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Demand for Self-Managed Online Telemedicine Abortion in the United States During Coronavirus Disease 2019 (COVID-19)

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Precis:

Increased demand for self-managed medication abortion in states with in-clinic restrictions or high infection rates during coronavirus disease 2019 (COVID-19) demonstrates the need for remote abortion care models.

Introduction

For many in the US, abortion care is already difficult to access.[1] But coronavirus disease 2019 (COVID-19) has created yet more potential barriers—including infection risk at clinics and state policies limiting in-clinic services. The severity of these state policies varied, but in the most extreme case, Texas effectively suspended all abortions for approximately 4 weeks.[2] As a result, people may increasingly be seeking self-managed abortion outside the formal healthcare system.

Using data from Aid Access, the sole online abortion telemedicine service in the US, we assessed whether demand for self-managed medication abortion increased as in-clinic access became more challenging.

Methods

Aid Access provides medication abortion up to 10 weeks of gestation for those who make a request using an online consultation form.[3] We analyzed fully de-identified data provided by

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the service on all 49,935 requests received between January 1st, 2019, and April 11th, 2020, when the service temporarily paused.

We used regression discontinuity to compare requests from each state, before and after a state implemented a business-closure order to slow viral transmission.[4] We also compiled information on the scope and implementation date of any state-level COVID-19-related abortion restrictions.[2] We assessed the significance of each state's discontinuity using a likelihood-ratio test versus a null model without a discontinuity, and we calculated the percentage difference between actual requests and expected requests under the null model in the "after" period. For each state, we examined the prevalence of COVID-19 on the day of the business closure order.[5] We also examined median daily time spent at home by residents in each state using data from aggregated, anonymized mobile device GPS traces provided by SafeGraph.[6] See Appendixes 1-6, for details of all analyses. The University of Texas at Austin Institutional Review Board approved the study.

Results

From March 20th 2020 to April 11th 2020 (the average "after" period across all states) there was a 27% increase in the rate of requests across the US ($p<0.001$) (Table 1).

Eleven states showed individually significant increases in requests, ranging from to 22% in Ohio ($p=0.012$) to 94% in Texas ($p<0.001$) (Table 1). Median time spent at home was 5% higher for these states, versus those without significant changes in requests ($p=0.037$) (Appendix 6). States with significant increases in requests either had particularly high COVID-19 rates or more severe COVID-19-related restrictions on in-clinic abortion access (Appendix 5).

Discussion

Our results may reflect two distinct phenomena. First, more people may be seeking abortion through all channels, whether due to COVID-19 risks during pregnancy, reduced access to pre-natal care, or the pandemic-related economic downturn.[7,8] Second, there may be shift in demand from in-clinic to self-managed abortion during the pandemic, possibly due to fear of infection during in-person care or inability to get to a clinic due to childcare and transit disruptions. In support of these possibilities, we observed higher levels of stay-at-home behavior in states with significant increases in requests.

Among states that limited access to in-clinic abortion during the pandemic, we observed larger increases in requests in states with the most severe and longest-lasting restrictions. Texas, the state with the most restrictive measures, showed the largest increase in requests despite a relatively low burden of COVID-19.

In terms of limitations, we could not measure all pathways to self-managed abortion in the US, and we may have lacked power to detect changes in some states with low requests numbers or where abortion restrictions were implemented towards the end of the study.

The WHO recommends telemedicine and self-management abortion-care models during the pandemic, and the United Kingdom has temporarily implemented mail provision of abortion medications.[9,10] In the US, such services would depend on changes to the FDA Risk Evaluation and Mitigation Strategy (REMS) that requires patients to collect mifepristone at a hospital or medical facility.[11] Our findings suggest that telemedicine models for medication abortion should be a policy priority; when in-clinic abortion services are not accessible, people may seek alternative ways of accessing time-sensitive care.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1:

Actual versus expected numbers of requests in the “after” period for the US overall and for each state included in the study

Change in Aid Access requests	State	Actual Requests	Expected Requests	Percent Change Over Baseline Trend	95% CI
	All states	3343	2638.2	26.7	(22.7, 32.2)
Significant increase	TX	787	406.4	93.6	(76.5, 113.3)
	MA	37	22.4	64.9	(15.6, 164.3)
	NY	157	97.9	60.4	(33.1, 98.7)
	LA	135	85.3	58.3	(28.6, 101.5)
	WA	52	38.5	34.9	(2.0, 92.6)
	CA	219	169.2	29.4	(11.7, 51.0)
	NJ	77	59.6	29.1	(2.7, 71.1)
	IL	75	58.7	27.7	(1.4, 70.5)
	OK	39	31.0	25.7	(7.1, 85.7)
	TN	83	66.7	24.4	(1.0, 62.7)
	OH	173	142.0	21.8	(4.2, 45.4)
Significant decrease	KY	39	55.9	−30.2	(−45.1, −7.1)
Changes of at least 20%, but not significant	KS	22	16.7	32.0	(−12.0, 144.4)
	NM	15	11.4	31.3	(−21.1, 120.0)
	OR	20	16.7	20.1	(−20.0, 122.2)
	UT	8	11.3	−28.9	(−23.1, 100.0)
Changes of less than 20% and not significant	MN	20	17.6	13.8	(−14.0, 53.1)
	MD	49	43.9	11.6	(−6.8, 36.3)
	VA	124	111.7	11.0	(−18.4, 60.0)
	AZ	40	36.1	10.9	(−13.0, 42.6)
	SC	67	61.4	9.0	(−20.5, 59.1)
	MS	35	32.6	7.4	(−18.9, 53.6)
	CO	43	40.1	7.1	(−12.3, 34.8)
	GA	93	87.2	6.7	(−28.6, 81.8)
	WV	20	19.2	4.2	(−26.3, 64.7)
	IA	28	27.1	3.3	(−15.2, 29.2)
	IN	84	81.5	3.1	(−9.2, 18.3)
	FL	226	219.5	3	(−34.6, 70.0)
	MO	17	17.0	0	(−18.3, 21.2)
	PA	103	105.4	−2.3	(−40.0, 10.0)
	CT	12	12.5	−3.7	(−21.1, 15.5)
	NC	97	102.8	−5.6	(−32.6, 34.8)
	NV	31	33.5	−7.4	(−26.7, 16.7)
	MI	63	69.0	−8.7	(−31.5, 27.6)
	WI	37	41.4	−10.7	(−33.3, 25.9)
	AR	34	38.3	−11.1	(−33.7, 10.0)

Change in Aid Access requests	State	Actual Requests	Expected Requests	Percent Change Over Baseline Trend	95% CI
	AL	55	65.8	−16.4	(−55.6, 60.0)

Actual requests are cumulative counts for the period from initial business closure order to April 11th, 2020. Expected requests were obtained as forecasts from the null model for each state, which assumes no discontinuities. Percent increases are percentages, calculated as 100*(Actual-Expected)/Expected. P-values are obtained from a likelihood ratio test of the regression-discontinuity model versus the null model of no discontinuity. Low p-values indicate evidence for the presence of a discontinuity (i.e. that the percent increase over baseline is statistically significant). Thirteen states plus DC are omitted due to fewer than 10 expected post-restriction requests: AK, DE, HI, ID, ME, MT, ND, NE, NH, RI, SD, VT, WY.