

Safety and effectiveness of self-managed abortion using misoprostol alone acquired from an online telemedicine service in the United States

Dana M. Johnson¹ | Mira Michels-Gualtieri² | Rebecca Gomperts³ |
Abigail R. A. Aiken¹

¹LBJ School of Public Affairs, University of Texas at Austin, Austin, Texas, USA

²Mailman School of Public Health, Columbia University, New York, New York, USA

³Aid Access, Vienna, Austria

Correspondence

Dana M. Johnson, LBJ School of Public Affairs, University of Texas at Austin, Austin, TX 78713, USA.

Email: danajohnson@utexas.edu

Funding information

Society of Family Planning, Grant/Award Number: SFPRF15-ES8; Eunice Kennedy Shriver National Institute of Child Health and Human Development, Grant/Award Number: P2CHD042849

Abstract

Objectives: To evaluate self-reported outcomes and serious adverse events following self-managed medication abortion using misoprostol alone provided from an online service.

Study Design: We conducted a retrospective record review of self-managed abortion outcomes using misoprostol obtained from Aid Access, an online telemedicine organization serving United States (US) residents, between June 1, 2020, and June 30, 2020. The main outcomes were the proportion of people who reported ending their pregnancy without instrumentation intervention and the proportion who received treatment for serious adverse events.

Results: During the study period, 1016 people received prescriptions for misoprostol. We obtained follow-up information for 610 (60%) of whom 568 confirmed use of the medication and 42 confirmed non-use. When taking the medication, 96% were at or less than 10 weeks' gestation and 4% were more than 10 weeks. Overall, 88% (95% CI: 84.6–90.2) reported successfully ending their pregnancy without instrumentation intervention. Of the 568 who took the misoprostol, 12 (2%) reported experiencing one or more serious adverse events and 20 (4%) reported experiencing a symptom of a potential complication.

Conclusions: Self-managed medication abortion using misoprostol provided by an online telemedicine service has a high rate of effectiveness and a low rate of serious adverse events. Outcomes compare favorably to other service delivery models using a similar regimen. As mifepristone continues to be over-regulated and the 2022 US Supreme Court ruling allows states to severely restrict access to in-clinic abortion care, this regimen is a promising option for self-managed abortion in the US.

INTRODUCTION

Women, transgender men, and gender non-binary pregnancy-capable individuals seeking abortion care in the United States (US) face an

unprecedented number of legal restrictions. On June 24, 2022, the US Supreme Court ruled in *Dobbs vs. Jackson Women's Health Organization (Dobbs)* to end the constitutional right to abortion, a ruling that has fundamentally changed access to in-clinic abortion care. This new

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legal environment is causing clinics and providers to abide by harsh restrictions or close outright, as some states move to ban or severely restrict abortion.¹ In response to the increasing lack of access to in-clinic abortion care, there is evidence that some women, transgender men, and other pregnancy-capable people will self-manage their abortions outside of the formal healthcare setting.^{2,3}

There are a variety of methods people use to try and end a pregnancy, including herbs, teas, vitamins, medications, noxious substances, or self-harm.² With the proliferation of information-sharing on the Internet in particular, more people have been ordering medication abortion pills from online sources to end pregnancies on their own, a process referred to as self-managed medication abortion.² In 2018, Aid Access debuted as the first online telemedicine organization to offer a low-cost option for self-managed medication abortion in the US.³ This service remains the only telemedicine organization to serve all 50 states. In their first 2 years of operation, Aid Access received 57,506 requests for medication³ and demand for this service has surged as state-level abortion restrictions have been enacted.⁴

New World Health Organization (WHO) guidelines recommend self-management of medication abortion up to 12 weeks' gestation, using a combination of mifepristone plus misoprostol or using misoprostol alone.⁵ Typically, Aid Access provides the medications mifepristone and misoprostol, but due to challenges shipping mifepristone internationally during the COVID-19 pandemic, the service temporarily adjusted its model to provide prescriptions for the medication abortion regimen using misoprostol alone.

