Interest in advance provision of abortion pills: a national survey of potential users in the USA

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ABSTRACT

Objective To assess interest in clinician-administered advance provision of abortion pills among potential users in the USA.

Methods Using social media advertisements, we recruited people living in the USA who were aged 18–45 years and assigned female at birth, who were not pregnant or planning pregnancy, for an online survey on reproductive health experiences and attitudes. We explored interest in advance provision of abortion pills, participant characteristics, including demographics and pregnancy history, contraceptive use, abortion knowledge and comfort, and healthcare system distrust. We used descriptive statistics to assess interest in advance provision, and ordinal regression modelling to evaluate differences in interest controlling for age, pregnancy history, contraceptive use, familiarity and comfort with medication abortion, and healthcare system distrust, reporting adjusted odds ratios (aORs) and 95% confidence intervals (95% CIs).

Results From January-February 2022, we recruited 634 diverse respondents from 48 states, among whom 65% were interested, 12% neutral, and 23% disinterested in advance provision. There were no differences among interest groups by US region, race/ethnicity, or income. In the model, variables associated with interest included being aged 18–24 years (aOR 1.9, 95% CI 1.0 to 3.4) versus 35–45 years, using a tier 1 (permanent or long-acting reversible) or tier 2 (short-acting hormonal) contraceptive method (aOR 2.3, 95% CI 1.2 to 4.1, and aOR 2.2, 95% CI 1.2 to 3.9, respectively) versus no contraception, being familiar or comfortable with the medication abortion process (aOR 4.2, 95% CI 2.8 to 6.2, and aOR 17.1, 95% CI 10.0 to 29.0, respectively), and having high healthcare system distrust (aOR 2.2, 95% CI 1.0 to 4.4) versus low distrust.

Conclusion As abortion access becomes more constrained, strategies are needed to ensure timely access. Advance provision is of interest to the majority of those surveyed and warrants further policy and logistical exploration.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Abortion restrictions in the USA have constrained access to abortion for millions. One national survey in 2017 documented some personal interest in clinician-administered advance provision of abortion pills.

WHAT THIS STUDY ADDS

⇒ In a national survey, the majority would be interested in the advance provision of abortion pills from a clinician.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Our findings support investment in clinical research and efforts to evaluate the legal and logistical aspects of this strategy.

INTRODUCTION

The reversal of *Roe* has resulted in significant restriction of facility-based abortion access across the USA.[1] Where abortion is now illegal or restricted, those seeking it may need to travel out of state for facility-based care.[2–4] Where abortion is legal, state residents may be subject to care delays due to an inundation of people coming from out of state for services.[5 6] One strategy to ensure access is the advance provision of abortion pills, whereby a clinician dispenses pills to a person, before an undesired pregnancy, in case of future need.[7 8] This strategy has the potential to reduce access barriers for those seeking an abortion before 12 weeks' gestation, when most people access abortion.[9] Conceivable benefits to advance

provision include increased autonomy overall. Further, in the case of a pregnancy and wanted abortion, the person with abortion pills on hand would be ensured timely access, reduced cost, fewer logistical considerations with respect to travel and care for dependants, increased privacy, and the ability to circumvent the medical system.

Previous research has demonstrated support for advance provision, but marginal personal interest in the strategy. Biggs *et al* found in a 2017 survey of US women that 44% were in favour of advance provision, but only 22% were personally interested.[7] Since the time of that survey, both interest in medication abortion[10] and abortion restrictions have significantly increased in the USA.[1] These changes in the landscape could have influenced attitudes. Therefore, we assessed interest in the advance provision of abortion pills among potential users using an online survey, in addition to perceived benefits and concerns.

METHODS

We conducted a prospective, cross-sectional survey of people living in the USA from 11 January to 9 February 2022.

Patient and public involvement

We sought to explore the interests, perceived benefits, and concerns of potential users of clinician-administered advance provision of abortion pills before investment in clinical research and efforts to evaluate the legal and logistical aspects of this strategy.

