EXHIBIT 4

IN THE IOWA DISTRICT COURT FOR JOHNSON COUNTY

PLANNED PARENTHOOD OF THE HEARTLAND, INC., and DR. JILL MEADOWS. M.D., Petitioners, v. KIM REYNOLDS ex rel. STATE OF IOWA and IOWA BOARD OF MEDICINE, Respondents.	Case No. AFFIDAVIT OF DANIEL GROSSMAN, M.D.

1. I am a Professor in the Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco (UCSF) and an obstetrician-gynecologist with over twenty-five years of clinical experience. I currently provide clinical services, including abortion services, at San Francisco General Hospital. I am also a Fellow of the American College of Obstetricians and Gynecologists (ACOG), where I previously served as Vice Chair of the Committee on Practice Bulletins for Gynecology and as Chair of the ACOG Committee on Health Care for Underserved Women. I am currently a member of ACOG's Telehealth Working Group and ACOG's Abortion Access and Training Expert Work Group. I am also a Fellow of the Society of Family Planning and a member of the American Public Health Association (APHA). Additionally, I serve as Director of Advancing New Standards in Reproductive Health (ANSIRH) at UCSF. ANSIRH conducts innovative, rigorous, multidisciplinary research on complex issues related to people's sexual and reproductive lives. I am also a Senior Advisor at Ibis Reproductive Health, a nonprofit research organization. I am a liaison member of the Planned Parenthood National Medical Committee, and between 2012 and 2015, I provided clinical services with

Planned Parenthood Northern California (formerly Planned Parenthood Shasta Pacific). My research has been supported by grants from federal agencies and private foundations. I have published over 180 articles in peer-reviewed journals, and I am a member of the editorial board of the journal Contraception.

2. I have served as a medical expert in cases challenging medically unnecessary restrictions on abortion, including in a case that was decided by the Iowa Supreme Court, *Planned Parenthood of the Heartland, Inc. v. Reynolds ex rel. State*, 915 N.W.2d 206 (Iowa 2018), which struck as unconstitutional a statute imposing a mandatory 72-hour delay and additional trip requirement on individuals seeking to have an abortion. I was qualified in that case as an expert in obstetrics and gynecology, including abortion and informed consent procedures for abortion and in the social impact of abortion acts and abortion restrictions. I also served as a medical expert in *Planned Parenthood of the Heartland, Inc. v. Iowa Board of Medicine*, 865 N.W.2d 252 (Iowa 2015), which struck as unconstitutional rules that restricted the use of telemedicine for medication abortion.

3. I earned a B.S. in Molecular Biophysics and Biochemistry from Yale University and an M.D. from Stanford University School of Medicine. I completed a residency in Obstetrics, Gynecology, and Reproductive Sciences at UCSF.

4. An updated and current version of my curriculum vitae (CV), which sets forth my experience and credentials more fully, is attached to this affidavit as Exhibit A. My CV contains a complete list of the publications that I have authored or co-authored.

5. I submit this affidavit in support of enjoining enforcement of House File 594, to be codified at Iowa Code § 146A.1(1) (2020) (the "Amendment"), under the Iowa Constitution. I

understand that the Amendment requires patients seeking an abortion to first have an ultrasound and receive certain state-mandated information, and then wait at least 24 hours before returning for the procedure. In my opinion, this requirement will not enhance women's decision-making about abortion and will impose significant obstacles on them. These obstacles, in turn, will delay women, exposing them to unnecessary health risks and other harms, and will likely prevent some women from having an abortion at all. In addition, during the COVID-19 pandemic, forcing patients to have an additional, medically unnecessary visit to a health care facility increases the risks of viral transmission to both patients and health care providers.

6. The opinions in this affidavit are based on my education, clinical training, experience as a practicing physician over the past twenty-five years, my own medical research, regular review of other medical research in my field, and attendance at professional conferences. The facts in this affidavit are based on my personal knowledge.

7. In 2017, I submitted an affidavit in support of a temporary injunction of the 72-hour mandatory delay law. I also testified to the same facts at trial. My prior affidavit is attached hereto as Exhibit B. My prior trial testimony is attached hereto as Exhibit C. I have reviewed this testimony closely and reaffirm it in full.

8. Nothing has changed since 2017 that would alter my testimony: 1) that access to abortion care is vital to the protection to public health; 2) that abortion care is safer the earlier it occurs in pregnancy, and far safer than pregnancy and childbirth; 3) that mandatory delay laws do not enhance patient decision-making; and 4) that these laws harm patients in a number of ways, e.g. increasing their medical risk, making it impossible for some patients to end their pregnancy using medications alone without a procedure, violating their autonomy, causing severe stress,

forcing some to travel farther for care, endangering victims of reproductive coercion and other forms of intimate partner violence, and causing particular psychological harm to victims of sexual assault and patients who need an abortion for medical indications.

9. These same facts also underlie my opinion here that, like a 72-hour mandatory delay law, the Amendment will impose significant obstacles on patients that in turn will delay patients, exposing them to unnecessary health risks and other harms, and will likely prevent some women from having an abortion at all.

10. As I previously testified, state-mandated delays do not enhance patient decision-making: 1) because women are fully capable of assessing how much time they need to make their decision and 2) because the standard of care, for abortion as for other medical care, is for providers to confirm that a patient is firm in her decision before proceeding with treatment. Self-evidently, a state-mandated delay of at least 24 hours is no more likely to enhance patient decision-making than a mandated delay of an even longer period, such as 72 hours. Research since I testified in 2017 has only confirmed that patients overwhelmingly report relief after the abortion and, over time, report certainty that they made the right decision.[1]

11. I understand that legislators supporting the Amendment expressed the hope that it would protect patients from being coerced into ending their pregnancy. As I testified in the 72-hour mandatory delay case, mandatory delay laws do not protect patients from coercion, and in fact *increase* the risk that they will be coerced to carry their pregnancy to term. As providers, we are trained to screen for coercion in either direction (to end or to continue a pregnancy), and this

[1] Corinne H. Rocca et al., *Emotions and Decision Rightness Over Five Years Following an Abortion: An Examination of Decision Difficulty and Abortion Stigma*, 248 Soc. Sci. & Med. 112704 (2020).

screening is central to our provision of care. It is the standard of care that, if a provider is at *all* concerned that a patient is being coerced to end her pregnancy, that provider does not proceed with the abortion.

12. We often see patients who are being pressured or coerced by partners or other family to *continue* their pregnancy. Two-trip laws like the Amendment make it harder for patients to seek care without disclosing their decision to others who may pressure or coerce them to continue their pregnancy to term.

13. As for the burdens of such laws, although a 24-hour mandatory delay law in theory imposes less automatic delay than a 72-hour mandatory delay law, in practice, it will still cause substantial delay and other harms.

14. There are two types of mandatory delay laws: 1) those, like the Amendment, that require two in-person visits to the clinic and 2) those that allow the patient to receive information remotely before undergoing the mandatory delay period.[2] The first category, generally described as "two-trip" laws, are especially burdensome, regardless of whether they require a minimum one-day or a three-day delay, because they require providers to schedule additional, medically unnecessary appointments and require abortion patients—most of whom are living in poverty and managing work and child care obligations—to find time and resources to make an additional, medically unnecessary trip to the clinic. The reality of matching a busy clinical schedule with a constrained patient schedule is that patients will be delayed past the prescribed period and some patients will be delayed on the order of weeks, regardless of the legally prescribed length of the

[2] Guttmacher Inst., *Counseling and Waiting Periods for Abortion* (updated June 1, 2020), https://www.guttmacher.org/state-policy/explore/counseling-and-waiting-periods-abortion#:~:text=In%20states%20in%20which%20the,care%20provider%20in%20order%20to.

delay. Indeed, much of the literature I cited in my testimony about the effects of the 72-hour law concerns the effects of 24-hour mandatory delays, e.g. in Texas and Mississippi.[3] Additionally, two-trip laws double the required travel for many patients, and my understanding is that in Iowa, they would require even longer travel for patients pushed past the window for medication abortion because Planned Parenthood only offers procedural abortion at two centers: in Des Moines and Iowa City. The literature reflects that additional travel distance delays, and can prevent, patients from accessing care.[4]

15. Since I testified in the 72-hour case, research and reviews have continued to be published supporting the conclusion that mandatory delay laws substantially delay patients. For example, a recent study by Jason Lindo & Mayra Pineda-Torres found that a 48-hour law enacted in Tennessee "caused a 62-percent increase in the share of abortions obtained during the second trimester" and "increased the monetary costs of obtaining an abortion by as much as $929 for some

[3] Tex. Policy Evaluation Project, *Impact of Abortion Restrictions in Texas: Research Brief* (Apr. 2013), https://liberalarts.utexas.edu/txpep/_files/pdf/TxPEP-ResearchBrief-ImpactofAbortionRestrictions.pdf; Ted Joyce & Robert Kaestner, *The Impact of Mississippi's Mandatory Delay Law on Timing of Abortions*, 32 Fam. Plan. Persp. 4 (2000); Theodore Joyce et al., *The Impact of Mississippi's Mandatory Delay Law on Abortions and Births*, 278 JAMA 653 (1997); Deborah Karasek et al., *Abortion Patients' Experience and Perception of Waiting Periods: Survey Evidence Before Arizona's Two-Visit 24-Hour Mandatory Waiting Period Law*, 26 Women's Health Issues 60 (2016).

[4] *Id.*; *see also* Daniel Grossman et al., *Change in Distance to Nearest Facility and Abortion in Texas, 2012 to 2014,* 317 JAMA 437 (2017); Jason M. Lindo et al., *How Far Is Too Far? New Evidence on Abortion Clinic Closures, Access, and Abortions,* NBER Working Paper No. 23366 (2017); Sarah C.M. Roberts et al., *Utah's 72-Hour Waiting Period for Abortion: Experiences Among a Clinic-Based Sample of Women*, 48 Persp. Sexual & Reprod. Health 179 (2016); Jessica N. Sanders et al., *The Longest Wait: Examining the Impact of Utah's 72-Hour Waiting Period for Abortion*, 26 Women's Health Issues 483 (2016); Theodore J. Joyce et al., Guttmacher Inst., *The Impact of State Mandatory Counseling and Waiting Periods on Abortion* (2009), https://www.guttmacher.org/report/impact-state-mandatory-counseling-and-waiting-period-laws-abortion-literature-review.

women."[5] In addition, the National Academies of Sciences, Engineering, and Medicine—a body composed of esteemed experts that was first established by Congress in 1863 to provide independent, objective expert analysis and advice to the nation to inform public policy—recently conducted a systematic review of the safety and quality of care of abortion in the United States, and concluded that: "Restrictive regulations, including mandatory waiting periods that require a woman to make multiple trips to the abortion facility, impact the timeliness of obtaining abortion care. These challenges are especially burdensome for poor women, women traveling long distances for care, and those with the fewest resources" (citations omitted).[6] I am not aware of any research undermining the conclusion that mandatory delay laws cause substantial delay.

16. A two-trip law like the Amendment is especially harmful during the current COVID-19 pandemic, which is expected to continue until a vaccine is developed and available for widespread use, i.e., until early or mid-2021 at the earliest.[7] Because COVID-19 is transmitted by interpersonal proximity, medical and public health experts agree that there is a public health

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[5] Jason M. Lindo & Mayra Pineda-Torres, *New Evidence on the Effects of Mandatory Waiting Periods for Abortion*, NBER Working Paper No. 26228 (2019).

[6] Nat'l Acads. of Scis., Eng'g & Med., The Safety and Quality of Abortion Care in the United States 116 (2018); *see also* Sigrid Williams et al., *Effects of Legislation Regulation Abortion in Arizona*, 28 Women's Health Issues 297 (2018) (finding that Arizona two-trip 24-hour law, in combination with a physician-only law, significantly delayed women); Sarah C.M. Roberts et al., *Complex Situations: Economic Insecurity, Mental Health, and Substance Use Among Pregnant Women Who Consider—But Do Not Have—Abortions*, 15 PLoS ONE e0226004 (2020) (including qualitative interviews with women who were prevented by a 24-hour mandatory delay law from accessing abortion).

[7] Len Strazewski, *Dr. Fauci: 2021 May See Up to 300 Million Doses of COVID-19 Vaccine*, Am. Med. Ass'n (June 4, 2020), https://www.ama-assn.org/delivering-care/public-health/dr-fauci-2021-may-see-300-million-doses-covid-19-vaccine (top infectious disease expert predicting that COVID-19 vaccines may not be available to the majority of the population until 2021).

imperative to maximize social distancing throughout this time.[8] In the context of medical care, this consensus has prompted an unprecedented push, by health care providers with the encouragement and assistance of federal and state agencies, to expand use of telemedicine technologies to ensure that patients receive care without unnecessary travel to providers or time in the health care facility.[9] In the area of obstetrics and gynecology, this desire to minimize the risks of COVID-19 transmission to patients and health care workers has led to a rapid expansion of telehealth and a reduction in the number of required in-person visits, including for prenatal care.[10]

17. Reducing in-person patient visits protects patients during COVID-19 for several reasons. Traveling to a medical provider can force patients to deviate from recommended social distancing practices to arrange for child care and/or transportation. This is especially the case if they need to travel long distances, as abortion patients need to do in Iowa and elsewhere.[11] And

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[8] Ctrs. for Disease Control & Prevention (CDC), *Social Distancing* (last reviewed May 6, 2020), https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html.

[9] *See, e.g.,* Am. Med. Ass'n, *AMA Quick Guide to Telemedicine in Practice* (last updated May 22, 2020), https://www.ama-assn.org/practice-management/digital/ama-quick-guide-telemedicine-practice (American Medical Association stating that "use of telemedicine and remote care services are critical to the safe management of the COVID-19 pandemic"); CDC, *Framework for Healthcare Systems Providing Non-COVID-19 Clinical Care During the COVID-19 Pandemic,* https://www.cdc.gov/coronavirus/2019-ncov/hcp/framework-non-COVID-care.html (CDC emphasizing that providers should "[o]ptimize telehealth services, when available and appropriate, to minimize the need for in-person services"); Ctrs. for Medicare and Medicaid Servs., *Medicare Telemedicine Health Care Provider Fact Sheet* (Mar. 17, 2020), https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet (Centers for Medicare and Medicaid Services explaining that they have "broadened access to Medicare telehealth services so that beneficiaries can receive a wider range of services from their doctors without having to travel to a healthcare facility").

[10] ACOG, *COVID-19 FAQs for Obstetrician-Gynecologists, Telehealth*, https://www.acog.org/clinical-information/physician-faqs/covid-19-faqs-for-ob-gyns-telehealth (last visited June 22, 2020).

[11] Rachel K. Jones et al., Guttmacher Inst., Abortion Incidence and Service Availability in the United States, 2017, at 17 (2019), https://www.guttmacher.org/sites/default/files/report_pdf/abortion-incidence-service-availability-

once in the clinic, there is no way to eliminate the risk of interpersonal contact, though these risks can be mitigated. Reducing unnecessary visits also allows providers to space in-person patients in a way that minimizes transmission risks.

18. Conversely, by requiring an additional, medically unnecessary visit for abortion patients, despite the overwhelming consensus that providers should be reducing medically unnecessary medical visits during the pandemic, the Amendment puts patients and health care workers at increased risk of COVID-19 transmission. The Amendment also puts patients at risk because it will push many past the window when they can have a medication abortion, requiring them to travel farther to a clinic offering procedural abortions; such longer-distance travel further increases COVID transmission risks because it often requires stop-offs on the road and/or overnight stays away from home. These effects, in turn, undermine the public health of all Iowans.

19. For all of the foregoing reasons, the Amendment will not improve women's decision-making about abortion and will significantly burden them, diminish their access to care, and expose them and others to increased medical risk.

20. I certify under penalty of perjury and pursuant to the laws of the state of Iowa that the preceding is true and correct.

Signed this 22d day of June, 2020.

/s/ Daniel Grossman

Daniel Grossman, MD

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us-2017.pdf (in 2017, 93% of Iowa counties had no clinics that provided abortions, and 58% of Iowa women lived in those counties).

EXHIBIT A

May 21, 2020

DANIEL A. GROSSMAN, M. D., F. A. C. O. G.
Advancing New Standards in Reproductive Health, UCSF
1330 Broadway, Suite 1100
Oakland, CA 94612

Current position

Professor, Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco
Director, Advancing New Standards in Reproductive Health (ANSIRH)

Education

Sept. 1985-May 1989	Yale University-Molecular Biophysics and Biochemistry	B.S., 1989
Sept. 1989-June 1994	Stanford University School of Medicine	M.D., 1994
June 1994-June 1998	Resident and Administrative Chief Resident, Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco	

Licenses/Certification

1996-Present	California medical licensure (A60282)
2001-Present	Board-certified, American Board of Obstetrics and Gynecology

Principal positions held

Aug. 1998-Feb. 2003 Aug. 2005-2012	Physician, St. Luke's Women's Center, San Francisco, CA
May 2003-Aug. 2005	Health Specialist, The Population Council Regional Office for Latin America and the Caribbean, Mexico City
Aug. 2005-Aug. 2015	Senior Associate (through June 2012), Vice President for Research (starting July 2012), Ibis Reproductive Health
Sept. 2015-Present	Professor, Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco
Sept. 2015-Present	Director, Advancing New Standards in Reproductive Health (ANSIRH)

Other positions held concurrently

Aug. 1998-Feb. 2003	Director of Medical Student Education, Department of Obstetrics and Gynecology, St. Luke's Hospital
Aug. 1998-Feb. 2003	Vice Chair, Department of Obstetrics and Gynecology, St. Luke's Hospital
Aug. 1998-2015	Assistant Clinical Professor, Bixby Center for Global Reproductive Health, Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco
2012-2015	Contract physician, Planned Parenthood Shasta Pacific
Aug. 2015-Present	Senior Advisor, Ibis Reproductive Health

Honors and awards

1988	Howard W. Hilgendorf Jr. Fellowship, Yale University
1988	Robin Berlin Memorial Prize, Yale University
1989	Magna cum laude, Yale University
1990	Medical Scholars Award, Stanford University
1990	Peter Emge Traveling Fellowship, Stanford University
1991-1992	Foreign Language and Area Studies Fellowship, Stanford University
1994	Dean's Award for Research in Infectious Diseases, Stanford University
2007	Ortho Outstanding Researcher Award, Association of Reproductive Health Professionals
2009	Visionary Partner Award, Pacific Institute for Women's Health
2010	Scientific Paper Award, National Abortion Federation
2013	Gerbode Professional Development Fellowship
2013	Abstract selected as one of Top 4 Oral Abstracts at North American Forum on Family Planning
2013	Felicia Stewart Advocacy Award from the Population, Reproductive and Sexual Health Section of the American Public Health Association
2018	Outstanding Resident Teaching Award, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF
2019	Beacon of Science Award, Society of Family Planning

Key words/areas of interest

Abortion, medication abortion, second-trimester abortion, contraception, over-the-counter access to oral contraception, integration of family planning into HIV care and treatment, Latina reproductive health in the US, misoprostol and self-induction of abortion, Mexico, Peru, Bolivia, Dominican Republic, South Africa, Kenya

PROFESSIONAL ACTIVITIES

PROFESSIONAL ORGANIZATIONS

Memberships

2000-Present	Fellow, American College of Obstetrics and Gynecology (ACOG)
2006-Present	Fellow, Society of Family Planning
2004-Present	American Public Health Association
2013-Present	American Medical Association
2004-2011	Association of Reproductive Health Professionals
2004-2016	International Consortium for Medical Abortion
2006-Present	Liaison Member, Planned Parenthood Federation of America National Medical Committee
2005-Present	Consorcio Latinoamericano contra el Aborto Inseguro (Latin American Consortium against Unsafe Abortion)
2004-Present	Working Group on Oral Contraceptives Over-the-Counter

Service to professional organizations

2008-Present	Society of Family Planning, reviewer of grant proposals, abstract reviewer for annual meeting

2007-Present	American Public Health Association, Governing Councilor (2007-2009, 2010-2014), Section Secretary (2008-2009), abstract reviewer for annual meeting
2005-2012	Consorcio Latinoamericano contra el Aborto Inseguro, member of Coordinating Committee
2006-Present	Working Group on Oral Contraceptives Over-the-Counter, working group coordinator and member of steering committee
2010-2013	Member, Committee on Practice Bulletins-Gynecology, ACOG
2014-2020	Member, Committee on Health Care for Underserved Women, ACOG (Vice Chair of Committee 2016-18, Chair 2018-20)
2017-2018	Member, Telehealth Task Force, ACOG
2018-Present	Member, Telehealth Working Group, ACOG
2019-Present	Member, Abortion Access and Training Expert Work Group, ACOG
2010-2016	Steering Committee member, International Consortium for Medical Abortion
2016	External advisor for Marie Stopes International research strategy meeting, March 23-24, 2016, London, UK

SERVICE TO PROFESSIONAL PUBLICATIONS

2013-Present	Editorial Board, Contraception
2004-Present	Ad hoc reviewer for Obstetrics and Gynecology (10 papers in past 5 years), American Journal of Public Health (4 papers in past 3 years), Reproductive Health Matters (6 articles in past 4 years), Expert Review of Obstetrics and Gynecology (3 review in past year), and Women's Health Issues (4 articles in past 2 years), Lancet (2 reviews in past year)

INVITED PRESENTATIONS (Selected)

International

Second-trimester abortion. Optimizing the Potential for Medication in Pregnancy Termination in South America Conference, Lima, Peru, 2014 (invited talk).

Participation in panel at Harvard University seminar: Politics, Public Health, and Abortion: Examining the Changing Legal Environment in Mexico and Central America, Cambridge, MA, 2014 (invited talk).

Evidence for removing the prescription barrier to hormonal contraception. Annual meeting of the Associacion Française pour la Contraception, Paris, France, March 2015.

Presentations on medical abortion and second-trimester abortion, REDAAS (Red de Acceso al Aborto Seguro) meeting, Buenos Aires, Argentina, May 2015 (invited talk).

Panel participant in panel "Gestational limits for abortion: what purpose do they serve?" and presentations on adolescent pregnancy, telemedicine provision early medical abortion, and second-trimester abortion. Fifth Research Meeting on Unintended Pregnancy and Unsafe Abortion, Mexico City, September 2015 (invited talks).

Moving oral contraceptives over the counter as a strategy to reduce unintended pregnancy. The Human Right to Family Planning Conference, Seattle, WA, October 2015 (invited talk).

Over-the-counter access to hormonal contraception- what are the risks and benefits?, and Introduction of the mifepristone regimen for second-trimester medical abortion in South Africa. XXI FIGO World Congress of Gynecology and Obstetrics, Vancouver, Canada, October 2015 (oral presentations).

Second-trimester abortion. Presentation at the First Latin American Meeting on Public Sector Providers of Legal Abortion, Buenos Aires, Argentina, August 2016 (invited talk).

Safety, effectiveness and acceptability of telemedicine provision of medication abortion in Iowa, NAF regional meeting, Mexico City, September 2017 (invited talk).

Abortion in the United States: A new report on safety and the effects of being denied a wanted abortion. Presentation at "Evidencias y argumentos de salud pública para la legalización del aborto en Argentina," Buenos Aires, Argentina, May 2018 (invited talk).

Self-managed abortion in the United States. Presentation at "Abortion Beyond Bounds," Montreal, Canada, October 2018.

Gestational age limits in the United States: legal and service delivery perspectives. Presentation at "Interrupción del embarazo y edad gestacional," Buenos Aires, Argentina, August 2019 (invited talk).

National

Participation in panel entitled Abortion Scholarship: An Interdisciplinary Conversation, at UC Berkeley Symposium Speech, Symbols, and Substantial Obstacles: The Doing and "Undue"ing of Abortion Law since Casey, Berkeley, 2013 (invited talk).

Impact of restrictive abortion law on women in Texas. North American Forum on Family Planning, Seattle, 2013 (oral presentation).

Randomized Trial of Misoprostol versus Laminaria before Dilation and Evacuation in South Africa. Annual meeting of the National Abortion Federation, San Francisco, 2014 (oral presentation).

Introduction of the mifepristone regimen for second-trimester medical abortion in South Africa. Annual meeting of the National Abortion Federation, Baltimore, April 2015 (oral presentation).

Knowledge, opinion and experience related to abortion self-induction in Texas (oral abstract), and participant in panel "Addressing the global need for safe abortion after the first trimester." North American Forum on Family Planning, Chicago, November 2015 (oral presentations).

Participant in panel "Addressing the Challenges Facing Women's Reproductive Health Care," Academy Health National Health Policy Conference, Washington, DC, February 2, 2016 (invited talk).

Panel presentations entitled "Medical abortion restrictions: From label laws to abortion reversal," "Texas: Ground Zero in the Abortion Wars" and "Stolen Lives: Impact of early adolescent pregnancy on all aspects of health," Annual meeting of the National Abortion Federation, Austin, Texas, April 2016.

Panel presentations entitled "Evaluating Reproductive Health Policy at the State Level" and "Translating research into policy: Contributing data to the public debate when it matters most," North American Forum on Family Planning, Denver, November 2016.

Panel presentation entitled "Abortion Outside the Clinic: Imagining Safe and Legal Abortion in a post-Roe World," Physicians for Reproductive Health Grand Rounds, New York University School of Law, New York, March 2017.

"Safety of medication abortion provided through telemedicine: A non-inferiority study" (oral abstract), "Evaluating the provision of early medical abortion by telemedicine" (panel presentation), and "Use of research in evaluating Texas House Bill 2" (panel presentation). Annual meeting of the National Abortion Federation, Montreal, Canada, April 2017.

Using Evidence to Inform Policy in an Era of Alternative Facts, keynote address at Family Planning Symposium, "Family Planning Post-Election: Putting on our Fatigues," San Diego, May 2017.

"Improving access through over-the-counter status" (panel presentation), "Building bridges, not walls: using telemedicine to expand sexual & reproductive healthcare" (panel presentation), and "Expanding access to medical abortion through clinic-to-clinic telemedicine" (panel presentation). North American Forum on Family Planning, Atlanta, October 2017.

"Prevalence of Self-Induced Abortion Attempts among a Nationally Representative Sample of U.S. Women" (oral abstract), "What do we know about self-induced or self-managed abortion in the United States?" (panel presentation). Annual meeting of the National Abortion Federation, Seattle, April 2018.

"Driving Health Equity Through Innovation in Health Care," panel participant at plenary at the 2018 Planned Parenthood Federation of America National Conference, Washington, DC, April 2018.

Innovative Contraceptive Delivery Models. Presentation at National Reproductive Health Title X Conference, Kansas City, July 2018.

"Medication abortion in the United States" and panel participant in "The NASEM Report on Abortion Safety and Quality: implications for research, training, practice and advocacy." North American Forum on Family Planning, New Orleans, October 2018.

Research on telemedicine and abortion care, panel presentation. Annual meeting of the National Abortion Federation, Chicago, May 2019.

Alternative provision models for medication abortion: from pharmacy dispensing to OTC. Annual meeting of the Mifepristone Coalition, New York City, June 2019.