Misoprostol alone used for self-managed abortion has been studied throughout the world and recent research has found that self-managed abortion with accompaniment group support and for gestations below 9 weeks to be noninferior to the effectiveness of medication abortion managed and administered in a clinical setting. In this study in Argentina and Nigeria, of the 593 participants who self-managed their abortion using misoprostol alone, 99% had a successful abortion without instrumentation intervention.⁶ Community-based distribution models have yielded high rates of effectiveness as well. In a study of 918 women living along the Thailand-Burma border, 96% were not pregnant 1 month after taking the medication⁷ and in a study of 120 women in Pakistan, none of the women were pregnant after a 4 week follow-up period.⁸ In Lagos State, Nigeria, a study of 394 women who acquired misoprostol from drug sellers and completed two follow-up interviews reported that 95% had a complete abortion without instrumentation intervention after a 4 week follow-up period.⁹ And in Bangladesh, in a study of pharmacy distributed medication abortion pills, 75% of the subsample of 20 women who had acquired only misoprostol reported they were not pregnant after a 15-day follow-up period.¹⁰

Models of self-managed abortion have emerged as an expression of reproductive autonomy and self-determination, as well as a necessary response to the lack of abortion access in the US. Misoprostol's straightforward use, low cost, and availability in US-pharmacies make it particularly well suited for assisted self-managed abortion. However, despite misoprostol's utility and the hostile US abortion policy context, abortion outcomes have yet to be examined in the US.

There are several clinics and telehealth organizations that provide telemedicine abortion services to people living in the US, but because of state-level restrictions these services can only operate in specific states.¹¹ Aid Access, a nonprofit organization based in Vienna, Austria, is the only telemedicine organization providing medication abortion services in all 50 states. The objective of this study is to assess the safety and effectiveness of self-managed abortion using misoprostol acquired from Aid Access.

MATERIALS AND METHODS

Sample and data collection

Misoprostol was accessible through the Aid Access model to women, transgender men, and gender non-binary individuals with the capacity for pregnancy up to 10 weeks' gestation at the time of their request. Users completed an online consultation, which was reviewed by a physician to check for any contraindications. If deemed eligible for treatment, the physician prescribed three doses of 800 micrograms of misoprostol. The medication was either mailed directly to the abortion seeker or the physician sent the prescription to a retail pharmacy for pick-up. Aid Access informed individuals by email that they would receive a follow-up questionnaire in 1 month. Aid Access requests a USD35 donation to support the service but offered prescriptions at a sliding scale. The service provided detailed instructions via email for using the 800 micrograms of misoprostol sublingually every 3 h for three doses. The physicians prescribed an additional 800 microgram dose of misoprostol if expulsion did not occur after several days. The additional misoprostol dose was either mailed directly to the abortion seeker or the physician sent another prescription to a retail pharmacy for pick-up. Information on potential signs of adverse events and a 24/7 online helpdesk chat function were available for further questions and support. Users were invited to report their outcomes using an online follow-up form or direct email sent 4 weeks after the prescription was sent. If users did not provide outcome information using the follow-up form or by email, Aid Access staff followed-up with a phone-call.

Our dataset includes US residents who were prescribed misoprostol between June 1, 2020 and June 30, 2020. Aid Access provided fully de-identified data from the online consultation form and the follow-up form and all users consented to the anonymized use of their data for research purposes. The consultation form contained self-reported information about age, gestation, parity, medical contraindications, whether an ultrasound had been obtained, the circumstances surrounding the pregnancy, the availability of someone to be present during the abortion, distance from a hospital, and reasons for choosing self-managed abortion from the service. Users who did not have an ultrasound could use a pregnancy calculator based on their last menstrual period, which was also recorded in the consultation. Questions about medical history asked about conditions that required additional screening to determine eligibility, including having a sexually transmitted infection (STI) or intra-uterine device (IUD) in place,

or the existence of any contraindications, such as allergies to misoprostol, bleeding disorders, or inherited porphyrias. The full details of the baseline instrument are available on the Aid Access website.

