Letters

RESEARCH LETTER

Changes in Abortion in Texas Following an Executive Order Ban During the Coronavirus Pandemic

In response to the coronavirus disease 2019 pandemic, Texas Governor Greg Abbott issued an executive order on

+ Supplemental content

March 22, 2020, postponing surgeries and procedures that were not medically necessary.¹ Texas officials

interpreted this to prohibit most abortions until the order expired on April 21, 2020, contrary to medical associations' recommendations.²

The objective of this analysis was to assess changes in abortions following the executive order. We also hypothesized that abortions performed at 12 weeks' gestational age (GA) or more would increase after the order expired.³

Methods | The University of Texas at Austin and University of California, San Francisco institutional review boards approved this study and waived informed consent. Since January 2017, monthly data were requested from Texas abortion facilities on the number of medication abortions, procedural abortions at less than 12 weeks' GA, and procedural abortions at 12 weeks' GA or more. Of 24 Texas facilities, 18 reported data for 2019 and 2020, including 4 that opened in 2019. These facilities provide 93% of abortions in Texas, according to comparisons with state vital statistics data.⁴

Monthly data were also collected on the number of Texas residents obtaining abortions at 30 of the 37 open facilities in Arkansas, Colorado, Kansas, Louisiana, Oklahoma, and New Mexico from February 2020 through May 2020 and compared with 2017 data collected previously from these states (Supplement).

Negative binomial regression models were used to estimate the percent change in the number of in-state abortions that occurred in February, March, April (the month most affected by the order), and May 2020 for all abortions, medication abortions, procedures at less than 12 weeks' GA, and procedures at 12 weeks' GA or more relative to the same month in 2019, and all out-of-state abortions among Texas residents relative to 2017, separately. A second set of negative binomial models were used to estimate whether monthly in-state abortions occurring in February, March, April, and May 2020 differed from the overall linear trend in Texas since January 2019, after adjustment for the number of abortion facilities and abortion seasonality. Stata version 15 (StataCorp) was used for analyses. A 95% CI not including the null defined statistical significance.

Results | Texas facilities provided 18 268 abortions from February through May 2019 and 16 349 abortions during these months in 2020 (**Table 1**). Overall, 4608 abortions were provided in April 2019 and 2856 in April 2020, a 38.0% (95% CI, -40.8% to -35.1%) decrease.

Texas residents receiving care at out-of-state facilities increased from 157 in February 2020 to 947 in April 2020; monthly totals ranged from 107 to 165 in 2017.

The number of medication abortions increased from 1808 in April 2019 to 2297 in April 2020, accounting for 39% and 80% of all abortions, respectively (**Table 2**). After adjustment for time trends and number of facilities, there was a 17.4% (95% CI, –7.1% to 48.4%) difference in the number of medication abortions in April 2020 relative to that expected had the linear trend from January 2019 continued. Compared with April 2019, there were fewer procedural abortions at less than 12 weeks' GA (2318 vs 317) and at 12 weeks' GA or more (482 vs 242) in April 2020. After the executive order was lifted in May 2020, 815 procedural abortions at 12 weeks' GA or more were provided vs 507 in May 2019, an 82.6% (95% CI, 46.7%-127.4%) increase over that expected based on linear trends.

Table 1. Number of Abortions Provided in Texas and to Texas Residents at Out-of-State Facilities and Percent Change in Abortions, February-May 2019 and February-May 2020^a

	Abortions	Abortions							
	Total No., 2020	Provided in Texas			Provided out of state ^b				
		No.		- Month-specific change,	No.		- Month-specific change,		
		2019	2020	2019-2020, % (95% CI) ^c	2017	2020	2017-2020, % (95% CI) ^c		
ebruary-May	17 923	18 268	16 349		532	1574			
February	4808	4287	4651	8.5 (4.1 to 13.1)	139	157	12.9 (-10.1 to 41.9)		
March	4262	4922	3995	-18.8 (-22.2 to -15.4)	165	267	61.8 (33.3 to 96.5)		
April	3803	4608	2856	-38.0 (-40.8 to -35.1)	107	947	785.0 (624.7 to 980.9)		
May	5050	4451	4847	8.9 (4.6 to 13.4)	121	203	67.8 (34.0 to 110.1)		

^a Data from 2017 for Texas residents obtaining abortions out of state were used to compare changes in 2020 because data from 2019 were not available.