"Medication abortion with pharmacist dispensing of mifepristone: a cohort study" (oral abstract), "'It makes sense': pharmacists' attitudes toward dispensing mifepristone for medication abortion" (poster), "Abortion referral practices among a national sample of obstetrician-gynecologists" (poster). Annual meeting of Society of Family Planning, Los Angeles, October 2019.

<u>Regional and other invited presentations</u>

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, 2013.

Improving access to early medical abortion through the use of telemedicine. Office of Population Research seminar, Princeton University, 2014 (invited talk).

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics and Gynecology, Emory University School of Medicine, Atlanta, Georgia, February 2015.

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics and Gynecology, Baylor University School of Medicine, Houston, Texas, April 2015.

The causes and consequences of unintended pregnancy among women in the US military. San Francisco General Hospital grand rounds, September 2015.

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics and Gynecology, University of New Mexico School of Medicine, Albuquerque, New Mexico, October 2015.

Using evidence and advocacy to improve second-trimester abortion care in South Africa. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, December 2015.

UCSF/UCH Consortium Annual Supreme Court Review, panel speaker on Whole Woman's Health v. Hellerstedt, San Francisco, July 2016.

American Gynecological Club meeting, presentation on Reproductive Health in Texas and panel participant, San Francisco, September 2016.

Speaking science to the Court: the experience of experts in Whole Woman's Health v. Hellerstedt, panel participant, UC Hastings, San Francisco, October 2016.

How data made the difference in the Texas abortion case before the US Supreme Court. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, November 2016.

Research That Gets Results: A Symposium on Science-Driven Policy Change, panel participant, UCSF, March 2017.

Medication abortion: What is it and how can its potential to improve access to care be realized? Presentation for UCSF Students for Choice, April 2017.

Medication Abortion: Supporting Women Both Inside and Outside the Clinic to Access Safe Care. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, November 2017.

Medication Abortion: Supporting Women Both Inside and Outside the Clinic to Access Safe Care. Grand rounds presentation, Department of Obstetrics and Gynecology, Kaiser San Francisco, March 2018.

Medication Abortion: Supporting Women Both Inside and Outside the Clinic to Access Safe Care. Grand rounds presentation, Department of Obstetrics and Gynecology, University of Arizona College of Medicine, Tucson, June 2018.

Medication Abortion: Supporting Women Both Inside and Outside the Clinic to Access Safe Care. Presentation to Medical Students for Choice, University of Kansas Medical Center, July 2018.

Medication Abortion: Supporting Women Both Inside and Outside the Clinic to Access Safe Care. Grand rounds presentation, Department of Obstetrics and Gynecology, University of Alabama at Birmingham, October 2018.

Self-managed abortion in the US: What's happening, and what is our role? Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, November 2018.

Evidence-based advocacy to improve reproductive health. Annual Creinin Family Planning Lectureship, Department of Obstetrics, Gynecology & Reproductive Sciences, University of Pittsburgh, April 2019.

Evidence-based advocacy to improve reproductive health. Symposium speaker at the 2019 Research Retreat, Department of Obstetrics and Gynecology, University of Colorado, October 2019.

Demedicalizing reproductive health care: from OTC oral contraceptives to self-managed abortion. James C. and Joan Caillouette Lecture at the annual meeting of the Pacific Coast Obstetrical and Gynecological Society, San Diego, October 2019.

Advocacy 101: How to Inform Policy Debates with Your Own Expertise in OB/GYN. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, January 2020.

Telehealth in Obstetrics and Gynecology. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, April 2020.

OTHER PROFESSIONAL SERVICE

2007	Member of the International Planned Parenthood Federation Safe Abortion Action Fund Technical Review Panel
2007-2009	Steering committee member of the California Microbicide Initiative
2002-2004	Member, Medical Development Team, Marie Stopes International (London)
2013-Present:	Reviewer of fellows' research proposals for the Fellowship in Family Planning
2013-2015	Member of working group on Guidelines for Task Shifting in Abortion Provision convened by World Health Organization
2014	Discovery working group member, Preterm Birth Initiative (PTBi), UCSF
2013-2019	Board member and Secretary (2014-2016), NARAL Pro-Choice America Foundation (service completed September 26, 2019)
2014-Present	Board member, NAF
2015-2019	Board member, Shift/Whole Woman's Health Alliance (service completed May 1, 2019)
2017	Study section member, U54 Contraceptive Center proposal review panel, National Institute of Child Health and Human Development

TEACHING

FORMAL SCHEDULED CLASSES:

Qtr	Academic Yr	Institution Course Title	Teaching Contribution	Class Size
W	2008-09	Harvard School of Public Health; GHP502 International reproductive health issues: Moving from theory to practice	Lecturer; 2 lectures	22
W	2009-10	Harvard School of Public Health; GHP502 International reproductive health issues: Moving from theory to practice	Lecturer; 1 lecture	17
F	2014-15	UCSF Coursera course; Abortion: Quality Care and Public Health Implications	Lecturer; 4 lectures	6,000+ (online)
F	2015-16	University of Texas at Austin; Sociology--Reproductive Health and Population in Texas; SS 301 Honors Social Science	Lecturer; 1 lecture	20
S	2016-17	UC Berkeley School of Law; 224.6 - Selected Topics in Reproductive Justice	Lecturer; 1 lecture	12
S	2018-19	University of Texas at Austin; Sociology—Graduate seminar in human fertility	Lecturer; 1 seminar	8
W	2019-20	UCSF: Family Planning and Reproductive Choices elective	Lecturer; 1 lecture	20

POSTGRADUATE and OTHER COURSES

Guest lecturer in "Qualitative Research Methods in Public Health," CUNY School of Public Health, September 2011

Women's health from a global perspective. Presentation at Obstetrics and Gynecology Update: What Does the Evidence Tell Us? UCSF CME course, San Francisco, 2007.

Expanding access to medication abortion. Presentation at Obstetrics and Gynecology Update: What Does the Evidence Tell Us? UCSF CME course, San Francisco, 2017.

A world post Roe v. Wade. Presentation at Obstetrics and Gynecology Update: What Does the Evidence Tell Us? UCSF CME course, San Francisco, 2019.

TEACHING AIDS

Contributed to the development of a training slide set on medical abortion in Spanish, 2004

Developed pocket cards on emergency contraception for use by community health workers in the State of Mexico, 2005

Reviewed and provided input on a manual on gynecologic uses of misoprostol published by the Latin American Federation of Obstetric and Gynecologic Societies (FLASOG), 2005

Grossman D. Medical methods for first trimester abortion: RHL commentary (last revised: 3 September 2004). The WHO Reproductive Health Library, No 8, Update Software Ltd, Oxford, 2005. Exerpt available at: http://www.rhlibrary.com/Commentaries/htm/Dgcom.htm.

Grossman D. Medical methods for first trimester abortion: RHL practical aspects (last revised: 3 September 2004). The WHO Reproductive Health Library, No 8, Update Software Ltd, Oxford, 2005.

RESEARCH AND CREATIVE ACTIVITIES

PEER REVIEWED PUBLICATIONS

1. Laudon M, Grossman DA, Ben-Jonathan N. Prolactin-releasing factor: cellular origin in the intermediate lobe of the pituitary. Endocrinology 1990; 126(6):3185-92.
2. Grossman DA, Witham ND, Burr DH, Lesmana M, Rubin FA, Schoolnik GK, Parsonnet J. Flagellar serotypes of Salmonella typhi in Indonesia: relationships among motility, invasiveness, and clinical illness. Journal of Infectious Diseases 1995; 171(1):212-6.
3. MacIsaac L, Grossman D, Balistreri E, Darney P. A randomized controlled trial of laminaria, oral misoprostol, and vaginal misoprostol before abortion. Obstetrics and Gynecology 1999; 93(5, pt.1):766-770.
4. Grossman D, Ellertson C, Grimes DA, Walker D. Routine follow-up visits after first-trimester induced abortion. Obstetrics and Gynecology 2004; 103(4):738-45.
5. Lafaurie MM, Grossman D, Troncoso E, Billings DL, Chávez S. Women's perspectives on medical abortion in Mexico, Colombia, Ecuador and Peru: a qualitative study. Reproductive Health Matters 2005;13(26):75-83.
6. Grossman D, Ellertson C, Abuabara K, Blanchard K. Barriers to contraceptive use present in product labeling and practice guidelines. American Journal Public Health 2006;96(5):791-9.

7. Yeatman SE, Potter JE, Grossman DA. Over-the-counter access, changing WHO guidelines, and the prevalence of contraindicated oral contraceptive use in Mexico. Studies in Family Planning 2006; 37(3):197–204.
8. Pace L, Grossman D, Chavez S, Tavara L, Lara D, Guerrero R. Legal Abortion in Peru: Knowledge, attitudes and practices among a group of physician leaders. Gaceta Medica de Mexico 2006; 142(Supplement 2):91-5.
9. Lara D, Abuabara K, Grossman D, Diaz C. Pharmacy provision of medical abortifacients in a Latin American city. Contraception 2006;74(5):394-9.
10. Tinajeros F, Grossman D, Richmond K, Steele M, Garcia SG, Zegarra L, Revollo R. Diagnostic accuracy of a point-of-care syphilis test when used among pregnant women in Bolivia. Sexually Transmitted Infections 2006;82 Suppl 5:v17-21.
11. Clark W, Gold M, Grossman D, Winikoff B. Can mifepristone medical abortion be simplified? A review of the evidence and questions for future research. Contraception 2007;75:245-50.
12. Garcia SG, Tinajeros F, Revollo R, Yam EA, Richmond K, Díaz-Olavarrieta C, Grossman D. Demonstrating public health at work: A demonstration project of congenital syphilis prevention efforts in Bolivia. Sexually Transmitted Diseases 2007;34(7):S37-S41.
13. Díaz-Olavarrieta C, García SG, Feldman BS, Polis AM, Revollo R, Tinajeros F, Grossman D. Maternal syphilis and intimate partner violence in Bolivia: a gender-based analysis of implications for partner notification and universal screening. Sex Transm Dis 2007;34(7 Suppl):S42-6.
14. Harper CC, Blanchard K, Grossman D, Henderson J, Darney P. Reducing Maternal Mortality due to Abortion: Potential Impact of Misoprostol in Low-resource Settings. International Journal of Gynecology and Obstetrics 2007;98:66-9.
15. Grossman D, Berdichevsky K, Larrea F, Beltran J. Accuracy of a semi-quantitative urine pregnancy test compared to serum beta-hCG measurement: a possible tool to rule-out ongoing pregnancy after medication abortion. Contraception 2007;76(2):101-4.
16. Lara D, van Dijk M, Garcia S, Grossman D. La introducción de la anticoncepción de emergencia en la norma oficial mexicana de planificación familiar (The introduction of emergency contraception into the official Mexican family planning norms). Gaceta Médica de México 2007;143(6): 483-7.
17. Grossman D, Blanchard K, Blumenthal P. Complications after second trimester surgical and medical abortion. Reproductive Health Matters 2008;16(31 Supplement):173-82.
18. Grossman D, Fernandez L, Hopkins K, Amastae J, Garcia SG, Potter JE. Accuracy of self-screening for contraindications to combined oral contraceptive use. Obstetrics and Gynecology 2008; 112(3):572-8.
19. Grossman D. Should the oral contraceptive pill be available without prescription? Yes. British Medical Journal 2008;337:a3044.
20. Levin C, Grossman D, Berdichevsky K, Diaz C, Aracena B, Garcia S, Goodyear L. Exploring the economic consequences of unsafe abortion: implications for the costs of service provision in Mexico City. Reproductive Health Matters 2009;17(33):120–132.
21. Hu D, Grossman D, Levin C, Blanchard K, Goldie SJ. Cost-Effectiveness Analysis of Alternative First-Trimester Pregnancy Termination Strategies in Mexico City. BJOG 2009;116:768–779.

22. Távara-Orozco L, Chávez S, Grossman D, Lara D, Blandón MM. Disponibilidad y uso obstétrico del misoprostol en los países de América [Availability and obstetric use of misoprostol in Latin American countries]. Revista Peruana de Ginecologia y Obstetricia 2009;54:253-263.
23. Lara DK, Grossman D, Muñoz J, Rosario S, Gomez B, Garcia SG. Acceptability and use of female condom and diaphragm among sex workers in Dominican Republic: Results from a prospective study. AIDS Education and Prevention 2009;21(6):538-551.
24. Grossman D, Fernandez L, Hopkins K, Amastae J, Potter JE. Perceptions of the safety of oral contraceptives among a predominantly Latina population in Texas. Contraception 2010;81(3):254-60. (NIHMS155993)
25. Potter JE, White K, Hopkins K, Amastae J, Grossman D. Clinic versus Over-the-Counter Access to Oral Contraception: Choices Women Make in El Paso, Texas. American Journal of Public Health 2010;100(6):1130-6. (NIHMS 221745)
26. Phillips K, Grossman D, Weitz T, Trussell J. Bringing evidence to the debate on abortion coverage in health reform legislation: findings from a national survey in the United States. Contraception 2010;82(2):129-30.
27. Hu D, Grossman D, Levin C, Blanchard K, Adanu R, Goldie SJ. Cost-Effectiveness Analysis of Unsafe Abortion and Alternative First-Trimester Pregnancy Termination Strategies in Nigeria and Ghana. African Journal of Reproductive Health 2010;14(2)85-103.
28. Grossman D, Holt K, Peña M, Veatch M, Gold M. Winikoff B, Blanchard K. Self-induction of abortion among women in the United States. Reproductive Health Matters 2010;18(36):136–146.
29. Grossman D, Grindlay K. Alternatives to ultrasound for follow-up after medication abortion: A systematic review. Contraception 2011;83(6):504-10.
30. Liang S-Y, Grossman D, Phillips K. Women's out-of-pocket expenditures and dispensing patterns for oral contraceptive pills between 1996 and 2006. Contraception 2011;83(6):528-36.
31. Blanchard K, Bostrom A, Montgomery E, van der Straten A, Lince N, de Bruyn G, Grossman D, Chipato T, Ranjee G, Padian N. Contraception use and effectiveness among women in a trial of the diaphragm for HIV prevention. Contraception 2011;83(6):556-63.
32. Grossman D, White K, Hopkins K, Amastae J, Shedlin M, Potter JE. Contraindications to Combined Oral Contraceptives Among Over-the-Counter versus Prescription Users. Obstet Gynecol 2011;117(3):558–65.
33. Potter JE, McKinnon S, Hopkins K, Amastae J, Shedlin MG, Powers DA, Grossman D. Continuation of prescribed compared with over-the-counter oral contraceptives. Obstet Gynecol 2011;117(3):551–7.
34. Grindlay K, Yanow S, Jelinska K, Gomperts R, Grossman D. Abortion restrictions in the US military: Voices from women deployed overseas. Women's Health Issues 2011;21(4):259-64.
35. Grossman D, Grindlay K, Buchacker T, Lane K, Blanchard K. Effectiveness and Acceptability of Medical Abortion Provided Through Telemedicine. Obstetrics and Gynecology 2011;118(2 Pt 1):296-303.
36. Holt K, Grindlay K, Taskier M, Grossman D. Unintended pregnancy and contraceptive use among women in the US military: A systematic literature review. Military Medicine 2011;176(9):1056-64.

37. Harris LH, Grossman D. Confronting the challenge of unsafe second-trimester abortion. Int J Gynaecol Obstet 2011;115(1):77-9.
38. Grossman D, Constant D, Lince N, Alblas M, Blanchard K, Harries J. Surgical and medical second trimester abortion in South Africa: a cross-sectional study. BMC Health Serv Res. 2011;11(1):224.
39. Harries J, Lince N, Constant C, Hargey A, Grossman D. The challenges of offering public second trimester abortion services in South Africa: Health care providers' perspectives. Journal of Biosocial Science 2011;17:1-12.
40. Dennis A, Grossman D. Barriers to Contraception and Interest in Over-the-Counter Access Among Low-Income Women: A Qualitative Study. Perspect Sex Reprod Health 2012;44(2):84-91.
41. Foster DG, Higgins J, Karasek D, Ma S, Grossman D. Attitudes toward unprotected intercourse and risk of pregnancy among women seeking abortion. Women's Health Issues 2012;22(2):e149-55.
42. Foster DG, Karasek D, Grossman D, Darney P, Schwarz EB. Interest in using intrauterine contraception when the option of self-removal is provided. Contraception 2012;85(3):257-62.
43. White K, Potter JE, Hopkins K, Fernández L, Amastae J, Grossman D. Contraindications To Progestin-Only Oral Contraceptive Pills Among Reproductive Aged Women. Contraception 2012;86(3):199-203.
44. Harrington EK, Newmann SJ, Onono M, Schwartz KD, Bukusi EA, Cohen C, Grossman D. Fertility intentions and interest in integrated family planning services among HIV-infected women in Nyanza Province, Kenya: a qualitative study. Infectious Diseases in Obstetrics and Gynecology 2012;2012, Article ID 809682. doi:10.1155/2012/809682.
45. Lessard L, Karasek D, Ma S, Darney P, Deardorff J, Lahiff M, Grossman D, Foster DG. Contraceptive features preferred by women at high risk of unintended pregnancy. Perspectives on Sexual and Reproductive Health 2012;44(3):194-200.
46. Grossman D, Garcia S, Kingston J, Schweikert S. Mexican women seeking safe abortion services in San Diego, California. Health Care Women Int 2012;33(11):1060-9.
47. Hopkins K, Grossman D, White K, Amastae J, Potter JE. Reproductive health preventive screening among clinic vs. over-the-counter oral contraceptive users. Contraception 2012;86(4):376-82.
48. Potter JE, White K, Hopkins K, McKinnon S, Shedlin MG, Amastae J, Grossman D. Frustrated Demand for Sterilization among Low-Income Latinas in El Paso, Texas. Perspectives on Sexual and Reproductive Health 2012;44(4):228–235.
49. White K, Grossman D, Hopkins K, Potter JE. Cutting family planning in Texas. N Engl J Med 2012;367(13):1179-81.
50. Liang S-Y, Grossman D, Phillips K. User characteristics and out-of-pocket expenditures for progestin-only versus combined oral contraceptives. Contraception 2012;86(6):666-72.
51. Manski R, Dennis A, Blanchard K, Lince N, Grossman D. Bolstering the Evidence Base for Integrating Abortion and HIV Care: A Literature Review. AIDS Research and Treatment 2012 (2012), Article ID 802389. doi:10.1155/2012/802389.
52. Schwarz EB, Burch EJ, Parisi SM, Tebb KP, Grossman D, Mehrotra A, Gonzales R. Computer-assisted provision of hormonal contraception in acute care settings. Contraception 2013;87(2):242-50.

53. Grindlay K, Grossman D. Contraception access and use among U.S. servicewomen during deployment. Contraception 2013;87(2):162-9.
54. Grossman D, Grindlay K, Buchacker T, Potter JE, Schmertmann CP. Changes in service delivery patterns after introducing telemedicine provision of medical abortion in Iowa. Am J Public Health 2013;103(1):73-78.
55. Potter JE, Stevenson AJ, White K, Hopkins K, Grossman D. Hospital variation in postpartum tubal sterilization rates in California and Texas. Obstetrics and Gynecology 2013;121(1):152-8.
56. Grindlay K, Grossman D. Unintended Pregnancy Among Active Duty Women in the United States Military, 2008. Obstetrics and Gynecology 2013;121(2 Pt 1):241-6.
57. Hyman A, Blanchard K, Coeytaux F, Grossman D, Teixeira A. Misoprostol in women's hands: a harm reduction strategy for unsafe abortion. Contraception 2013;87(2):128-30.
58. Grindlay K, Grossman D, Lane K. Women's and Providers' Experiences with Medical Abortion Provided Through Telemedicine: A Qualitative Study. Women's Health Issues 2013;23(2):e117-22.
59. Shedlin M, Amastae J, Potter J, Hopkins K, Grossman D. Knowledge & Beliefs about Reproductive Anatomy and Physiology among Mexican-Origin Women in the U.S.: Implications for Effective Oral Contraceptive Use. Cult Health Sex 2013;15(4):466-79.
60. Newmann SJ, Mishra K, Onono M, Bukusi E, Cohen CR, Gage O, Odeny R, Schwartz KD, Grossman D. Providers' perspectives on provision of family planning to HIV-positive individuals in HIV care in Nyanza Province, Kenya. AIDS Research and Treatment 2013;2013, Article ID 915923. http://dx.doi.org/10.1155/2013/915923.
61. Steinfeld R, Newmann SJ, Onono M, Cohen CR, Bukusi E, Grossman D. Overcoming Barriers to Family Planning through Integration: Perspectives of HIV-Positive Men in Nyanza Province, Kenya. AIDS Research and Treatment 2013;2013, Article ID 861983, http://dx.doi.org/10.1155/2013/861983.
62. Henderson JT, Puri M, Blum M, Harper CC, Rana A, Gurung G, Pradhan N, Regmi K, Malla K, Sharma S, Grossman D, Bajracharya L, Satyal I, Acharya S, Lamchhane P, Darney PD. Effects of Abortion Legalization in Nepal, 2001–2010. PLoS ONE 2013;8(5): e64775. doi:10.1371/journal.pone.0064775.
63. Grossman D. Moving oral contraceptives over the counter as a strategy to reduce unintended pregnancy. Annals of Internal Medicine 2013;158(11):839-40.
64. Committee on Practice Bulletins-Gynecology, American College of Obstetricians and Gynecologists, with Steinauer J, Jackson A, Grossman D. Practice Bulletin No 135: Second-trimester abortion. Obstet Gynecol 2013;121(6):1394-1406.
65. Foster DG, Biggs MA, Grossman D, Schwarz EB. Interest in a pericoital pill among women in family planning and abortion clinics. Contraception 2013;88(1):141-6.
66. White K, Hopkins K, Potter JE, Grossman D. Knowledge and attitudes about long-acting reversible contraception among Latina women who desire sterilization. Women's Health Issues 2013;23(4):e257-e263.
67. Grindlay K, Burns B, Grossman D. Prescription requirements and over-the-counter access to oral contraceptives: A global review. Contraception 2013;88(1):91-6.
68. McIntosh J, Wahlin B, Grindlay K, Batchelder M, Grossman D. Insurance and Access Implications of an Over-the-Counter Switch for a Progestin-Only Pill. Perspectives on Sexual and Reproductive Health 2013;45(3):164-9.

69. Grossman D, Grindlay K, Li R, Potter JE, Trussell J, Blanchard K. Interest in over-the-counter access to oral contraceptives among women in the United States. Contraception 2013;88(4):544-52.
70. Grossman D, Onono M, Newmann SJ, Blat C, Bukusi EA, Shade SB, Steinfeld RL, Cohen CR. Integration of family planning services into HIV care and treatment in Kenya: a cluster-randomized trial. AIDS 2013; 27(Suppl 1):S77-S85.
71. Shade SB, Kevany S, Onono M, Ochieng G, Steinfeld RL, Grossman D, Newmann SJ, Blat C, Bukusi EA, Cohen CR. Cost, Cost-efficiency and Cost-effectiveness of Integrated Family Planning and HIV Services in Nyanza, Kenya. AIDS 2013; 27(Suppl 1):S87-S92.
72. van Dijk MG, Lara Pineda D, Grossman D, Sorhaindo A, García SG. The Female Condom: A Promising but Unavailable Method for Dominican Sex Workers, Their Clients, and Their Partners. Journal of the Association of Nurses in AIDS Care 2013;24(6):521-9.
73. White K, Potter JE, Hopkins K, Amastae J, Grossman D. Hypertension among oral contraceptive users in El Paso, Texas. Journal of Health Care for the Poor and Underserved 2013;24(4):1511-21.
74. Withers M, Dworkin S, Harrington E, Kwena Z, Onono M, Bukusi E, Cohen CR, Grossman D, Newmann SJ. Fertility intentions among HIV-infected, sero-concordant Kenyan couples in Nyanza Province, Kenya. Cult Health Sex 2013;15(10):1175-90.
75. Newmann SJ, Grossman D, Blat C, Onono M, Steinfeld RL, Bukusi EA, Shade SB, Cohen CR. Does integrating family planning into HIV care and treatment impact intention to use contraception? Patient perspectives from HIV-infected individuals in Nyanza Province, Kenya. Int J Gynaecol Obstet 2013;123 Suppl 1:e16-23.
76. Grossman D, Fuentes L. Over-the-counter access to oral contraceptives as a reproductive healthcare strategy. Curr Opin Obstet Gynecol 2013;25(6):500-5.
77. White K, Potter JE, Hopkins K, Grossman D. Variation in postpartum contraceptive method use: Results from the Pregnancy Risk Assessment Monitoring System (PRAMS). Contraception 2014;89(1):57-62.
78. Burns B, Grindlay K, Holt K, Manski R, Grossman D. Military sexual trauma among U.S. servicewomen during deployment: A qualitative study. AJPH 2014;104:345-349.
79. Committee on Practice Bulletins-Gynecology, American College of Obstetricians and Gynecologists, with Creinin M, Grossman D. Practice Bulletin No 143: Medical management of first-trimester abortion. Obstet Gynecol 2014;123(3):676-92.
80. Wahlin B, Grindlay K, Grossman D. Should Oral Contraceptives Be Available Over the Counter? Food and Drug Policy Forum 2014; 4(3).
81. Constant D, Grossman D, Lince N, Harries J. Self-induction of abortion among women accessing second trimester abortion services in the public sector, Western Cape, South Africa: An exploratory study. South African Medical Journal 2014;104(4):302-305.
82. Onono M, Blat C, Miles S, Steinfeld R, Wekesa P, Bukusi EA, Owuor K, Grossman D, Cohen CR, Newmann SJ. Impact of family planning health talks by lay health workers on contraceptive knowledge and attitudes among HIV-infected patients in rural Kenya. Patient Educ Couns 2014;94(3):438-41.
83. Grossman D, White K, Hopkins K, Potter JE. The public health threat of anti-abortion legislation. Contraception 2014;89:73-4.