The follow-up evaluation contained information on the number of people who confirmed receipt of a prescription and acquired misoprostol, the number who confirmed whether they used the misoprostol, and the outcome of their abortion or pregnancy. The follow-up evaluation asked those who confirmed use of misoprostol about their gestation at the time of use, if the pregnancy had ended, receipt of instrumentation intervention to help end the pregnancy, any treatment for serious adverse events, and any symptoms of a potential complication. Previous research has established that people are able to accurately self-assess their abortion completion.¹² The evaluation asked those who did not use the misoprostol about the outcome of their pregnancy, including whether they pursued in-clinic abortion care, found another way to self-manage their abortion, experienced a miscarriage, or continued the pregnancy. To assess any treatment for serious adverse events, the follow-up form included a series of “yes/no” questions asking if individuals were admitted to a hospital, received a blood transfusion, received treatment from an emergency department, or received antibiotics administered intravenously. To assess any experiences of a symptom of a potential complication, the follow-up form used the same “yes/no” format asking if individuals experienced heavy bleeding of more than two maxi pads an hour for more than 2 h, a fever of 102° Fahrenheit or higher, discharge with a bad odor, or severe pain that would not go away after the abortion. Full details of the follow-up instrument are available in a 2022 article by Aiken and colleagues.¹³

Analysis

We calculated the proportion of users for whom medication abortion using misoprostol alone was successful, defined as the proportion who were able to expel their pregnancy without instrumentation intervention, according to the Medical Abortion Reporting of Efficacy (MARE) Guidelines.¹⁴ Next, we calculated the proportion of users who answered “yes” or “no” to each question regarding treatment for serious adverse events. The definition of serious adverse events was guided by the definitions from Cleland and colleagues.¹⁵ Although it is impossible for users to self-report their own death, we looked for any reports to the service from others. Finally, we calculated the proportions of users who answered “yes” or “no” to each question regarding symptoms of a potential complication.

We compared demographic and clinical characteristics between those who provided follow-up information and those who did not. The gestational age at the time of request was categorized as 7 weeks or fewer, and 8–10 weeks. The age of users was categorized in 5-year increments, starting with “17 years old and under” and ending with “40 years old and over.” The number of children and previous abortions were collapsed into categories of “0” and “1 or more.”

We then compared abortion outcomes between those who were 10 weeks or less when using the medication versus those who were

more than 10 weeks at the time. This focus on the difference in gestational age categories was motivated by previous studies on the effectiveness of self-managed medication abortion regimens, as well as a lack of evidence of the safety and effectiveness of medication abortion used outside of the formal healthcare setting for pregnancies beyond 10 weeks’ gestation. We calculated point-estimates and exact binomial 95% confidence intervals (CI) both for the overall population and for the binary gestational age categories. We compared the outcomes between the gestational categories using Fisher’s exact test and considered findings statistically significant at an alpha level of 0.05. We conducted the analyses using R and R studio Version 1.3.959. The University of Texas Institutional Review Board approved this study.

RESULTS

Between June 1, 2020 and June 30, 2020, Aid Access sent a prescription for misoprostol and instructions for conducting a self-managed abortion to 1016 individuals (Figure 1). There were no differences in outcomes between those who obtained misoprostol by mail and those who picked-up the misoprostol at a retail pharmacy. Among the 1016 abortion seekers, 610 confirmed either use or non-use of the misoprostol and 406 provided no further follow-up information, resulting in a follow-up rate of 60%. Among the 610 people who confirmed use or non-use of misoprostol, 568 (93%) used the medication and 42 (7%) did not. Of the 568 who confirmed using the medication, 544 (96%) were at or under 10 weeks pregnant at the time of use and 24 (4%) were over 10 weeks at the time of use. Among those who did not use the medication, 36% had a miscarriage, 17% decided to continue the pregnancy, 5% accessed abortion care in a clinic, 5% self-managed their abortion using another method, and 37% did not specify a reason.

