

Letters

RESEARCH LETTER

Provision of Abortion Medications Using Online Asynchronous Telemedicine Under Shield Laws in the US

Despite the wave of state-level abortion bans following the overturn of *Roe v Wade*, recent data suggest that abortion rates have remained steady or even increased.¹ One plausible contributor is the rise of online asynchronous telemedicine abortion services—particularly those operating under shield laws, which allow US-licensed clinicians to provide abortion medications to patients in ban states with protection from legal liability.² To better understand usage of this care model, we analyzed 15 months of data from Aid Access, a nonprofit asynchronous telemedicine service that provides abortion medications to patients in all 50 states and the District of Columbia. Aid Access leverages shield laws to mail abortion medications to residents in 24 states with near-total or telemedicine bans, operating without the need for such protections in states where telemedicine abortion is legally accessible.³



Editorial

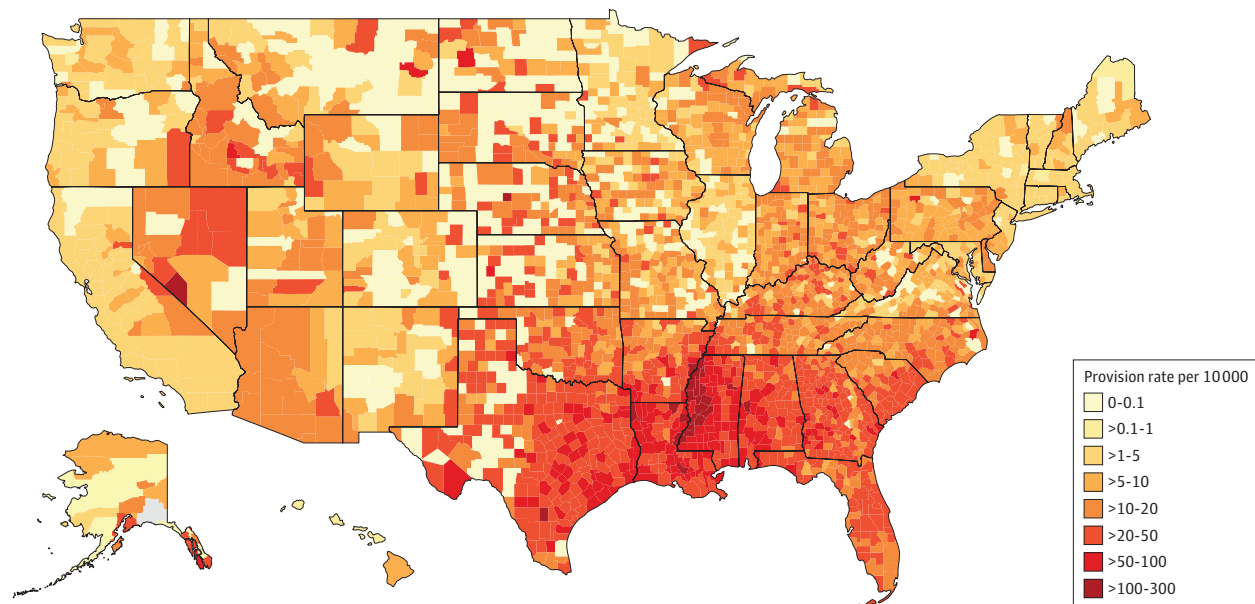


Supplemental content

Methods | During the study period, Aid Access was the only organization serving all states and offering a sliding-scale fee for patients experiencing financial hardship. Patients completed an online consultation reviewed by a US-licensed clinician, and if eligible, were provided with mifepristone and misoprostol, along with instructions and remote support.

We investigated how state abortion policy, travel distance, and poverty were associated with county-level provisions. State policies were classified as protective, telemedicine ban, or near-total ban (eAppendix in Supplement 1). Travel distance was measured from the population centroid of each county to the nearest abortion clinic⁴; poverty was measured as the percentage of residents living below the federal poverty line.⁵ We calculated per capita provision rates and unadjusted rate ratios for each of these structural factors. To estimate adjusted rate ratios, we fit a bayesian negative-binomial regression model with fixed effects for policy, travel distance, poverty, and broadband access; state-level random effects; and a population offset. To avoid overadjustment and interpretive ambiguity, we did not include additional aggregate demographic variables. We used R version 4.3.1. All data were fully deidentified. (Patients provided consent for the anonymized use of their data for research purposes at the time of

Figure. Geographic Variation in Aid Access Provision Rates of Abortion Medication via Telemedicine, July 1, 2023–September 30, 2024



County-level telemedicine abortion provision rates—defined as the number of medication abortion pill packs provided during the study period via online asynchronous telemedicine per 10 000 female residents aged 15 to 44 years—exhibit high geographic variability. The map shows provision rates across

counties in the United States and the District of Columbia during the 15-month study period; darker shades indicate higher rates, with the highest concentrations in the South and Midwest, particularly in states with near-total bans.