84. Foster DG, Grossman D, Turok DK, Peipert JF, Prine L, Schreiber CA, Jackson A, Barar R, Schwarz EB. Interest in and experience with IUD self-removal. Contraception 2014;90(1):54-9.
85. Manski R, Grindlay K, Burns B, Holt K, Grossman D. Reproductive health access among deployed U.S. servicewomen: a qualitative study. Military Medicine 2014;1179(6):645-52.
86. Grindlay K, Foster DG, Grossman D. Attitudes Toward Over-the-Counter Access to Oral Contraceptives Among a Sample of Abortion Clients in the United States. Perspect Sex Reprod Health 2014;46(2):83-9.
87. Grossman D, Constant D, Lince-Deroche N, Harries J, Kluge J. A randomized trial of misoprostol versus laminaria before dilation and evacuation in South Africa. Contraception 2014;90(3):234-41.
88. Patel R, Baum S, Grossman D, Steinfeld R, Onono M, Cohen CR, Bukusi EA, Newmann SJ. HIV-positive men's experiences with integrated family planning and HIV services in western Kenya: Integration fosters male involvement. AIDS Patient Care STDS 2014;28(8):418-24.
89. Blanchard K, Chipato T, Ramjee G, Nhemachena T, Harper CC, and the Provider Study Writing Committee (including Grossman D). Clinicians' perceptions and provision of hormonal contraceptives for HIV positive and at-risk women in Southern Africa: an original research article. Contraception 2014;90(4):391-8.
90. DePiñeres T, Baum S, Grossman D. Acceptability and clinical outcomes of first- and second-trimester surgical abortion by suction aspiration in Colombia. Contraception 2014;90(3):242-8.
91. Potter JE, Hopkins K, Aiken ARA, Hubert Lopez C, Stevenson AJ, White K, Grossman D. Unmet Demand for Highly Effective Postpartum Contraception in Texas. Contraception 2014;90(5):488-95.
92. Grossman D, Baum S, Fuentes L, White K, Hopkins K, Stevenson A, Potter JE. Change in abortion services after implementation of a restrictive law in Texas. Contraception 2014;90(5):496-501.
93. Raymond EG, Grossman D, Weaver MA, Toti S, Winikoff B. Mortality of induced abortion, other outpatient surgical procedures, and common activities in the United States. Contraception 2014;90(5):476-9.
94. Tao AR, Onono M, Baum S, Grossman D, Steinfeld R, Cohen CR, Bukusi EA, Newmann SJ. Providers' perspectives on male involvement in family planning in the context of family planning/HIV integration in Nyanza, Kenya. AIDS Care 2015;27(1):31-7.
95. Grindlay K, Grossman D. Women's perspectives on age restrictions for over-the-counter access to oral contraceptives in the United States. J Adolesc Health 2015;56(1):38-43.
96. Upadhyay UD, Desai S, Zlidar V, Weitz TA, Grossman D, Anderson P, Taylor D. Incidence of Emergency Department Visits and Complications After Abortion. Obstet Gynecol 2015;125(1):175-83.
97. Biggs MA, Rocca CH, Brindis CD, Hirsch H, Grossman, D. Did increasing use of highly effective contraception contribute to declining abortions in Iowa? Contraception 2015;91:167-73.
98. Lara D, Holt K, Pena M, Grossman D. Knowledge of abortion laws and services among low-income women in three United States cities. J Immigr Minor Health 2015;17(6):1811-8.

99. Hopkins K, White K, Linkin F, Hubert C, Grossman D, Potter JE. Women's Experiences Seeking Publicly Funded Family Planning Services in Texas. Perspect Sex Reprod Health 2015;47(2):63-70.
100. White K, Hopkins K, Aiken A, Stevenson A, Hubert C, Grossman D, Potter JE The impact of reproductive health legislation on family planning clinic services in Texas. AJPH 2015;105(5):851-8.
101. Foster DG, Biggs MA, Phillips KA, Grindlay K, Grossman D. Potential Public Sector Cost-Savings from Over-the-Counter Access to Oral Contraceptives. Contraception 2015;91(5):373-9.
102. Onono M, Guzé MA, Grossman D, Steinfeld R, Bukusi EA, Shade S, Cohen CR, Newmann SJ. Integrating family planning and HIV services in western Kenya: the impact on HIV-infected patients' knowledge of family planning and male attitudes toward family planning. AIDS Care 2015;27(6):743-52.
103. Withers M, Dworkin SL, Zakaras JM, Onono M, Oyier B, Cohen CR, Bukusi EA, Grossman D, Newmann SJ. 'Women now wear trousers': men's perceptions of family planning in the context of changing gender relations in western Kenya. Cult Health Sex 2015;17(9):1132-46.
104. Grossman D, White K, Harris L, Reeves M, Blumenthal PD, Winikoff B, Grimes DA. Continuing pregnancy after mifepristone and "reversal" of first-trimester medical abortion: a systematic review. Contraception 2015;92:206-11.
105. Dennis A, Fuentes L, Douglas-Durham E, Grossman D. Barriers to and Facilitators of Moving Miscarriage Management Out of the Operating Room. Perspect Sex Reprod Health 2015;47(3):141-9.
106. Grossman D, Goldstone P. Mifepristone by prescription: a dream in the United States but reality in Australia. Contraception 2015;92:186-9.
107. Baum S, DePiñeres T, Grossman D. Delays and barriers to care in Colombia among women obtaining legal first- and second-trimester abortion. International Journal of Gynecology and Obstetrics 2015;131(3):285-8.
108. Lince-Deroche N, Constant D, Harries J, Blanchard K, Sinanovic E, Grossman D. The Costs of Accessing Abortion in South Africa: Women's costs associated with second-trimester abortion services in Western Cape Province. Contraception 2015;92(4):339-44.
109. Dzuba I, Grossman D, Schreiber CA. Off-label indications for mifepristone in gynecology and obstetrics. Contraception 2015;92:203-5.
110. Raymond EG, Grossman D, Wiebe E, Winikoff B. Reaching Women Where They Are: Eliminating The Initial In-Person Medical Abortion. Contraception 2015;92:190-3.
111. White K, Carroll E, Grossman D. Complications from first-trimester aspiration abortion: A systematic review of the literature. Contraception 2015; 92(5):422-38.
112. Grindlay K, Grossman D. Unintended Pregnancy among Active-Duty Women in the United States Military, 2011. Contraception 2015; 92(6):589-95.
113. Grossman D. Over-the-counter access to oral contraceptives. Obstetrics and Gynecology Clinics of North America 2015;42:619-29.
114. Newmann SJ, Zakaras JM, Tao AR, Onono M, Bukusi EA, Cohen CR, Steinfeld R, Grossman D. Integrating family planning into HIV care in western Kenya: HIV care providers' perspectives and experiences one year following integration. AIDS Care 2016; 28(2):209-13.

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LANGUAGES

Fluent in Spanish, conversant in French.

EXHIBIT B

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

PLANNED PARENTHOOD OF THE HEARTLAND, INC., and DR. JILL MEADOWS. M.D., Petitioners, v. TERRY E. BRANSTAD ex rel. STATE OF IOWA and IOWA BOARD OF MEDICINE, Respondents.	Case No. AFFIDAVIT OF DANIEL GROSSMAN, M.D.

1. I am a Professor in the Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco (UCSF) and an obstetrician-gynecologist with over 20 years of clinical experience. I currently provide clinical services, including abortion services, at Zuckerberg San Francisco General Hospital. I am also a Fellow of the American College of Obstetricians and Gynecologists (ACOG), where I previously served as Vice Chair of the Committee on Practice Bulletins for Gynecology. I am currently Vice Chair of the ACOG Committee on Health Care for Underserved Women. I am also a Fellow of the Society of Family Planning and a member of the American Public Health Association (APHA). Additionally, I serve as Director of Advancing New Standards in Reproductive Health (ANSIRH) at UCSF. ANSIRH conducts innovative, rigorous, multidisciplinary research on complex issues related to people's sexual and reproductive lives. I am also a Senior Advisor at Ibis Reproductive Health, a nonprofit research organization. I am a liaison member of the Planned Parenthood National Medical Committee, and between 2012 and 2015 I provided clinical services with Planned Parenthood Northern California (formerly Planned Parenthood Shasta Pacific). My research has

been supported by grants from federal agencies and private foundations. I have published over 130 articles in peer-reviewed journals, and I am a member of the Editorial Board of the journal Contraception.

2. I have served as a medical expert in cases challenging medically unnecessary and targeted regulations of abortion providers, including in a case that was decided by the Iowa Supreme Court, *Planned Parenthood of the Heartland, Inc. v. Iowa Board of Medicine*, 865 N.W.2d 252 (Iowa 2015), which struck as unconstitutional rules that restricted the use of telemedicine for medication abortion.

3. I earned a B.S. in Molecular Biophysics and Biochemistry from Yale University and an M.D. from Stanford University School of Medicine. I completed a residency in Obstetrics, Gynecology, and Reproductive Sciences at UCSF.

4. An updated and current version of my curriculum vitae (CV), which sets forth my experience and credentials more fully, is attached to this declaration. My CV contains a complete list of the publications that I have authored or co-authored.

5. I submit this affidavit in support of enjoining enforcement of S.F. 471 ("Act"). I understand that the Act requires patients seeking an abortion to first have an ultrasound, receive certain state-mandated information, and wait at least 72 hours before returning for the procedure. In my opinion, this requirement will not enhance women's decision-making about abortion and will impose significant obstacles on them. These obstacles, in turn, will delay women, exposing them to unnecessary health risks and other harms, and will likely prevent some women from having an abortion at all.

6. The opinions in this declaration are based on my education, clinical training, experience as a practicing physician over the past twenty-three years, my own medical research, regular review of other medical research in my field, and attendance at professional conferences. The facts in this declaration are based on my personal knowledge.

Access to Legal Abortion is Vital to the Protection of Public Health

7. Women seek abortions for a variety of medical, familial, economic, and personal reasons. 59% of women who seek abortions are mothers who have decided that they cannot parent another child at this time,[1] and 66% plan to have children when they are older (and, for example, financially able to provide necessities for them, and/or in a supportive relationship with a partner so their children will have two parents).[2] Approximately one-third of women in this country will have an abortion in their lifetime.[3]

8. It is extraordinarily important for women to have timely access to legal abortion. Women of childbearing age who do not have access to the procedure face significantly increased risks of death and poor health outcomes.

9. While abortion is a safe procedure, the risks from abortion increase as the pregnancy advances. Thus, delaying abortions until later in pregnancy drives up the risk of complications.[4]

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[1] Jenna Jerman, Rachel K. Jones, & Tsuyoshi Onda, Guttmacher Inst., *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008* (May 2016).

[2] Stanley Henshaw & Kathryn Kost, *Abortion Patients in 1994-1995: Characteristics and Contraceptive Use*, 28 Fam. Plan. Persp. 140, 144 (1996).

[3] Rachel K. Jones & Megan L. Kavanaugh, *Changes in Abortion Rates Between 2000 and 2008 and Lifetime Incidence of Abortion*, 117 Obstetrics & Gynecology 1358, 1365 (2011).

[4] Linda A. Bartlett et al., *Risk Factors for Legal Induced Abortion-Related Mortality in the*

10. When legal abortion is unavailable or difficult to access, some women turn to illegal, and unsafe, methods to terminate unwanted pregnancies.[5] Other women, deprived of access to legal abortion, forego the abortions they would have obtained if they could have and, instead, carry unwanted pregnancies to term. These women are exposed to increased risks of death and major complications from childbirth,[6] and they and their newborns are at risk of negative health consequences, including reduced use of prenatal care, lower breastfeeding rates, and poor maternal and neonatal outcomes.[7] Women forced to carry an unwanted pregnancy to term also may find it harder to bring themselves and their family out of poverty.[8] And women

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United States, 103 Obstetrics & Gynecology 729, 735 (2004).

[5] Daniel Grossman et al., *Self-Induction of Abortion Among Women in the United States*, 18 Reproductive Health Matters 136 (2010); Daniel Grossman et al., *The Public Health Threat of Anti-Abortion Legislation*, 89 Contraception 73, 73 (2014); Tex. Pol'y Eval. Project, Research Brief: Texas Women's Experiences Attempting Self-Induced Abortion in the Face of Dwindling Options (Nov. 17, 2015), https://liberalarts.utexas.edu/txpep/_files/pdf/TxPEP-Research-Brief-WomensExperiences.pdf.

[6] Elizabeth G. Raymond & David A. Grimes, *The Comparative Safety of Legal Induced Abortion and Childbirth in the United States*, 119 Obstetrics & Gynecology 215, 216 (2012).

[7] AP Mohllajee et al., *Pregnancy Intention and Its Relationship to Birth and Maternal Outcomes*, 109 Obstetrics & Gynecology 678 (2007); Jessica D. Gipson, Michael A. Koenig, & Michelle J. Hinden, *The Effects of Unintended Pregnancy on Infant, Child, and Parental Health: A Review of the Literature*, 39 Stud. Fam. Plan. 18 (2008).

[8] Ushma D. Upadhyay, M. Antonia Biggs & Diana Greene Foster, *The Effect of Abortion on Having and Achieving Aspirational One-Year Plans*, 15 BMC Women's Health 102 (2015); Am. Pub. Health Ass'n (APHA) Annual Meeting and Expo, Session 4150, Invited Panel: The Turnaway Study: Experiences of Women and Children Following Abortion and Denial of Abortion (*see especially* Diana Foster et al., *Effect of Being Denied a Wanted Abortion on Women's Socioeconomic Wellbeing* & Diana Foster, Sarah Raifman, & M. Antonia Biggs, *Effect of Abortion Receipt and Denial on Women's Existing and Subsequent Children*), https://apha.confex.com/apha/144am/meetingapp.cgi/Session/49007.

who are victims of partner violence will, in many cases, face increased difficulty escaping that relationship (because of new financial, emotional, and legal ties with that partner).[9]

11. Women in Iowa and elsewhere have limited access to abortion care because of a combination of state restrictions and limited provider availability. Even though advanced practice non-physicians can safely provide medication abortion and early surgical abortion, Iowa law prohibits them from doing so.[10] PPH uses telemedicine to connect their physicians with patients in some outlying areas where they operate clinics, but even with this service, 89% of Iowa counties still lack a provider, and 42% of women live in these counties.[11]

12. Women seeking an abortion also face significant personal obstacles. Most are below or close to the poverty line and therefore struggle to pull together the resources to take time off from work and arrange transportation.[12] One study from Arizona, before that state's mandatory delay law went into effect, found that "the majority of women seeking abortion care had to forego or delay food, rent, childcare, or another important cost to finance their abortion."[13]

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[9] Sarah C.M. Roberts et al., *Risk of Violence From the Man Involved in the Pregnancy After Receiving or Being Denied an Abortion*, 12 BMC Medicine 144 (2014).

[10] Sharmani Barnard et al., *Doctors or Mid-Level Providers for Abortion*, 7 Cochrane Database Syst. Rev. CD011242 (2015); Iowa Code Ann. § 707.7; *see also* Guttmacher Inst., Overview of Abortion Laws (2017), https://www.guttmacher.org/print/state-policy/explore/overview-abortion-laws.

[11] Rachel K. Jones & Jenna Jerman, *Abortion Incidence and Service Availability In the United States, 2014*. 49 Persp. Sexual & Reproductive Health 17, 23 (2017); *see also* Guttmacher Inst., State Facts About Abortion: Iowa (2017), https://www.guttmacher.org/fact-sheet/state-facts-about-abortion-iowa.

[12] Jerman, Jones, & Onda, *supra* note 1, at 11 ("75% of abortion patients are low income, having family incomes of less than 200% of the federal poverty level.")

[13] Deborah Karasek, Sarah C.M. Roberts, & Tracey A. Weitz, *Abortion Patients' Experience and Perception of Waiting Periods: Survey Evidence Before Arizona's Two-visit 24-Hour Mandatory*

13. As noted above, most of these women are already parents (many have multiple children), and therefore need to organize and/or pay for additional childcare when they have health care visits. Many have inflexible work schedules and must work within narrow time constraints to arrange appointments. Still others must conceal these arrangements from abusive or controlling partners or family members.[14]

14. It is important to consider new abortion restrictions in this context: access to abortion is important to public health, and it is already limited.

Abortion Methods

15. In the United States, there are generally two methods of performing abortion: medical, by administering certain drugs, or surgical, using various methods depending on the gestational age of the fetus. This former method, which is known as a "medical" or "medication" abortion and which I refer to here as "medication abortion," is generally only available through 70 days after the first day of the woman's last menstrual period (LMP) or through ten weeks of pregnancy.

Waiting Period Law, 26 Women's Health Issues 60, 64 (2016).

[14] *See* ACOG, *Comm. Op. No. 554: Reproductive & Sexual Coercion*, 121 Obstetrics & Gynecology 411 (2013); Jerman, Jones, & Onda, *supra* note 1, at 7; Rachel K. Jones, Lawrence B. Finer, & Susheela Singh, Guttmacher Inst., *Characteristics of U.S. Abortion Patients, 2008* at 8 (May 2010), https://www.guttmacher.org/sites/default/files/report_pdf/us-abortion-patients.pdf (61% of abortion patients surveyed already had children, and 34% had two or more); Michael Lupfer & Bohne Goldfarb Silber, *How Patients View Mandatory Waiting Periods for Abortion*, 13 Fam. Plan. Persps. 75, 76–77 (1981) (describing problems with delay, including increased expenses and missing additional time at work); Karasek, Roberts, & Weitz, *supra* note 13, at 62–63 (31% reported compromised confidentiality because they had to tell someone they did not want to tell); Sarah E. Baum et al., *Women's Experience Obtaining Abortion Care in Texas After Implementation of Restrictive Abortion Laws: A Qualitative Study*, 11 PLoS One 1 (2016); *see also* Sanders et al., *infra* note 28.

16. Medication abortion involves safely and effectively terminating a pregnancy non-surgically, through a combination of two prescription drugs: mifepristone and misoprostol. Mifepristone works by blocking the hormone progesterone, which is necessary to maintain pregnancy. Misoprostol then causes the uterus to contract and expel its contents, generally within hours, thereby completing the abortion. Medication abortion requires no anesthesia or sedation.

17. Surgical abortion involves the use of instruments to evacuate the contents of the uterus. Whereas first-trimester surgical abortion is generally a simple procedure lasting five to ten minutes, the method becomes longer and more complex later in pregnancy. Unlike medication abortion, surgical abortion often involves sedation and, in rare cases, involves general anesthesia.

18. A significant percentage of eligible women choose a medication abortion. In fact, in Iowa, the state's vital statistics report for 2015 states that 55% of the abortions performed that year were medication abortion.[15]

19. My own research in Iowa has documented that most women who choose a medication abortion have a strong preference for this method.[16]

20. Many women prefer medication abortion because they can complete the process in the privacy of their homes, with the company of loved ones, and at a time of their choosing.

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[15]Iowa Dep't of Pub. Health, Bureau of Health Statistics, 2015 *Vital Statistics of Iowa* 131 (last revised Mar. 7, 2017), https://idph.iowa.gov/Portals/1/userfiles/68/HealthStats/vital_stats_2015-20170307.pdf.

[16]Daniel Grossman et al., *Effectiveness and Acceptability of Medical Abortion Provided Through Telemedicine*, 118 Obstetrics & Gynecology 296, 300 (Aug. 2011).

21. Some women choose medication abortion because they fear a procedure involving surgical instruments. Victims of rape, or women who have experienced sexual abuse or molestation, may choose medication abortion to feel more in control of the experience and to avoid trauma from having instruments placed in their vagina.

22. For other women, there are medical reasons why medication abortion is better for them than surgical abortion. Some women have medical conditions that make medication abortion a significantly safer option, as it has a lower risk of both complications and failure than surgical abortion. These conditions include anomalies of the reproductive and genital tract, such as large uterine fibroids, female genital mutilation, vaginismus, or cervical stenosis, as well as severe obesity or an extremely flexed uterus, all of which make it difficult to access the pregnancy inside the uterus as part of a surgical abortion.

23. For these reasons, it is important to public health that women seeking an abortion are able to access care as early in their pregnancy as possible, when it is safest and, in many cases, when they have the option of avoiding surgery.

Mandatory Delay Laws Do Not Enhance Decision-Making

24. I treat patients in California, which does not require a delay period before patients can access abortion.

25. Before I initiate an abortion procedure, whether medical or surgical, I screen patients to make sure they are making a voluntary, informed decision. Because of this process, I am very familiar with how patients come to their decision to terminate a pregnancy. In my experience, women take the decision seriously, and they have gone through a meaningful

decision-making process before coming to the clinic. They have carefully considered their own situation, values and goals and consulted important people in their lives.

26. By the time they come to the clinic where I practice, most patients are firm in their decision to terminate their pregnancy. All patients meet with a counselor to review their decision, and some require additional counseling to help with their decision-making. If a patient is still undecided at the end of this process, we advise her to take more time with the decision, and to consult with others if she is comfortable doing so. That is standard practice and the standard of care among abortion providers.

27. Thus, based on my years of clinical experience, I do not believe women need to be forced to wait at least 72 hours after an ultrasound in order to make careful decisions about their pregnancy. To the contrary, such a blanket requirement trivializes the process women have already gone through and the firm decision they have made by the time they come to the clinic.

28. Research on mandatory delay laws in other states also indicates that these laws do not enhance decision-making. To begin with, research shows that, as in my clinical experience, the vast majority of patients are firm in their decision by the time they arrive at the clinic.[17] In fact, one study found that abortion patients were as or more certain of their decision than patients presenting for various other procedures or treatments, such as mastectomy after a breast cancer diagnosis, prenatal testing after infertility, antidepressant use during pregnancy, reconstructive

[17] Mary Gatter et al., *Relationship Between Ultrasound Viewing and Proceeding to Abortion*, 123 Obstetrics & Gynecology 81, 82–83 (2014) (finding that, when asked "How do you feel about your decision," 85.4% of patients responded that they felt confident and clear); Sarah C.M. Roberts et al., *Utah's 72-Hour Waiting Period for Abortion: Experiences Among a Clinic-Based Sample of Women*, 48 Persp. on Sexual & Reprod. Health 179, 182 (2016) (71% of patients reported low levels of decisional conflict).

knee surgery, or prostate cancer treatment options.[18] In another longitudinal study of almost 700 abortion patients, over 99% reported that abortion was the right decision for them when asked at several time points over three years after the procedure.[19]

29. I am currently involved in research looking at the effects of Texas's state-mandated ultrasound and *24-hour* mandatory delay law. Under Texas law, providers must not only offer to show the patient the ultrasound image and sound, but also describe the ultrasound to her. As part of this research, we surveyed patients at a number of clinics after their initial visit. Although we have not yet published these data in final form, the data indicate that this visit does not affect patient certainty; 92% had medium-high confidence in their decision about the abortion before the ultrasound, and the same percentage had medium-high confidence in their decision after.[20]

30. Roberts et al. found similar results looking at patients subjected to Utah's 72-hour mandatory delay law. Specifically, the percentage of women who came to their first visit with a low level of uncertainty and nonetheless continued their pregnancy after the delay period (2%) was "in the range of the proportions found changing their mind (1–3%) in settings with no or minimal waiting periods."[21]

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[18] Lauren J. Ralph et al., *Measuring Decisional Certainty Among Women Seeking Abortion,* 95 Contraception 269, 276 (2017).

[19] Corinne Rocca et al., *Decision Rightness and Emotional Responses to Abortion in the United States: A Longitudinal Study,* 10 PLoS One 1, 1 (2015).

[20] Tex. Pol'y Evaluation Project, *Impact of Abortion Restrictions in Texas: Research Brief* (Apr. 2013), https://liberalarts.utexas.edu/txpep/_files/pdf/TxPEP-ResearchBrief-ImpactofAbortionRestrictions.pdf.

[21] Roberts et al., *supra* note 17, at 185.

31. These studies indicate that mandatory delay laws do not dissuade women from seeking an abortion, which is not surprising to me, since as indicated above, they *already* deliberate and consider their options before scheduling the procedure.

32. A study by Gatter et al. looked at decisional certainty among women seeking an abortion at a Los Angeles clinic and also at decision-making about whether to view the ultrasound. In this study, patients were scheduled for an ultrasound and an abortion on the same day, and they were asked beforehand whether or not they wanted to view the ultrasound. A majority of patients chose not to view the ultrasound (which is my experience as well), and 98.8% of women went forward with the abortion after the informed consent process. Among the 85.4% of patients with follow-up data and reporting high decisional certainty, there was no association between the decision to view the ultrasound and the decision to continue a pregnancy (patients opting to view the ultrasound were just as likely to terminate their pregnancy as patients opting not to).[22] Among the small minority of patients reporting medium or low decisional certainty (7.4%)[23], there was an association with continuing the pregnancy. However, because the patients were not randomized to whether or not they viewed the ultrasound (it was their choice), the association may have appeared because, within the broad category of patients with "medium or low decisional certainty," women who were more inclined to continue their pregnancy (regardless of whether or not they viewed the ultrasound) may have been more likely to choose to view the ultrasound.

[22] Gatter et al., *supra* note 17, at 83–84.
[23] *Id.*

33. In short, the overwhelming majority of patients arrive at their appointment certain in their decision without a state-mandated delay period. Providers are trained to screen for uncertainty, and the standard of care is not to proceed with an abortion if the patient is uncertain but rather to advise her to take more time with her decision. This is the best approach, clinically, to ensure that women who are firmly decided receive prompt care, and women who are not receive the support they need to reach a firm decision.

34. An additional problem with the Act is that it requires providers at the initial visit to inform patients of "indicators" and "contra-indicators." These are not medical terms, and I have never seen them before. In my opinion, providers will not know what information they need to give in order to comply with this requirement.

Mandatory Delays Burden Patients

35. Research also indicates that requiring patients to make an additional trip to the clinic and then wait a specified time period before having an abortion makes it harder for them to access this care. The Act is a particularly burdensome version of this requirement; if it stays in effect, Iowa will be one of only three states (joined by Missouri and South Dakota) that requires an in-person visit and 72-hour wait.[24]

36. To begin with, patients overwhelmingly do not want these requirements. In one study surveying 379 Arizona patients, 88% of patients expressed a preference for being

[24] Guttmacher Institute, *Counseling and Waiting Periods for Abortion* (Apr. 1, 2017), https://www.guttmacher.org/state-policy/explore/counseling-and-waiting-periods-abortion. This chart lists Utah in this category. However, Utah does not require an ultrasound or an in-person meeting for the first encounter (so long as the patient and provider meet "face-to-face," which includes via teleconference from the patient's home), so Utah does not in fact require two trips.

counseled and having an abortion on the same day, with only 12% preferring to have these visits on different days.[25] The 88% who preferred same-day care were significantly more likely than the other group to say that a mandatory delay would prevent their support person from accompanying them and also that they would travel out of state to avoid such a requirement.[26]

37. One recent study looking at Utah's 72-hour mandatory delay law found that the requirement imposed substantial burdens on patients. For example, patients were delayed an average of eight days, generally due to logistical reasons (as opposed to needing more time to come to a final decision).[27] As set forth above, this degree of delay prevents some women from having a medication abortion and exposes all women to the increased medical risk associated with delay. This finding has particular significance for Iowa, where medication abortion is available in eight towns and cities, while surgical abortion is only available in two out of the eight.

38. Notably, a small number of patients in the Utah study were still seeking abortions three weeks after their initial visit, one patient had been pushed past her provider's gestational age limit, and at least one patient had been pushed past the point in her pregnancy when she felt comfortable terminating.[28]

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[25] Karasek, Roberts, & Weitz, *supra* note 13, at 64.

[26] *Id.*

[27] Roberts et al., *supra* note 17, at 184.

[28] *Id.* at 179, 183.

