



## Original research article

# Support for and interest in alternative models of medication abortion provision among a national probability sample of U.S. women <sup>☆,☆☆</sup>



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## ABSTRACT

**Objective:** The objective was to assess women's personal interest in and support for three alternative models of medication abortion (MA) provision.

**Study design:** Using an online survey of a U.S. national, probability-based representative sample of women ages 18–49, we gauged personal interest in and general support for three alternative models for accessing abortion pills: (1) in advance from a doctor for future use, (2) over-the-counter (OTC) from a drugstore and (3) online without a prescription. We conducted multivariable analyses to identify characteristics associated with support for these provision models.

**Results:** Fifty percent ( $n=7022$ ) of eligible women invited completed the survey. Nearly half (49%) supported and 30% were personally interested in one or more of the three access models; 44% supported advance provision, 37% supported OTC access, and 29% supported online access. Common advantages reported for advance provision, OTC and online access included privacy (49%, 29% and 46%, respectively), convenience (38%, 44% and 38%) and being able to end the pregnancy earlier (48%, 40% and 29%). Common disadvantages included concern that women might take the pills incorrectly (55%, 53% and 57%), not seeing a clinician before the abortion (52%, 54% and 53%) and safety (42%, 43% and 60%). History of abortion and experiencing barriers accessing reproductive health services were associated with greater support for the alternative models.

**Conclusion:** Women are interested in and support alternative models of MA provision, in particular, advance provision. However, they also reported concerns about incorrect pill use and not seeing a clinician beforehand.

**Implications:** Offering women more choices in how they access medication abortion, including options where they can safely self-manage their own care, has the potential to expand access to care.

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## 1. Introduction

Medication abortion (MA) is safe and effective and has the potential to revolutionize the way people access and experience abortion, moving it away from a medicalized procedure to a self-managed experience at home. MA involves the use of mifepristone and misoprostol to terminate a pregnancy within the first 10 weeks of gestation. In 2014, nearly one third (31%) of nonhospital abortions were performed with medications [1]. While MA meets most of the Food and Drug Administration criteria for over-the-counter (OTC) approval, including its low toxicity, low potential for abuse and nonaddictiveness [2], access to the method remains restricted. In the United States, women are required to obtain

mifepristone in a medical facility such as a doctor's office, clinic or hospital, even though they are allowed to take it at home [3,4]. Thus, in current practice, patients manage most of the MA process outside of the facility without a clinician's assistance.

Research firmly demonstrates that patients are able to safely take mifepristone and misoprostol outside of the facility [5,6]. Women are quite accurate at dating their pregnancies when they know the timing of their last menstrual period [7], and they are able to take both medications safely after determining eligibility and receiving instructions from a healthcare provider or pharmacist in person or online/by email [5,6,8–14].

Increasingly, women in the United States are obtaining MA through nontraditional routes including online or through telemedicine services, particularly where access is difficult [2,15,16]. Those who self-manage their abortions outside of the formal health care setting presumably do so because they prefer its privacy and convenience and/or face barriers accessing care [17–20].

We know little about patient demand for and interest in alternative models of MA provision. Obtaining opinions from a representative U.S. sample of women provides the opportunity to understand the support

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for and interest in various alternative provision models among a diverse group of women, including women who may prefer not to access or have limited access to facility-based abortion care. In addition, demonstrating public support for alternative MA provision models could contribute to the evidence base to support approval to offer MA through OTC access. Using an online national probability survey, we capture the views of women who may not have access to clinical services. We assessed women's interest in and support for three alternative models of MA provision: (1) *advance provision* with a prescription from a clinician in case of future need, and nonprescription (2) *OTC access* from a pharmacy and (3) *online access*.