We present the characteristics of those who provided follow-up information compared to those who did not in Table 1. Of those who provided follow-up information, 94% reported being at or under 7 weeks pregnant when they contacted Aid Access. Most individuals (61%) were between 18 and 29 years old. Almost two-thirds (66%) had not had a previous abortion experience and 63% had at least one child. The most frequent cause of pregnancy was contraceptive failure (57%). The majority (88%) did not have an ultrasound prior to their abortion. We did not find a significant difference in any characteristic that could potentially bias the follow-up group toward a higher prevalence of successful abortion.

Overall, 88% (95% CI: 84.6–90.2) of women, transgender men, and gender non-binary individuals with the capacity for pregnancy who used misoprostol reported successfully ending their pregnancy without instrumentation intervention (Table 2). For the 70 individuals who did not report successfully ending their pregnancy using misoprostol alone, 11 (2%, 1.02–3.54) confirmed they had an instrumentation procedure to end the pregnancy. Among these, three had a dilation and curettage procedure, one had a vacuum aspiration, and seven did not specify the procedure type. The remaining 59 people

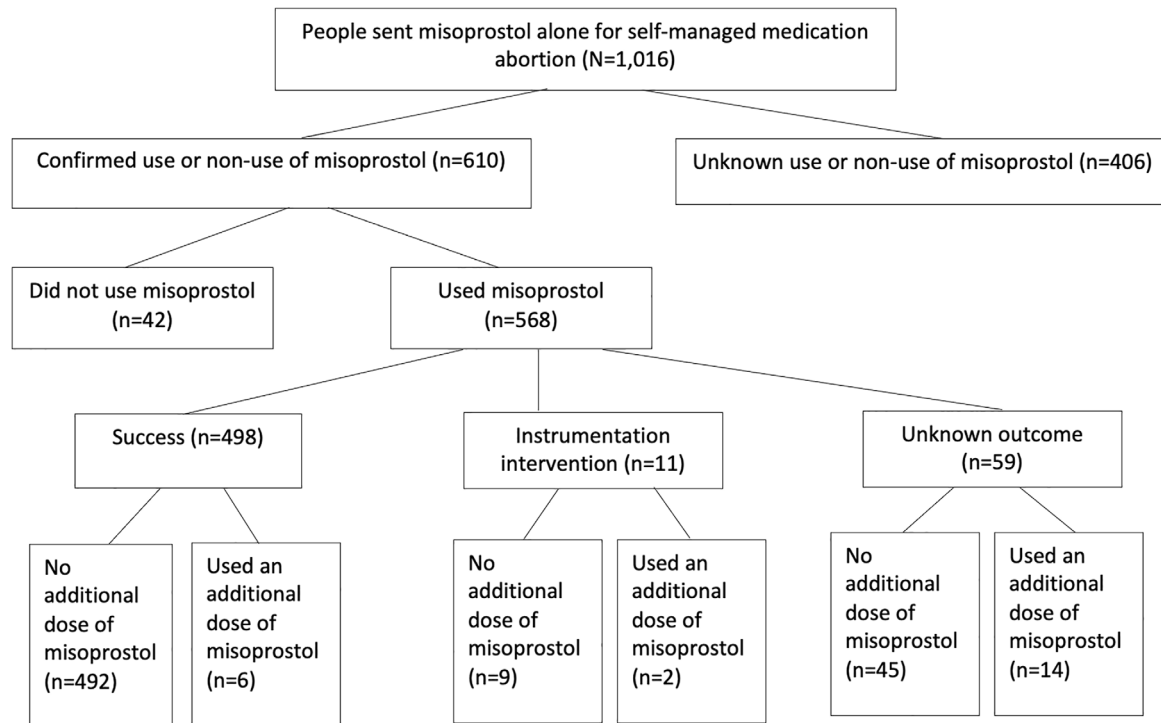


FIGURE 1 United States residents acquiring misoprostol prescriptions from Aid Access, June 1, 2020 to June 30, 2020.

who did not confirm successfully ending their pregnancy using misoprostol did not provide information on the eventual outcome.