Table. County-Level Provision Rates and Unadjusted and Adjusted Rate Ratios for Telemedicine Abortion Provision^a

Variables	Provision rate per 10 000	Rate ratio	
		Unadjusted	Adjusted (95% posterior CrI)
State-level abortion policy			
Protective	5.7	1 [Reference]	1 [Reference]
Telemedicine ban	20.5	3.63	2.33 (1.57-3.38)
Near-total ban	41.3	7.31	3.12 (2.16-4.47)
Travel distance to nearest clinic, miles			
<50	10.1	1 [Reference]	1 [Reference]
50-99	15.9	1.58	1.03 (0.97-1.09)
100-250	25.6	2.53	1.18 (1.10-1.27)
>250	57.7	5.71	1.56 (1.36-1.79)
County residents living in poverty, %			
<5	5.3	1 [Reference]	1 [Reference]
5-9	10.4	1.95	1.47 (1.19-1.81)
10-20	20.3	3.8	1.63 (1.31-2.01)
>20	30.8	5.77	1.94 (1.55-2.42)
County households with ≥10 Mb/s broadband, %			
<60	19.4	1 [Reference]	1 [Reference]
≥60	17.8	0.92	1.19 (1.14-1.26)

Abbreviation: CrI, credible interval.

^a Provision rates per 10 000 female residents aged 15 to 44 years, unadjusted rate ratios, and adjusted rate ratios were estimated from a negative binomial regression model of county-level telemedicine abortion provision, based on 118 338 abortions provided between July 1, 2023, and September 30, 2024, across 2649 US counties. The regression model includes state abortion policy, travel distance to the nearest clinic, county poverty level, broadband access, and state-level random effects, adjusting for county population via a log offset. Unadjusted rate ratios compare provision rates across categories without adjustment; adjusted rate ratios reflect associations after controlling for the other predictors in the regression model.

making a request to Aid Access.) The University of Texas at Austin Institutional Review Board approved the study.

Results | Between July 1, 2023, and September 30, 2024, Aid Access provided 118 338 medication abortion pill packs to residents of 2649 US counties, of which 99 293 (84%) were in states with near-total or telemedicine bans (**Figure**). Unadjusted provision rates were higher in counties with more restrictive state policies, longer travel distances, greater poverty, and lower broadband access (**Table**). However, these structural factors were strongly correlated at the county level. The adjusted rate ratios in the Table reflect the association of each factor with provision rates, holding the other factors constant. After adjustment, provision rates were 3.12 times higher in near-total-ban states (95% posterior credible interval [CrI], 2.16-4.47), and 2.33 times higher in telemedicine-ban states (95% posterior CrI, 1.57-3.38) relative to protective states. Compared with counties within 50 miles of a clinic, provision rates were higher for counties 100 miles to 250 miles (rate ratio, 1.18; 95% posterior CrI, 1.10-1.27) and more than 250 miles (rate ratio, 1.56; 95% posterior CrI, 1.36-1.79) from a clinic. Provision rates also rose with poverty. Compared with counties with less than 5% poverty, counties with 5% to 9% poverty had 1.47 times higher provision rates (95% posterior CrI, 1.19-1.81); those with 10% to 20% poverty, 1.63 times higher provision rates (95% posterior CrI, 1.31-2.01); and those with higher than 20% poverty, 1.94 times higher provision rates (95% posterior CrI, 1.55-2.42). Counties with 60% or higher broadband access had 19% higher provision rates (rate ratio, 1.19; 95% posterior CrI, 1.14-1.26).

Discussion | Asynchronous online telemedicine abortion is widely used in the US. Provision under shield laws is strongly associated with structural barriers to in-clinic care—but even

in states where abortion is protected and shield law protections are not required, telemedicine usage remains associated with distance and cost barriers. These findings underscore the public health importance of telemedicine, both as an alternative to the unsafe abortion methods that prevailed under abortion bans before *Roe v Wade*⁶ and as a means of reducing access disparities.

Our analysis is limited by reliance on county-level rather than individual-level associations and by data that measure provision of abortion medications rather than completed abortions. Moreover, it does not capture the full scope of telemedicine in states without bans, where other abortion providers also operated during the study period.

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