

Knowledge and awareness of medication abortion among reproductive-aged Texans, 2019-2023

Anitra D. Beasley, MD, MPH, Danna Ghafir, Gracia Sierra, PhD, MA, Laura Dixon, PhD, Kari White, PhD, MPH

Medication abortion is a safe and effective method for pregnancy termination (box 1). It can be obtained in-person or via telehealth following screening by a clinician. Telehealth medication abortion is as safe as in-person care. $^{1-3}$ Within the formal United States healthcare system, its use has doubled in the last decade, from 31% in 2014 to at least 63% in 2023. 4

The use of medication abortion is likely to be even higher with the rise in self-managed abortion (primarily with abortion pills obtained from websites not connected with a healthcare provider); the frequency of self-managed abortion is difficult to document.

With the widespread implementation of state-level restrictions limiting and outright banning abortion, telehealth and self-managed abortion via online procurement of abortion medications have played a significant role in mitigating access barriers for some people.^{3,5} However, confusion around the legality and safety of and ability to access medication abortion in-person or remotely persists, especially as laws continue to change and legal cases make their way through the courts (box 2, next page).

Between May and June 2023, we conducted a survey of 768 Texas residents assigned female at birth who were between the ages of 18 and 49 years. Participants were recruited as a representative sample of the racial and demographic population of the state, including Hispanic, White non-Hispanic, Black non-Hispanic, and Asian non-Hispanic cisgender women and gender-expansive Texans (Table). In this research brief, we describe survey respondents' answers to questions asked about knowledge of and access to medication abortion and its safety and legal status, noting how responses differ between demographic subgroups. We also compare the results of this survey with a similar 2019 survey we conducted and discuss changes in knowledge over time.

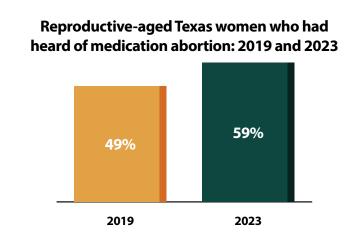
Box 1. Medication Abortion Regimens

Two medication abortion regimens are commonly used to end a pregnancy. The most common regimen in the United States utilizes two different medications, mifepristone and misoprostol, and the other relies on misoprostol only. The two-medication regimen requires one dose of mifepristone followed by at least one dose of misoprostol, usually 24 hours later, and the misoprostol-only regimen involves repeated administration of misoprostol every few hours. While both methods are very safe and effective, the two-medication regimen is often preferred when mifepristone is legal and accessible, as the combination of mifepristone and misoprostol is more successful in ending a pregnancy compared to misoprostol alone.⁶

Texans' knowledge about medication abortion and its safety has improved over time but some gaps in knowledge remain.

A majority of reproductive-aged Texans assigned female at birth were aware of medication abortion as an option for pregnancy termination.

In 2023, 59% of respondents had heard of medication abortion compared to 49% in 2019. In 2023, 48% were also aware of Cytotec® or misoprostol as a medication used for abortion.



Box 2. Legal Context

The legal landscape for abortion provision in the United States and Texas has evolved in the recent decades and most significantly in the last several years

2021

In 2021, the Texas legislature passed Senate Bill 8, which banned providing or "aiding and abetting" an abortion after detection of embryonic cardiac activity, and Senate Bill 4, which mandated in-person abortion care within the state and prohibited mailing or distributing medications for pregnancy termination. While these laws do not prohibit someone from self-managing their own abortion, they have created confusion about the legality of self-managed abortion care.

2022

The Texas "trigger ban" went into effect after the 2022 U.S. Supreme Court's Dobbs v. Jackson Women's Health Organization decision and criminalized the provision of nearly all abortions. Seventeen other states currently have total or near total bans, and several more have implemented very restrictive abortion legislation.⁷

2022

Beginning with Connecticut in 2022, several abortion-protective states have enacted "shield laws." These laws aim to legally protect abortion providers in states where abortion remains legal when providing in-person or virtual (i.e., telehealth) abortion care to patients who live in states where abortion is restricted.