Respondents were recruited through social media advertisements on Facebook and Instagram. Advertisements were designed to be shown to users who were aged 18–45 years and living in the USA. Advertisements requested respondents for a reproductive health survey, in which respondents would be asked questions about pregnancy and contraception. Advertisements led potential respondents to an initial screening survey to ensure they met the inclusion criteria. Specifically, the inclusion criteria were being assigned female at birth, aged 18–45 years, and a US resident. We excluded anyone who was currently pregnant or actively trying to become pregnant. Screening responses were reviewed by research staff for eligibility and potential fraud or duplicate. Those found to be eligible and not fraudulent or duplicate were sent a unique survey link to their email and via text message. Those who did not respond were sent a reminder email and text message after 3 and 5 days. All surveys were completed in English. All respondents read a consent document and agreed to participation by completing the survey. Respondents were told they could skip any questions they did not wish to answer. On completion of the survey, respondents were sent a US$20 (£17, €19) electronic gift card and any identifiable personal information was destroyed.

We designed a survey utilising previous research[7 11 12] and conversations with colleagues, policymakers, and community partners to draft the survey questions. On average, surveys took 15 min to complete. The survey was pre-tested with a convenience sample of 20 individuals matching the inclusion criteria. Cognitive interviews were conducted with these individuals, a process by which those taking the survey 'think out loud' to allow researchers to assess comprehension and interpretation of the questions. These interviews were not recorded, but interviewers took detailed notes. The survey instrument was then edited iteratively until a final product was developed.

In addition to the information provided by respondents in the initial screening survey, including age, biologic sex, and state of residence, we asked several demographic questions. We requested respondents report their gender identity, sexuality, racial-ethnic identity, educational attainment, insurance status, and household income. We used reported household income and size to stratify respondents as either living on an income above or below the poverty threshold using the US Federal Poverty Guidelines for 2021.[13]

We asked if respondents had previously had vaginal sex with someone who could get them pregnant, and when they last had done so. Additionally, we asked respondents about their pregnancy history, asking if they had ever been pregnant or had an abortion previously. Respondents were asked if they knew someone who previously had an abortion to measure exposure to abortion. We asked what method of contraception, if any, they were using and their plans to have children in the future. We coded respondents as using tier 1 (permanent contraception, intrauterine device, subdermal implant), tier 2 (short-acting hormonal methods), tier 3 (condoms, fertility awareness, withdrawal), or no contraception.

To address the medical establishment's shortcomings, including a long history of mistreatment of marginalised groups, especially around fertility, including Black, Latina/x, sexual minorities, and those living on low incomes, we assessed healthcare system distrust with the 5-item values sub-scale of the Revised Healthcare System Distrust Scale,[11] omitting the pairing technical competence sub-scale. The sub-scale focuses on value congruence, including honesty, motives, and equity. Each of the five items was asked on a 5-point Likert scale, which is scored, where 'Strongly agree'=5 and 'Strongly disagree'=1. The range of possible scores was 5–25, with higher scores indicating greater distrust. We scored respondents and coded them as having high, moderate, or low distrust with 25–19, 18–12, and 11–5 as thresholds, respectively.

We assessed respondents' familiarity with the process of medication abortion. Respondents read a short description of medication abortion, including information on eligibility, process, efficacy, and safety. They were then asked, on a 4-point scale from 'Very

Table 1 Characteristics of US survey respondents recruited via social media for a survey exploring interest in clinician-administered advance provision of abortion pills (n=634)

