access to abortion services in developed countries.

CONCLUSION

Based on the findings from this study, seven mechanisms that would enhance access to abortion services have been elucidated as follows: (1) Providing abortion services early, closer to the woman's home, which

could include the provision of telemedicine or alternative (mid-level) providers with appropriate training; increased availability of willing providers; access to mifepristone; and developing networked models of care to provide tertiary or secondary support if required. (2) Making services free or affordable at the point of service to the woman, and these being primary contact services, so they do not require a referral from another provider. (3) Ensuring services are provided safely and confidentially, in a non-judgmental way. (4) Providing services as part of a multidisciplinary clinic so they are less stigmatised and better integrated with a mainstream service. (5) Developing clinical protocols to support advanced practitioners in their roles. (6) Providing appropriate service provider training. Regardless of practitioner values, they should be trained to refer appropriately, and provide services that are in the best interests of the woman. (7) Enabling access to appropriate facilities (hospital or clinic), and reducing barriers to accessing services.

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