39. This study found other burdens as well. Patients faced increased costs and diminished confidentiality. Women with pregnancy-related illness or symptoms had to endure these for an additional period.[29]

40. Women also reported significant stress associated with the delay along with a feeling of powerlessness and fear that they would lose desired medical options (such as non-surgical abortion).[30] That is consistent with my decades of clinical experience: patients are often anxious to terminate their pregnancy for various reasons. Some are experiencing debilitating pregnancy symptoms, such as intense nausea, or have a condition that may be exacerbated by pregnancy, such as hypertension. Some need to conceal the pregnancy and abortion from a coercive or abusive partner or family member, or from others in their community. Some are survivors of rape, and are particularly anxious to terminate their pregnancy because it is a constant, invasive reminder of that traumatic experience.[31] And some who are certain about their decision are nonetheless anxious about the abortion process itself; this can be especially acute for women who have a history of physical or sexual abuse or a past traumatic medical experience.

41. The Utah findings also are consistent with my current research in Texas, where 31% of women reported that the mandatory delay had a negative effect on their emotional well-

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[29] *Id.* at 183–84; *see also* Jessica N. Sanders et al., *The Longest Wait: Examining the Impact of Utah's 72-Hour Waiting Period for Abortion*, 26 Women's Health Issues 483, 485 (2016) (62% of patients reporting negative effects from the mandatory delay, including lost wages, transportation costs, and having to disclose their situation to others they did not want to involve).

[30] Roberts et al., *supra* note 17, at 184.

[31] In addition, the many logistical difficulties of arranging a separate visit to the provider, including taking time off from work and/or school, arranging child-care, and making the necessary travel arrangements, are likely to be even more difficult for a woman following a traumatic event such as a rape.

being, and 23% found it difficult to get to the clinic for the consultation visit.[32] In a multivariable analysis, women below federal poverty guidelines were significantly more likely to report difficulty getting to the clinic. Patient costs associated with that extra, medically unnecessary visit averaged $141.[33]

42. These recent data confirm earlier research finding that mandatory delay laws severely burden women seeking an abortion. Studies of Mississippi's two-trip, 24-hour mandatory delay law found that, after that law went into effect, not only did abortion rates decline in that state, but the incidence of second-trimester abortion increased significantly (without increasing in neighboring states without such a requirement), as did the number of women traveling out of state to access abortion.[34] A 2009 review of that and other research concluded "that mandatory counseling and waiting period laws that require an additional in-person visit before the procedure likely increase both the personal and the financial costs of obtaining an abortion, thereby preventing some women from accessing abortion services," and also that "[i]f neighboring states have similar laws, so that access to an abortion provider who does not require this strict form of waiting period requires extensive travel, then such laws are

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[32] *Impact of Abortion Restrictions in Texas: Research Brief*, *supra* note 20, at 1; Daniel Grossman et al., *Impact of Restrictive Abortion Law on Women in Texas*, 88 Contraception 434 (2013) (abstract).

[33] *Id.*

[34] Theodore Joyce, Stanley K. Henshaw, & Julia DeClerque Skatrud, *The Impact of Mississippi's Mandatory Delay Law on Abortions and Births*, 278 J. Am. Med. Ass'n 653 (1997); Ted Joyce & Robert Kaestner, *The Impact of Mississippi's Mandatory Delay Law on Timing of Abortions*, 32 Fam. Plan. Persp. 4 (2000).

likely to lower abortion rates, delay women who are seeking abortions and result in a higher proportion of second-trimester abortions."[35]

43. In light of this evidence, the American College of Obstetricians and Gynecologists, the leading professional medical group devoted to the care of women, has recognized that multi-trip mandatory delay laws impose burdens on women and reduce their access to care, and that these laws therefore are "harmful to women's health."[36]

44. In addition to these concerns, I am particularly worried about the impact of the two-trip, 72-hour mandatory delay on Iowa women in rural and outlying areas. Until PPH began using telemedicine to provide medication abortion in these areas in 2008, women had to travel far distances—in some cases hundreds of miles—to reach a clinic in Des Moines or Iowa City with a physician present. Because of telemedicine, these women now have far more access, but only in the first 10 weeks of their pregnancy. Because women often do not become aware that they are pregnant until about 5 weeks LMP or later, many women struggle to access care within that 10-week period. An extra trip to the clinic and a 72-hour mandatory delay (which in practice often amounts to a delay of more than a week) will push many of these women past that window; not only will they lose the option of a non-surgical procedure, but they will have to travel much farther to receive care.[37]

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[35] Theodore J. Joyce et al., Guttmacher Inst., *The Impact of State Mandatory Counseling and Waiting Periods on Abortion* at 15 (2009), https://www.guttmacher.org/report/impact-state-mandatory-counseling-and-waiting-period-laws-abortion-literature-review.

[36] ACOG, *Comm. Op. No. 613: Increasing Access to Abortion* (Nov. 2014, reaffirmed 2017), http://www.acog.org/-/media/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/co613.pdf?dmc=1&ts=20170412T1753496343.

[37] Roberts et al., *supra* note 17, at 184 ("Women who had an abortion waited about eight days between the information visit and the abortion.")

45. Research indicates that these distances are an additional barrier to care, pushing women further into their pregnancy, when abortion is less safe and more expensive. A study of abortion in Washington state found that rural women who had to travel more than 75 miles to obtain an abortion were two to three times more likely than women travelling less than 75 miles to terminate after 12 weeks, and that after abortion became less available in Washington, "the proportion of rural women having their abortions at later than 18 weeks more than doubled . . . growing from 2% to 5%," and the proportion of rural women having abortions after 18 weeks was "significantly higher than that among their urban counterparts."[38] In our research in Texas, we found that when clinics closed, there was a significant association between increasing distance to the nearest clinic and decline in the number of abortions, demonstrating how geographic barriers prevent women from obtaining care.[39]

46. For some women, the delay required by the Act will push them entirely out of the window in which they can access an abortion in Iowa at all (particularly given the new 20-week ban Iowa has enacted), forcing them to travel out of state to have an abortion, if they have the resources to do so. For others, it will force them to carry to term or to take potentially dangerous measures to self-abort.

47. I understand that the Act contains no exceptions other than for a medical emergency, which I understand is defined elsewhere as a physical condition that either poses a

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[38] Sharon A. Dobie et al., *Abortion Services in Rural Washington State, 1983-1984 to 1993-1994: Availability and Outcomes*, 31 Fam. Plan. Persp. 241, 243 (1999); *see also* Joyce, Henshaw, & Skatrud, *supra* note 34.

[39] Daniel Grossman et al., *Change in Distance to Nearest Facility and Abortion in Texas, 2012 to 2014*, 317 J. Am. Med. Ass'n 437 (2017).

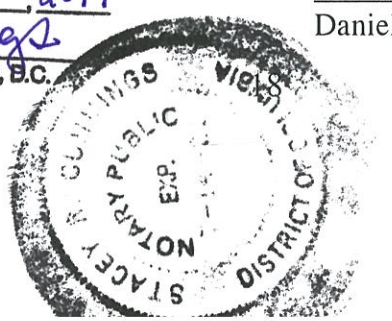
threat to the patient's life or "will create a serious risk of substantial and irreversible impairment of a major bodily function of the pregnant woman." Iowa Code § 146B.1(6) (2017). In my opinion and based on my experience, this exception does not begin to encompass the situations in which a 72-hour mandatory delay, in combination with a 2-trip requirement, would pose a particularly extreme hardship for a woman seeking an abortion. As noted above, some women need immediate care without unnecessary additional trips to the clinic, either because they are sick (but not in such a way that a major bodily function is about to be irreversibly impaired), or because their pregnancy is the result of rape and is itself traumatic, or because they are in danger of abuse if a partner or family member discovers their pregnancy.

48. I have also treated patients who made the painful decision to terminate a wanted pregnancy after discovering a serious fetal anomaly, including an anomaly that would have made the fetus unable to survive to term or after birth. I understand the law would require these patients not only to make an extra trip and then wait at least three days, but also to be counseled about "the options relative to pregnancy, including carrying to term." Iowa Code § 146A.1(1)(d)(a). This requirement will cause gratuitous pain to patients who are already grieving. It goes against the ethic of compassionate care that is central to the medical profession.

49. For all of the foregoing reasons, the Act will not improve women's decision-making about abortion, and will significantly burden them, diminish their access to care, and expose them to increased medical risk.

Signed this 26th day of April, 2017.

District of Columbia: SS
Subscribed and sworn to before me, in my presence,
this 26th day of April, 2017
Stacey R. Cummings
Stacey R. Cummings, Notary Public, D.C.
My commission expires July 14, 2021.



Daniel Grossman

Daniel Grossman, MD

EXHIBIT A

April 1, 2017

DANIEL A. GROSSMAN, M. D., F. A. C. O. G.
Advancing New Standards in Reproductive Health, UCSF
1330 Broadway, Suite 1100
Oakland, CA 94612

Current position

Professor, Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco
Director, Advancing New Standards in Reproductive Health (ANSIRH)

Education

Sept. 1985-May 1989	Yale University-Molecular Biophysics and Biochemistry	B.S., 1989
Sept. 1989-June 1994	Stanford University School of Medicine	M.D., 1994
June 1994-June 1998	Resident and Administrative Chief Resident, Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco	

Licenses/Certification

1996-Present	California medical licensure (A60282)
2001-Present	Board-certified, American Board of Obstetrics and Gynecology

Principal positions held

Aug. 1998-Feb. 2003 Aug. 2005-2012	Physician, St. Luke's Women's Center, San Francisco, CA
May 2003-Aug. 2005	Health Specialist, The Population Council Regional Office for Latin America and the Caribbean, Mexico City
Aug. 2005-Aug. 2015	Senior Associate (through June 2012), Vice President for Research (starting July 2012), Ibis Reproductive Health
Sept. 2015-Present	Professor, Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco
Sept. 2015-Present	Director, Advancing New Standards in Reproductive Health (ANSIRH)

Other positions held concurrently

Aug. 1998-Feb. 2003	Director of Medical Student Education, Department of Obstetrics and Gynecology, St. Luke's Hospital
Aug. 1998-Feb. 2003	Vice Chair, Department of Obstetrics and Gynecology, St. Luke's Hospital
Aug. 1998-2015	Assistant Clinical Professor, Bixby Center for Global Reproductive Health, Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco
2012-2015	Contract physician, Planned Parenthood Shasta Pacific
Aug. 2015-Present	Senior Advisor, Ibis Reproductive Health

Honors and awards

1988	Howard W. Hilgendorf Jr. Fellowship, Yale University
1988	Robin Berlin Memorial Prize, Yale University
1989	Magna cum laude, Yale University
1990	Medical Scholars Award, Stanford University
1990	Peter Emge Traveling Fellowship, Stanford University
1991-1992	Foreign Language and Area Studies Fellowship, Stanford University
1994	Dean's Award for Research in Infectious Diseases, Stanford University
2007	Ortho Outstanding Researcher Award, Association of Reproductive Health Professionals
2009	Visionary Partner Award, Pacific Institute for Women's Health
2010	Scientific Paper Award, National Abortion Federation
2013	Gerbode Professional Development Fellowship
2013	Abstract selected as one of Top 4 Oral Abstracts at North American Forum on Family Planning
2013	Felicia Stewart Advocacy Award from the Population, Reproductive and Sexual Health Section of the American Public Health Association

Key words/areas of interest

Abortion, medication abortion, second-trimester abortion, contraception, over-the-counter access to oral contraception, integration of family planning into HIV care and treatment, Latina reproductive health in the US, misoprostol and self-induction of abortion, Mexico, Peru, Bolivia, Dominican Republic, South Africa, Kenya

PROFESSIONAL ACTIVITIES

PROFESSIONAL ORGANIZATIONS

Memberships

2000-Present:	Fellow, American College of Obstetrics and Gynecology (ACOG)
2006-Present:	Fellow, Society of Family Planning
2004-Present:	American Public Health Association
2013-2015:	American Medical Association
2004-2011:	Association of Reproductive Health Professionals
2004-2016:	International Consortium for Medical Abortion
2006-Present:	Liaison Member, Planned Parenthood Federation of America National Medical Committee
2005-Present:	Consorcio Latinoamericano contra el Aborto Inseguro (Latin American Consortium against Unsafe Abortion)
2004-Present:	Working Group on Oral Contraceptives Over-the-Counter

Service to professional organizations

2008-Present:	Society of Family Planning, reviewer of grant proposals, abstract reviewer for annual meeting
2007-Present:	American Public Health Association, Governing Councilor (2007-2009, 2010-2014), Section Secretary (2008-2009), abstract reviewer for annual meeting
2005-2012:	Consorcio Latinoamericano contra el Aborto Inseguro, member of Coordinating Committee

2006-Present:	Working Group on Oral Contraceptives Over-the-Counter, working group coordinator and member of steering committee
2010-2013:	Member, Committee on Practice Bulletins-Gynecology, ACOG
2014-Present:	Member, Committee on Health Care for Underserved Women, ACOG (Vice Chair of Committee starting May 2016)
2010-2016:	Steering Committee member, International Consortium for Medical Abortion
2016	External advisor for Marie Stopes International research strategy meeting, March 23-24, 2016, London, UK

SERVICE TO PROFESSIONAL PUBLICATIONS

2013-Present	Editorial Board, Contraception
2004-Present	Ad hoc reviewer for Obstetrics and Gynecology (10 papers in past 5 years), American Journal of Public Health (4 papers in past 3 years), Reproductive Health Matters (6 articles in past 4 years), Expert Review of Obstetrics and Gynecology (3 review in past year), and Women's Health Issues (4 articles in past 2 years), Lancet (2 reviews in past year)

INVITED PRESENTATIONS (Selected)

International

Second-trimester abortion. Optimizing the Potential for Medication in Pregnancy Termination in South America Conference, Lima, Peru, 2014 (invited talk).

Participation in panel at Harvard University seminar: Politics, Public Health, and Abortion: Examining the Changing Legal Environment in Mexico and Central America, Cambridge, MA, 2014 (invited talk).

Evidence for removing the prescription barrier to hormonal contraception. Annual meeting of the Associacion Française pour la Contraception, Paris, France, March 2015.

Presentations on medical abortion and second-trimester abortion, REDAAS (Red de Acceso al Aborto Seguro) meeting, Buenos Aires, Argentina, May 2015 (invited talk).

Panel participant in panel "Gestational limits for abortion: what purpose do they serve?" and presentations on adolescent pregnancy, telemedicine provision early medical abortion, and second-trimester abortion. Fifth Research Meeting on Unintended Pregnancy and Unsafe Abortion, Mexico City, September 2015 (invited talks).

Moving oral contraceptives over the counter as a strategy to reduce unintended pregnancy. The Human Right to Family Planning Conference, Seattle, WA, October 2015 (invited talk).

Over-the-counter access to hormonal contraception- what are the risks and benefits?, and Introduction of the mifepristone regimen for second-trimester medical abortion in South Africa. XXI FIGO World Congress of Gynecology and Obstetrics, Vancouver, Canada, October 2015 (oral presentations).

Second-trimester abortion. Presentation at the First Latin American Meeting on Public Sector Providers of Legal Abortion, Buenos Aires, Argentina, August 2016 (invited talk).

National

Participation in panel entitled Abortion Scholarship: An Interdisciplinary Conversation, at UC Berkeley Symposium Speech, Symbols, and Substantial Obstacles: The Doing and "Undue"ing of Abortion Law since Casey, Berkeley, 2013 (invited talk).

Impact of restrictive abortion law on women in Texas. North American Forum on Family Planning, Seattle, 2013 (oral presentation).

Randomized Trial of Misoprostol versus Laminaria before Dilation and Evacuation in South Africa. Annual meeting of the National Abortion Federation, San Francisco, 2014 (oral presentation).

Introduction of the mifepristone regimen for second-trimester medical abortion in South Africa. Annual meeting of the National Abortion Federation, Baltimore, April 2015 (oral presentation).

Knowledge, opinion and experience related to abortion self-induction in Texas (oral abstract), and participant in panel "Addressing the global need for safe abortion after the first trimester." North American Forum on Family Planning, Chicago, November 2015 (oral presentations).

Participant in panel "Addressing the Challenges Facing Women's Reproductive Health Care," Academy Health National Health Policy Conference, Washington, DC, February 2, 2016 (invited talk).

Panel presentations entitled "Medical abortion restrictions: From label laws to abortion reversal," "Texas: Ground Zero in the Abortion Wars" and "Stolen Lives: Impact of early adolescent pregnancy on all aspects of health," Annual meeting of the National Abortion Federation, Austin, Texas, April 2016.

Panel presentations entitled "Evaluating Reproductive Health Policy at the State Level" and "Translating research into policy: Contributing data to the public debate when it matters most," North American Forum on Family Planning, Denver, November 2016.

Panel presentation entitled "Abortion Outside the Clinic: Imagining Safe and Legal Abortion in a post-Roe World," Physicians for Reproductive Health Grand Rounds, New York University School of Law, New York, March 2017.

<u>Regional and other invited presentations</u>

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, 2013.

Improving access to early medical abortion through the use of telemedicine. Office of Population Research seminar, Princeton University, 2014 (invited talk).

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics and Gynecology, Emory University School of Medicine, Atlanta, Georgia, February 2015.

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics and Gynecology, Baylor University School of Medicine, Houston, Texas, April 2015.

The causes and consequences of unintended pregnancy among women in the US military. San Francisco General Hospital grand rounds, September 2015.

Impact of family planning cuts and abortion restrictions in Texas. Grand rounds presentation, Department of Obstetrics and Gynecology, University of New Mexico School of Medicine, Albuquerque, New Mexico, October 2015.

Using evidence and advocacy to improve second-trimester abortion care in South Africa. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, December 2015.

UCSF/UCH Consortium Annual Supreme Court Review, panel speaker on Whole Woman's Health v. Hellerstedt, San Francisco, July 2016.

American Gynecological Club meeting, presentation on Reproductive Health in Texas and panel participant, San Francisco, September 2016.

Speaking science to the Court: the experience of experts in Whole Woman's Health v. Hellerstedt, panel participant, UC Hastings, San Francisco, October 2016.

How data made the difference in the Texas abortion case before the US Supreme Court. Grand rounds presentation, Department of Obstetrics, Gynecology and Reproductive Sciences, UCSF, November 2016.

Research That Gets Results: A Symposium on Science-Driven Policy Change, panel participant, UCSF, March 2017.

OTHER PROFESSIONAL SERVICE

2007	Member of the International Planned Parenthood Federation Safe Abortion Action Fund Technical Review Panel
2007-2009	Steering committee member of the California Microbicide Initiative
2002-2004	Member, Medical Development Team, Marie Stopes International (London)
2013-Present:	Reviewer of fellows' research proposals for the Fellowship in Family Planning
2013-2015	Member of working group on Guidelines for Task Shifting in Abortion Provision convened by World Health Organization
2014	Discovery working group member, Preterm Birth Initiative (PTBi), UCSF
2013-Present	Board member and Secretary (2014-2016), NARAL Pro-Choice America Foundation
2014-Present	Board member, NAF

TEACHING

FORMAL SCHEDULED CLASSES:

Qtr	Academic Yr	Institution Course Title	Teaching Contribution	Class Size
W	2008-09	Harvard School of Public Health; GHP502 International reproductive health issues: Moving from theory to practice	Lecturer; 2 lectures	22
W	2009-10	Harvard School of Public Health; GHP502 International reproductive health issues: Moving from theory to practice	Lecturer; 1 lecture	17
F	2014-15	UCSF Coursera course; Abortion: Quality Care and Public Health Implications	Lecturer; 4 lectures	6,000+ (online)
F	2015-16	University of Texas at Austin; Sociology--Reproductive Health and Population in Texas; SS 301 Honors Social Science	Lecturer; 1 lecture	20
S	2016-17	UC Berkeley School of Law; 224.6 - Selected Topics in Reproductive Justice	Lecturer; 1 lecture	12

POSTGRADUATE and OTHER COURSES

Guest lecturer in "Qualitative Research Methods in Public Health," CUNY School of Public Health, September 2011

Women's health from a global perspective. Presentation at Obstetrics and Gynecology Update: What Does the Evidence Tell Us? UCSF CME course, San Francisco, 2007.

TEACHING AIDS

Contributed to the development of a training slide set on medical abortion in Spanish, 2004

Developed pocket cards on emergency contraception for use by community health workers in the State of Mexico, 2005

Reviewed and provided input on a manual on gynecologic uses of misoprostol published by the Latin American Federation of Obstetric and Gynecologic Societies (FLASOG), 2005

Grossman D. Medical methods for first trimester abortion: RHL commentary (last revised: 3 September 2004). The WHO Reproductive Health Library, No 8, Update Software Ltd, Oxford, 2005. Exerpt available at: http://www.rhlibrary.com/Commentaries/htm/Dgcom.htm.

Grossman D. Medical methods for first trimester abortion: RHL practical aspects (last revised: 3 September 2004). The WHO Reproductive Health Library, No 8, Update Software Ltd, Oxford, 2005.

RESEARCH AND CREATIVE ACTIVITIES

PEER REVIEWED PUBLICATIONS

1. Laudon M, Grossman DA, Ben-Jonathan N. Prolactin-releasing factor: cellular origin in the intermediate lobe of the pituitary. Endocrinology 1990; 126(6):3185-92.
2. Grossman DA, Witham ND, Burr DH, Lesmana M, Rubin FA, Schoolnik GK, Parsonnet J. Flagellar serotypes of Salmonella typhi in Indonesia: relationships among motility, invasiveness, and clinical illness. Journal of Infectious Diseases 1995; 171(1):212-6.
3. MacIsaac L, Grossman D, Balistreri E, Darney P. A randomized controlled trial of laminaria, oral misoprostol, and vaginal misoprostol before abortion. Obstetrics and Gynecology 1999; 93(5, pt.1):766-770.
4. Grossman D, Ellertson C, Grimes DA, Walker D. Routine follow-up visits after first-trimester induced abortion. Obstetrics and Gynecology 2004; 103(4):738-45.
5. Lafaurie MM, Grossman D, Troncoso E, Billings DL, Chávez S. Women's perspectives on medical abortion in Mexico, Colombia, Ecuador and Peru: a qualitative study. Reproductive Health Matters 2005;13(26):75-83.
6. Grossman D, Ellertson C, Abuabara K, Blanchard K. Barriers to contraceptive use present in product labeling and practice guidelines. American Journal Public Health 2006;96(5):791-9.
7. Yeatman SE, Potter JE, Grossman DA. Over-the-counter access, changing WHO guidelines, and the prevalence of contraindicated oral contraceptive use in Mexico. Studies in Family Planning 2006; 37(3):197–204.

8. Pace L, Grossman D, Chavez S, Tavara L, Lara D, Guerrero R. Legal Abortion in Peru: Knowledge, attitudes and practices among a group of physician leaders. Gaceta Medica de Mexico 2006; 142(Supplement 2):91-5.
9. Lara D, Abuabara K, Grossman D, Diaz C. Pharmacy provision of medical abortifacients in a Latin American city. Contraception 2006;74(5):394-9.
10. Tinajeros F, Grossman D, Richmond K, Steele M, Garcia SG, Zegarra L, Revollo R. Diagnostic accuracy of a point-of-care syphilis test when used among pregnant women in Bolivia. Sexually Transmitted Infections 2006;82 Suppl 5:v17-21.
11. Clark W, Gold M, Grossman D, Winikoff B. Can mifepristone medical abortion be simplified? A review of the evidence and questions for future research. Contraception 2007;75:245-50.
12. Garcia SG, Tinajeros F, Revollo R, Yam EA, Richmond K, Díaz-Olavarrieta C, Grossman D. Demonstrating public health at work: A demonstration project of congenital syphilis prevention efforts in Bolivia. Sexually Transmitted Diseases 2007;34(7):S37-S41.
13. Díaz-Olavarrieta C, García SG, Feldman BS, Polis AM, Revollo R, Tinajeros F, Grossman D. Maternal syphilis and intimate partner violence in Bolivia: a gender-based analysis of implications for partner notification and universal screening. Sex Transm Dis 2007;34(7 Suppl):S42-6.
14. Harper CC, Blanchard K, Grossman D, Henderson J, Darney P. Reducing Maternal Mortality due to Abortion: Potential Impact of Misoprostol in Low-resource Settings. International Journal of Gynecology and Obstetrics 2007;98:66-9.
15. Grossman D, Berdichevsky K, Larrea F, Beltran J. Accuracy of a semi-quantitative urine pregnancy test compared to serum beta-hCG measurement: a possible tool to rule-out ongoing pregnancy after medication abortion. Contraception 2007;76(2):101-4.
16. Lara D, van Dijk M, Garcia S, Grossman D. La introducción de la anticoncepción de emergencia en la norma oficial mexicana de planificación familiar (The introduction of emergency contraception into the official Mexican family planning norms). Gaceta Médica de México 2007;143(6): 483-7.
17. Grossman D, Blanchard K, Blumenthal P. Complications after second trimester surgical and medical abortion. Reproductive Health Matters 2008;16(31 Supplement):173-82.
18. Grossman D, Fernandez L, Hopkins K, Amastae J, Garcia SG, Potter JE. Accuracy of self-screening for contraindications to combined oral contraceptive use. Obstetrics and Gynecology 2008; 112(3):572-8.
19. Grossman D. Should the oral contraceptive pill be available without prescription? Yes. British Medical Journal 2008;337:a3044.
20. Levin C, Grossman D, Berdichevsky K, Diaz C, Aracena B, Garcia S, Goodyear L. Exploring the economic consequences of unsafe abortion: implications for the costs of service provision in Mexico City. Reproductive Health Matters 2009;17(33):120–132.
21. Hu D, Grossman D, Levin C, Blanchard K, Goldie SJ. Cost-Effectiveness Analysis of Alternative First-Trimester Pregnancy Termination Strategies in Mexico City. BJOG 2009;116:768–779.