## 2. Materials and methods

### 2.1. Study design

We included questions about interest in alternative forms of MA provision in a nationally representative cross-sectional online survey of adult women in the United States. GfK, a market research organization, administered this survey in August 2017 using their KnowledgePanel® sample, one of the largest online panels in the United States. It relies on probability-based sampling techniques for recruitment and is, therefore, representative of the noninstitutionalized, English- and Spanish-speaking population living in the United States. GfK piloted the survey with 25 participants to test survey functionality and length. For this study, women ages 18–49 who spoke English or Spanish were eligible and invited to participate in a survey on “women's experiences and opinions related to reproductive health care.” GfK sent automatic reminders to nonresponders 3 and 8 days following the initial survey invitation. Participants were reimbursed through GfK's points program, where panelists receive cash-equivalent checks in amounts reflecting their level of panel participation, which commonly results in \$4 to \$6 per month. The University of California, San Francisco, Institutional Review Board approved this study.

### 2.2. Outcome variables

We examine responses to six questions regarding women's personal interest in and support for alternative MA provision models. We presented women with three scenarios: (1) advance provision, (2) OTC access and (3) online access (see [Box 1](#)). For each option, we asked whether they would be personally interested and also whether they would be in favor of the option being available for other women. For logistic regression analyses, these six items were dichotomized. For questions regarding support for an option, “I am in favor” or “I am somewhat in favor” responses were considered supportive, whereas “I am opposed,” “I am somewhat opposed” or “Not sure” was considered not supportive. Women who reported “definitely yes” or “probably yes” regarding personal interest were coded as interested in the option; “definitely no,” “probably no” or “don't know” was coded as not interested. We created two additional variables indicating whether women supported or were interested in any of the three models. We excluded missing responses for these outcomes from all analyses.

### 2.3. Independent variables

We included age, race/ethnicity/language (non-Hispanic white, non-Hispanic black, Hispanic and completed the English language survey, Hispanic and completed the Spanish language survey, non-Hispanic Asian/Native Hawaiian/Pacific Islander and non-Hispanic multirace/other), education level, marital status, religion, parity, metropolitan statistical area and the percent of women in their state living in counties with no abortion facility [1]. We used a three-part categorical federal poverty level (FPL) variable based on the U.S. Census Bureau's 2016 thresholds, household composition and household income [21]. Additionally, we included women's history of abortion

### Box 1

Three different alternative models of medication abortion provision.

Medication abortion, or the abortion pill, is a safe and effective way to terminate a pregnancy up to 10 weeks. It involves the use of two types of pills, usually taken 1 day apart. It is currently only available from a doctor's office or clinic. Below are three different ways women could access medication abortion pills legally in the future. When answering the questions below, don't focus on cost because it is too early to know the costs of each option.

**Advance provision: Getting abortion pills ahead of time from a doctor just in case**

*During your annual exam, you could get abortion pills from your doctor to use in the future if needed. If you did become pregnant and wanted an abortion, you could take the pills at home right away. You would be given detailed information about how to use the medications and a 24-h telephone number to call with questions. After taking the pills, you could go to a clinic to make sure the abortion was successful.*

**Over-the-counter (OTC) access: Buying abortion pills in a drug store without a prescription**

*You could buy abortion pills without a prescription in a drug store or grocery, just like condoms or pregnancy tests. The pills would come with detailed information about how to take them and a 24-h telephone number to call with questions. You could ask the pharmacist at the store any questions you might have, and you could go to a clinic to make sure the abortion was successful.*

**Online access: Buying abortion pills online**

*After answering some questions about your medical history and how far along in pregnancy you are, you could buy abortion pills online and have them mailed to you. The pills would come with detailed information about how to take them and a 24-h telephone number to call with questions. After taking the pills, you could go to a clinic to make sure the abortion was successful.*

(none, medication abortion, surgical abortion but no medication abortion) and whether they had experienced any barriers accessing reproductive health (RH) services in the past 3 years. RH services were defined as “a Pap smear, which is a test to check for cervical cancer, or family planning, like birth control methods.” Women could choose all that apply from a list of nine barriers: difficulty paying for these services, finding a place doctor/clinic that accepts your insurance, difficulty finding a place, getting time off work, couldn't find childcare during your appointment, etc. (see [Table 1](#) for complete list).