For 22 people (4%) expulsion did not occur after several days and the Aid Access physicians prescribed an additional 800 microgram dose of misoprostol. Among the 22 women, transgender, and gender non-binary individuals with the capacity for pregnancy who received the additional dose, six (27%) reported successfully ending their pregnancy with the additional misoprostol and 16 (73%) confirmed that they did not successfully end their pregnancy after taking additional misoprostol. Of the 16 people who did not successfully end their pregnancy with additional misoprostol, two confirmed they had an instrumentation intervention; we do not know the outcome for the remaining 14 people.

Of all 568 women, transgender men, and gender non-binary individuals with the capacity for pregnancy who used misoprostol and reported outcome information, 12 (2%) reported having experienced one or more serious adverse events (Table 3). Three people were admitted to a hospital (0.5%, 0.13–1.67), 12 received treatment in an emergency department (2%, 1.14–3.76), three received a blood transfusion (0.5%, 0.13–1.67), and three received intravenous (IV) administered antibiotics (0.5%, 0.13–1.67). We know of no deaths.

Of all 568 women, transgender men, and gender non-binary individuals with the capacity for pregnancy who used misoprostol and reported outcomes information, 20 (4%) reported experiencing one or more symptoms of a potential complication (Table 4). Fourteen people (2%, 1.40–4.20) reported heavy bleeding of more than two maxi pads per hour for more than 2 hours, two people (0.4%, 0.06–1.40)

reported a fever of 102° Fahrenheit or higher, one person had discharge with a bad odor (0.2%, 0.009–1.1), and 14 people reported severe pain that did not go away after the abortion (2%, 1.40–4.20). Among the 14 people who reported heavy bleeding, six people also reported experiencing severe pain. Of the two people who reported a fever, one person also reported experiencing heavy bleeding, and one person reported a fever, severe pain, and heavy bleeding. Finally, the one person who reported having discharge with a bad odor also reported experiencing heavy bleeding.

Among the 12 people who received treatment for a serious adverse event, seven were also among the 20 people who reported symptoms of a potential complication. One person who reported heavy bleeding was admitted to hospital and received a blood transfusion and two people who reported heavy bleeding were treated in an emergency department and received a blood transfusion. One person who reported severe pain, two people who reported severe pain and heavy bleeding, and one person who reported a fever also received treatment in an emergency department.

DISCUSSION

Using a dataset containing the self-reported outcomes of US residents who used misoprostol between June 1, 2020, and June 30, 2020, we show that self-managed medication abortion using misoprostol acquired from an online telemedicine service has a high rate of effectiveness and a low rate of serious adverse events. The 88% success rate in our study compares favorably to results from clinical trials

TABLE 1 Demographic and clinical characteristics of those to who received a prescription for misoprostol from Aid Access from June 1, 2020 to June 30, 2020 (N = 1016)

Characteristic	Provided follow-up information (N = 610) n (%)	Did not provide follow-up information (N = 406) n (%)	p value
Gestation at time of request (weeks)			
7 weeks or fewer	575 (94.2)	383 (94.3)	1
8–10 weeks	35 (5.8)	23 (5.7)	
Age (years)			
17 and under	21 (3.4)	5 (1.2)	0.11
18–24	175 (28.7)	133 (32.8)	
25–29	198 (32.5)	113 (27.8)	
30–34	131 (21.5)	91 (22.4)	
35–39	57 (9.3)	46 (11.3)	
40 and over	28 (4.6)	18 (4.4)	
Previous abortions			
0	402 (65.9)	275 (67.7)	0.59
1+	208 (34.1)	131 (30.3)	
Children			
0	260 (42.6)	150 (36.9)	0.08
1+	350 (57.4)	256 (63.1)	
Cause of pregnancy			
Consensual sex - did not use contraceptives	230 (37.7)	144 (35.5)	0.66
Consensual sex - contraceptives failed	350 (57.3)	238 (58.6)	
Rape	30 (5.0)	24 (5.9)	
Contraindications to medication abortion			
Yes	0 (0.0)	0 (0.0)	–
No	610 (100.0)	406 (100.0)	
Ultrasound			
Yes	66 (10.8)	48 (11.8)	0.69
No	544 (87.7)	358 (88.2)	
Current sexually transmitted infection			
Yes	2 (0.32)	0 (0.0)	0.66
No	608 (99.7)	406 (100.0)	
Intra-uterine device in place			
Yes	1 (0.2)	0 (0.0)	1
No	609 (99.8)	406 (100.0)	
Knows somebody who can be present during the abortion			
Yes	589 (96.6)	395 (97.3)	0.63
No	21 (3.4)	11 (2.7)	
Within 60 min of a hospital			
Yes	589 (96.6)	385 (94.8)	0.23
No	21 (3.4)	21 (5.2)	