22. Távara-Orozco L, Chávez S, Grossman D, Lara D, Blandón MM. Disponibilidad y uso obstétrico del misoprostol en los países de América [Availability and obstetric use of misoprostol in Latin American countries]. Revista Peruana de Ginecologia y Obstetricia 2009;54:253-263.
23. Lara DK, Grossman D, Muñoz J, Rosario S, Gomez B, Garcia SG. Acceptability and use of female condom and diaphragm among sex workers in Dominican Republic: Results from a prospective study. AIDS Education and Prevention 2009;21(6):538-551.
24. Grossman D, Fernandez L, Hopkins K, Amastae J, Potter JE. Perceptions of the safety of oral contraceptives among a predominantly Latina population in Texas. Contraception 2010;81(3):254-60. (NIHMS155993)
25. Potter JE, White K, Hopkins K, Amastae J, Grossman D. Clinic versus Over-the-Counter Access to Oral Contraception: Choices Women Make in El Paso, Texas. American Journal of Public Health 2010;100(6):1130-6. (NIHMS 221745)
26. Phillips K, Grossman D, Weitz T, Trussell J. Bringing evidence to the debate on abortion coverage in health reform legislation: findings from a national survey in the United States. Contraception 2010;82(2):129-30.
27. Hu D, Grossman D, Levin C, Blanchard K, Adanu R, Goldie SJ. Cost-Effectiveness Analysis of Unsafe Abortion and Alternative First-Trimester Pregnancy Termination Strategies in Nigeria and Ghana. African Journal of Reproductive Health 2010;14(2)85-103.
28. Grossman D, Holt K, Peña M, Veatch M, Gold M. Winikoff B, Blanchard K. Self-induction of abortion among women in the United States. Reproductive Health Matters 2010;18(36):136–146.
29. Grossman D, Grindlay K. Alternatives to ultrasound for follow-up after medication abortion: A systematic review. Contraception 2011;83(6):504-10.
30. Liang S-Y, Grossman D, Phillips K. Women's out-of-pocket expenditures and dispensing patterns for oral contraceptive pills between 1996 and 2006. Contraception 2011;83(6):528-36.
31. Blanchard K, Bostrom A, Montgomery E, van der Straten A, Lince N, de Bruyn G, Grossman D, Chipato T, Ranjee G, Padian N. Contraception use and effectiveness among women in a trial of the diaphragm for HIV prevention. Contraception 2011;83(6):556-63.
32. Grossman D, White K, Hopkins K, Amastae J, Shedlin M, Potter JE. Contraindications to Combined Oral Contraceptives Among Over-the-Counter versus Prescription Users. Obstet Gynecol 2011;117(3):558–65.
33. Potter JE, McKinnon S, Hopkins K, Amastae J, Shedlin MG, Powers DA, Grossman D. Continuation of prescribed compared with over-the-counter oral contraceptives. Obstet Gynecol 2011;117(3):551–7.
34. Grindlay K, Yanow S, Jelinska K, Gomperts R, Grossman D. Abortion restrictions in the US military: Voices from women deployed overseas. Women's Health Issues 2011;21(4):259-64.
35. Grossman D, Grindlay K, Buchacker T, Lane K, Blanchard K. Effectiveness and Acceptability of Medical Abortion Provided Through Telemedicine. Obstetrics and Gynecology 2011;118(2 Pt 1):296-303.
36. Holt K, Grindlay K, Taskier M, Grossman D. Unintended pregnancy and contraceptive use among women in the US military: A systematic literature review. Military Medicine 2011;176(9):1056-64.

37. Harris LH, Grossman D. Confronting the challenge of unsafe second-trimester abortion. Int J Gynaecol Obstet 2011;115(1):77-9.
38. Grossman D, Constant D, Lince N, Alblas M, Blanchard K, Harries J. Surgical and medical second trimester abortion in South Africa: a cross-sectional study. BMC Health Serv Res. 2011;11(1):224.
39. Harries J, Lince N, Constant C, Hargey A, Grossman D. The challenges of offering public second trimester abortion services in South Africa: Health care providers' perspectives. Journal of Biosocial Science 2011;17:1-12.
40. Dennis A, Grossman D. Barriers to Contraception and Interest in Over-the-Counter Access Among Low-Income Women: A Qualitative Study. Perspect Sex Reprod Health 2012;44(2):84-91.
41. Foster DG, Higgins J, Karasek D, Ma S, Grossman D. Attitudes toward unprotected intercourse and risk of pregnancy among women seeking abortion. Women's Health Issues 2012;22(2):e149-55.
42. Foster DG, Karasek D, Grossman D, Darney P, Schwarz EB. Interest in using intrauterine contraception when the option of self-removal is provided. Contraception 2012;85(3):257-62.
43. White K, Potter JE, Hopkins K, Fernández L, Amastae J, Grossman D. Contraindications To Progestin-Only Oral Contraceptive Pills Among Reproductive Aged Women. Contraception 2012;86(3):199-203.
44. Harrington EK, Newmann SJ, Onono M, Schwartz KD, Bukusi EA, Cohen C, Grossman D. Fertility intentions and interest in integrated family planning services among HIV-infected women in Nyanza Province, Kenya: a qualitative study. Infectious Diseases in Obstetrics and Gynecology 2012;2012, Article ID 809682. doi:10.1155/2012/809682.
45. Lessard L, Karasek D, Ma S, Darney P, Deardorff J, Lahiff M, Grossman D, Foster DG. Contraceptive features preferred by women at high risk of unintended pregnancy. Perspectives on Sexual and Reproductive Health 2012;44(3):194-200.
46. Grossman D, Garcia S, Kingston J, Schweikert S. Mexican women seeking safe abortion services in San Diego, California. Health Care Women Int 2012;33(11):1060-9.
47. Hopkins K, Grossman D, White K, Amastae J, Potter JE. Reproductive health preventive screening among clinic vs. over-the-counter oral contraceptive users. Contraception 2012;86(4):376-82.
48. Potter JE, White K, Hopkins K, McKinnon S, Shedlin MG, Amastae J, Grossman D. Frustrated Demand for Sterilization among Low-Income Latinas in El Paso, Texas. Perspectives on Sexual and Reproductive Health 2012;44(4):228–235.
49. White K, Grossman D, Hopkins K, Potter JE. Cutting family planning in Texas. N Engl J Med 2012;367(13):1179-81.
50. Liang S-Y, Grossman D, Phillips K. User characteristics and out-of-pocket expenditures for progestin-only versus combined oral contraceptives. Contraception 2012;86(6):666-72.
51. Manski R, Dennis A, Blanchard K, Lince N, Grossman D. Bolstering the Evidence Base for Integrating Abortion and HIV Care: A Literature Review. AIDS Research and Treatment 2012 (2012), Article ID 802389. doi:10.1155/2012/802389.
52. Schwarz EB, Burch EJ, Parisi SM, Tebb KP, Grossman D, Mehrotra A, Gonzales R. Computer-assisted provision of hormonal contraception in acute care settings. Contraception 2013;87(2):242-50.

53. Grindlay K, Grossman D. Contraception access and use among U.S. servicewomen during deployment. Contraception 2013;87(2):162-9.
54. Grossman D, Grindlay K, Buchacker T, Potter JE, Schmertmann CP. Changes in service delivery patterns after introducing telemedicine provision of medical abortion in Iowa. Am J Public Health 2013;103(1):73-78.
55. Potter JE, Stevenson AJ, White K, Hopkins K, Grossman D. Hospital variation in postpartum tubal sterilization rates in California and Texas. Obstetrics and Gynecology 2013;121(1):152-8.
56. Grindlay K, Grossman D. Unintended Pregnancy Among Active Duty Women in the United States Military, 2008. Obstetrics and Gynecology 2013;121(2 Pt 1):241-6.
57. Hyman A, Blanchard K, Coeytaux F, Grossman D, Teixeira A. Misoprostol in women's hands: a harm reduction strategy for unsafe abortion. Contraception 2013;87(2):128-30.
58. Grindlay K, Grossman D, Lane K. Women's and Providers' Experiences with Medical Abortion Provided Through Telemedicine: A Qualitative Study. Women's Health Issues 2013;23(2):e117-22.
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LANGUAGES

Fluent in Spanish, conversant in French.

EXHIBIT C

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

PLANNED PARENTHOOD OF THE HEARTLAND, INC. and JILL MEADOWS, M.D., Petitioners, vs. KIMBERLY REYNOLDS ex rel. STATE OF IOWA and IOWA BOARD OF MEDICINE, Respondents.	LAW NO. EQCE081503 TRANSCRIPT OF BENCH TRIAL Volume I of II July 17, 2017

The above-entitled matter came on for bench trial before the Honorable Jeffrey D. Farrell, commencing at 9:02 a.m. on Monday, July 17, 2017, at the Polk County Courthouse, Des Moines, Iowa.

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patient is not able to tell the provider about this and completes it in a different way, then it would be harder for them to get access to that care.

Q. And you already spoke about low-income patients. How would the Act, in your opinion, impact these patients?

A. It would create a bigger burden for those patients financially.

Q. Can you elaborate on that?

A. Yeah. Since most of our patients are lower income at our health center, having to come to multiple appointments, take off multiple days of work, find childcare, find -- if their partners are going to come with them as well -- so two people would be losing income at that point. It would create a bigger burden for patients.

Q. And one last question, Mr. Reynolds. If this law were to take effect, how would this impact Planned Parenthood's patients on a whole?

A. I have said this already, but I do believe that this would reduce access for patients to receive the type of care that they wanted with abortions and in some cases prevent patients from receiving an abortion.

MS. RATAKONDA: No further questions.

THE COURT: Cross?

MR. OGDEN: Yes. Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. OGDEN:

Q. Good afternoon, Mr. Reynolds.

A. Good afternoon.

Q. My name is Tom Ogden. I'm here on behalf of the Governor and the Board of Medicine. I will be very brief, I promise.

You would agree with me that the decision whether to have an abortion or to carry a pregnancy to term is an important one?

A. I would.

Q. That's in part why you do counseling of patients prior to them making a decision?

A. Correct.

Q. You've opined that this, the challenged Act, is likely to prevent women from accessing an abortion. Are you aware that a study was done in Utah with the 72-hour, two-visit waiting period, that they found in the study that it did not prevent women from having abortions? Are you aware of that?

A. I'm not familiar with that study.

Q. Are you aware that -- well, I guess you wouldn't be aware, but just to make sure. Since you're not familiar with the study, you're also not aware that they found that on average the cost of the procedure was increased by only

1 percent?

A. Again, I'm not familiar with that study.

MR. OGDEN: No further questions.

MS. RATAKONDA: No further questions.

THE COURT: Thank you for your testimony. Next witness?

MS. CLAPMAN: Your Honor, I apologize. Our next witness is on his way, but I underestimated the prior testimony. But he should be here any minute. Would it be okay to take a five-minute break?

THE COURT: Why don't we do that.

(The bench trial recessed at 1:56 p.m.)

(The bench trial resumed at 2:10 p.m.)

THE COURT: Will you raise your right hand, please.

DANIEL GROSSMAN,

called as a witness, having been first duly sworn by the Court, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. CLAPMAN:

Q. Dr. Grossman, please state and spell your full name for the record.

A. Daniel Grossman. D-a-n-i-e-l. G-r-o-s-s-m-a-n.

Q. I would like you to turn to what should be Tab 7 in your binder, which is marked Exhibit 7, which appears to

be a copy of your CV. Do you see it?

A. Yes, I do.

Q. Did you prepare this document?

A. I did.

Q. Is the information on this document accurate?

A. Yes.

Q. Where did you do your medical training?

A. I went to medical school at Stanford University, and I did my residency in obstetrics and gynecology at the University of California, San Francisco.

Q. Are you a board certified OB/GYN?

A. Yes, I am.

Q. Where do you currently practice medicine?

A. I'm a professor in the Department of Obstetrics and Gynecology and Reproductive Sciences at the University of California, San Francisco, and my practice is focused at Zuckerberg San Francisco General Hospital.

Q. Please describe your medical practice.

A. So the clinical part of my work is currently focused on outpatient obstetrics and gynecology, primarily outpatient gynecology, including family planning and abortion care.

Q. And do you perform abortions?

A. Yes, I do.

Q. What procedures do you perform?

A. I mean, I perform first trimester aspiration abortion, surgical abortion. I perform second trimester surgical abortion, dilation and evacuation or D&E. I also perform first trimester medication abortions using Mifepristone and Misoprostol.

Q. For how long have you provided abortions?

A. I mean, I started providing as a resident, which I started in 1994.

Q. Do you also teach abortion care?

A. Yes, I do.

Q. In what capacity?

A. So in my role as a professor for all the clinical work I do, including the abortion care that I provide, I am teaching medical students, sometimes residency students, including OB/GYN residents, some family medicine residents, sometimes internal medicine residents, and family planing fellows. Sometimes I also do training with nurse practitioners or certified midwives who are willing to do abortion care.

Q. Do you provide this teaching and training in a range of OB/GYN procedures?

A. Beyond those related to the abortion care? Yes.

Q. Does this training and teaching include informed consent?

A. Yes, since that's a critical part of any

procedure that we do; yes.

Q. Do you have any other positions?

A. I mean, as part of my position at the University of California, San Francisco, I am also the director of a research program within the OB/GYN department called Advancing New Standards in Reproductive Health for Cancer.

Q. What is the American College of Obstetrics and Gynecology?

A. So the American College of Obstetricians and Gynecologists is the main professional organization for obstetricians and gynecologists. So I think it includes close to 60,000 members who are board certified obstetricians and gynecologists in the U.S.

Q. Are you involved in this organization?

A. Yes, I am.

Q. In what capacity?

A. I'm a fellow of the American College of Obstetricians and Gynecologists. I'm also active in several committees of the organization. I was on the committee for practice bulletins for gynecology, which develops sort of the practice guidance for practicing OB/GYNs, and I became vice chair of that committee. I'm currently on the committee for Healthcare for Underserved Women, and I am vice chair of that committee.

Q. Have you been involved in drafting any ACOG

guidance?

A. Yes. In my role on these committees I've been involved in both developing and writing practice bulletins and submitting opinions.

Q. Do you regularly any attend medical conferences in the field of obstetrics and gynecology?

A. Yes, I do.

Q. Do you regularly present at these conferences?

A. Yes, I do.

Q. Do you also conduct research?

A. Yes, I do.

Q. How would you characterize your research?

A. The research I do is both clinical research and social sciences. Also this health-focused research in obstetrics and gynecology is largely focused on family planning, including abortion, contraception, HIV, and reproductive health, more broadly.

Q. Have you conducted research on the effects of abortion restrictions in the United States?

A. Yes, I have.

Q. Approximately how many articles have you published in peer-review journals?

A. Approximately 140.

Q. Do these appear on your CV?

A. They do appear on my CV. I think there might

have been a couple that have been accepted for publication since this draft was prepared.

Q. Have you been a review for scientific journals?

A. Yes, I have.

Q. Can you give some examples that come to mind?

A. I have reviewed for journals for the American Medical Association, Obstetrics and Gynecology, Contraception. I'm actually on the editorial board for The Journal of Contraception.

Q. Have you been previously qualified as an expert witness?

A. Yes, I have.

Q. In what areas?

A. Related to family planning and abortion care.

MS. CLAPMAN: At this time I would like to move to qualify Dr. Grossman as an expert in obstetrics and gynecology, including abortion and informed consent procedures for abortion and in the social impact of abortion acts and abortion restrictions.

MR. THOMPSON: No objection, Your Honor.

Q. Dr. Grossman, are you here today to offer expert opinion about Iowa Senate File 471?

A. Yes, I am.

Q. And you can refer to the Act if you would like. It's Exhibit 1, so it should be Tab 1 in your binder. Are

you here today, specifically to testify about this 72-hour mandatory delay period in that law?

A. Yes, I am.

Q. What opinion are you offering in this -- about this law?

A. It's my opinion that this requirement does not improve patient decision making and that it provides -- it imposes obstacles to care in the form of, you know, increasing travel to the abortion, making it more logistically complicated. So I -- that's a short summary of my opinion.

Q. Okay. Please turn to Exhibits 14 and 15 and look at them briefly. Let's start with Exhibit 14. What is this?

A. I'm sorry. Start with 14?

Q. Yes. Please.

A. 14 looks like my rebuttal report.

Q. And what is Exhibit 15?

A. 15. I'm not sure if this is maybe -- Exhibit 15 is not mine.

Q. Okay. I apologize.

Okay. Dr. Grossman, could you please turn to Exhibit Tab 11. What is that?

A. That's my expert report.

Q. Does it accurately reflect your opinions in this

case?

A. Yes.

Q. And could you please turn to Exhibit Tab 14.

A. That's my expert rebuttal report.

Q. Does it accurately reflect your opinions in this case?

A. Yes, it does.

Q. Okay. What percentage of women have an abortion at some point in their lives?

A. It's more between about 25 to 30 percent of women who have an abortion at some time in their lives.

Q. And why do women have abortions?

A. I mean, they have abortions for a variety of reasons. The majority, about 60 percent of women, who seek abortion are already mothers and they're thinking about their current children that they have. For other women, sometimes they have health conditions they may get, not the right time for them to be having a pregnancy. Some women have life plans, like their education or work plans, meaning that it's not the right time for them to have a baby. Those are all some reasons that women state.

Q. Nationally, what percentage of women seeking an abortion are low income?

A. I think the most recent data suggests that about 75 percent of women seeking abortion are low income,

meaning at living at or below 200 percent of the poverty level.

Q. Do some women have preferences between possible abortion methods?

A. If you mean specifically between medication abortion versus surgical abortion, yes, women definitely do often have preferences between those two methods.

Q. Have you seen this in your clinical practice?

A. Yes, I have.

Q. What specifically have you seen in your clinical practice about patient preferences for the abortion?

A. I would say in my experience that the majority of women, certainly by the time they come in the clinic, have a pretty good idea of the method they want. And if there are reasons why they can't have their preferred method, like a woman is past the gestational age limit for a medication abortion, for example, you know, they're very disappointed and sometimes really quite upset about this news, because they have strong preferences.

I mean, women who -- and this is also reflected in the published literature -- women who have a preference for a medication abortion often want to have a less invasive procedure. They want to have that abortion at home surrounded by their partner or family member or friend, and they just want to feel more in control of the

whole process.

Q. Have you conducted any research related to this question?

A. Yes, I have.

Q. What research?

A. In several studies, but one in particular that I think is relevant is work that we did here in Iowa where we specifically looked at medication abortion patients at Planned Parenthood of the Heartland and comparing some outcomes between women who had a telemedicine abortion versus in-person medication abortion care. And one of the things that we looked at was specifically whether women had a preference for medication abortion early on in their decision-making process, so shortly after they decided to have the abortion. And if I recall correctly, I think it was around 71 percent of women overall said that they had a strong preference for medication abortion as they made their decision to have the abortion.

Q. I would like to refer you to Exhibit 28. It should be Tab 28. Is that the study you're referring to?

A. Yes.

Q. Could you please read for the record the title of publication, lead author, and the publication date?

A. So the title is "Effectiveness and Acceptability of Medical Abortion Provided Through Telemedicine."

Grossman is the first author published in *Obstetrics & Gynecology* in August 2011.

Q. And you mentioned a finding about preferences for medication abortion. Did you also look at women's preferences about timing?

A. Yes, we did. I want to confirm -- yes. So I was correct about the strong feeling about medication abortion was about 71 percent overall. And in terms of about those having -- we asked about how important it was for women to have an abortion as early as possible or having an early abortion, and about 94 percent said that that was very important to them.

Q. Is this research relevant to this case?

A. I think it's relevant. First of all, this is coming from, you know, a relatively large sample, over 400 women here in Iowa who were seeking and obtained a medication abortion and really highlights how women have a strong preference for both medication abortions and for having abortion as early as possible. It's my opinion that if this law goes into effect that women will be delayed in their process of seeking abortion and some will be delayed past the point of which they will be eligible for a medication abortion.

Q. Are you aware of any specific factors affecting access to abortion in Iowa?

A. Yeah. I am aware of few things. I mean, something I'm aware of, for example, that there's a requirement that only physicians can provide an abortion, despite the high-quality evidence that advanced practice clinicians, nurse practitioners, midwives, physician's assistants can safely and effectively provide both medication abortions and surgical abortions.

I'm aware there's a recent imposition of a ban on abortions after 20 weeks of gestation. I'm also aware that due to some of the changes in funding that is available to Planned Parenthood that they will be closing certain health centers and that will be further constraining access to abortion in the state.

Q. Have you analyzed how far women have to travel to reach a provider in Iowa?

A. Yes, I have.

Q. What did you look at specifically?

A. We looked a this a couple different ways, but the main way we looked at it was looking at the population of women of reproductive age here in Iowa and then looking at what proportion of women live -- lived in counties at various distances to both clinics that only provided surgical abortions in clinics in Iowa.

Q. And referring to paragraph 13 of your expert report if you need to, just -- Exhibit 11 -- what did you

find?

A. I'm sorry. So it was paragraph 13; correct? Yeah. So we found that a little over 25 percent, so about 28 percent of women of reproductive age in Iowa or about 162,000 women, live in a county at least 50 miles from the nearest abortion provider in the state, and about 260,000 women, or 44 percent of this population in Iowa, live in a county that is 50 miles or farther from the nearest facility providing surgical abortion in the state.

Q. Did you also look at distance traveled among women having an abortion in Iowa?

A. Yes, I did.

Q. And what did this show?

A. Can I turn to the --

Q. Yes. If you need to refer to your rebuttal report, it's paragraph 8 of this report, and it's Exhibit 14.

A. Okay. So just to say that -- so this was based on some estimates looking at the distances from the nearest abortion clinic or surgical abortion clinic in the state and trying to make some estimates about which termination of pregnancy reporting regions were largely within those radii.

But based on the best calculations that I could make -- so 47 percent of -- is this correct? Let me see.

47 percent of the surgical abortion patients and nearly 44 percent of medication abortion patients lived in regions more than 50 miles from the clinic. Just to say -- I said the actual calculation. It, again, was really the reverse. To say that 52 percent of surgical patients we cited were almost entirely within a 50-mile radius of a surgical provider. And then, similarly, 56 percent of medication abortion patients we cited in a region almost entirely within 50 miles of any provider.

Q. How do these specifics compare to the national average?

A. So, nationally, according to the national data, only about 17 percent of women travel 50 miles or more one way to access abortion care. So this is really quite a bit higher, larger proportion of women that are having to travel these long distances.

Q. Do these findings tell you anything about how the Act would affect women in Iowa?

A. Well, I think this highlights how already women are having to travel long distances, and those distances are obviously going to double if they have to make two visits to these facilities. And then as I said before, I'm concerned that some women will be delayed in the process, some women wanting to obtain medication abortions could obtain closer to where they live, will now have to travel

farther to access a surgical abortion care.

Q. We've talked a little bit about legal restrictions in Iowa and also about the provider availability in Iowa. Apart from these circumstances, do women face other barriers to accessing an abortion?

A. In general?

Q. In general.

A. Sure. I mean, certainly, women face obstacles accessing abortion care. As I mentioned, 75 percent of women seeking abortion are low income, and the women often have to pay out of pocket for the abortion procedure as well as any related travel, missed time off from work, arranging childcare, so all those costs can be quite significant for these women.

Adolescents face barriers accessing care. Rural women who have to travel long distances face obstacles accessing care. Women who are in -- who are victims of intimate partner violence from an abusive partner face challenges accessing abortion care.

So, you know, these are some populations in particular that can face barriers in accessing care.

Q. You mentioned abusive partners. Do some of the abusive partners coerce women into becoming pregnant?

A. Yes. There is a growing recognition of this phenomenon that's called reproductive and sexual coercion

where some women who have partners who can be sometimes physically abusive but can also sometimes interfere with their reproductive health in terms of making it difficult for them to use contraception or continue to use contraception, putting them at risk for unintended pregnancy, and sometimes making it difficult for them to access abortion care when the woman wants it.

Q. Has ACOG expressed concern about these problems?

A. Yes. The American College of Obstetricians and Gynecologists has raised concern about this problem of reproductive coercion.

Q. Okay. I would like you to refer to Tab 20 in your binder, which is Exhibit 20. Do you recognize this?

A. Yes, I do.

Q. Is this the opinion you were referring to?

A. Yes.

Q. Could you please read the title for the record?

A. It's a Committee Opinion from the Committee on Healthcare for Underserved Women of the American College of the Obstetricians and Gynecologists. The title is "Reproductive and Sexual Coercion." It was published in *The Journal of Obstetrics & Gynecology*. It was issued in February 2013.

Q. And what does the committee opinion state?

A. I think the opinion is really trying to highlight

that this is an important issue that obstetricians and gynecologists need to be aware of. And it kind of just gives an overview of what this phenomenon is. I think it just really highlights that this is significant enough a problem that ACOG saw it fitting to issue a committee opinion about it.

Q. You mentioned low-income women often have trouble accessing abortions. Why is that?

A. Well, as I mentioned, most women pay out of pocket for the abortion procedure, and then there are additional costs related to obtaining abortion care like transportation costs, missed work, arranging childcare, things like that.

Q. Is there research on how abortion-related costs affect low-income women?

A. Yes, there is.

Q. I would like you to refer to Tab 32, which is learned treatise 32. Do you recognize this document?

A. Yes.

Q. Did you rely on it for your opinion that poverty is a barrier for abortion access?

A. Yes.

Q. Please, for the record, read the lead author, title, publication, and publication date.

A. The lead author is Deborah Karasek,

K-a-r-a-s-e-k. The title is "Abortion Patients' Experience and Perceptions of Waiting Periods: Survey Evidence before Arizona's Two-Visit 24-hour Mandatory Waiting Period Law." It was published in *The Journal of Women's Health Issues* in 2015.

Q. Are you familiar with that journal?

A. I am.

Q. Is it generally considered reliable?

A. Yes, it is.

Q. Turning to the discussion section on page 64, what is -- what did the author report about how patients handled the costs associated with having an abortion?

A. Sorry. I'm just -- I think that's -- I'm just trying to familiarize myself with this part of the paper again.

So found that the majority of women seeking abortion care have to forego or delay food, rent, childcare, or another important cost to finance the abortion. And women who experienced these economic trade-offs were more likely to be low income and also to report difficulty in paying for the costs of the procedure.

Q. I would like to turn now to the patient education and informed consent process for abortion patients. You mentioned that you provide abortions. Do you provide abortions on the day the patient first comes in?

A. Yes.
Q. Is that the general practice in states that don't have a mandatory delay period?
A. Yes, I would say that is the general practice.
Q. Why is that?
A. Because if a patient presents seeking abortion care and she's sure of her decision and she's been given all the information that she needs, again, she's medically eligible for the procedure on that day, then I would say it's best medical practice to provide the service that day if it's possible. Women are often eager to get the procedure performed as quickly as possible.

As I mentioned already from our research, the vast majority of women say they wanted to have the abortion as early as possible. And so, yeah. If the women meet all of those criteria that I just mentioned, then I think it's best medical practice to provide the service the same day.

It's obviously logistically more complicated if we have to have women come back at another time, and particularly the population that we serve in the facility where I work, it's primarily low-income population. And it's often difficult for them to arrange to get into the facility, to get a day off from work, arrange childcare, things like that. So we really try to meet the woman's needs on that day when she comes in.

Q. You mentioned that patients are often anxious to have the procedure performed as soon as possible. Other than the logistical issues that you were just describing, are there other reasons why women want to have the abortion as soon as possible?
A. Sometimes women are having, you know, some symptoms related to pregnancy like nausea, vomiting, other discomfort, and they're, again, eager to end that. Sometimes women have other, you know, medical conditions that -- where it's in their best interest to try to do the procedure as quickly as possible. You know, sometimes women who are victims of sexual assault that are pregnant are particularly eager to have it done as quickly as possible. And so we really try to meet their needs in particular.