### 2.4. Statistical analyses

For all analyses, we used sampling weights generated by GfK, designed to produce estimates representative of the noninstitutionalized, adult (ages 18–49) U.S. female population, based on U.S. Census data. Design weights account for any differential nonresponse. We calculated weighted frequencies of women's support for and interest in the three alternative provision models, as well as the perceived advantages and disadvantages of these models. For multivariable models, we selected model covariates a priori, which included respondent characteristics that are known to be associated with abortion history and abortion attitudes, based on the existing literature [22]. We conducted a series of multivariable logistic regression analyses to assess associations between respondent characteristics and support for each of the three alternative provision models, as well as support for any of the three models. Given that women's interest and support for alternative models of abortion provision are so strongly correlated with their attitudes on

**Table 1**  
Participant characteristics

	N	Raw	Weighted
Total	7022	100%	100%
<b>Race/ethnicity</b>			
Non-Hispanic white	4441	63%	57%
Non-Hispanic black	680	10%	13%
Hispanic-English survey	809	12%	11%
Hispanic-Spanish survey	602	9%	9%
Non-Hispanic Asian/Pacific Islander	247	4%	7%
Non-Hispanic multirace/other	243	3%	2%
<b>Age group</b>			
18–24	536	8%	19%
25–29	1098	16%	17%
30–39	2697	38%	32%
40–49	2691	38%	31%
<b>Highest level of education</b>			
Less than high school	288	4%	10%
High school	1033	15%	23%
Some college/Technical degree	2314	33%	32%
College degree or higher	3387	48%	35%
<b>Marital status</b>			
Married	3898	56%	53%
Widow/divorced/separated	783	11%	8%
Never married	1650	24%	28%
Living with a partner	691	10%	10%
<b>FPL</b>			
<100% FPL	1274	18%	15%
100%–199% FPL	1248	18%	16%
≥200% FPL	4500	64%	69%
<b>Metropolitan statistical area</b>			
Nonmetro	828	12%	13%
Metro	6194	88%	87%
<b>Geographic region</b>			
Northeast	1145	16%	17%
Midwest	1727	25%	20%
South	2467	35%	38%
West	1683	24%	25%
% women in their state living in counties without an abortion facility, <sup>a</sup> mean (SD)	7022	40% (24)	39% (25)
<b>Religion</b>			
None/atheist/agnostic	1609	23%	23%
Catholic	1534	22%	22%
Evangelical/Protestant	2201	31%	31%
Mormon	161	2%	2%
Jewish	105	2%	2%
Other Christian religion	692	10%	10%
Other non-Christian religion	245	3%	4%
Refused/missing	475	7%	6%
<b>Parity</b>			
Nulliparous	2639	38%	42%
1 birth	1243	18%	16%
2 or more births	3106	44%	42%
<b>Abortion history</b>			
Never had an abortion	5936	85%	85%
History of medication abortion	182	3%	2%
History of a surgical abortion only	829	12%	11%
Missing/don't know	75	1%	1%
<b>Barriers accessing RH services, past 3 years</b>			
Ever accessed RH services	6330	90%	85%
Difficulty paying for these services	1308	21%	19%
Finding doctor/clinic that accepts your insurance	967	15%	15%
Finding doctor/clinic where you feel comfortable	1267	20%	20%
Getting time off work to get to the office/clinic	1250	20%	19%
Couldn't find childcare during your appointment	660	10%	11%
Finding doctor/clinic that offers these services	508	8%	9%
Finding transportation to get to the clinic	490	8%	8%
Clinic/doctor didn't speak the same language as you	266	4%	5%
Your partner or someone in your family didn't want you to go	192	3%	3%
Experienced 2 or more barriers	1620	23%	21%
Did not experience any access barriers	3671	52%	50%
Believes abortion is morally wrong and should be illegal	1456	21%	21%

<sup>a</sup> Based on estimates published by Jones and Jerman, 2017 [1].

abortion, we conducted a set of subgroup analyses among those who indicated some support for abortion rights by not endorsing the statement “I believe having an abortion is morally wrong and should be illegal.”

Findings from these subgroup multivariable analyses are presented in a supplemental table and not described in the text. All analyses were conducted in STATA 14. Significance was reported at  $p \leq 0.05$ .