	Interest in facility-based advance provision of abortion pills				
	Interested (n=409)	Neutral (n=75)	Disinterested (n=150)	Total (n=634)	P value
Age (years)					<0.001
18–24	182 (44.5)	24 (32.0)	41 (27.3)	247 (39.0)	
25–34	143 (35.0)	29 (38.7)	56 (37.3)	228 (36.0)	
35+	84 (20.5)	22 (29.3)	53 (35.3)	159 (25.0)	
Gender identity					0.31
Woman	393 (96.1)	71 (94.7)	149 (99.3)	613 (96.7)	
Trans-man	1 (0.2)	0 (0)	0 (0)	1 (0.2)	
Non-binary	14 (3.4)	3 (4.0)	1 (0.7)	18 (2.8)	
Not reported	1 (0.2)	1 (1.3)	0 (0)	2 (0.3)	
Sexuality					<0.001
Straight	252 (61.8)	59 (78.7)	134 (89.3)	445 (70.3)	
Lesbian	13 (3.2)	2 (2.7)	1 (0.7)	16 (2.5)	
Queer	29 (7.1)	7 (9.3)	3 (2.0)	39 (6.2)	
Bisexual	100 (24.5)	5 (6.7)	11 (7.3)	116 (18.3)	
Some other way	12 (2.9)	1 (1.3)	0 (0)	13 (2.1)	
Not reported	2 (0.5)	1 (1.3)	1 (0.7)	5 (0.8)	
Racial and ethnic identity					0.30
Black or African American	46 (11.2)	11 (14.7)	21 (14.0)	78 (12.3)	
Asian American or Asian	71 (17.4)	10 (13.3)	23 (15.3)	104 (16.4)	
White, non-Hispanic	218 (53.3)	44 (58.7)	92 (61.3)	354 (55.8)	
White, Hispanic	36 (8.8)	6 (8.0)	8 (5.3)	50 (7.9)	
None of the above	38 (9.3)	4 (5.3)	6 (4.0)	48 (7.6)	
Educational attainment					0.36
Less than high school	9 (2.2)	3 (4)	2 (1.3)	14 (2.2)	
High school diploma or GED	43 (10.5)	8 (10.7)	16 (10.7)	67 (10.6)	
Some university or college	115 (28.2)	20 (26.7)	28 (18.7)	163 (25.8)	
Associates degree or technical school	23 (5.6)	5 (6.7)	14 (9.3)	42 (6.6)	
Bachelor's degree or more	218 (53.4)	29 (52.0)	90 (60.0)	347 (54.8)	
Insurance status					0.86
Private	315 (77.0)	60 (80.0)	121 (80.7)	496 (78.2)	
Public	69 (16.9)	12 (16.0)	22 (14.7)	103 (16.2)	
None	25 (6.1)	3 (4.0)	7 (4.7)	35 (5.4)	
US region					0.20
West	74 (18.1)	10 (13.3)	26 (17.3)	110 (17.4)	
South	152 (37.2)	24 (32.0)	67 (44.7)	243 (38.3)	
Midwest	103 (25.2)	26 (34.7)	28 (18.7)	157 (24.8)	
Northeast	80 (19.6)	15 (20.0)	29 (19.3)	124 (19.6)	
Living on a household income below the poverty guidelines					0.74
Yes	77 (18.8)	11 (14.7)	24 (16.0)	112 (17.7)	
No	286 (69.9)	57 (76.0)	112 (74.7)	455 (71.8)	
Not reported	46 (11.2)	7 (9.3)	14 (9.3)	67 (10.6)	
Previous sex that could result in pregnancy	348 (85.1)	53 (71.0)	124 (83.0)	525 (82.8)	0.01
Previous pregnancy	140 (34.2)	30 (40.0)	81 (54.0)	251 (39.6)	<0.001