So those are some of the examples and some reasons why people are anxious to get the procedure done as quickly as possible.
Q. Before you start an abortion procedure, do you discuss that procedure with the patient?
A. Yes, I do.
Q. What do you discuss?
A. The -- I mean, we go through, first of all, to make sure the woman is certain of her decision about the abortion -- about having an abortion. We go through the

methods of abortion that are available to her and describe those. We describe the procedure that she has chosen to go through and go through all of the alternatives, including the possibility of continuing with the pregnancy. We talk about the risks associated with the procedure that she's chosen. We talk about the chances of successful outcome. And then there's a teach-back process where I ask her to tell me what she's just heard and to make sure she's understood all that.
Q. Does that discussion include the question of whether the patient is firm in her decision?
A. Yes, it does.
Q. Based on these conversations, do you have an opinion about how patients make these decisions?
A. Certainly. By the time women come to see me at the facility where I work, they have thought long and hard about this decision, and they have made a careful and considered decision about what is best for them and their family. So, yes, I believe that women have made a very careful decision and gone through a very careful process to come to that decision by the time that they come to see me.
Q. Have some of your patients made up their minds to have the abortion by the time of your first visit with them?
A. Yes. I would say the majority of women have made

that decision by the time they come into the clinic.
Q. And what has a patient typically done to make up her mind?
A. I mean, she's done a variety of things. Women sometimes, you know, try to get as much information as they can. They go online to learn about the procedure or about the clinic, and they talk to friends and family members. Often the man is involved in the pregnancy, and they've really thought carefully about what resources are available to them and what is the best decision for them.
Q. What is the informed consent process in your practice? You described a little bit about your conversation with patients. Is there any other component to that practice?
A. Yes. So when patients come in, they first go through an information education session with an educator in the clinic who goes through much of the information that I already talked about, including reviewing her -- how certain the woman is, reviewing the options in terms of the abortion, and what method she's chosen.
Q. What you've just described in terms of your interaction with patients and the interactions of staff at your practice, is this the general standard of care for abortion providers?
A. It -- definitely the standard of care involves

all of the elements of informed consent that just talked about. Whether or not it involves more than one person or not, I don't think that that's necessarily standard. I think that high-quality care could be performed by just the clinician doing all of that. But I think in many facilities there is a separate educator specialist who does that information education counseling.

Q. Do your patients have an ultrasound before the procedure?

A. Yes, they do.

Q. Does your practice offer them the option of viewing it?

A. Yes, we do.

Q. Do you know roughly what percentage take that option?

A. I think that it's definitely a minority, and I would say about 15 percent or so.

Q. At the end of the informed consent process, do some patients decide to carry to term?

A. They do.

Q. Do some patients decide that they need more time before going forward with the abortion?

A. Some patients do.

Q. What percentage of patients fall into those two categories in your experience?

A. In my experience I would say that probably it's less than 10 percent end up leaving the clinic without having the abortion on that day.

Q. Have studies been conducted on patients' certainty before abortion?

A. Yes.

Q. What do they show, generally speaking?

A. In general it's very similar to what I just said in my personal clinical experience, that the vast majority of patients are very certain of their decision when they come to the abortion clinic.

Q. Please turn to Tab 34 in your binder, which should be marked learned treatise 34. Do you recognize this?

A. I do.

Q. Is this one of the studies you relied on?

A. Yes, it is.

Q. Please for the record read the lead author, title publication, and publication date.

A. The lead author is Lauren J. Ralph. The title is "Measuring decisional certainty among women seeking abortion." It was published in *Contraception* in 2017.

Q. Do you recognize this journal?

A. I do.

Q. Is it generally considered reliable?

A. Yes, it is.

Q. What did the authors of this study look at?

A. So they looked at a sample of women who are seeking abortion care and kind of compared two different measures of decisional certainty, one of which is a decisional conflict scale, so a validated measure that has been used in other healthcare settings to look at patients' decisional certainty regarding other healthcare choices.

Q. What did they include -- what did they conclude about how abortion certainty compares to other medical procedures?

A. So they found that decisional certainty was high on both of these scales, including the scale that had been validated, as I said. And decisional certainty appears to be comparable to or higher than decisional certainty for patients seeking other medical procedures. So by way of example, make some comparisons. So the score for the levels of decisional certainty in this study were comparable to or lower than those found in other studies of actually making healthcare decisions, such as mastectomy after breast cancer diagnosis, prenatal testing of infertility or antidepressant use during pregnancy. They are also lower than levels observed in studies of men and women making decisions about constructive knee surgery or men deciding on prostate cancer treatment options.

THE COURT: Can you stop for just a second. We are getting a lot of buzzing from phones over here, and it's getting to be a little bit of a distraction. So whoever has got phones on that are buzzing, we need to get them on silent.

I don't know exactly where it's coming from. It seems like it's coming from over here.

If it's not vibrating and I can't hear it, that's fine. I know you're using them for work purposes, so that's why I don't want to stop you from doing that. But if it gets to be too much of a distraction, then I don't want that either, because we're here for a reason, and it's to make sure the witness can understand the questions and I can understand the answers and so forth. All right. Thank you.

You may proceed with your next question.

Q. I'm now going to show you learned treatise 26, which should be at Tab 26 in your binder. Do you recognize this?

A. Yes, I do.

Q. Is this one of the studies you relied on?

A. Yes, it is.

Q. Please for the record read the lead author, title, publication, and publication date.

A. The lead author is Mary Gatter, G-a-t-t-e-r. The

title is "Relationship Between Ultrasound Viewing and Proceeding to Abortion," published in *Obstetrics & Gynecology* in January 2014.

Q. Do you recognize the journal?

A. Yes, I do.

Q. Is it generally considered reliable?

A. Yes, it is.

Q. And turning to page 83.
Before we do that, what did the authors of this source look at?

A. So this was an analysis of data from a clinic system in California where women had the option of viewing ultrasound that was performed on the same day as the abortion. And it was an analysis of close to 16,000 visits of women seeking abortion care at this large urban provider in California.

Q. Turning to page 83, what did the researchers conclude about the percentage of patients who are certain about their decision?

A. So they found -- again, actually, using one of the scales that was included in the prior paper that I mentioned, that the vast majority of women were certain about their decisions to have an abortion. 85.4 percent were certain about that decision.

Q. Would that have been assessed at the time they

came to the clinic?

A. Yes, it would be.

Q. And in this same paragraph, what did they find was the percentage of women who expressed medium to low certainty about their decision?

A. So 7.4 percent expressed medium or low decision certainty.

Q. Is there research on patients' feelings about their abortion after the fact?

A. Yes, there is.

Q. What does it show generally?

A. In general it shows that, you know, both immediately after the abortion and looking back even years later, that the vast majority of women reflect on their decision as being the right decision for them at that point in their lives.

Q. I'm now going to show you learned treatise 36. Do you recognize this document?

A. Yes, I do.

Q. Is this one of the studies you consulted for this opinion?

A. Yes, it is.

Q. Please for the record read the lead author, title, publication, and publication date.

A. The lead author is Corinne Rocca, R-o-c-c-a. The

title is "Decisional Rightness and Emotional Responses to Abortion in the United States: A Longitudinal Study." It was published in *Journal PLOS One* in 2015.

Q. Did you review the methodology of this study and find it reliable?

A. Yes, I did.

Q. What did the authors of this study look at?

A. So this was looking at -- this was an analysis of a cohort of women receiving an abortion between 2008 and 2010 at 30 facilities across the United States. And this particular analysis included women who had a first trimester abortion and then also a group of women who obtained an abortion near the gestational age limit for the facility. And they performed interviews shortly after women had the abortion, and then they performed interviews, I believe it was, every six months up to three years is what is reported in this study.

Q. Turn to page 10 of this study, please. What did the researchers find?

A. They found that 95 percent of the participants reported that the decision was the right decision for them at all of the time points -- so every time one of them was interviewed -- all of the interviews up to three years. And they also did another analysis that kind of accounted for attrition of patients in the cohort that determined

that the typical participant had an over nearly 99 percent chance of reporting that the abortion decision was right for her at an individual interview. So basically just really highlights what I was saying, which is certainly in my experience that even years later women look back on the decision and say that it was the right decision for them.

Q. When you say that's your experience, is that based on interactions that you've had with patients after their abortion?

A. Yes. In my practice currently. In my practice when I was in private practice as a general obstetrician and gynecologist, you know, I would often see women -- I would care for women for over years, and I would see them after they had had an abortion, and, you know, sometimes it was a hard decision for women at the time. But reflecting back on it, they said it was the right decision for them.

Q. Have you ever had a patient express to you that she felt she had made the wrong decision?

A. I have not had a patient express that to me.

Q. Have you ever had a patient express to you that she wished she had taken more time with that decision?

A. I have not had a patient express that.

Q. Based on your clinical experience and your review of the scientific literature, do you have an opinion as to whether same-day abortion procedures are consistent with

best medical practices?

A. I do have an opinion. I believe that -- this is the practice in my practice in California, and I believe that this is consistent with best medical practice.

Q. And is it consistent with medical ethics?

A. I do believe it's consistent with medical ethics as well. I believe that it respects patients' autonomy. It respects -- it's consistent with the concept of beneficence of providing timely, quality care and trying to avoid the potential harms associated with unnecessary delays in the procedure.

Q. Do you know how the Iowa law compares to the mandatory delay laws in other states?

A. My understanding is that it's one of the strictest of these mandatory delay laws. And the other -- only two other states that have as strict a restriction in this area of mandatory delay.

Q. When you say it's one of the strictest, in what way is it stricter than other laws?

A. It's my understanding that other states may have mandatory delay laws, but in some cases the period of delay may be shorter, like 24 hours instead of 72. And in some states, it's possible for the patient to obtain the required information, education counseling, over the phone, through the internet, through telemedicine, things like

that.

Q. Has there been research on the effects of mandatory delay laws?

A. Yes, there has been.

Q. Are you familiar with this research?

A. Yes.

Q. What does it show generally?

A. In general this research doesn't indicate that it improves patient decision making, and it imposes a barrier to access that can cause delays in accessing care and pushing women later than even the mandatory period of delay that is part of the law. It is likely to prevent some women from obtaining an abortion at all, and it makes the procedure logistically more complicated and more expensive for women.

Q. Have you done research on this subject yourself?

A. Yes, I have.

Q. Please turn to learned treatise 39, which should be Tab 39. Do you recognize this document?

A. Yes, I do.

Q. Is this one of the studies you were referring to?

A. Yes, it is.

Q. Could you please read the title into the record?

A. This is -- the title is "Impact of Abortion Restrictions in Texas Research Brief."

Q. When was it published?

A. This was published by the Texas Policy of Evaluation Project in April of 2013.

Q. Are you one of the researchers for this study?

A. Yes, I am.

Q. Has this research been peer-reviewed?

A. An abstract of this research was peer-reviewed and presented at the North American Forum on Family Planning. And that has been published in *The Journal of Contraception*.

Q. Can you explain the relevant findings in this study?

A. So this was a survey that we performed of women obtaining -- seeking abortion care in Texas in 2012. So shortly after HB 15 went into effect in Texas requiring women to make an additional visit at least 24 hours before the procedure to have an abortion to have an ultrasound performed, and we interviewed -- we surveyed about 300 -- a little over 300 women. And some of the findings from the survey were that almost a third, about 31 percent reported that this waiting period had a negative effect on their emotional well-being.

Would you like me to tell you some of the other findings?

Q. Yes. Yes, please.

A. I mean, we also asked women to reflect on what their level of decisional certainty about the abortion was prior to this consultation visit 24 hours before the abortion and what it was after that. And 92 percent of women reported that they were sure of their decision or that the abortion was a better choice for them. And following the consultation visit and ultrasound, that proportion was unchanged at 92 percent. Close to a quarter of the women, about 23 percent, said that it was hard to get in the clinic for that consultation visit.

And in a multivariable analysis that controlled for other factors, we found that low-income women and women who lived more than 20 miles from the clinic were significantly more likely to report that it was hard to get to the clinic for this visit. Close to half of the women also reported some out-of-pocket expenditure for the consultation visit, not including fees they had to pay to the clinic, but these were additional costs. And on average, they spent about $140.

Q. I would like you to turn to Tab 35, which is learned treatise 35. Do you recognize the document?

A. Yes, I do.

Q. Please for the record rad the lead author, title, publication, and publication date?

A. The lead author is Sarah C.M. Roberts. The title

is "Utah's 72-Hour Waiting Period for Abortion: Experiences Among Clinic-Based Sample of Women." It was published in *The Journal of Perspectives on Sexual and Reproductive Health* in 2016.

Q. Is this one of the studies you relied on?

A. Yes.

Q. Turning to page 185 of this study, did this study report a finding on patient certainty before and after the first visit?

A. Let's see. Do you mind just pointing to the part?

Q. Yes. I'm on page 185 toward the bottom of the first paragraph. Did the study contain findings related to patients' certainty and related to whether patients changing their minds?

A. Relating to patients changing their mind. Yes. That is here. They found that about 2 percent of patients change their mind from being -- reporting that they were unconflicted or sure that they wanted the abortion at the time of the information visit, and then decided later to continue the pregnancy. And they report that this is in the range of proportions of women who report changing their mind. That's a range from 1 to 3 percent in settings with no or minimal waiting periods. Because they really -- highlighting the conclusions of the study that it did, it

did not appear that women were more likely to change their mind because of the waiting period.

Q. Is there also research on the effects of voluntary ultrasound?

Sorry. Before I turn to that, in that study -- and I would like you to turn to the abstract -- do you see in the abstract the report that 8 percent of subjects were no longer seeking an abortion?

A. Yes.

Q. Okay. What does the study tell us about the patients in this percentage?

A. So just to include -- so a little bit of background about this study. This was done in Utah after that state passed a requirement of a 72-hour mandatory delay prior to abortion. And they recruited for the study -- recruited a cohort of about 500 women at four family planning facilities who were seeking abortion in 2013 to 2014. And then they attempted to follow them up afterwards to see if they obtained the abortion or not, and then also to see what had happened with these women; and they were able to follow-up with 309 women.

So -- and then this data about the proportion and the numbers that continued the pregnancy or who obtained the abortion are out of that 309. So that 8 percent is 27 women who reported at the follow-up, women that at the

follow-up interview that they were no longer seeking an abortion, still deciding, or pushed beyond the gestational limit. Of these, 11 of those had indicated at the baseline that they preferred to have the baby, and an additional nine had preferred abortion but had been somewhat or highly conflicted.

So these are patients that I would say -- I don't know exactly the practice in these four facilities where they recruited patients, but certainly in our practice, if a woman reports that she would prefer to have the baby when she presents seeking abortion care, we would not be offering the option of having the abortion in the same day, and she would be encouraged to take additional time to reflect on her decision.

And then it's the -- seven of these 27 or 2 percent of those who completed follow-up who said that at the baseline that they had preferred abortion and also had low conflict but now had decided they were no longer seeking abortion.

Q. Okay.

THE COURT: I want to stop you, because I want to get one more break in. So let's take a 15-minute break.

(The bench trial recessed at 3:05 p.m.)

(The bench trial resumed at 3:23 p.m.)

THE COURT: Did you have additional questions on

direct?

MS. CLAPMAN: Yes.

Q. Dr. Grossman, continuing with this Roberts study, could you please turn to page 184?

A. Please remind me of the tab. Sorry.

Q. Yes. Tab 35. Could you please turn to page 184 of that study, and could you please read the first sentence out loud in the discussion section?

A. It writes, "Overall, Utah's 72-hour waiting period and two-visit requirement did not prevent women -- prevent women who presented for information visits at the study facilities from having abortions, but did burden women with financial costs, logistical hassles, and extended periods of dwelling on decisions they had already made."

Q. Do you agree with the statement in this study that the 72-hour waiting period did not prevent women who presented for information visits from receiving care?

A. I think in terms of making a generalized conclusion based on the data, yes. I mean, I do think if you look at the findings and look at -- there's one woman who was, you know, pushed past the gestational age limit at the facility where she was seeking care and she was unable to obtain care. There was another woman who was found to be farther along in the pregnancy and was not able to

obtain the abortion. So perhaps there were a couple women who were affected by the delay and unable to obtain care.

I think based on this small study they could not draw a generalizable conclusion that this requirement prevented the people who already presented for the initial consultation visit from obtaining the abortion care that they wanted. But I think at times it's important to recognize that this wasn't really what the study was aiming to do. I mean, it's a relatively small study, and they were recruiting patients at the time that they presented for this initial consultation visit.

So, obviously, they couldn't assess whether women, you know, potentially learn about the requirement that they have to, you know, make two visits 72 hours apart and decide that those logistical burdens are too great and they don't end up seeking care at all. This study obviously couldn't measure that. There are other studies that have tried to look at this.

Q. And what study, specifically?

A. Well, for example, the Sanders study in Utah is one they included an analysis that tried to look at the overall participants from several different abortion clinics and looked at how that changed when the policy went into effect requiring the 72-hour mandatory delay.

Q. Any other studies?

A. If you would like me to talk about that specifically, I could turn to the actual study. But, I mean, there's another study we looked at in Texas. In -- the paper has not been published yet, but we published it as a poster at a national meeting where we looked at the vital statistics data for Texas and looked at what happened to the vital statistics for abortion in 2012, the first year -- full year after HB 15 went into effect that required an additional visit, and then compared that to the prior years.

And there had been a preexisting decline in abortion that predated HB 15, but there was then a marked further decline after HB 15 went into effect and decline of about 2 percent overall, suggesting that some women were prevented from obtaining abortions because of -- because of restriction, especially being this study was in Texas where at the same time the family planning safety net for low income was really dismantled and funding for contraception was severely constrained. So there's really no reason to believe that this decline in the abortion rate might be due to improved contraceptive use.

Interestingly, we also found that there was a small increase in second trimester abortion, despite the overall decline. And then there was also the study from Mississippi that also shows an overall significant decline

after the mandatory 24-hour delay period went into effect.

Q. Okay. You mentioned this Sanders study. I would like you to turn to Tab 37, which is learned treatise 37. Is this the study you were referring to?

A. Yes.

Q. Could you please read for the record the lead author, the title, the publication, and the publication date.

A. The lead author is Jessica N. Sanders. The title is "The Longest Wait: Examining the Impact of Utah's 72-Hour Waiting Period for Abortion." Was published in *Women's Health Issues* in 2016.

Q. Did you review the methodology of the study and find it reliable?

A. Yes, I did.

Q. And what was the study looking at?

A. There were two parts to the study. The one that I just mentioned was they looked at the abortion statistics for, I believe, three clinics in Utah that overall provided about 90 percent of the procedures in the state, and they looked at the proportion of women who returned for the abortion visit both during the period when they had a 24-hour mandatory delay law and then again later the period -- year period where they -- after the 72-hour mandatory delay period went into effect. And then in

addition to that, they reported on a patient questionnaire that was completed by a little over 300 women who were obtaining abortion care, one in the clinic in Utah.

Q. And you mentioned there was a finding in the study that's relevant to the questions of whether patients are prevented obtaining abortion from a mandatory delay period?

A. So they found that during that 24-hour -- when -- during the period in which they were -- there was a 24-hour waiting period or mandatory delay, 80 percent of patients returned for the abortion to the facilities. And during the period, one-year period where they acted -- after the 72-hour mandatory delay period went into effect, 77 percent returned for the abortion visit. So there was about a 3 percent difference in increase in the number of patients who were not returning for the abortion visit.

Q. What does that indicate to you?

A. I think it suggests that, you know, potentially, some women found it difficult to get back for that second visit.

Q. While you're looking at that study, what are the other findings that you relied on in that study?

A. So I think -- well, there's several others. Related to the other issue we are talking about?

Q. Yes.

A. So one of the findings from this was that, you know, what the law required. The law required a 72-hour mandatory delay. 63 percent of the women who received an abortion reported that more than seven days had passed since they visited the clinic for counseling and signed the consent form. So shows consistent with the other research in Utah and in other states that the -- that these laws end up creating longer delays than the period that is mandated.

Some of the other findings from the survey -- so 62 percent of women indicated that the additional wait affected them negatively in some way. Of the women who were negatively affected, close to one-half had to take extra time off of work, and 15 percent missed an extra day at school. 47 percent reported lost wages, 15 percent reported extra childcare costs, 30 percent reported increased transportation costs, and 27 percent reported additional expenditures and lost wages by a family member or friend. And about a third of women who were negatively impacted by the 72-hour mandatory delay period indicated that they had to tell someone that they would not have told if it would have only been 24 hours.

Q. Did the study note anything about whether nonabortion providers were providing the required counseling in Utah?

A. Yes. There is something that's noted in this

paper. They say that the abortion information session and a 72-hour consent can be completed at an independent medical provider, however, very few physicians in Iowa -- in Utah do this counseling.

Q. Is there also research on the effects of voluntary ultrasound viewing?

A. Yes, there is.

Q. I would like to refer you to learned treatise 26. Do you recognize this document?

A. Yes, I do.

Q. Is this the research you were referring to?

A. Yes.

Q. What did this study find?

A. This study found that -- this is the study by Gatter that I mentioned and we looked at earlier. And as I had said I earlier, you know, the majority, 85.4 percent of women, were certain about their decision to have an abortion. And for that population of women, choosing to view the ultrasound did not have any effect on whether they didn't have the abortion at the facility or continue the pregnancy. For -- there was, however, small effect for the 7.4 percent who expressed medium or low decisional certainty. However, I will say the magnitude of this effect was very small. So a total of 98.8 percent of pregnancies ended in abortion.

Among the pregnancies in which the woman viewed the ultrasound image, 98.4 percent ended in abortion compared to 99 percent when women did not view her ultrasound image, so very small magnitude of difference. A lot of times a patient is included in the study so that it is statistically significant.

I will say also that the patients who chose to view the ultrasound were also more likely to have medium or low decisional certainty. So it may be that these patients, you know, had some uncertainty and chose to view the ultrasound in order to be -- get the final information that they need to really decide not to have the abortion.

Q. Based on the research you have conducted and your review of the scientific literature and your clinical experience, do you have an opinion as to whether the 72-hour mandatory delay is likely to persuade them to carry to term?

A. Based on my clinical experience and my review of the literature, I do not believe that the mandatory 72-hour delay will persuade people to -- women to continue to pregnancy. I believe some women may be prevented from obtaining the abortion care that they want, but I don't believe that they will be persuaded by being forced to take that additional time.

Q. You mentioned that in your clinical practice

patients sometimes are anxious to have the procedure take place as soon as possible. Is there research about patient preferences for same day care?

A. Yes, there is.

Q. What does it show?

A. In general it shows that patients prefer to have abortions as quickly as possible as I -- and they would like to have the abortion on the same day they present to the facility if possible.

Q. I would like to refer you to learned treatise 32, which I believe we already discussed. This is the Karasek paper; correct?

A. Yes.

Q. Okay. Did this paper -- turn -- directing you to page 64. Does this study report a percentage of women preferring same-day abortion care?

A. Yes, it does. So, again, this was a survey of women seeking abortion, I believe in Arizona, before the 24-hour delay law and two-visit requirement went into effect. And they found that the vast majority, 88 percent, reported that they preferred having, essentially, a one-day procedure, visit -- the counseling visit on the same day as the abortion procedure. And only 1 percent said that they would prefer two days.

Q. And does the study indicate anything about why

the 88 percent preferred same day care?

A. They report that women who said that they preferred one day was significantly more likely to say that the waiting period would prevent their support person from coming with them and that the waiting period would cause them to travel to a different state.

Q. In your opinion do two-trip mandatory delay laws affect how promptly women can access abortion?

A. Yes. I believe that these two-visit requirements and delay laws end up further delaying care beyond the period of time that is mandated in the law.

Q. In your opinion do two-trip mandatory delay laws affect whether women can access abortion?

A. Yes. It is also my opinion that it may prevent some women from obtaining wanted abortion care.

Q. Is it likely to prevent some women from obtaining abortion care?

A. I believe that these laws are likely to prevent some women from obtaining wanted abortion care.

Q. I would like to refer you back to learned treatise 35, which is the Roberts article that we were discussing earlier. Does this study find that Utah's 72-hour law delayed patients?

A. Yes, it does. I believe that they found on average women were delayed about eight days between the

information visit and the abortion.

Q. And did it report any findings about whether some patients were seeking an abortion at the three-week mark?

A. Yes. I think -- I believe that there was one woman who was still deciding. I'm sorry. I have to see where that was.

Q. Please take a moment.

If I can refer you, Dr. Grossman, to page 182 in the result section towards the end. Do you see a finding of a percentage who are still seeking abortion in the three-week mark?

A. I'm sorry. So 2 percent were still seeking abortion after the follow-up point.

Q. Did this study find other effects besides delay?

A. Yes. They reported several other findings. So there were additional costs related to the information visits, so participants spent a mean of $44 on costs related to the information visit, and this was a significant amount for many women. Even when women used their own money, 26 percent said that they had to tell someone else that they were spending it.

Of the 77 percent that had to tell the man involved in the pregnancy, the boyfriend or partner, to make logistical arrangements for the informational visit, 6 percent had to disclose they were seeking abortion to one

or more people, including bosses, coworkers, men involved in the pregnancies, family members, friends, and childcare providers.

They also asked participants about some of the hardest parts about the waiting period, and the most common difficulty that was reported by 22 percent of the respondents was that they just wanted the abortion over with. We talked about being powerless to implement their decision.

Some women were nervus or concerned about the -- just about 11 percent were concerned about the gestational age of the pregnancy and that during the period of time where they were delayed that the pregnancy was advancing and continuing to develop. There were women who had concerns about the financial aspects and the fact that as the pregnancy advanced that it's possible that the cost of the procedure might increase.

Women also reported some things like physical difficulties of feeling sick with ongoing nausea or other pregnancy symptoms as well as other logistical challenges.

Q. And directing you to page 183 of this study, did some of the patients report that they were too far along by the time of their second visit to have an abortion?

A. Yes. There were three participants who reported that they were too far along in the pregnancy to have the

abortion. Sometimes that meant that they felt that they were too far along for their own personal comfort, but sometimes it meant they had actually passed the gestational age limit for the facility.

Q. I would like to refer you now to learned treatise 42. Do you recognize this document?

A. Yes, I do.

Q. Is this one of the studies that you relied on?

A. Yes, it is.

Q. Could you please read for the record the lead author, title, publication, and publication date?

A. The lead author is Kari White. Title is "Travel for Abortion Services in Alabama and Delays Obtaining Care." It was published in 2017 in *The Journal of Women's Health Issues*.

Q. Are you a coauthor on this study?

A. I am a coauthor on the study.

Q. What did this study look at?

A. So for this study we looked at de-identified billing data from two clinics in Alabama for all the abortion centers in 2013. And that -- at that time there was a 24-hour mandatory delay law in the state, and we looked at some of the factors associated with whether -- looking at whether -- how long women were -- the interval between when they had their initial visit and the abortion

to see whether they were delayed beyond 24 hours and then looked at factors that were associated with those delays.

Q. And turning to page 4 of this study, what did you find?

A. So we found that women had a mean of 6.9 days between their consultation visits and procedure visits. And I think, interestingly, 12 percent of women returned between 14 and 53 days after the consultation visit. And in a multivariable analysis that we did, we found that the poverty -- so living below 100 percent below the federal poverty level as well as traveling between 50 and 100 miles to get to the clinic were significantly associated with longer delays.

Q. Please turn to learned treatise 31. Do you recognize this study?

A. Yes, I do.

Q. Is this one of the studies you relied on?

A. Yes.

Q. Please read for the record the lead author, title, publication, and publication date.

A. The lead author is Ted Joyce. The title is "The Impact of Mississippi's Mandatory Delay Law on the Timing of Abortion." It was published in *The Journal for Family Planning Perspectives* in 2000.