^c Percent change in February, March, April, and May 2020 vs 2019 (or 2017 for out-of-state abortions) estimated from negative binomial regression models.

^b Abortions provided to Texas residents at facilities in Arkansas, Colorado, Kansas, Louisiana, Oklahoma, and New Mexico.

jama.com

	No. (%) ^a		% (95% CI)		
	2019	2020	Month-specific change, 2019-2020 ^b	Deviation from trend since January 2019 ^c	
Medication aborti	on (≤10.0 wk GA)				
February-May	7097 (38.8)	8754 (53.5)			
February	1620 (37.8)	1928 (41.5)	19.0 (11.4 to 27.1)	-9.1 (-23.9 to 8.4)	
March	1905 (38.7)	1980 (49.6)	3.9 (-2.4 to 10.7)	-7.5 (-23.6 to 12.0)	
April	1808 (39.2)	2297 (80.4)	27.0 (19.5 to 35.1)	17.4 (-7.1 to 48.4)	
May	1764 (39.6)	2549 (52.6)	44.5 (36.0 to 53.5)	29.2 (0.0 to 67.0)	
Procedural abortion	on (<12.0 wk GA)				
February-May	8943 (49.0)	5395 (33.0)			
February	2123 (49.5)	2113 (45.4)	-0.5 (-6.3 to 5.7)	-4.8 (-16.3 to 8.4)	
March	2322 (47.2)	1482 (37.1)	-36.2 (-40.2 to -31.9)	-32.9 (-41.8 to -22.6	
April	2318 (50.3)	317 (11.1)	-86.3 (-87.8 to -84.6)	-84.9 (-87.6 to -81.6	
May	2180 (49.0)	1483 (30.6)	-32.0 (-36.3 to -27.3)	-28.9 (-41.2 to -14.1	
Procedural abortion	on (≥12.0 wk GA)				
February-May	2228 (12.2)	2200 (13.5)			
February	544 (12.7)	610 (13.1)	12.1 (-0.1 to 25.9)	-4.2 (-17.6 to 11.5)	
March	695 (14.1)	533 (13.3)	-23.3 (-31.5 to -14.1)	-14.7 (-27.8 to 0.8)	
April	482 (10.5)	242 (8.5)	-49.8 (-57.0 to -41.4)	-46.7 (-57.5 to -33.3	
May	507 (11.4)	815 (16.8)	60.7 (43.9 to 79.6)	82.6 (46.7 to 127.4)	

Table 2. Distribution of Abortion Type and Percent Change in Number of Abortions in Texas, February-May 2019 and February-May 2020

Abbreviation: GA, gestational age.

- ^a Percent of all abortions in month and year.
- ^b Percent change in February, March, April, and May 2020 vs 2019 estimated from negative binomial regression models.

^c Deviation from trend estimated from negative binomial regression models projecting the linear trend in abortion type from January 2019 through May 2020. Models also controlled for number of facilities and abortion seasonality.

Discussion | These data show that abortions declined in Texas during the executive order. Stay-at-home orders, facilities' coronavirus precautions, and patients' reluctance to seek inperson care may also have contributed to the decline. Other Texas patients traveled out of state or requested medications online.⁵ Abortions at 12 weeks' GA or more increased after the order expired, which likely reflects delays in care among those who waited for an appointment and facilities' limited capacity to meet backlogged patient need. Although abortions later in pregnancy are very safe, they are associated with a higher risk of complications and may require additional visits compared with those provided earlier in pregnancy.⁶

Study limitations include lack of data from some Texas and out-of-state facilities, which may affect these estimates. Monthly facility data do not allow assessment of changes associated with the exact timing of the order.

Kari White, PhD, MPH Bhavik Kumar, MD, MPH Vinita Goyal, MD, MPH Robin Wallace, MD, MAS Sarah C. M. Roberts, DrPH Daniel Grossman, MD

Author Affiliations: Steve Hicks School of Social Work, University of Texas at Austin (White); Planned Parenthood Gulf Coast, Houston, Texas (Kumar); Population Research Center, University of Texas at Austin (Goyal); Southwestern Women's Surgery Center, Dallas, Texas (Wallace); Advancing New Standards in Reproductive Health, University of California, San Francisco (Roberts, Grossman).