using misoprostol alone¹⁶ and it is notable these results are similar to a large, randomized trial that also assessed misoprostol alone administered sublingually.¹⁷ Among studies of abortion outside of the formal healthcare setting, our findings compare favorably as well. Compared to users in a Bangladesh study, our efficacy rate of 88% was markedly higher¹⁰ and notably on par with a conservative effectiveness

estimate of users in Lagos State, Nigeria.⁹ Although our effectiveness rate is lower than users in the Nigeria and Argentina,⁶ Pakistan,⁸ and Thailand⁷ studies, we did observe fewer instances of people seeking care from a hospital or clinic than the Nigeria and Argentina study.⁶ Finally, the prevalence of the serious adverse events of receiving a blood transfusion or IV administered antibiotics were similar to a

TABLE 2 Outcome of abortion reported by people who had a medication abortion using misoprostol acquired through aid access ($N = 568$)

Outcome	All gestations ($N = 568$) <i>n</i> (% , 95% CI)	10 weeks and under ($N = 544$) <i>n</i> (% , 95% CI)	Over 10 weeks ($N = 24$) <i>n</i> (% , 95% CI)	<i>p</i> value
Pregnancy ^a				
No longer pregnant	509 (89.6, 86.71–91.93)	491 (90.3, 87.37–92.56)	18 (75.0, 52.95–89.39)	0.068
Instrumentation intervention				
Reported intervention	11 (1.93, 1.02–3.54)	7 (1.29, 0.56–2.75)	4 (16.7, 5.47–38.19)	<0.001
Successful medication abortion				
No longer pregnant and no instrumentation intervention	498 (87.7, 84.62–90.20)	484 (88.9, 85.96–91.42)	14 (58.3, 36.94–77.20)	<0.001

^aDoes not include the 42 people who did not use misoprostol and for whom the pregnancy outcome is unknown.

TABLE 3 Treatment for serious adverse events reported by women, transgender men, and gender non-binary individuals who used misoprostol to induce an abortion ($N = 568$)

Outcome	All gestations ($N = 568$) <i>n</i> (% , 95% CI)	10 weeks and under ($N = 544$) <i>n</i> (% , 95% CI)	Over 10 weeks ($N = 24$) <i>n</i> (% , 95% CI)	<i>p</i> value
Serious adverse events				
Hospital admission	3 (0.52, 0.13–1.67)	3 (0.55, 0.14–1.74)	0 (0.0, 0.0–0.0)	1
Blood transfusion	3 (0.52, 0.13–1.67)	2 (0.40, 0.06–1.47)	1 (4.20, 0.21–23.11)	0.14
Emergency department treatment	12 (2.10, 1.14–3.76)	10 (1.80, 0.93–3.46)	2 (8.30, 1.45–28.47)	0.13
Intravenous antibiotics administration	3 (0.52, 0.13–1.67)	2 (0.37, 0.06–1.49)	1 (4.20, 0.21–23.11)	0.15
Death	0 (0.0, 0.0–0.0)	0 (0.0, 0.0–0.0)	0 (0.0, 0.0–0.0)	—
Any adverse event	12 (2.10, 1.14–3.76)	10 (1.80, 0.93–3.46)	2 (8.30, 1.45–28.47)	0.13