Q. Can you briefly describe the study.

A. So this study was looking at the impact of Mississippi's 24-hour mandatory delay law that requires two visits, and it looked at vital statistics data to -- kind of to compare women who were living in Mississippi but their nearest clinic was located within Mississippi compared with women living in Mississippi who's nearest clinic was out of state and looked at a variety of outcomes.

Q. What are the relevant findings from this study?

A. Well, I think one of the important findings is showing how this increased later abortion in the state. So I think if you look at the findings, they say there was an increase in second trimester abortion of 53 percent from women who lived in Mississippi and whose nearest clinic was in the state compared to the control group whose nearest clinic was out of state, there was only an 8 percent increase in second trimester abortion. So there was a significant increase with the -- or that's the main one you probably want to highlight.

Q. Okay. Is there also a finding about women traveling out of state after the law went into effect?

A. I'm sorry. I'm going to have to review that. I mean, they were able to follow the -- they had good data in the surrounding states so we were able to actually obtain data on women who traveled out of the state.

Q. Okay. So you want another moment?

A. I'm sorry. If you -- I would have to --

Q. Okay. I will continue. One moment.

Dr. Grossman, we have talked about a number of studies of the effects of mandatory delay all from states other than Iowa. Do you think their findings apply in Iowa?

A. I believe that their findings do apply in Iowa. I mean, first of all, they're now findings from several different states, from Utah, Texas, Mississippi, that have been published. And I believe that there is evidence that abortion care is constrained here in Iowa and especially very recently becoming even more constrained. So I feel like the findings are very relevant.

Q. For women who are close to the cutoff for medication abortion, could the Act affect how far they have to travel for their procedure?

A. Yes. Because there are only two counties or -- where there are surgical abortion providers in the state. If they, you know, prefer to have a medication abortion and are pushed past that gestational age limit, then they have travel further.

Q. I would like you to refer to Exhibit 2 in your binder. Demonstrative Exhibit 2, which should be a map of Iowa --

A. Yes.

Q. -- provider locations.

Looking at that map, are there certain areas of the state that are of greater concern to you than others?

A. Yeah. Particularly the northern part of the state, the western part of the state. Those areas would be living in -- counties in those parts of the state they would be closer to a provider where -- or a site where medication abortion is available, and if they're -- if they wanted a medication abortion and now they're -- because of the delay they are pushed past the gestational limit, they will have to travel further.

Q. Is there research on the relationship between the distance women live from a provider and their ability to access abortion?

A. Yes, there is.

Q. What does this show?

A. In general, it shows that as the distance to the nearest provider increases, the abortion rate declines. So the number of abortions in women living in counties that are further from abortion providers, decrease is lower.

Q. What does that indicate to you?

A. It indicates that there are barriers. There are geographic barriers for women to access abortion care when they live a far distance from a provider.

Q. I would like to refer you to learned treatise 25. Is this one of the studies you consulted in forming this opinion?

A. Yes, it is.

Q. And do you recognize this study?

A. I do.

Q. Could you please read the lead author, title, publication, and publication date for the record.

A. The lead author is Sharon A. Dobie, D-o-b-i-e, and the title is "Abortion Services in Rural Washington State, 1983 to 1984 to 1993 to 1994: Availability and Outcomes." And it's published in 1999 in *The Journal of Family Planning Perspectives*.

Q. Did you review this study and find its methodology reliable?

A. I did.

Q. What did the authors look at in this study?

A. So they were using official vital statistic data from the state, and specifically they compared the period 1983/1984 to a later period, 1993/1994. During -- in between -- during the interim, several abortion providers closed.

And one of the findings was, in particular, that rural women had to travel significantly farther and later feared access to abortion care. So in the earlier period,

62 percent of rural women traveled 50 miles or more to obtain an abortion compared to 73 percent at a later period.

And one of the findings that I think is relevant to this -- to this discussion is that for rural women who then had to travel farther during the later period, that there was a significant increase in later abortion among those patients and there was not among the urban patients. So there was a significant reduction in the proportion of abortions performed prior to 12 weeks, from 92 percent to 85 percent. And there was a significant increase, particularly in the later gestational age, so it went from -- the proportion of abortions performed at or after 18 weeks increased from 2.1 percent to 4.7 percent.

Q. Is this finding consistent with your own research on the effects of travel distance?

A. It is.

Q. Based on this research, do you have an opinion as to whether the Act will delay women seeking an abortion?

A. Yes. It is my opinion that the Act will delay women beyond the required 72 hours.

Q. Are there other consequences that follow from delay?

A. I mean, there are consequences related to, first of all, whether a woman can obtain her wanted type of

abortion, whether they can obtain the wanted medication abortion. There are increased medical risks as the pregnancy advances as well. The -- it's very clear that the risks of complication and death associated with abortion increases as pregnancy -- pregnancy advances. It's more clear that second trimester abortion has significantly higher risks compared to first trimester abortions. But even looking at even an increase in gestational age as small as one week has a measurable increase in those risks.

Q. You talked earlier, Dr. Grossman, about evidence that mandatory delay laws are likely to prevent some women from obtaining an abortion. Is there also evidence that increasing travel distance prevents some women from obtaining a wanted abortion?

A. Yes, there is evidence.

Q. Refer you to learned treatise 27. Do you recognize this document?

A. Yes.

Q. Is this some of the evidence that you're referring to?

A. Yes.

Q. Could you please read the name of the document into the record.

A. It's -- so I'm the first author on this. It's

a -- this is a -- the title is "Change in Distance to Nearest Facility and Abortion in Texas, 2012 to 2014." This was a research letter published in *The Journal of American Medical Association* in 2017.

Q. And is this research letter peer-reviewed?

A. Yes, it is.

Q. What were you looking at in this research?

A. So we were looking at the Texas vital statistics data for 2012 and 2014. So in the interim, in 2013, Texas enacted House Bill 2 or HB 2, which led to the closure of over half the clinics in the state, and that increased the travel distance for women living in many counties in the state.

And so we -- for this analysis we looked at the relationship between this change in distance to the nearest clinic between 2012 and 2014 and changes in the abortion rate, the number of abortions performed to women living in those counties. What we found was that there was a very clear relationship, and the trend in the distance changed and the abortion rate.

So if there was simply no change in distance to the nearest clinic between 2012 and 2014, the number of abortions performed in those counties was pretty much the same. But as the distance increased, so for example, if the distance increased from 50 to 99 miles, we observed a

about a 36 percent decline in the number of abortions. And if that decline was over 100 miles, that increase in distance was over 100 miles, there was about a 50 percent decline in the number of abortions performed in those counties.

Q. What did that indicate to you?

A. That these geographic barriers are significant and they prevent some women from obtaining a wanted abortion.

Q. Does it matter from a public health perspective whether women have access to a timely abortion?

A. Yes. We already talked about some of the risks associated with later abortion in terms of the medical risk, but there are also both medical, physical, and mental health risks as well as socioeconomic risks associated with continuing an unwanted pregnancy to term.

Q. Does the fact that a pregnancy is unwanted affect birth outcomes?

A. Yes. There is a relationship between the two, yes.

Q. Is there research indicating this relationship?

A. Yes, there is.

Q. Could you please refer to learned treatise 33. Doe you recognize this document?

A. Yes, I do.

Q. Is this some of the research you're referring to?

A. Yes.

Q. Please read for the record the author, title, publication, and date.

A. The first author is A.P. Mohllajee, M-o-h-l-l-a-j-e-e. The title is "Pregnancy Intention and Its Relationship to Birth and Maternal Outcomes." It was published in *The Journal of Obstetrics & Gynecology* in 2007.

Q. Did you review the methodology of this publication and find it reliable?

A. I did.

Q. What finding in the study are you relying on here?

A. So for this study, they relied on data that comes from the pregnancy risk assessment and monitoring system which included for the synopsis close to 90,000 women who gave birth between 1996 and 1999 in 18 states. And they're able to link data that comes from -- on the -- from the birth certificate data on the pregnancy outcomes and link that with a self-administered questionnaire completed postpartum. And in multivariable analysis that controlled for other demographic and behavioral factors, they found that women with unwanted pregnancies had an increased likelihood of preterm delivery and premature rupture of

membranes, which is another condition which can lead to premature delivery.

Q. What is the medical significance of preterm delivery?

A. Well, the main medical significance is that this is associated with morbidity and mortality in the neonate.

Q. Does access to abortion affect whether women can formulate and achieve personal goals?

A. Yes, that is true, and there's research on this.

Q. I would like you to refer to learned treatise 41. Is this some of the research you're referring to?

A. Yes.

Q. Did you rely on this research in forming your opinions?

A. I did.

Q. Is this research peer-reviewed?

A. Yes, it is.

Q. Can you please read for the record the lead author, title, publication, and publication date?

A. Lead author is Ushma D. Upadhyay, U-p-a-d-h-y-a-y. Title is "The effect of abortion on having and achieving aspirational one-year plans." It was published in *The Journal of BMC Women's Health* in 2015.

Q. Can you briefly describe what the researchers were looking at in this study?

A. So the data for this study come from the Turnaway Study, which was a prospective cohort study of women that were recruited from about 30 abortion facilities across the U.S., and it included women who were in one of four groups. So women who presented for abortion just over the facility gestational age limit and were denied an abortion and went on to parent the child. Some of the women were denied abortion but did not end up parenting the child, so they gave the child up for adoption. And then there were two other groups, those who presented just under the facility's gestational age limit and received an abortion as well as those who presented in the first trimester and received an abortion.

Q. What in the study are you relying on for your opinion that access to abortions affect whether women can arrive at and achieve personal goals?

A. So these women were recruited, they had an interview shortly after they sought an abortion, and then they were interviewed afterwards as well. So for this study I think they were brought in or were completed six months later and one year later. And women were asked if they had a plan for something one year into the future. These included plans related to education, employment, change in residence, things like that.

And they found that -- so women who obtained the

abortion, whether they were denied a first trimester abortion or those that were near the facility's gestational age limit, were over six times as likely compared to those women who were denied a wanted abortion to report an aspirational one-year plan. And among those plans in which achievement was measurable, which happens about 7 percent of the one-year plans, they found that the women who had obtained the abortion were significantly more likely to both have an aspirational plan and to have achieved it compared to those who were forced to continue the pregnancy and were parenting.

Q. Does access to abortion affect women's socioeconomic status?

A. Yes, it does.

Q. How?

A. I men, there's evidence indicating women who are denied or unable to obtain a wanted abortion are more likely to be living in poverty several years after the wanted abortion.

Q. Please refer to learned treatise 22. Is this some of the research you're referring to?

A. Yes.

Q. Can you read the title and lead author of this research into the record?

A. So the title is "Effect of being denied a wanted

abortion on women's socioeconomic well-being." The lead author on this abstract is Diana Foster.

Q. Is this research peer-reviewed?

A. So this is an abstract that was part of an invited panel to be presented at the American Public Health Association's Annual Meeting in 2016. And this is the process of reviewing a submitted abstract under those peer-review in the process of selecting panels for presentation.

Q. What specific finding did you rely on in this study?

A. So, again, these are data from the Turnaway Study that I just described. And the findings that are reported here in the abstract that I think are relevant are the following: They say preliminary results indicate that parenting and raising a child as a result of an abortion denial reduces full-time employment, increases poverty -- increases poverty, public assistance receipt, and the chance of living alone with children.

Q. Is there a relationship between access to abortion and outcomes for children?

A. Yes, there is.

Q. Okay. Please refer to that same learned treatise. Is there another presentation that you relied on for that opinion?

A. Yes. This is another abstract that was presented as part of that same panel, the term of study. The title of this one is "Effect of abortion receipt and denial on women's existing and subsequent children." And the author of that is Diana Foster.

Q. What does the researcher find in this study? What did they report finding in this presentation?

A. So they used -- established and validated measures of child development, and they found some preliminary results from mixed-affect models. We find small negative effects on child development and large negative economic outcomes for children whose mothers were denied an abortion compared to children whose mothers received an abortion.

As for children born following abortion denial, we find higher odds of poor maternal bonding, lower odds of living with a male adult, and higher odds of living below the poverty level compared to subsequent children born to women who received an abortion.

Q. Do some women attempt to self-induce in the United States?

A. If you mean self-induce an abortion? Yes. There are some women who do.

Q. So do some women self-induce because of barriers they face accessing clinical care?

A. Yes. That is a common reason why women report that they decided to try to self-induce an abortion.

Q. And how do women report that they have attempted to self-induce an abortion in the United States?

A. The methods that women report using to self-induce an abortion in the U.S. vary quite a bit. Some women report using medications that can be effective, such as Misoprostol, sometimes together with Mifepristone, but that is not obtained from the clinic.

And then some women report using methods that are likely to be ineffective, like herbs, and some women report using things that are potentially dangerous, like getting hit in their abdomen, throwing themselves down the stairs. And, luckily, rarely, women report sometimes inserting things into the uterus.

Q. Have you conducted research on this issue?

A. Yes, I have.

Q. Have you written on this issue?

A. Yes, I have.

Q. Please refer to learned treatise 40. Do you recognize this?

A. I do.

Q. Is this one of your publications on this subject?

A. Yes.

Q. Please read the title into the record.

A. "Texas women's experiences attempting self-induced abortion in the face of dwindling options."

Q. What did you look at here?

A. So this was based on in-depth interviews that we did with 18 women who reported attempting self-induced abortions in Texas in the prior five years. Some of these women we recruited at abortion clinics where we surveyed them and asked them if they had attempted to do this, and some of these women we recruited in the community in the Rio Grand Valley. And we interviewed them about their experience with self-induction and why they decided to do that, a variety of things, what methods they used, outcomes, things like that.

I will say regarding your question about the reasons why women do this, I would say, you know, as we conversed among these women in Texas, they talked about the barriers they faced accessing clinic-based care was the -- really the main reason why they were pushed toward trying to take matters into their own hands.

So they didn't have the money to travel to a clinic. Some of them talked about how the nearest clinic had closed and they had to travel farther, and the financial costs, the logistical barriers were too broad to overcome, and they thought it was easier for them to do something on their own. So I would say that those barriers

in accessing care were major reasons for these women.

Q. In your opinion could the Act cause some women to attempt to still induce an abortion?

A. I think that it is possible that some women may be pushed to do that because of the barriers that they face accessing clinic-based care.

Q. Has ACOG taken a position on mandatory delay laws?

A. Yes, they have.

Q. What is that position?

A. They are opposed to mandatory delay laws.

Q. Could you please turn to learned treatise 21. Do you recognize this document?

A. Yes.

Q. Is this the state -- is this ACOG's statement of its position on mandatory delay laws?

A. Yes.

Q. Could you please read the title into the record?

A. This is a committee opinion from the Committee on Health Care for Underserved Women titled "Increasing Access to Abortion."

Q. What is ACOG's position on access to abortion?

A. ACOG's position is that access to safe abortion is a critical component to comprehensive women's healthcare.

Q. Why does ACOG say this is important?

A. Because of the health risks that are present when women don't have access to safe abortion care.

Q. Referring you to page 4 of this opinion, does this ACOG opinion take a position on the factors that limit access to abortion?

A. Yes.

Q. What does it state?

A. I'm sorry. Can you just repeat the question again? I'm sorry.

Q. What does it state?

A. Related to specifically the state-imposed waiting periods or --

Q. No. More generally the factors limiting access to abortion.

A. I mean, they talk about a variety of factors that limit access to abortion, including the restrictions, legal limits, that are not necessarily based on evidence. Social and cultural administrative obstacles to abortion access, including stigma and violence, lack of abortion providers in facilities, things like that.

Q. Referring you to the bottom of page 4 on the left-hand column, can you please read into the record the first sentence in the section on "Lack of Abortion Providers and Facilities."

A. I mean, they state that, "Stigma, harassment, and violence in combination with legal administrative barriers contribute to a scarcity of abortion services throughout much of the United States."

Q. And referring you several sentences -- sorry -- several paragraphs down in this same section, do you see a paragraph starting "Further, many religiously affiliated institutions"?

A. Yes.

Q. Could you please read that paragraph into the record?

A. "Further, many religiously affiliated institutions do not offer reproductive health services, including contraception, sterilization, and abortion. Mergers of secular hospitals with religiously affiliated health systems can result in the elimination of previously available reproductive health services. In other cases, hospitals cease to offer services not based on legal restrictions or religious opposition but because of the associated controversy."

Q. And does this same opinion, the same ACOG committee opinion, discuss mandatory delay laws?

A. Yes, it does.

Q. Directing you to page 2. What does it say about these laws?

A. It says that these laws create -- referring to the state-imposed waiting periods -- these laws create additional burdens, especially for women in rural areas who often have to travel for many hours to reach a healthcare provider.

Q. Have you reviewed the Act's medical emergency exception?

A. I have.

Q. And you're welcome to refer to it. It's in Exhibit 1, and it starts at the bottom of page 3 of this exhibit. Do you have an opinion as to whether this exception is sufficient to encompass all situations where women urgently need to initiate an abortion?

A. Yes, I do have an opinion. I do not feel like this exception is sufficient. I think there are many other situations where it really would be the best medical course of action to proceed with the abortion as quickly as possible. These include things like a woman may have a medical condition where she's not life-threatening but there is a risk to her health if she continues the pregnancy, even potentially three days or a week longer, and it would be in her best interest to proceed.

Another example that comes to mind are women who are victims of sexual assault who are pregnant and seeking abortion. And once they've made the decision to terminate,

it's really quite cruel to make them continue to suffer continuing this pregnancy when they could medically obtain care that they need.

Another example I would say are patients who have a fetus with an anomaly, fetal malformation, and have decided to make the hardest decision to terminate the pregnancy. Often they have already had to wait quite a long period of time because they've had multiple ultrasounds, they've had to wait for confirmatory tests. And once they have made the decision, it's really very carefully -- it's been carefully considered, and I think it's particularly cruel to make them wait another 72 hours or longer.

Q. Have you had those patients?

A. I have.

Q. So have you observed their state of mind when they do face delays in those circumstances?

A. Yes. I mean, I have certainly observed their state of mind and their preference for obtaining the care as urgently as possible, yes. And, you know, I'm -- particularly those who are approaching, you know, the upper gestational age limit, which may be common in patients who have a fetus with a malformation, because sometimes these aren't detected until the second trimester. They have had to wait for confirmatory tests.

Sometimes patients who have been victims of sexual assault, especially young women, sometimes they don't report this for -- until the second trimester, and again, they might be approaching an upper gestational age limit, so they're particularly anxious to get the procedure done as quickly as possible because they know that they're approaching this limit.

Q. More generally, do you have an opinion as to whether the Act is consistent with best medical practices?

A. I do not believe that the Act is consistent with best medical practice. I believe that the standard of care in best medical practice would be able to -- would be to provide the standard informed consent procedure that I described, assess a women's certainty about her decision, and if the women is certain and medically eligible, she should be able to receive that care as quickly as possible, and ideally on the same day that she presents.

Q. Is this Act consistent with medical ethics?

A. I believe that the Act is not consistent with medical ethics. It doesn't respect patients' autonomy, and rather than providing the best possible medical care , it produces unnecessary risks and harms in terms of delaying patients and increasing risks in the procedure, potentially putting a preferred abortion method out of reach for a patient and prevents some women from obtaining the care

that they prefer, that they want.

Q. I'm almost done. I have a few questions about crisis pregnancy centers. Do you have an opinion as to whether pregnancy crisis centers generally offer women accurate medical information?

A. I do have an opinion. And that opinion is that I do not believe that they offer generally accurate medical information.

Q. What is this based on?

A. It's based on talking to my own patients who have gone to crisis pregnancy centers. It's talking -- based on talking to colleagues who have had patients who have gone to crisis pregnancy centers. It's based on reviewing the information that these centers provide on their web site or other materials they that produce, which often has inaccuracies in it.

Q. Have you reviewed any materials given out by crisis pregnancy centers in Iowa?

A. I have.

MS. CLAPMAN: I have Plaintiff's Exhibit 73. Can I hand this to the witness?

THE COURT: You may.

MS. CLAPMAN: And, Your Honor, I believe you have the original pamphlet. I think we've offered this into evidence already.

THE COURT: It's been admitted.

MS. CLAPMAN: Okay.

Q. Is this a document that you reviewed?

A. Yes, it is.

Q. This is the document identified as Plaintiff's Exhibit 73. Did you find material in the document accurate?

A. There is a lot in this document that is inaccurate.

Q. Can you give some examples of inaccurate information?

A. There is information about the risks of abortion, for example, the medical risks, that are described in a way to exaggerate the medical risks associated with abortion and don't even mention the risks associated with continuing the pregnancy to term.

If this pamphlet is intended to help women who are currently in the situation with an unintended pregnancy to help them make a decision between having an abortion or continuing the pregnancy, women need to be given accurate information to compare these risks side by side, and the risks are exaggerated for abortion and not mentioned for continuing the pregnancy.

There also are inaccuracies related to contraception. For example, saying that emergency

contraception is ineffective, whereas the data for an individual woman and the individual act of unprotected sex or the emergency contraception is taken, clearly shows a measurable, demonstrable reduction in the likelihood that she'll become pregnant. There are also inaccuracies even related to other contraception methods like the birth control pill.

I'm sorry. Actually, that isn't -- that's not actually in this pamphlet, but it was in another document that I reviewed. But those are most of the main inaccuracies that I observed, to name just a few.

Other things that I didn't talk about, for the mental health risks associated with abortion, which are based on outdated studies on the best available evidence that has recently been reviewed by mental health experts indicating that there's no increased risk of adverse mental health outcome or an increased risk of substance use for women who have an abortion compared to women who are -- you know, continue an unwanted pregnancy to term.

Q. And are you saying that these materials suggest to the reader that these risks do exist?

A. Exactly.

MS. CLAPMAN: No further questions.

THE COURT: Mr. Thompson, I assume you might have more than two minutes' worth of questions?

MR. THOMPSON: I do. But I have two I can end with, if you want to use the last two minutes.

THE COURT: No. Why don't we wait until tomorrow. We will recess and we will begin again tomorrow at 9:00.

(The bench trial recessed at 4:28 p.m. on Monday, July 17, 2017.)

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

PLANNED PARENTHOOD OF THE HEARTLAND, INC. and JILL MEADOWS, M.D., Petitioners, vs. KIMBERLY REYNOLDS ex rel. STATE OF IOWA and IOWA BOARD OF MEDICINE, Respondents.	LAW NO. EQCE081503 TRANSCRIPT OF BENCH TRIAL Volume II of II July 18, 2017

The above-entitled matter came on for bench trial before the Honorable Jeffrey D. Farrell, reconvening at 9:04 a.m. on Tuesday, July 18, 2017, at the Polk County Courthouse, Des Moines, Iowa.

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P R O C E E D I N G S

(The bench trial reconvened at 9:04 a.m. on Tuesday, July 18, 2017.)

THE COURT: Good morning, everyone. Welcome back to the courtroom. We're ready to proceed with day two of the trial of Planned Parenthood of the Heartland vs, I guess now, Kimberly Reynolds et al., and we have Dr. Grossman back on the stand.

DANIEL GROSSMAN,

called as a witness, having been previously duly sworn by the Court, was examined and testified as follows:

THE COURT: Good morning. You remain under oath from yesterday, and we're ready to proceed with cross-examination.

Was there any follow-up that you needed as far as direct --

MS. CLAPMAN: No.

THE COURT: -- before we start cross? All right. Very good.

Mr. Thompson.

MR. THOMPSON: Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. THOMPSON:

Q. Good morning, Dr. Grossman.

A. Hi.

Jennifer Thompson - March 2, 2020

Q. We haven't met. I'm [illegible] the lawyers who represent the State. You talked about a lot of stuff yesterday, a lot of studies and various things. So what I would like to do is kind of focus our discussion today a little bit to two things that I think I understood you to talk about. One is pretty specific, but I want to make sure I understand and we understand what it is you're saying.

So you talked yesterday about the medical emergency exception towards the end of your testimony; correct?

A. Yes.

Q. And as I understand your opinion it was that it's inadequate because there are some women that would be under circumstances where that is -- puts a particularly harsh burden on them, I guess, for -- is that?

A. That is correct.

Q. Is that generally your opinion?

A. Yes.

Q. And so what I want to focus on -- because specifics matter in this case -- is in that case when you say "some women," what do you mean? Can you -- I think you described the type of circumstances, but is there a particular patient profile that you're concerned about, and then the second piece of the puzzle is can you quantify

that. Do you know how many women in Iowa?

A. Yes.

Q. So that's an open-ended question. I'm giving you one. So what do you mean by that?

A. Sure. So I was talking about the additional women for whom I think from a medical perspective I would see it as my duty to provide the abortion services as quickly as possible. This includes women who have medical problems that may not be life-threatening but that put their health at risk, things like hypertension, renal disease, those are some examples.

I would also put in this category women who are pregnant after sexual assault and have decided that they are going to terminate the pregnancy. And I believe that it's cruel to make them wait an additional 72 hours, or possibly a week as we've seen in other studies, before they could obtain an abortion.

And I would also put in this category women who have a fetal anomaly and, you know, who are in -- an anomaly or fetal malformation, again, who have made the difficult decision to terminate the pregnancy and often they've had multiple ultrasounds, so it's -- and they have had multiple confirmatory tests to reach this final diagnosis. But I think forcing them to wait an additional 72 hours after receiving counseling and information related

to the abortion, again, is really cruel.

I can also envision -- and I have had patients where they're in dangerous social situations with a violent partner, for example, and sometimes they're even in a situation where their partner doesn't let them go out of the house and they have somehow been able to get out so that they could get to a health care facility to receive the care that they want, and it's unclear when they're going to be able to get out again. I would put them also in this category.

In terms of quantifying these -- the number, I -- you know, that's difficult. I would estimate that it's probably less than 10 percent of all the patients that I have seen. Maybe -- I mean, because I have worked also in a hospital setting, I tend to also see more of the patients that have fetal anomalies. So my practice would actually be a little more larger, more like 15 percent, but perhaps on average I would say it's probably 10 percent or less.

Q. Okay. Thank you. Let me break that down a bit just so I understand. So the 10 percent or less applies to kind of all the categories you just described; right?

A. Correct.

Q. And to be clear -- and we'll talk about this a little more in detail later -- your experience -- this is based on your experience, your clinical experience.

There's no study specifically on some of this that you have referred to, is there?

A. Not that I have referred to. There certainly are studies that report on the proportion of patients in each of these categories. I don't have all those numbers at -- you know, available at this moment.

Q. Understood. And your experience, your clinical experience, is in San Francisco, California; right?

A. Correct.

Q. But if I break this down so -- I kind of see two or three categories here. I'm not going to try and put words in your mouth, but I'm going to try to break your less than 10 percent down. So you started with not life-threatening but medical reasons, which was hypertension, renal disease. I think those were the two medical examples. Of the less than 10 percent, how many are in this medical category that you're talking about?