Accepted for Publication: November 17, 2020.

Published Online: January 4, 2021. doi:10.1001/jama.2020.24096

Corresponding Author: Kari White, PhD, MPH, 1925 San Jacinto Blvd, Stop D3500, Austin, TX 78712 (kariwhite@utexas.edu).

Author Contributions: Dr White had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: White, Kumar, Goyal, Roberts, Grossman. Acquisition, analysis, or interpretation of data: All authors. Drafting of the manuscript: White, Kumar. Critical revision of the manuscript for important intellectual content: Kumar,

Goyal, Wallace, Roberts, Grossman.

Statistical analysis: White.

Obtained funding: White, Roberts, Grossman.

Administrative, technical, or material support: Goyal, Grossman. Supervision: Kumar.

Conflict of Interest Disclosures: Dr Wallace was a named plaintiff in the case *Planned Parenthood Center for Choice v Abbott*. No other disclosures were reported.

Funding/Support: This research was supported by a grant from the Susan Thompson Buffett Foundation and grant P2CHD042849 awarded to the Population Research Center at the University of Texas at Austin from the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

Role of the Funder/Sponsor: The funders had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Disclaimer: The findings and conclusions in this article are those of the authors and do not necessarily reflect the views of the Planned Parenthood Federation of America.

Additional Contributions: We thank Lina Palomares, LMSW, Gracia Sierra, PhD, and Elsa Vizcarra, BS, all at the University of Texas at Austin, for assistance with data acquisition and management, for which they received no additional compensation for their role in this study. We also thank the facilities that provided data on abortion patients.

Additional Information: Advancing New Standards in Reproductive Health (ANSIRH), University of California, San Francisco, provided information about abortion facilities in other states.

1. Ken Paxton, Attorney General of Texas. Health care professionals and facilities, including abortion providers, must immediately stop all medically unnecessary surgeries and procedures to preserve resources to fight COVID-19 pandemic [press release]. Published March 23, 2020. Accessed October 21, 2020. https://www.texasattorneygeneral.gov/news/releases/health-care-

$\label{eq:professionals-and-facilities-including-abortion-providers-must-immediately-stop-all$

2. American College of Obstetricians and Gynecologists. Joint statement on abortion access during the COVID-19 outbreak [press release]. Published March 18, 2020. Accessed October 21, 2020. https://www.acog.org/news/news-releases/2020/03/joint-statement-on-abortion-access-during-the-covid-19-outbreak

3. White K, Sierra G, Vizcarra E, et al. *The Potential Impact of Texas' Executive Order on Patients' Access to Abortion Care*. Texas Policy Evaluation Project; 2020. Accessed June 14, 2020. http://sites.utexas.edu/txpep/files/2020/04/ TxPEP-research-brief-executive-order-abortion-delay-4-8-20.pdf

4. Baum SE, White K, Hopkins K, Potter JE, Grossman D. Rebound of medication abortion in Texas following updated mifepristone label. *Contraception*. 2019;99(5):278-280. doi:10.1016/j.contraception.2019.01.001

5. Aiken ARA, Starling JE, Gomperts R, Tec M, Scott JG, Aiken CE. Demand for self-managed online telemedicine abortion in the United States during the coronavirus disease 2019 (COVID-19) pandemic. *Obstet Gynecol.* 2020;136(4): 835-837. doi:10.1097/AOG.000000000004081

6. Upadhyay UD, Desai S, Zlidar V, et al. Incidence of emergency department visits and complications after abortion. *Obstet Gynecol*. 2015;125(1):175-183. doi: 10.1097/AOG.0000000000000003

COMMENT & RESPONSE

Wound Dressings for Obese Women After Cesarean Delivery

To the Editor In their recent article, Dr Tuuli and colleagues¹ found no difference in the rates of superficial or deep surgical site infection between obese women randomized to prophylactic negative pressure wound therapy vs standard wound dressing after cesarean delivery. We have some concerns, however, about how the standard wound dressings were managed in this study. Negative pressure dressings are designed to be kept intact for a relatively long period on closed incisions, while typical surgical dressings are changed more frequently. In this study, the dressings in the control group were removed after 24 hours. However, the authors did not provide any data about whether these wounds were redressed, frequency of dressing changes, or whether there was any change in the type of dressing after the initial postoperative dressing was removed. Variations in these factors are potential confounders that make it difficult to draw conclusions about the comparative efficacy of negative pressure wound therapy in obese women after cesarean delivery.