2024

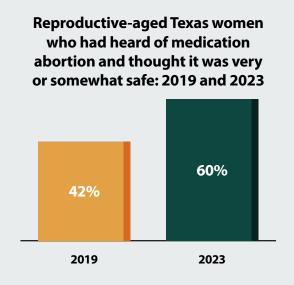
In 2024, the U.S. Supreme Court ruled in *FDA v. Alliance for Hippocratic Medicine*, a case challenging FDA approval of mifepristone, that the plaintiffs did not have legal standing to bring the case; other legal challenges and state laws targeting mifepristone have the potential to reduce access to the medication.⁹

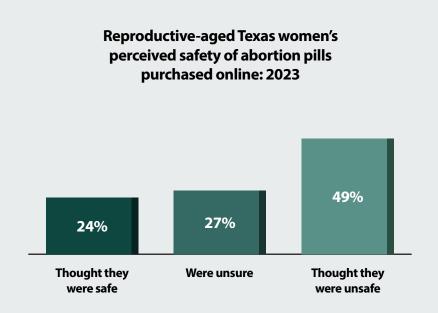
Over one-third of the 2023 survey respondents (35%) correctly stated that medication abortion was not legal in Texas, but half (51%) were unsure about the legal status, and 14% mistakenly thought medication abortion remained legal.

Among respondents who had heard of medication abortion, 60% thought it was very or somewhat safe in 2023, a significant increase from 42% in 2019.



Although options to remotely obtain medication abortion from telehealth providers or purchased online without clinician involvement have been available for several years, the majority (84%) of respondents in 2023 were unaware of websites where abortion pills could be purchased online. When asked about the safety of online abortion pills, only 24% thought they were safe, while 49% thought them to be unsafe and 27% were unsure – despite strong evidence demonstrating the safety of abortion pills obtained online.^{2,10} Compared to respondents who believed that medication abortion was unsafe, those who stated that medication abortion was safe were also more likely to state that abortion pills obtained online were safe (52% vs 4%).



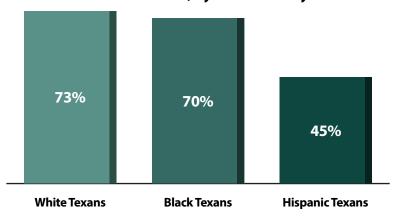


Almost half (46%) of surveyed Texans thought it should be legal to order abortion pills online, while 54% responded that this should not be legal. Texans who viewed abortion pills purchased online as safe were nearly three times more likely to say that it should be legal to order abortion pills online (82% vs 28%).

There are differences in knowledge about medication abortion by respondents' race and ethnicity, educational attainment, and previous abortion experience.

Racial and ethnic disparities in accessing abortion care are longstanding and well-documented. Our survey found that Texans' knowledge about medication abortion significantly differed by race and ethnicity, with seven in ten respondents who identified as White (73%) or Black (70%) having familiarity with medication abortion, compared to 45% of Hispanic respondents. No significant differences were observed by race and ethnicity about the legality or safety of medication abortion or abortion pills sourced online.

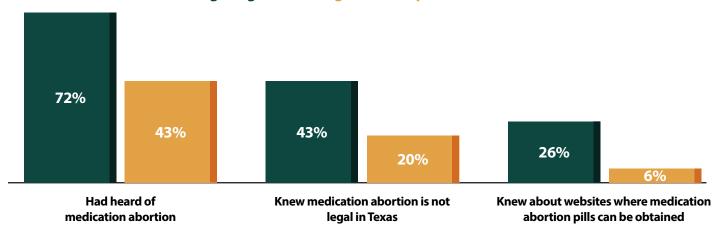
Reproductive-aged Texas women who had heard of medication abortion, by race/ethnicity: 2023



Although misoprostol is available without a prescription at some Mexican pharmacies, there were no differences in knowledge about medication abortion or abortion pills by county of residence, including counties near the Texas-Mexico border.

Higher levels of educational attainment were associated with significantly greater knowledge of medication abortion, its legal status, and the ability to purchase abortion pills online. Compared to respondents with a high school diploma or less, those with a college degree were more likely to have heard of medication abortion (72% vs 43%), indicate that medication abortion was illegal in Texas at the time of the survey (43% vs 20%), and have knowledge of websites where abortion pills could be obtained (26% vs 6%). Educational attainment was not associated with differences in knowledge of the legality or safety of medication abortion obtained online.