**Table 2**  
Support for and interest in alternative forms of medication abortion provision, by abortion attitudes, weighted analyses

Alternative provision model	Total	Morally and/or legally supports abortion rights <sup>a</sup>	
		Yes	No
Support for an alternative model			
Supports (in favor/somewhat in favor) one or more of the three models	49%	62%	4%
Advance provision (n=6951)			
I am in favor	26%	34%	1%
I am somewhat in favor	18%	23%	3%
I am somewhat opposed	10%	12%	7%
I am opposed	30%	16%	81%
Not sure	15%	15%	9%
OTC access (n=6937)			
I am in favor	22%	28%	1%
I am somewhat in favor	15%	19%	1%
I am somewhat opposed	11%	13%	4%
I am opposed	39%	26%	87%
Not sure	13%	13%	7%
Online access (n=6952)			
I am in favor	16%	21%	1%
I am somewhat in favor	13%	17%	1%
I am somewhat opposed	12%	14%	4%
I am opposed	45%	34%	88%
Not sure	13%	14%	7%
Personal interest in an alternative model			
Personal interest in (definitely or probably yes) one or more of the three models	30%	38%	3%
Advance provision (n=6962)			
Definitely yes	10%	13%	<1%
Probably yes	12%	16%	1%
Probably no	13%	16%	5%
Definitely no	48%	38%	86%
I don't know	16%	17%	8%
OTC access (n=6950)			
Definitely yes	9%	12%	1%
Probably yes	14%	18%	1%
Probably no	13%	15%	4%
Definitely no	52%	41%	90%
I don't know	12%	14%	4%
Online access (n=6960)			
Definitely yes	6%	7%	<1%
Probably yes	10%	13%	1%
Probably no	14%	17%	4%
Definitely no	58%	49%	90%
I don't know	12%	13%	5%

<sup>a</sup> Analyses are stratified by whether women endorse (n=1456) or do not endorse (n=5406) the belief that abortion is morally wrong and should be illegal.

**Table 3**  
Advantages and disadvantages of alternative forms of medication abortion provision, by abortion attitudes, weighted analyses (N=7022)\*a

	Advance provision			OTC access			Online access		
	Total	Morally and/or legally supports abortion rights <sup>a</sup>		Total	Morally and/or legally supports abortion rights <sup>a</sup>		Total	Morally and/or legally supports abortion rights <sup>a</sup>	
		Yes	No		Yes	No		Yes	No
<b>Advantages</b>									
Could help women get the abortion earlier in pregnancy	48%	59%	14%	40%	50%	10%	29%	36%	9%
Could be more convenient	38%	47%	11%	44%	54%	13%	38%	47%	12%
Could be more private	49%	60%	14%	28%	34%	9%	46%	54%	16%
Could be less expensive	35%	43%	11%	34%	42%	10%	32%	39%	10%
Could avoid going to a clinic	28%	34%	10%	36%	43%	13%	31%	37%	11%
Other	2%	3%	1%	1%	1%	1%	1%	1%	<1%
I don't see any advantages	33%	21%	74%	36%	25%	74%	40%	30%	76%
<b>Disadvantages</b>									
Women might take the pills incorrectly	55%	61%	40%	53%	57%	42%	57%	63%	42%
Not seeing a clinician before having the abortion	52%	56%	43%	54%	58%	44%	53%	58%	43%
Could be less safe	42%	44%	37%	43%	44%	43%	60%	65%	48%
Could be less effective	24%	26%	20%	28%	29%	27%	36%	40%	27%
Could be more expensive	16%	17%	12%	20%	22%	15%	18%	19%	14%
Other	9%	6%	18%	8%	5%	17%	9%	7%	17%
I don't see any disadvantages	17%	14%	25%	15%	14%	19%	13%	10%	21%

<sup>a</sup> Analyses are stratified by whether women endorse (n=1456) or do not endorse (n=5406) the belief that abortion is morally wrong and should be illegal.