Uyen G. Vo, MBBS Toby Richards, MD

Author Affiliations: Division of Surgery, Fiona Stanley Hospital, Murdoch, Australia (Vo); Division of Surgery, University of Western Australia, Crawley, Australia (Richards).

Corresponding Author: Uyen G. Vo, MBBS, Division of Surgery (M581), Harry Perkins Institute of Medical Research, Fiona Stanley Campus, 5 Robin Warren Dr, Murdoch, WA 6150, Australia (vo.uyengiao@gmail.com).

Conflict of Interest Disclosures: Dr Richards reported receipt of nonfinancial support from Acelity Research. No other disclosures were reported.

1. Tuuli MG, Liu J, Tita ATN, et al. Effect of prophylactic negative pressure wound therapy vs standard wound dressing on surgical-site infection in obese women after cesarean delivery: a randomized clinical trial. *JAMA*. 2020;324(12): 1180-1189. doi:10.1001/jama.2020.13361

In Reply Drs Vo and Richards express concerns about the difference in duration of the prophylactic negative pressure wound therapy device vs standard wound dressing in our recent study involving obese women after cesarean delivery.¹As a pragmatic trial, our study compared effects of typical use of prophylactic negative pressure wound therapy and standard wound dressing.² The average duration of use of prophylactic negative pressure wound therapy was 4 days, which is within the 2 to 7 days recommended by the manufacturer. Similarly, consistent with practice in most clinical settings in the US, the duration of standard wound dressing was 24 to 48 hours, and new dressings were not placed after the initial dressing was removed, unless there was a complication such as wound dehiscence. Therefore, the differences in duration of prophylactic negative pressure wound therapy and standard wound dressing in the trial were by design and do not represent confounding.

Methodius G. Tuuli, MD, MPH Lorie Harper, MD, MSCI

Author Affiliations: Department of Obstetrics and Gynecology, Indiana University School of Medicine, Indianapolis (Tuuli); Department of Obstetrics and Gynecology, University of Alabama at Birmingham (Harper).

Corresponding Author: Methodius G. Tuuli, MD, MPH, Department of Obstetrics and Gynecology, Indiana University School of Medicine, 550 N University Blvd, UH 2440, Indianapolis, IN 46202 (mtuuli@iu.edu).

Conflict of Interest Disclosures: Dr Tuuli reported receiving grants from the National Institutes of Health and Acelity. Dr Harper reported receiving grants from the Eunice Kennedy Shriver National Institute of Child Health and Human Development and nonfinancial support from Acelity.

1. Tuuli MG, Liu J, Tita ATN, et al. Effect of prophylactic negative pressure wound therapy vs standard wound dressing on surgical-site infection in obese women after cesarean delivery: a randomized clinical trial. *JAMA*. 2020;324(12): 1180-1189. doi:10.1001/jama.2020.13361

2. Ford I, Norrie J. Pragmatic trials. N Engl J Med. 2016;375(5):454-463. doi:10. 1056/NEJMra1510059

The Advantages of Medicare Advantage

To the Editor In a recent *JAMA* Forum,¹ Dr Butler considered the political appeal of Medicare Advantage expansion, including growing enrollment, promotion of managed care, and lower federal spending. However, this appeal misses the purpose of health care reform, succinctly summarized by William Kissick, MD, as the simultaneous achievement of increased access, decreased costs, and improved outcomes.² A simpler description is better care to more people for less money.

Current evidence indicates that compared with traditional Medicare plans, the Medicare Advantage plans spend more money on administration,³ provide less access to health care,⁴ and increase premium costs despite having healthier patients. No data exist that Medical Advantage plans improve outcomes.

Achievement of any 2 of Kissick's goals of increased access, decreased costs, and improved outcomes becomes possible by sacrificing the third. Achieving all 3 simultaneously is exceptionally difficult. However, all other high-income countries use nationwide universal health care plans and provide better care to more people for less money than the US.⁵

Butler correctly stated that Medicare Advantage expansion avoids the disruption produced by universal health care

jama.com