Continued

Table 1 Continued

	Interest in facility-based advance provision of abortion pills				
	Interested (n=409)	Neutral (n=75)	Disinterested (n=150)	Total (n=634)	P value
Previous abortion	54 (13.2)	12 (16.0)	5 (3.3)	71 (11.2)	0.002
Plans to have children in the future					0.01
Yes	137 (33.5)	25 (33.3)	74 (49.3)	236 (37.2)	
No	143 (35.0)	29 (38.7)	34 (30.0)	217 (34.2)	
Undecided	129 (31.5)	21 (28.0)	31 (20.7)	181 (28.5)	
Most effective contraceptive method in use*					<0.001
Tier 1	99 (24.2)	14 (18.7)	25 (16.7)	138 (21.8)	
Tier 2	124 (30.3)	21 (28.0)	27 (18.0)	172 (27.1)	
Tier 3	131 (32.0)	20 (26.7)	62 (41.3)	231 (33.6)	
None	55 (13.4)	20 (26.7)	36 (24.0)	111 (17.5)	
Distrust in the healthcare system					<0.001
High distrust	226 (55.3)	36 (48.0)	55 (36.7)	317 (50.0)	
Moderate distrust	164 (40.1)	33 (44.0)	76 (50.7)	273 (43.1)	
Low distrust	19 (4.6)	6 (8.0)	19 (12.7)	44 (6.9)	

*Tier 1 methods included permanent contraception, intrauterine device, and sub-dermal implant; Tier 2 methods included short-acting hormonal methods (pill, patch, ring, injection); Tier 3 methods included condoms, fertility awareness methods, and withdrawal.
GED, General Educational Development.

familiar, I knew this information' to 'Very unfamiliar, I knew none of this information', how familiar they were with medication abortion. We coded respondents as being either familiar or unfamiliar with the process.

We assessed interest in the advance provision of abortion pills by asking 'How interested would you be in being taught confidentially by a healthcare provider how to give yourself a medication abortion and receiving medication pills to store at home in case you ever need them?'. Responses were collected on a 5-point Likert scale from 'Very interested' to 'Very uninterested'. Those who reported they were very or somewhat interested were asked an open-response question, 'What would be the benefits of keeping abortion pills at home in case you need them?'. All respondents were asked 'Would you have any concerns about keeping abortion pills at home in case you need them?', and if they responded 'Yes' they were asked 'What concerns would you have?' as an open response question.

All respondents were asked, 'In a scenario where you became pregnant and wanted an abortion, how comfortable would you be taking the abortion pills at home, on your own after being taught by your provider?', on a 5-point Likert scale from 'Very comfortable' to 'Very uncomfortable'. Respondents were coded as being comfortable, neutral, or uncomfortable.

To assess attitudes toward pharmacy provision of medication abortion and purchasing abortion pills online, we asked respondents how much they agreed with two statements on a 5-point Likert scale from 'Strongly agree' to 'Strongly disagree': 'Medication for abortion should be available over the counter without involvement of a healthcare provider'; and 'Medication for abortion should be available to order online without involvement of a healthcare provider'. We then assessed abortion attitudes with two questions modified from The General Social Survey,[11] measuring attitudes toward abortion legality and morality.

We used descriptive statistics to assess respondent characteristics and examined differences by interest in advance provision of abortion pills using χ^2 tests. We used an ordinal regression model to predict interest of advance provision, our primary outcome. We reviewed differences in the bivariate analysis with respect to interest in use and previous research to plan what variables to include in the model. We included age, history of pregnancy, most effective contraceptive method in use, familiarity with medication abortion, comfort with the medication abortion process, and healthcare system distrust as potential predictors of interest. Age was included to assess demographic differences in interest and was found to be significant in previous research. Most effective contraceptive method in use was included to address the influence of pregnancy-avoidance behaviours. Familiarity and comfort with medication abortion and history of pregnancy were included to account for potential knowledge of the process and previous decision-making around pregnancy. We included healthcare system distrust, as this has been a purported motivator for those who choose to self-manage their abortion outside of the medical system.[14]

Open response data were coded using thematic analysis for our secondary outcomes of perceived concerns and benefits. Both authors read all the open response

data. The authors then met and co-developed a codebook with codes for the most common responses. All responses were coded by the two authors. Codes were then organised into themes. Discrepancies were discussed and agreement was reached for all responses.