Medication abortion knowledge among reproductive-aged Texas women with a college degree and a high school diploma or less: 2023



Additionally, Texans who previously had an abortion were more likely to have heard of medication abortion (80% vs 57%) and more specifically, be familiar with misoprostol as a medication used for abortion (69% vs 44%). Somewhat surprisingly, respondents with a previous abortion were twice as likely to think medication abortion was legal (25%) after the Dobbs decision compared to those who did not report a previous abortion (13%); however, respondents who had not had a previous abortion were more likely to be unsure about the legality of medication abortion in Texas compared to those who had a previous abortion (53% vs 36%). While those who had previously had an abortion were more likely to know where to buy abortion pills online, knowledge was still low at 34%. These respondents were also significantly more likely to support the legality of online medication abortion (62% vs. 44%).

Conclusions and Implications

We found an increase in reproductive-aged Texans' awareness of medication abortion overall and improved knowledge of its safety between 2019 and 2023. Although we do not know the reasons for this change, it may be related to increased coverage of abortion care and medication abortion in both traditional and social media outlets, in particular following the implementation of highly restrictive state-level abortion laws and the overturning of Roe v. Wade. 12, 13

However, we also found notable gaps in knowledge, including around the legal status of medication abortion in Texas and the availability of medication abortion pills that can be purchased online. Even though telehealth and websites where people can obtain medication abortion pills have increased availability of medication abortion, our findings and those from other studies indicate that these mechanisms may not be reaching those with lower education attainment and marginalized groups. This is not unexpected. Structural inequities related to race/ethnicity and educational attainment that exist throughout healthcare systems are amplified with respect to abortion access, and restrictive policies at the state and federal level have disproportionately negative impacts on minority communities, people living on low incomes, and people living in rural areas, among other marginalized demographic subgroups. In 11, 16

Conversely, people with higher educational attainment are more likely to have higher rates of health literacy and better access to healthcare. Our study supports this observation, demonstrating higher - but far from universal - knowledge of medication abortion and avenues for self-sourcing pills. Still, as long as abortion remains siloed and segregated from other aspects of healthcare, knowledge gaps and misinformation will likely persist – as also illustrated by our findings demonstrating greater familiarity with medication abortion and information regarding online access among those who have previously obtained abortion.

While our survey findings reinforce the need for education that highlights the safety and online accessibility of medication abortion, this cannot be done without acknowledging the complicated legal landscape around abortion in Texas. It is not illegal for a pregnant Texan to have an abortion – whether it is obtained out of state, through telehealth, or self-managed. However, people who have done so have faced criminal allegations, and law enforcement activities around abortion severely and disproportionately affect people suffering under structural inequities, systemic racism, and economic injustice. ¹⁸ In this environment both education and legal protection and support are paramount as is continued opposition to abortion policies that restrict access to safe, evidence-based care.

Methods

We conducted two statewide representative surveys of Texas residents who were part of the Ipsos KnowledgePanel, between ages 18 and 49, and assigned female at birth. We conducted the first survey in February and March 2019, which included 787 respondents. Between May and June 2023, we conducted the second survey, with 768 respondents. The online surveys, available in both in English or Spanish, assessed respondents' knowledge and attitudes towards medication abortion, among other topics. We computed weighted percentages and compared differences between groups and survey years using chi-squared tests; we report significant differences for p-values <0.05. Respondents' demographic characteristics are included in the Table.

Table. Survey respondents' demographic characteristics

	2019	2023
	%	%
Age, years		
18 to 29	35	35
30 to 34	13	14
35 to 39	20	20
40 to 44	16	15
45 to 49	16	16
Has children		
No children	34	39
One child or more	67	62
Educational attainment		
Less than high school	13	11
High school diploma	24	23
Some college	33	30
Bachelor's degree or higher	31	35

	2019	2023	
	%	%	
Race/ethnicity			
Hispanic	43	44	
Non-Hispanic White	38	35	
Non-Hispanic Black	11	13	
Non-Hispanic Asian or Indigenous	5	6	
Non-Hispanic, 2 or more races	3	3	
Previous abortion			
Yes	10	11	
No	90	89	
Political ideology			
Conservative	21	16	
Slightly conservative	12	10	
Moderate	40	42	
Slightly liberal	9	10	
Liberal	18	22	