TABLE 4 Experiences of a symptom that could be a sign of a potential complication reported by people who used misoprostol to induce an abortion ($N = 568$)

Symptom	All gestations ($N = 568$) <i>n</i> (% , 95% CI)	10 weeks and under ($N = 544$) <i>n</i> (% , 95% CI)	Over 10 weeks ($N = 24$) <i>n</i> (% , 95% CI)	<i>p</i> value
Heavy bleeding (more than two maxi pads an hour for more than 2 h)	14 (2.46, 1.40–4.20)	11 (2.0, 1.10–3.83)	3 (12.50, 3.28–33.46)	1
Fever (102° Fahrenheit or higher)	2 (0.40, 0.06–1.40)	1 (0.20, 0.09–12.10)	1 (2.90, 0.15–17.00)	0.08
Discharge with a bad odor	1 (0.18, 0.009–1.10)	1 (0.18, 0.009–1.20)	0	1
Severe pain that would not go away after the abortion	14 (2.46, 1.40–4.20)	12 (2.20, 1.19–3.93)	2 (8.30, 1.40–2.80)	0.14
Any symptom	20 (3.50, 2.22–5.48)	17 (3.10, 1.88–5.10)	3 (12.50, 3.28–33.46)	0.08

study of people who used the combined regimen of mifepristone and misoprostol for self-managed abortion in the US.¹³ Overall, these results add to a robust body of research that misoprostol is effective in both clinical and non-clinical settings. Although misoprostol alone is not currently offered as a routine part of the Aid Access model, these findings indicate that self-managed abortion can be effective when supported by telemedicine organizations and medication is acquired either by mail or through pharmacy-pick up.

Our data have some limitations. First, the 60% follow-rate is relatively low. However, this follow-up rate is on par with follow-up rates of many studies of abortion outcomes outside of the formal healthcare setting. It is also comparable to clinical studies, as patients are not required to attend the post-abortion follow-up visits,

appointments that can be expensive and/or logistically challenging.¹⁸ We took a conservative approach in our analysis and did not consider those for whom post-abortion outcomes were unknown as presumed successful abortions, although it is possible that some of these abortions were ultimately successful. Second, the abortion outcomes in this study are necessarily self-reported because they occurred outside of the formal healthcare setting. Previous studies demonstrate that self-assessment of the outcome of medication abortion is not inferior to in-clinic follow-up and indicate that people can determine if they had a successful abortion.¹⁹ Third, our analysis of the efficacy of misoprostol alone for individuals over 10 weeks is limited by sample size. This might be why the effectiveness of misoprostol is lower for this group than other studies examining outcomes among people over

10 weeks.⁶ Furthermore, the low efficacy rate in this group could be influenced by the availability of in-clinic follow-up care to ensure complete abortion, rather than additional doses of misoprostol. At the time of data collection clinical abortion care was legal in all 50 states and because of this women, transgender men, and gender non-binary pregnancy-capable individuals might have been more likely to access in-person care within the formal healthcare setting in the US context, compared to countries without a legal clinical option. Finally, because self-managed abortion outcomes cannot be examined using formal clinical or randomized controlled trial methods, we are using the best data available to study a frequently hidden aspect of the abortion landscape.

These results offer valuable and timely insights into the outcomes of self-managed medication abortion using misoprostol alone in the US. The efficacy rates found in this study are encouraging, particularly considering the accessibility of misoprostol, the history of state-level abortion restrictions eroding access to clinical care, and this new post-*Dobbs* legal environment. Previous research has demonstrated that many features of misoprostol make it particularly useful for self-managed abortion.²⁰ The low cost of misoprostol (especially compared to mifepristone) could make it advantageous for abortion seekers who find clinical abortion or telemedicine services such as Aid Access legally or financially out of reach.²¹ Misoprostol's use for a number of indications makes it available in a variety of healthcare settings, including pharmacies, the most frequently visited healthcare setting in the US.²²