Stanford University institutional review board approved all study procedures (protocol 62173). All surveys were administered with Qualtrics. Quantitative data were analysed with SPSS Statistics (IBM, version 28). Qualitative data were analysed with Microsoft Excel.

RESULTS

After screening for eligibility and fraud, we invited 766 respondents to take part in the survey and 649 completed the survey (85% response rate among those invited). We removed respondents who reported they had a hysterectomy (n=15), resulting in an analytic sample of 634 racially and ethnically diverse respondents (online supplemental figure 1, table 1). Respondents were included from every US state and District of Columbia, except for Alaska and South Dakota. Respondents were young, with nearly 40% aged 18–24 years, and educated, with only 13% reporting high school education or less. Most reported having private insurance (78%) and living on incomes above the federal poverty guidelines (72%). Half of all respondents had high distrust in the healthcare system (table 1). There were no differences in distrust between age, income, education, or insurance status groups (data not shown). However, there was a difference between race groups; 64% of Black and 56% of White, Hispanic respondents had high distrust compared with 58% of White, non-Hispanic and 43% of Asian respondents (p=0.04, data not shown).

Most of the sample reported having had sex with someone who could get them pregnant (83%, table 1), with most having had sex most recently in the last

Table 2 Abortion attitudes of US survey respondents recruited via social media for a survey exploring interest in clinician-administered advance provision of abortion pills (n=634)

	Interest in facility-based advance provision of abortion pills				
	Interested (n=409)	Neutral (n=75)	Disinterested (n=150)	Total (n=634)	P value
Abortion legality views					<0.001
I believe people should be able to have an abortion legally	381 (93.4)	63 (84.0)	70 (46.7)	514 (81.2)	
I believe it depends	22 (5.4)	10 (13.3)	45 (30.0)	77 (12.2)	
I do not believe people should be able to have an abortion legally	5 (1.2)	2 (2.7)	35 (23.3)	42 (6.6)	
Abortion morality views					<0.001
I am not morally opposed to abortion	333 (81.6)	42 (56.0)	41 (27.3)	416 (65.7)	
I believe it depends	59 (14.5)	27 (36.0)	43 (28.7)	129 (20.4)	
I am morally opposed to abortion	16 (3.9)	6 (8.0)	66 (44.0)	88 (13.9)	
Familiarity with medication abortion process					<0.001
Familiar	352 (86.3)	51 (68.0)	86 (57.3)	489 (77.3)	
Unfamiliar	56 (13.7)	24 (32.0)	64 (42.7)	144 (22.7)	
Comfort with medication abortion process					<0.001
Comfortable	380 (93.1)	51 (68.0)	62 (41.3)	483 (77.9)	
Neutral	15 (3.7)	12 (16.0)	12 (8.0)	39 (6.1)	
Uncomfortable	13 (3.2)	12 (16.0)	76 (50.7)	101 (16.0)	
Medication abortion should be available over the counter without the involvement of a healthcare provider					<0.001
Strongly or somewhat agree	300 (73.7)	41 (54.6)	42 (28.0)	383 (60.6)	
Neither agree nor disagree	35 (8.6)	14 (18.7)	17 (11.3)	66 (10.4)	
Somewhat or strongly disagree	72 (17.7)	20 (26.7)	91 (60.7)	183 (28.9)	
Medication abortion should be available online without the involvement of a healthcare provider					<0.001
Strongly or somewhat agree	289 (70.7)	37 (49.3)	39 (26.0)	365 (57.6)	
Neither agree nor disagree	28 (6.8)	14 (18.7)	15 (10.0)	57 (9.0)	
Somewhat or strongly disagree	92 (22.5)	24 (32.0)	96 (64.0)	212 (33.4)	

Data presented as n (%)

3 months (73%, data not shown). Nearly 40% of the sample had given birth previously and a minority reported a previous abortion (11%). However, nearly a third reported knowing someone who had accessed abortion recently (data not shown). The majority (81%) believed that people should be able to have an abortion legally; a minority reported being morally opposed to abortion (14%) or believing it depends (12%). Following a short description of medication abortion, 77% of respondents said they were very or somewhat familiar with the process (table 2).