**Table 4**  
Factors associated with supporting each alternative form of medication abortion provision, weighted multivariable analyses

Participant characteristics	Supports one or more of the three alternative models	Advance provision	OTC access	Online access
Race/ethnicity/language	<b>aOR (95% CI)</b>	<b>aOR (95% CI)</b>	<b>aOR (95% CI)</b>	<b>aOR (95% CI)</b>
Non-Hispanic white	Ref.	Ref.	Ref.	Ref.
Non-Hispanic black	1.09 (0.84–1.43)	0.99 (0.76–1.29)	0.90 (0.69–1.17)	0.70* (0.53–0.92)
Hispanic-English survey	1.41* (1.10–1.81)	1.53* (1.19–1.95)	1.04 (0.80–1.35)	1.00 (0.76–1.31)
Hispanic-Spanish survey	0.84 (0.62–1.14)	0.87 (0.64–1.18)	0.73* (0.53–1.00)	0.56* (0.38–0.82)
Non-Hispanic Asian/PI	0.95 (0.67–1.35)	0.95 (0.68–1.35)	0.81 (0.57–1.16)	0.82 (0.56–1.18)
Non-Hispanic multirace/other	1.13 (0.74–1.70)	1.11 (0.75–1.65)	1.16 (0.78–1.72)	0.95 (0.63–1.43)
Age group				
18–24	Ref.	Ref.	Ref.	Ref.
25–29	0.74* (0.55–1.00)	0.69* (0.51–0.93)	0.82 (0.61–1.10)	0.69* (0.51–0.93)
30–39	0.75* (0.57–1.00)	0.74* (0.56–0.97)	0.86 (0.65–1.14)	0.79 (0.59–1.05)
40–49	0.91 (0.68–1.21)	0.89 (0.67–1.19)	1.02 (0.76–1.37)	1.07 (0.79–1.44)
Highest level of education				
Less than high school	Ref.	Ref.	Ref.	Ref.
High school	1.31 (0.89–1.92)	1.23 (0.84–1.82)	1.48 (0.99–2.20)	1.59 (1.00–2.52)
Some college	1.86* (1.28–2.72)	1.70* (1.16–2.50)	1.85* (1.26–2.73)	2.14* (1.37–3.35)
College degree or higher	2.90* (1.98–4.26)	2.66* (1.81–3.93)	2.80* (1.89–4.15)	3.46* (2.19–5.48)
Marital status				
Married	Ref.	Ref.	Ref.	Ref.
Widow/divorced/separated	1.42* (1.11–1.82)	1.43* (1.12–1.83)	1.32* (1.03–1.69)	1.39* (1.08–1.77)
Never married	1.47* (1.17–1.84)	1.44* (1.15–1.80)	1.42* (1.13–1.77)	1.47* (1.17–1.85)
Living with partner	1.68* (1.31–2.17)	1.66* (1.30–2.13)	1.64* (1.28–2.11)	1.87* (1.44–2.42)
FPL				
<100% FPL	Ref.	Ref.	Ref.	Ref.
100%–199% FPL	1.03 (0.79–1.34)	1.03 (0.79–1.34)	1.00 (0.76–1.30)	1.07 (0.80–1.44)
≥200% FPL	1.19 (0.93–1.51)	1.19 (0.94–1.52)	1.23 (0.96–1.56)	1.12 (0.86–1.46)
Metropolitan statistical area				
Nonmetro	Ref.	Ref.	Ref.	Ref.
Metro	1.32* (1.05–1.65)	1.23 (0.98–1.54)	1.28* (1.01–1.62)	1.24 (0.97–1.57)
% women in state living in county without an abortion facility	1.00 (0.99–1.00)	1.00 (0.99–1.00)	1.00 (0.99–1.00)	1.00 (0.99–1.00)
Religion				
None/atheist/agnostic	Ref.	Ref.	Ref.	Ref.
Catholic	0.43* (0.34–0.53)	0.43* (0.35–0.53)	0.49* (0.39–0.61)	0.37* (0.29–0.46)
Evangelical/Protestant	0.29* (0.23–0.35)	0.31* (0.25–0.38)	0.32* (0.26–0.39)	0.27* (0.22–0.34)
Mormon	0.15* (0.08–0.30)	0.16* (0.08–0.33)	0.20* (0.09–0.43)	0.12* (0.06–0.26)
Jewish	0.65 (0.36–1.17)	0.66 (0.37–1.17)	0.86 (0.49–1.51)	0.70 (0.40–1.24)
Other Christian religion	0.28* (0.22–0.37)	0.32* (0.25–0.41)	0.33* (0.26–0.43)	0.32* (0.24–0.41)
Other non-Christian religion	0.62* (0.41–0.94)	0.67 (0.45–1.00)	0.74 (0.49–1.10)	0.63* (0.42–0.94)
Nulliparous	1.43* (1.19–1.71)	1.42* (1.19–1.71)	1.30* (1.08–1.55)	1.46* (1.21–1.76)
Abortion history				
Never had an abortion	Ref.	Ref.	Ref.	Ref.
History of medication abortion	3.32* (2.00–5.50)	2.39* (1.51–3.79)	2.73* (1.71–4.37)	1.95* (1.20–3.13)
History of a surgical abortion only	2.39* (1.90–3.01)	2.39* (1.91–3.00)	1.80* (1.44–2.25)	1.82* (1.44–2.29)
RH service barriers, past 3 years				
None	Ref.	Ref.	Ref.	Ref.
One	1.13 (0.93–1.39)	1.01 (0.83–1.23)	1.29* (1.05–1.57)	1.17 (0.94–1.44)
Two or more	1.38* (1.15–1.67)	1.31* (1.08–1.58)	1.53* (1.27–1.84)	1.52* (1.25–1.86)
Never accessed	0.59* (0.45–0.79)	0.57* (0.43–0.76)	0.73* (0.55–0.98)	0.74* (0.55–1.00)