References

- 1. Grossman D, Grindlay K. Safety of Medical Abortion Provided Through Telemedicine Compared With In Person. Obstet Gynecol. 2017 Oct;130(4):778-82.
- 2. Upadhyay UD, Koenig LR, Meckstroth K, Ko J, Valladares ES, Biggs MA. Effectiveness and safety of telehealth medication abortion in the USA. Nature Medicine. 2024 2024/04/01;30(4):1191-8.
- 3. #WeCount Report: April 2022 to March 2024: Society of Family Planning; 2024 August 7, 2024 [cited August 15, 2024]; Available from https://societyfp.org/wp-content/uploads/2024/07/WeCount-Report-7-Mar-2024-data.pdf.
- 4. Jones RK, Friedrich-Karnik A. Medication Abortion Accounted for 63% of All US Abortions in 2023—An Increase from 53% in 2020. Guttmacher: 2024.
- 5. Aiken ARA, Starling JE, Scott JG, Gomperts R. Requests for Self-managed Medication Abortion Provided Using Online Telemedicine in 30 US States Before and After the Dobbs v Jackson Women's Health Organization Decision. JAMA. 2022;328(17):1768-70.
- 6. Shimels T, Getnet M, Shafie M, Belay L. Comparison of mifepristone plus misoprostol with misoprostol alone for first trimester medical abortion: A systematic review and meta-analysis. Front Glob Womens Health. 2023;4:1112392.
- 7. McCann A, Walker AS. Tracking Abortion Bans Across the Country. 2024 July 1 [cited; Available from: https://www.nytimes.com/interactive/2024/us/abortion-laws-roe-v-wade.html?auth=login-google1tap&login=google1tap
- 8. Cohen DS, Donley G, Rebouché R. Abortion Shield Laws. NEJM Evidence. 2023;2(4):EVIDra2200280.
- 9. Salganicoff A, Sobel L. Looking to the Future: Implications of the SCOTUS Ruling on Mifepristone. June 13, 2024 [cited July 7, 2024]; Available from: https://www.kff.org/policy-watch/looking-to-the-future-implications-of-the-scotus-ruling-on-mifepristone/
- 10. Aiken ARA, Romanova EP, Morber JR, Gomperts R. Safety and effectiveness of self-managed medication abortion provided using online telemedicine in the United States: A population based study. Lancet Reg Health Am. 2022 Jun; 10.
- 11. Fuentes L. Inequity in US Abortion Rights and Access: The End of Roe Is Deepening Existing Divides. POLICY ANALYSIS: Guttmacher; 2023.
- 12. Blaeser J. How abortion coverage changed in the media, according to the data. Politico; 2024.
- 13. Wu J, Greene M, Happ M, Trahair E, Montoya M, Swartz JJ. Medication abortion on TikTok: misinformation or reliable resource? Am J Obstet Gynecol. 2023 Jun;228(6):749-51.
- 14. Aiken ARA, Starling JE, van Blitterswijk DC, Looijen C, van Vliet T, Essink DR, et al. Advance Provision of Mifepristone and Misoprostol via Online Telemedicine in the US. JAMA Internal Medicine. 2024;184(2):220-3.
- 15. Koenig LR, Ko J, Valladares ES, Coeytaux FM, Wells E, Lyles CR, et al. Patient Acceptability of Telehealth Medication Abortion Care in the United States, 2021–2022: A Cohort Study. American Journal of Public Health. 2024;114(2):241-50.
- 16. Thompson TA, Northcraft D, Carrión F. Addressing Structural Inequities, a Necessary Step Toward Ensuring Equitable Access to Telehealth for Medication Abortion Care During and Post COVID-19. Front Glob Womens Health. 2022;3:805767.
- 17. Zajacova A, Lawrence EM. The Relationship Between Education and Health: Reducing Disparities Through a Contextual Approach. Annu Rev Public Health. 2018 Apr 1;39:273-89.
- 18. Huss L. Self-Managed Abortion Is Not Illegal in Most of the Country, but Criminalization Happens Anyway. 2022 [cited 2024 July 6]; Available from: https://ifwhenhow.org/news/self-managed-abortion-is-not-illegal-in-most-of-the-country-but-criminalization-happens-anyway/

This work was funded by the Jacob and Terese Hershey Foundation and a private non-profit foundation. Funders had no role in the study design; the collection, analysis, or interpretation of the data; the writing of the report; or the decision to publish these data.