Overall, 65% (n=409) would be very or somewhat interested in the advance provision of abortion pills from a clinician, and 12% (n=75) were neutral, neither interested nor disinterested. Bivariate analysis of respondent characteristics revealed differences among interest groups (table 1), most notably with respect to age, sexuality, sexual activity, previous pregnancy, plans to have children in the future, contraceptive use, and healthcare system distrust. There were no differences among interest groups by gender identity, race-ethnicity, education, insurance status, region of the USA, or income (table 1).

Respondents' perceived benefits of and concerns with advanced provision of abortion pills from open response questions are detailed in table 3. Benefits most frequently cited included the importance of timely access to abortion, convivence, and peace of mind. Often, respondents' sentiments were that advance provision would allow them to overcome barriers to access. Further, respondents felt that the privacy, bodily autonomy, and ability to avoid stigma were also advantageous. Concerns included potential medication error, not wanting to choose abortion, privacy, safety, expiration date, and cost of the pills.

When asked how comfortable respondents would be having a medication abortion at home following consultation with a clinician, 78% overall said they would be somewhat or very comfortable. Nearly all of those interested in advance provision reported they

Table 3 Concerns and perceived benefits of clinician-administered advance provision of abortion pills among US survey respondents recruited via social media (n=634)

Benefit	Representative open responses
Importance of timely abortion access	*Sometimes it's hard to get a doctor's appointment in time. You're usually several weeks pregnant by the time you find out. There's only a short period of time you have to take the pills after you find out you're pregnant. You might not be able to get into the doctor if you only have a week or two left before you're past the (elgibility) window.* *You would avoid holdups on a time sensitive issue, things like the weekend, bad weather, local shortages, and finding an appointment, which may prevent you from getting abortion pills in time.*
Convivence	*You could use them whenever is convenient rather than going through the hassle of making an appointment.* *No need to make an appointment and wait or go through hoops to get an abortion.*
Peace of mind	*Knowing that if I ever needed them, I had them. I live in another town for college and haven't established healthcare where I go to school, only in my hometown. It isn't that long of a drive but I wouldn't be able to just drop my classes to go home and see my doctor if I needed the abortion pill.* *I do not want to become pregnant at this time and am often anxious that I am (even though I am on birth control). Having these pills at home would definitely provide peace of mind and be extremely convenient if I ever did become pregnant.*
Privacy	*I would be able to take care of the issue confidentially and in a safe way.* *Comfort of privacy and full control over your decision.*
Ensures bodily autonomy and access	*I live in Texas where abortion is essentially banned so I would definitely love to have access to this within my own home, without risk of someone punishing me for seeking a clinic abortion.* *Makes me feel safe and also empowered to make my own choices.*
Avoid perceived stigma and protesters	*Many clinics that offer (abortions) in the South have protesters outside often, so there wouldn't be the fear of needing to get past them.* *No feeling of being stigmatised or feeling of shame to decide to terminate pregnancy.*
Concern	**Representative open responses**
Medication error	*That a child might access them and hurt themselves.* *I would be afraid I may mix them up with another medication, and accidentally take them with no reason.*
Wouldn't choose abortion	*I personally don't believe in abortion so I would not take those pills.* *I can't imagine using them, so it might be a waste to buy them and never use them.*
Privacy	*I don't live alone, so I would be worried about other people coming across them.* *My family is not supportive of the right to choose, and I would fear judgement or reprimand from them for having them.*
Safety	*I would be concerned if I bleed excessively or develop life-threatening clots.* *I have heard of women having complications from taking the abortion pill and I don't think it should be something taken lightly, like Tylenol* or Advil†, as needed.*
Expiration and cost	*Keeping (the pills) too long and the possibility of them expiring and then taking expired medication.* *I'm sure the pills are not cheap and I would be concerned about shelf life. If I pay hundreds of dollars to keep these pills on hand 'just in case' would I need to replace them annually? It becomes a pretty steep expense for a safety net.*