Note: \* indicates statistical significance at  $p < .05$ . Ref = referent group; PI = Pacific Islander.

### 3. Results

A total of 7022 out of 14,151 (50%) eligible women completed the online survey. Respondent demographic and RH characteristics are presented in Table 1. Overall, close to half (49%) were supportive of one of the three alternative provision models; among the 79% who supported abortion rights morally and/or legally, 62% were supportive of an alternative provision model (Table 2). Among the full sample, nearly half (45%) supported advance provision, over one third (37%) supported OTC access, and 30% supported online access. With regard to personal interest, 30% were “definitely” or “probably” interested in one of the three models, increasing to 38% among those legally and/or morally supportive of abortion. Among all women, 23% were personally interested in advance provision, 23% in OTC access and 16% in online access.

The primary perceived advantages reported for advance provision, OTC and online access were privacy (49%, 28% and 46%, respectively), convenience (38%, 44% and 38%) and potential to access abortion earlier in pregnancy (48%, 40% and 29%) (Table 3). The primary perceived disadvantages of advance provision, OTC and online access included the following: women might take the pills incorrectly (55%, 53% and 57%, respectively), not seeing a clinician before having an abortion (52%, 54% and 53%) and concerns about safety (42%, 43% and 60%). Among women who reported moral and legal opposition to abortion, about one quarter still reported at least one advantage to these alternative provision models (26%, 26% and 24% respectively) (Table 3).

In multivariable analyses, support for one or more alternative model of MA provision was significantly higher among women who were Hispanic and completed the English version of the survey [adjusted odds ratio (aOR), 1.41, 95% confidence interval (CI), 1.10–1.81] than among non-Hispanic white women. Support for an alternative provision model was also higher among those who had some college education (aOR, 1.86, 95% CI, 1.28–2.72) or higher (aOR, 2.90, 95% CI, 1.98–4.26), were not married, lived in a metropolitan statistical area (aOR, 1.32, 95% CI, 1.05–1.65), were nulliparous (aOR, 1.43, 95% CI, 1.19–1.71), had a history of medication abortion (aOR, 3.32, 95% CI, 2.00–5.50) or history of surgical abortion only (aOR, 2.39, 95% CI, 1.90–3.01), and experienced two or more barriers accessing RH services in the past 3 years (aOR, 1.38, 95% CI, 1.15–1.67) (Table 4). Women who identified as Christian (Catholic, Protestant, Evangelical, Mormon or other) had lower odds of supporting any of the three models compared to those who identified as atheist, agnostic or of no religion. When compared to women ages 18–24, those ages 25–39 and those who had never accessed RH services had significantly lower odds of supporting an alternative provision model (Table 4).