Misoprostol's history and its straightforward use makes it ideal for supported self-managed abortion. In the global context there is a long history of feminist organizations, social networks, and community-based distribution models assisting in safe abortion provision with misoprostol alone.²³ Community-based distribution programs are also potentially even more effective than clinical trials in part because in a clinical trial, the time-period to assess completion is typically shorter. Further in the clinic setting, incomplete, missed, or failed abortions are likely to be treated with an instrumentation intervention rather than with additional doses of misoprostol. In a community distribution setting more time is allowed for follow-up and for additional doses of misoprostol to take effect, thus completion rates are likely higher.⁶

Furthermore, the dispensing of misoprostol is not restricted by the Food and Drug Administration's Risk Evaluation and Mitigation Strategy (REMS) classification. The REMS classification of mifepristone has been significantly modified and this will increase access to telehealth in states where telehealth provision of medication abortion is possible. However, for women, transgender men, and gender non-binary pregnancy capable individuals living in states where abortion is now banned, restricted, or where telehealth provision of medication abortion is not legal, they have limited access to the combined mifepristone and misoprostol regimen.²⁴ It is also difficult to acquire mifepristone in rural settings and from tribal health facilities²⁵ and the high price of mifepristone (compared to misoprostol) poses an additional barrier. Overall, following the *Dobbs* decision, these barriers to accessing mifepristone will likely be exacerbated, and many abortion seekers will need to travel to other states for access to the combined mifepristone and misoprostol regimen.

Taken together, the features of misoprostol, the effectiveness data of previous studies, and the results of this study, signal that a wider application of this regimen ought to be considered. Clinicians and researchers may have concerns around the efficacy of misoprostol alone compared to misoprostol with mifepristone, especially in the US where there is a clinical option for accessing mifepristone and misoprostol together. But with the end to the federal constitutional right to abortion, clinical options in some states and regions are now severely limited. It is important to view this option in the context of other methods that could be used by abortion seekers when clinical care is not accessible, methods that could be ineffective or dangerous.²

These findings are in-line with the updated World Health Organization guidelines that now fully recommend self-managed medication abortion as part of a full range of safe and effective options for abortion care. With clinical options for abortion severely limited post-*Dobbs*, these guidelines are important in affirming self-managed abortion as a safe and essential practice that can be empowering for those seeking to end a pregnancy. There is potential for its use in the US as a method of ensuring reproductive autonomy, especially for populations who have been systematically cut off from safe, affordable, and non-coercive reproductive healthcare services.

FUNDING INFORMATION

This study was funded by two grants from the Society of Family Planning (SFP), Grant # SFPRF15-ES8 and Grant # SFPRF12-MA1. The authors received infrastructure support from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), (Grant # P2CHD042849). None of the sources of funding had any involvement in the design and conduct of the study; the collection, management, analysis, and interpretation of the data; the preparation, review, or approval of the manuscript; or the decision to submit the manuscript for publication.

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AUTHOR BIOGRAPHIES

Dana M. Johnson, MPAff, is a PhD Candidate in Public Policy and Demography at the University of Texas at Austin and a Senior Associate Research Scientist at Ibis Reproductive Health She received her BA from University of Minnesota and her MPAff from UT-Austin. She studies self-managed abortion, social policy, and population health.

Mira Michels-Gualtieri, BS, is a graduate student at Columbia. She received her BS from Vassar College and was a former intern with Aid Access.

Rebecca Gomperts, MD, MPP, PhD, is the founder and Executive Director of Aid Access. She is also the founder and Research Director for Women on Web International.

Abigail R.A. Aiken, MD, MPH, PhD is an Associate Professor of Public Affairs and fellow of the Richter Chair in Global Health Policy. She received her PhD from UT-Austin, MPH from Harvard School of Public Health, and her M.D. and B.A. from the University of Cambridge.

How to cite this article: Johnson DM, Michels-Gualtieri M, Gomperts R, Aiken ARA. Safety and effectiveness of self-managed abortion using misoprostol alone acquired from an online telemedicine service in the United States. *Perspect Sex Reprod Health*. 2023;1-8. doi:[10.1363/psrh.12219](https://doi.org/10.1363/psrh.12219)