*Acetaminophen/paracetamol
†Ibuprofen

Table 4 Adjusted odds ratios of being interested in clinician-administered advance provision of abortion pills among US survey respondents recruited via social media (n=632)

	n (%)	Adjusted OR (95% CI)	P value
Age (years)			
18–24	246 (38.9)	1.9 (1.0 to 3.4)	0.04
25–34	228 (36.1)	1.3 (0.8 to 2.1)	0.37
35+	158 (25.0)	Reference	--
Previous pregnancy			
Yes	250 (39.6)	1.5 (0.9 to 2.5)	0.08
No	382 (60.4)	Reference	--
Most effective contraceptive in use*			
Tier 1	137 (21.7)	2.3 (1.2 to 4.1)	0.01
Tier 2	172 (27.2)	2.2 (1.2 to 3.9)	0.01
Tier 3	213 (33.7)	1.6 (1.0 to 2.8)	0.07
None	110 (17.4)	Reference	--
Familiarity with the medication abortion process			
Familiar	488 (77.2)	4.2 (2.8 to 6.2)	<0.001
Unfamiliar	144 (22.8)	Reference	--
Comfort with the medication abortion process			
Comfortable	493 (78.0)	17.1 (10.0 to 29.0)	<0.001
Neutral	38 (6.0)	4.8 (2.2 to 10.4)	<0.001
Uncomfortable	101 (16.0)	Reference	--
Distrust in the healthcare system			
High distrust	317 (50.2)	2.2 (1.0 to 4.4)	0.04
Moderate distrust	271 (42.9)	1.5 (0.7 to 3.1)	0.24
Low distrust	44 (7.0)	Reference	--

*Tier 1 methods included permanent contraception, intrauterine device, and sub-dermal implant; Tier 2 methods included short-acting hormonal methods (pill, patch, ring, injection); Tier 3 methods included condoms, fertility awareness methods, and withdrawal.

would be comfortable (93%), whereas less than half of those who were disinterested would be comfortable (41%; p<0.001).

In ordinal logistic regression, those aged 18–24 years (adjusted odds ratio (aOR) 1.9, 95% confidence interval (95% CI) 1.0 to 3.4) were more likely to be interested in the advance provision of abortion pills from a provider compared with those aged 35–45 years. Respondents using a tier 1 or tier 2 contraceptive method (aOR 2.3, 95% CI 1.2 to 4.1, and aOR 2.2, 95% CI 1.2 to 3.9, respectively) were more likely to be interested compared with those using no method of contraception. Those who were familiar and comfortable with the medication abortion process (aOR 4.2, 95% CI 2.8 to 6.2, and aOR 17.1, 95% CI 10.0 to 29.0, respectively) were also more likely to be interested than those who were unfamiliar and uncomfortable. Having high distrust in the healthcare system was associated with interest in advance provision compared with those with low distrust (aOR 2.2, 95% CI 1.0 to 4.4) (table 4).

Most respondents strongly or somewhat agreed that abortion pills should be available over the counter without involvement of a clinician (61%). Nearly two-thirds of respondents also agreed abortion pills should be available to order online without the involvement of a clinician (58%). Those interested in advance provision were most likely to endorse these service delivery models (74% and 71%, respectively; both p<0.001).

With respect to abortion attitudes, those not interested in advance provision were more likely to report they believed abortion should be illegal or 'it depends' (53% vs 7% among those interested) and more likely to be morally opposed to abortion (44% vs 4% among those interested) (table 2).