In multivariable analyses of each individual alternative access model, the same factors were significantly associated with support, with the exception of two variables (Table 4). In analyses predicting support for OTC and online access, Hispanic women who completed the Spanish version of the survey had significantly lower odds than white women of supporting these two alternative provision models (aOR, 0.73, 95% CI, 0.53–1.00 and aOR, 0.56, 95% CI, 0.38–0.82, respectively). There were no statistically significant differences by whether women lived in a metropolitan statistical area in analyses predicting support for online provision.

### 4. Discussion

This national study assessed women’s support for and interest in alternative models of MA provision. About half of U.S. women are supportive of and nearly one third are interested in one or more of the three alternative MA access models. Women were more supportive of advance provision and OTC access, where they might have some face-to-face interaction with a clinician or pharmacist, compared to online access. Women noted the increased privacy and convenience of all three models, as well as the ability to access abortion earlier in pregnancy, compared to the traditional model of clinic-based care.

Similarly, among a sample of women obtaining MA online in Great Britain, approximately one third preferred this option due to the privacy and comfort of taking the pills at home compared to an in-clinic procedure [23].

Women’s concerns regarding alternative provision models were mostly related to their safety and women’s ability to take the pills correctly, concerns that were particularly high for online access. Women’s lesser support for online provision may be due to apprehensions about the legitimacy of the online pharmacies and quality of their pills. However, these fears may be unfounded. A recent study tested the quality of 22 medication abortion products available online to U.S. consumers and found that most products contained the recommended amounts of the active agent [15]. Additional apprehension about the safety of these alternative models of care likely stems from limited knowledge regarding the safety, effectiveness and process of having a medication abortion, and misperceptions that an abortion requires in-clinic screening to be safe. People tend to be less knowledgeable about abortion than other RH care topics [24] and tend to overestimate the physical and psychological risks of an abortion [25,26]. Women’s knowledge about the safety of abortion may be compromised in part by exposure to messages that exaggerate the risks of abortion, including mandated counseling laws in some states that require that the risks of abortion be overstated or which mandate discussion of scientifically inaccurate information [27,28]. Efforts aimed at dispelling the prevailing myths and misinformation about abortion might address women’s concerns about the safety of alternative abortion provision models.

Interest in and support for alternative MA provision were particularly high among women who were not morally and/or legally opposed to abortion and also prevalent across demographic subgroups, with very few differences by age or poverty level and some differences by race/ethnicity and language, place of residence and religion. As found in numerous studies examining the association between religious affiliation and abortion attitudes [29,30], identifying as Christian was most strongly associated with lacking support for these alternative models of abortion provision. While one in five women in this study held the belief that abortion is morally wrong and should be illegal, about one quarter (24%–26%) of women who held this belief still pointed to the advantages these models could provide.

The proportion of women with a history of abortion is likely an underestimate since stigmatized health events tend to be underreported [31]. Women who reported they had accessed abortion had two to three higher odds of supporting alternative models of abortion provision. This finding is similar to a national study of women’s interest in OTC oral contraceptive pill (OCPs), where women who were using OCPs or ever tried to access a prescription birth control were more interested in the OTC model [32]. Women who have never had an abortion may be less familiar with MA and abortion overall and have more difficulty assessing the types of provision models that might be useful to them and others should they need access to abortion.

Women who experienced barriers accessing RH services were particularly interested in and supportive of alternative models of MA provision. These findings are consistent with evidence from Europe and the United States showing that some women access abortion outside the formal health care system due to barriers accessing care [17,23,33]. In a survey in Texas, women reporting barriers to RH care were significantly more likely to know someone who had self-managed an abortion, as were Latinas living near the Mexican border [20].

Women are already accessing medication abortion outside of the formal health care setting through online pharmacies [15,23] and other means [17]. Offering women more choices in how they access RH services, including options where they can safely self-manage their own care, has the potential to increase women’s autonomy in their reproductive decision making and to increase access to services. Given the growing challenges women are facing accessing abortion services [34], alternative models of abortion provision are essential to reducing barriers to care.

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