DISCUSSION

In a national sample of reproductive-aged people with the capacity for pregnancy, but no plans to become pregnant in the immediate future, we found high personal interest in the advance provision of abortion pills from a clinician before the need for abortion arises. Where 65% of our sample expressed interest in this model, previous research from 2017, among a similar demographic, but more statistically

representative, national sample documented only 22% were personally interested.[7]

This difference could be due to several factors, including significant abortion policy change which has restricted facility-based access,[1–3] a global pandemic that made the public more comfortable with self-managed procedures (eg, rapid, self-administered COVID-19 tests),[15] and rising general interest and awareness of medication abortion over procedural abortion.[9 10] Additionally, our finding that people were also interested in other models of medication abortion access, such as from a pharmacist or online, is consistent with other research[7]—suggesting an overall increasingly positive attitude toward medication abortion service delivery.

In our study, those likely to be most interested in advanced provision of abortion pills were aged 18–24 years. This is consistent with young peoples' preferences for reproductive healthcare documented in the literature, which consistently prioritises privacy.[16] The advance provision strategy could ensure abortion access for young people, who face unique and significant barriers to access.[17] Further, those most likely to be interested were using an effective form of contraception—indicating they are likely already an established patient, and it may be feasible for them to access advance provision from a clinician. It also underscores that those using contraception to avoid pregnancy are still aware of their risk of pregnancy and interested in a 'safety net' to ensure they remain unpregnant.

Our finding that those who were familiar with the medication abortion process and would be comfortable having a medication abortion were four times and 17 times more likely, respectively, to be interested in advance provision of abortion pills demonstrates the importance of educating the public on the safety and efficacy of medication abortion. When people understand something, they are more likely to consider it as a real option.[18] This is underscored by the open responses that documented concerns among those who were disinterested, which, when omitting those who said they just would not choose abortion, were focused on safety, efficacy, and the process of medication abortion. Concerns were often rooted in internalised abortion stigma and myths and lack of knowledge of abortion safety—consistent with previous research.[19]

The reality is that medication abortion is safe and effective, both when administered by a clinician and when sourced online and self-administered.[20 21] Further, abortion is now out of reach for many people in the USA due to the reversal of *Roe* and the subsequent domino effect of state-level abortion restrictions.[1] To protect the autonomy of those with the capacity for pregnancy, strategies are needed to ensure timely access to abortion.

Respondents described advance provision circumventing delays in getting an appointment, being more convenient, and allowing them to avoid judgement, especially from their provider, as benefits. These perceived benefits are aligned with the finding that those with high healthcare system distrust are more likely to be interested. Notably, distrust was the highest among participants identifying as Black or Hispanic—suggesting advance provision could aid in dismantling existing racial health disparities in abortion access.[22]

A limitation of our research is that we did not assess the logistical or regulatory considerations of this strategy; nor did we assess how factors such as cost or legality might impact people's interest. However, the high interest among those who took part in our survey warrants further exploration of the strategy and these potential barriers. Additionally, we used an English-only convenience sample, and our results may not be generalisable. Our sample, recruited over social media, was highly educated, with more than 85% of respondents having more than a high school education and, largely, lived on incomes above the poverty guidelines—which may have informed interest. However, a strength of our study is the diversity of our sample—which included many sexual and racial minorities and people living in the US South, populations that are frequently disparate in the literature. Further, abortion attitudes among our sample are similar to those of public opinion polls in the USA, especially with respect to the proportion who believe abortion should be illegal.[23]

The advance provision of medication abortion pills is of interest to potential users and could be implemented to secure abortion availability for some. In the meantime, clinicians, advocates, and others should invest in efforts to educate people about abortion before they need it, to ensure they understand both the availability and process. While the strategy of advance provision of abortion pills may not ever be available in highly restrictive settings, it still has the potential to secure access for some, as is the reality of most public health interventions. Given the circumstances in the USA, every effort is needed to protect people's health and autonomy.

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Patient consent for publication Not applicable.

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