A. Again, just to clarify, I gave some examples. I was not trying to make a comprehensive list. I didn't think I was being asked for a comprehensive list of medical conditions that may put a woman's health at risk. But you know I -- I'm trying to make an estimate of those all together. I'm not sure that I can, you know, without having been asked in advance to review the information, I'm not sure that I can really break this down any more than

that.

Q. Okay. Let me try this. Renal disease was something you talked about specifically. How many patients do you think of the people seeking abortions have renal disease to the extent that you would put them in this category?

A. I'm trying to say that I think that there is probably a group of women that I feel in my experience should have the abortion as quickly as possible from a medical perspective. I can't quantify it any more than that.

Q. Okay. So kind of all medical things as a subset of less than 10 percent based on your medical opinion?

A. Well, I'm also putting these women that I say who had a fetal malformation.

Q. I'm going to get to those. I'm going to give you an opportunity. We're talking about just your medical opinion right now; right?

A. Right. I'm afraid I can't really break this down any further.

Q. Perfect. I just wanted to be clear.

So the other categories, when you talk about sexual assault, fetal abnormalities, and then people in dangerous social situations, your testimony wasn't that medically it was necessary but that, I think in your words,

it's cruel; right?

A. Again, I think it partially depends on what you -- how you define medically necessary. I would see a women who is at risk of violence from her partner, that that also -- I see that as a medical risk. So I am saying that I think all of these patients that I had mentioned in my medical judgment, I would say these are patients who should have the abortion from a medical perspective as quickly as possible.

Q. Okay. And so your comment that it was cruel, was that an expert opinion or was that just your personal opinion?

A. It's my clinical opinion, having taken care of these patients and seen the mental stress and anguish that they have gone through as they've made a very difficult decision to terminate a wanted pregnancy, and as I have tried to care for them and seen the stress, the way that they are just -- the way this destroys them and just destroys their life, that they want to take care of this problem as quickly as possible after making a very difficult decision. I see this as an issue of addressing their mental health needs by trying to perform the abortion as quickly as possible.

Q. Well, and just to be clear, way back when we started this thing with you, Dr. Grossman, I don't remember

you talking and talking about your qualifications in mental health or as a psychologist or a psychiatrist. You're not an expert in that area, are you?

A. I am not a psychiatrist. I'm not a psychologist. But as a physician -- and I do work with those experts as part of the care team that -- where I provide services. So we do have experts who evaluate and take care of these patients that I provide gynecologic services for, but I can tell you from the basic training that I have received as a physician in assessing patients' mental health status that their mental health status is altered because of this situation that they are in when they're a victim of rape and when they're dealing with a pregnancy with malformation.

Q. Okay. Thank you.

Have you -- as part of your preparation for your testimony have you reviewed the other expert disclosures and reports?

A. I reviewed the expert disclosures that were put forth by the State but not ones from the plaintiffs.

Q. All right. And so you've not reviewed the expert disclosure of petitioner's expert Lenore Walker, for example?

A. I have not.

Q. Or the deposition that we took of her?

A. I have not.

Q. Would it surprise you if ultimately that deposition and report reveal that the percentage of women that you've emphasized here, the percentage of women that are pregnant because of rape or sexual assault, it is very, very small as a percentage of the population?

A. How small is it?

Q. Maybe less than 2 percent?

A. That doesn't necessarily surprise me. I would still put them -- as I said, I think that this whole category of women that I mentioned included several different groups of women. Together it was about 10 percent or less. So that seems consistent with my assessment.

Q. But I -- just to be -- you've had -- you've made specific emphasis on this issue of assault and rape, and would you agree with me based on your experience that that is a very small percentage, relatively, of the women seeking an abortion?

A. It's a small percentage. I have sat with those women and heard their horrible stories, and I can tell you that if one of them is being forced by the State to wait an additional 72 hours or longer, I find that really unacceptable as a physician.

Q. Right. And I understand your opinion. Again,

you're offering your opinion as an expert to the Court to help the Court decide whether this law should apply to all Iowa women; right?

A. That's correct.

Q. And so as I told Dr. Meadows, I'm not minimizing any individual patient's issues. In fact, she testified that many of the issues that arise from abortion and even the statute are very, very patient-specific; correct?

A. I don't understand what you mean by "patient-specific."

Q. Unique personal issues like an abusive spouse, for example. Not common to all women.

A. That part of what we're talking about is very specific. I would say the general harms imposed by this -- by the mandatory delay laws, as has been documented in other states, the public health concern that I have is particularly related to the delays that are imposed by women beyond the mandatory waiting period that increase the medical risks for patients who are being forced by a state, essentially, to have a second trimester abortion and the associated risks with that. That's not particular to a specific patient profile. That's a risk that is spread across all women across the state who are seeking abortion.

Q. Okay. And we'll get to that. And thank you for that answer. But right now, you and I are focused on your

testimony about this focused issue about the medical emergency exception; right? That's what we were talking about?

A. That is what we are talking about.

Q. And you're talking about a subset of women that you thought were going to be particularly affected by the way that that medical emergency exception was crafted; correct?

A. Correct.

Q. And so all I'm trying to get you to be specific about for the Court is how many people are in these categories, and you've agreed with me that the example of sexual assault or pregnancies from rape is a very small percentage; correct?

A. Again, I have not reviewed the data. I don't know if there is published data about this in Iowa. First of all, it's also -- this is also a difficult thing to assess. Women -- there's a great deal of stigma related to sexual assault, obviously, and this may be underreported. And sometimes it's -- patients will tell us as a clinician, we're meeting with the patient in the context of this medical encounter, and it may not be reported in the survey. So I have not reviewed the disclosure. If you would like me to review it now, I'm happy to, and we can have some further discussion about it.

Q. Will take that as I don't know; right?

A. I don't know the exact proportion here in Iowa.

Q. Thank you.

Let me shift gears, then, to the other component of your testimony. I think you just reiterated it, but I understand you to be offering an opinion that the law will result in delays. Obviously, it's a mandatory delay by law; correct?

A. That is correct; 72 hours.

Q. But your opinion is that that will end up creating delays often in excess of 72 hours; right?

A. That is correct.

Q. And more importantly what I would like to focus on is you have told the Court that will result in some women being unable to obtain an abortion; right?

A. I said my -- the concern that I see in this law is related to the delays that women will face and the increasing gestational age that the abortion will be performed, the increase in second trimester abortion, and the likelihood that some women will be prevented from obtaining a wanted abortion.

Q. Okay. So because -- we just really need to understand exactly what your opinion is. So you're -- are you or are you not testifying to this Court that the delay will cause some women not to be able to obtain an abortion?

A. I believe I just said that those are my two concerns.

Q. Okay. So then I want to drill down, like we just did a minute ago when you say "some women," what does that mean? So when you say "some women," can you describe for me so I understand your opinion what are the characteristics of these women, this group of women, "some women," that will cause them to be affected in this way by the statute?

A. I'm not sure that I can say specifically what are the -- describe these specific women, because I don't think we have good data on that. I can tell you that the types of women that we know face particular barriers accessing abortion care include low-income women, women who travel long distances or live far from the nearest abortion provider. And, I mean, I talked about some other categories of women who are victims of intimate partner violence, adolescents.

Certainly the research that we did in Texas looking at this, we saw that women who were low income and who lived more than 50 miles from the abortion clinic were -- reported that it was particularly difficult for them to get to the extra visit that was required before their abortion appointment.

Q. Okay. So, I mean, but there's no subcategory of

women that you can describe more specifically that are the women that you're saying are going to be denied access to an abortion?

A. More specifically than what I just said? Particularly low income and those who live farther away from the facility. I can't say anything more than that.

Q. Okay. And can -- so the second issues is can you quantify it at all? So this "some women" subset of all women, how many Iowans are you talking about?

A. You know, I can give you a range of what has been seen in the other studies, and that's a range of, I would say, from about 2 percent to 10 percent decline in the abortion rate that's been seen in other states when mandatory delay laws have gone into effect.

Q. Okay. So data you're relying upon are studies that show a decline in the abortion rate after waiting periods are put in place?

A. That's correct.

Q. And they're the studies you talked with the Court yesterday about?

A. Correct.

Q. Do any of those studies make a specific finding that women were denied access to abortion because of the waiting period?

A. I'm -- can you repeat the question?

Q. Do any of the studies that you cited yesterday make a specific finding, conclusion, that women were denied access to an abortion because of the waiting period?

A. There --

Q. It's a yes or no question, sir.

A. When you say -- there is a finding in the Roberts study.

Q. So there's the one study. I'm going to talk about Roberts, but what else?

A. I mean, there are study -- the -- one of the Joyce studies from Mississippi, I mean, also makes the finding that there was a significant decline in the abortion rate that was observed after, I mean, controlling for other factors.

Q. Okay. I just want to be clear. You're under oath. We're going to talk about this in detail. Are you telling me the Joyce study that you cited yesterday makes a specific finding that the reduction in abortion rate was because women had been denied access to abortion because of the waiting period?

A. The finding is not -- a conclusion cannot prove causality in this study.

Q. Even if there was one. But is there one in that study? Do the authors conclude that the reduction in abortion rate was a result of people being denied access?

A. No. I don't think -- they cannot make that conclusion from that study.

Q. And you're familiar -- I mean, generally speaking, are you familiar with -- there's the -- that article, there's a series of articles by the same authors; correct?

A. Correct.

Q. Based on the same data set; right?

A. Correct.

Q. And are you familiar with the Seventh Circuit's view of that -- those studies and this data set?

A. I am.

Q. And so the Court rejected them as being speculative, unreliable, and something that could not be extrapolated in Indiana; correct?

A. I'm not that familiar with the details of the Court's ruling, but that is my understanding.

Q. Right. Well, in part because they did what you just did this morning, which is they drew the conclusion that there was a reduction in rate, and then -- and then argued in court that it showed that people were prevented from having an abortion when the study didn't even show that; right?

A. The -- I mean, the study showed a reduction. It does not -- it cannot prove causality, and they were not --

they didn't interview women, so they can't prove that they were denied access.

Q. Right. They didn't ask them why they didn't come back, did they?

A. Well, they were using official vital statistics, so they didn't have access to women.

Q. And one of the things about the Roberts study that you and I will are going to talk about later is they did ask women why they didn't come back; right?

A. They did.

Q. They did. And we talked about -- we'll talk about it again. 8 percent of them said it's because they changed their mind; correct?

A. No. 2 percent changed their mind.

Q. We're going to talk about that too.

A. Okay.

Q. So anything else? Roberts and Joyce.

A. In terms of what? I'm sorry.

Q. Of this testimony, this opinion that you have that the delay causes people to not be able to obtain an abortion?

A. I think that the other important factor here that is specific in Iowa is the fact that this delay will push women past their eligibility for medication abortions and will affect some women, particularly those in the western

part of the state and the number of people in the state who prefer medication abortion will suddenly have to travel farther to access care. And I think we do have clear evidence about how geographical barriers do contribute to a reduction in the abortion rate that is related to prevention.

Q. Okay. And what is that study, that data, that you're referring to?

A. I mean, it's the -- our paper that was published in general that I reviewed yesterday. It's the Cunningham research paper. It's based on qualitative interviewing that we did, also in Texas. Sarah Baum is the first author on the PLOS One paper.

Q. And your JAMA article was done in what state?

A. In Texas.

Q. As was the other article you just referenced; right?

A. Correct.

Q. Okay. Anything else? I want to make sure that we cover these things.

A. I think that's it.

Q. Okay. Now, in addition to the studies, I think you told the Court you're relying upon, obviously, your experience -- or clinical experience as a physician; correct?

A. Correct.

Q. So just to be clear, you're not -- are you licensed to practice medicine in Iowa?

A. I am not.

Q. Have you ever performed an abortion in Iowa?

A. I am not licensed in Iowa, so I have not.

Q. And you've never done any clinical work in Iowa because you're not licensed in Iowa; right?

A. That's correct.

Q. You talked a lot about studies and various data collection yesterday. We talked about one study that you were involved in that dealt with Iowa; correct?

A. We reviewed one in particular. I think I actually mentioned the one that I was involved in in Iowa.

Q. But at least by my notes yesterday, it's the only study we talked about yesterday that was done on Iowa women; right?

A. I also mentioned another study that I believe that I have that's coming out. It's not directly -- I'm sorry. I don't understand the question. Is the question about whether I've done research in Iowa or is the question whether we've reviewed data from Iowa?

Q. Well, it's both.

A. Okay.

Q. So you have done research in Iowa; right?

A. That is correct. I have four published papers from research in Iowa.

Q. What are their topics?

A. The topics are all related to medication abortion in Iowa.

Q. Okay.

A. Actually, I'm sorry. There's five. There's also one related to a provision of long-acting reversible conception in Iowa, and that's -- kind of the relationship between unintended pregnancy and abortion rates in the state.

Q. Okay. And the one we talked about yesterday was related to telemedicine. Do you remember that?

A. Yes.

Q. "The Effectiveness and Acceptability of Medical Abortion Provided Through Telemedicine;" right?

A. Yes.

Q. Are any of the studies that we've talked about that you just listed that you've been involved in with Iowa, do any of them deal with this issue of delay or of denial of access to abortion due to waiting periods?

A. I don't understand the question, because there isn't a waiting period in Iowa yet.

Q. Well, because it hasn't gone into effect; right?

A. I understand it did go into effect for a short

period of time but not long enough to do research on it.

Q. Exactly. So there's no data. There's been no study about the effects that in fact this waiting period has on Iowans because it hasn't gone into effect yet; right?

A. That is correct.

Q. So as, you know, I talked to Dr. Meadows about yesterday, you're giving expert opinions, but you're not giving expert opinions about stuff that's happened. You're really giving expert opinions that predict the future; correct?

A. Well, I'm giving expert opinion about what has happened in other states. And based on that, I'm also giving expert opinion about what the situation is currently in Iowa and what it has been in the recent past. And I'm trying to synthesize this information to explain what I think the effect will be in the state.

Q. Understood. And so to the extent you're looking at these data sets from other states, because that's what you're relying upon, correct, data from other states?

A. I'm relying on published articles from other states.

Q. Right. And so in order for Judge Farrell to rely upon this as evidence, there's a couple things that I think we can agree on ought to happen. Number one, there needs

to be a finding in the study, and like the authors of the study need to make a finding that's relevant to an issue we've got here; right? I mean, they've got to actually conclude something; right?

A. And they have concluded something.

Q. Well, we're going to talk through it. But you need a finding to support your opinion, and then that finding itself needs to be reliable and valid; right? You wouldn't rely upon something that's not valid and reliable or biased, for example, would you?

A. That's correct.

Q. And then assuming all those things are true, then you have also got to be persuaded or persuade Judge Farrell, frankly, that it's appropriate to extrapolate the experience of women in Alabama or Texas or California to women in Iowa; right?

A. Correct.

Q. And you and I talked about this Seventh Circuit decision and the reference to the Joyce data set. I mean, this was the particular issue that the Court had with that in rejecting the idea that you can just transport things from Mississippi and say they're going to apply to Indiana in that case; right?

A. I haven't read the Court's ruling, so I can't make an opinion about that.

Q. That's true. But you're here and you're relying in this court of law on that same data set; correct?

A. I mean, that's one of several papers that I have referred to.

Q. But you would agree -- let's kind of back away from this, then. You would agree with me that when we start talking about whether it's clinical experience, frankly, or these studies, that there are differences in patient populations?

A. There may be some differences in patient populations, but I think when we're seeing this similar finding in multiple studies that related to particularly the additional delay that women are facing and increase s in second trimester abortion, that's a finding that we're seeing in multiple studies related to multiple factors, both related to increase in distance women are having to travel and related to the additional obstacles they face because of mandatory delay. In multiple settings, I think that that's reasonable to conclude that that's likely to occur here.

Q. Okay. But you would agree -- you've reviewed the literature, so you would agree with me that different characteristics of a data set of the cohort can relate to delay for example; right?

A. I don't understand the question.

Q. One of these studies you cited actually finds that there's a correlation between race and the amount of the delay. Are you familiar with that?

A. Can we look at the study?

Q. Well, we will, but does that ring a bell?

A. I can't remember which particular study that you're talking about, so --

Q. And then characteristics like age in a cohort of women seeking an abortion can have an impact on things like certainty; right?

A. Yes.

Q. Okay. And, I mean, there's a lot of -- all I'm trying to get to is as we look through these things that it matters the extent to which Iowa and Iowans, and particularly Iowa women, differ from the subjects of studies in other states under other circumstances. Wouldn't you agree with that?

A. I do agree with that. In fact, that's why I put something that's specifically from Iowa documenting how women in this state live significantly farther than the average American woman seeking an abortion to the nearest clinic. So women are already in Iowa facing more extreme geographic barriers accessing care than the average American woman. So I do believe that there are some factors that may be specific to the situation here in Iowa.

Q. Okay. And I think -- but just remind me. I think you told the judge yesterday what the national average was for distance. Do you remember what that number was?

A. I don't think we actually said that. I think what I did say yesterday was that 17 percent of women live 50 miles or more from the nearest abortion facility nationally.

Q. Right. And it's your opinion that Iowa is differently -- not similarly situated, that there's a greater lack of access; is that your opinion?

A. A higher proportion of women live farther from the nearest clinic depending on whether we look at it by a population of women in reproductive age in this state and looking at distance to the nearest clinic or if we look at actual abortion patients.

Q. But the data sets that you're familiar with from Iowa are the data sets that you looked at, for example, for the telemed article that you talked about yesterday and the other two or three articles that you published -- or that you have worked on; correct?

A. I mean, I have worked with the data from, you know, the official vital statistics data as well from Iowa.

Q. Well, I mean, Iowa-specific cohorts that we're talking about.

A. Mm-hmm.
Q. Is it one cohort that led to all of those publications, or were there a number of specific different cohorts?
A. I mean, there were different periods of time in which we were collecting data.
Q. Right. And in those studies that -- the Iowa studies that you were talking about, I think -- were all of them done in coordination with Planned Parenthood here in Iowa?
A. No, not all of them.
Q. Okay. Which ones weren't?
A. The one that I mentioned that was done with looking at long-acting reversible contraception and the abortion rates in the state. That one was not done -- I mean, some of the data was from Planned Parenthood , but there were other sources of data that were used in that analysis.
Q. All right. On at least some of them, like the one we saw yesterday, Planned Parenthood folks were actually coauthors on the study; is that right?
A. I have to -- can I check just to -- can you tell me which?
Q. On the effectiveness and acceptability study?
A. Which tab is that one?

Q. 28.
A. Yes. There was a Planned Parenthood coauthor on that one.
Q. Well, and you've mentioned a little bit about accessibility, and, I mean, you were previously an expert in a prior case that we had in Iowa that dealt with telemedicine; correct?
A. I submitted an expert report for that.
Q. Right. At that time Planned Parenthood had 17 locations in Iowa; right?
A. I'm not --
Q. At least at the time of the study?
A. I believe.
Q. Page --
A. Yes.
Q. -- 28, page 297.
So at the time of the study in 2008, Planned Parenthood had 17 clinic sites; right?
A. Yes.
Q. And then Dr. Meadows we talked yesterday that in 2013 they were down to 15; correct?
A. I didn't hear Dr. Meadows' testimony, so I don't know for sure.
Q. You know that as of the time just prior to the effective date of the statute, before the statute was

passed and went into effect, they were down to, like, eight. Is that consistent with your understanding of Planned Parenthood's --
A. I know that the number has increased. I don't know the specific numbers.
Q. Right. But they decreased before the Act that's at issue here? Those decisions were made in the past; right?
A. Correct.
Q. And so, for example, unlike the work you did in Texas, which was studying a bill that regulated the clinics and actually forced the closure of clinics, here this bill doesn't force the closure of any clinics; correct?
A. That's correct. I don't believe I have said that. I have not offered the opinion that I believe it is closing the clinics.
Q. Well, it is, but, I mean, we're also -- and we're going to talk about factors. You've also just testified that the distance from -- for patients to travel in Iowa was a long way and that that's part of this analysis. But to a large extent, that the distance traveled before this Act was enacted was as a result of decisions, independent decisions, made by Planned Parenthood about how to conduct their business; right?
A. I can't offer an opinion about that. I'm

documenting what the situation is now in terms of the distance that women have to travel. It's significantly longer than the national average, and I'm very concerned that the sum of all of these barriers, the geographic barriers, being forced to make two visits, the additional costs associated with that additional visit, are going to be particularly burdensome for some patients.
Q. Understood. If you -- you've got -- don't you have Exhibit 28 --
A. I do.
Q. -- open?
So why don't you just flip to page 300 on Exhibit 28, because I'll -- and just to be clear, this isn't a study about delay or a study about denial of access, is it?
A. This research that we did about telemedicine in some ways was the reverse. It was looking at, in some ways, what happens when access is improved to telemedicine -- through telemedicine access is improved to early medication abortion. And so this was one of the studies. There was another study that we published in *The American Journal of Public Health* that specifically looked at what the impact was related to measures of access.
Q. Got it. And in particular I just want to look at it for a second since you've got it open, because it shows on Table 1, page 300, that characteristics of the

population, the patient population that you studied; correct?

A. Correct.

Q. And because I want to talk a little bit as we go through these other studies about the differences between Iowa women seeking abortion and women seeking an abortion in other states. All right? And so here, you know, we look at age. We look at race. There's different factors. But there are things that are kind of easier to pinpoint. So here in Iowa, I mean, we're here in Iowa. 82 percent of the cohort that presented was white; right?

A. But this study only focused on patients who were obtaining medication abortions. It is not on abortion patients overall.

Q. I understand that. But this is -- this is the data set that you have, and you've also offered opinions that deal with people who want and prefer a medication abortion; right?

A. Yes.

Q. In fact, the crux of your delay argument is the timing issue about people who prefer medication abortion and then because in your opinion would be delayed, they would be unable to obtain one; right?

A. Incorrect. That is not the crux of my delay argument. The crux of my delay argument, I would say, is

twofold. One is that.

The second thing is that there is for all women a delay, and they're all being shifted later in pregnancy. And some number of these women are going to be pushed into the second trimester. With every week, additional week of gestation, there are measurable increases in medical risk. And once women then cross the -- that border into the second trimester, in addition to medical risk, they also face additional costs, and it may be harder to find second trimester abortion providers.

So those are the points I was trying to make about the delay. It's not just related to medication abortion.

Q. Well, so you don't think that this cohort is representative of Iowa women that could be affected by this statute?

A. If you would like me to refer to research that I have done and data sets that I have reviewed that were more representative of Iowa women, I would prefer to refer to the paper that I published in *The American Journal of Public Health* that looked at all abortion patients, using both data from the official vital statistics data and data from Planned Parenthood. It's a much larger data set. This is a small cohort that's only focused on medication abortion. I would not feel comfortable making comparisons

between this Table 1 in this paper and the other paper.

Q. So you're not comfortable saying that this set of Iowans seeking an abortion because it's a specific type of abortion can translate to Iowans generally seeking an abortion, that you're concerned that this is valid as to Iowans generally? Is that what you just said?

A. This is a very small cohort study. I mean that we were -- it was aimed at looking at certain -- we were trying to collect certain data about the -- compared to the telemedicine model to in-person provision of medication abortion. So it only includes medication abortion patients, which are -- so I believe that this is -- gives us a snapshot of what women in Iowa seeking medication -- obtaining medication abortion look like, but it's not a snapshot of what women obtaining abortion in Iowa look like. If you want to look at that, I would like to have my paper here from *The American Journal of Public Health*, which includes all abortion seekers.

Q. Well, let's take that first. First, I just want to ask, but based on everything you just said, notwithstanding everything you said, frankly, you're asking this Court -- these are Iowans, at least; right? These are Iowans; right?

A. Yes. This study was performed in Iowa. But just to clarify, there were also some women who traveled out of

state probably in this cohort too.

Q. True. But the other studies that you talked about, you and I just exchanged and we're going to talk about later, are based on cohorts of women from different states, from, literally, from Alabama, from Texas, from -- and you're asking the Court to rely upon that data and arguing that you can infer from that data to broad characterizations about how the law will impact Iowa women; right? I don't get that.

A. I think if you -- this is a very answerable question --

Q. Well, answer it.

A. -- but I would need to have the data in font of me. There's an answerable question about how does the population of women in Iowa who are seeking an abortion compare nationally or compare to the specific states where we looked at this, the representative data. I can tell you the one thing I did look at specifically was their distance to the nearest clinic, and on that measure --

Q. You talked about that twice --

A. Right.

Q. -- when I haven't even asked about it yet.

But I want to go back to the -- to this point about the data set. Did you testify about this data set yesterday in your direct examination, about this all-in

Iowa data set that you think is the best data set? Was that part of your testimony yesterday?

A. I did not say in my testimony this is an all-in data set that is representative of all the women seeking abortion in Iowa. I said that this is a paper -- an analysis of women seeking medication abortion that highlighted A, how they had strong preference for medication abortion, and B, how they had a strong preference for obtaining the abortion as early as possible.

Q. That -- but my question is: Did you testify yesterday about the article that you're talking about now that you would like to have in front of you?

A. No, I did not.

Q. Right. Is it in the exhibit set?

A. No.

Q. Okay. So, I mean, it wasn't part of your direct examination, and I don't have it. And so for now, if you'll indulge me, I'm going to use this data that you did put before the Court, and we have to at least compare how Iowa cohorts look to other states. Okay?

A. I believe that's an inappropriate comparison, but I can do that.

Q. Okay. You don't think it's important for the Court to understand the similarities or the dissimilarities?

A. I think that it is important, and the most -- the measure, as I have said, the measure that I thought was most relevant was related to distance. And that was the data that I put forth in my testimony.

Q. Okay. Fair enough. So let's move on.

Let's talk a little bit about the big picture, then. We are familiar, generally, with abortion statute -- or abortion statistics and rates throughout the United States; is that correct?

A. Yes.

Q. Okay. So -- and we talked with Dr. Meadows a little bit about this. But the abortion rates in the United States peaked around 1990; is that your understanding?

A. I know that they have been declining recently. I can't say specifically the year that they peaked.

Q. Okay. But the trend has been downward; correct?

A. That is correct.

Q. On a nationwide basis?

A. That is correct.

Q. And the Iowa rate -- so you may not know this, but I will represent to you the Iowa rate peaked in 2006, which obviously is later than 1990, but that was the peak in Iowa. Are you familiar with that at all? Have you looked at Iowa rates?

A. I have, and I'm generally familiar with that, yes.

Q. Okay. And like the national numbers, the rate in Iowa has also been decreasing; right?

A. That is correct.

Q. And then the 2014 numbers, which are the ones that are kind of most available right now, the U.S. rate -- and rate, so we're using the same terminology, is the number of abortions per 1,000 women of childbearing age; right?

A. Correct.

Q. Okay. So the rate in the United States in 2014 was 14.6. Does that sound right?

A. That sounds generally correct.

Q. Generally, right. I'm not trying to pin you down. I'm just trying to frame this. Iowa's was 7 and a half, which is about half of the national rate; right? Does that make sense?

A. I know it's quite a bit lower. I don't know the specific numbers.

Q. And in 2015 actually decreased down to 6.8, which is, again, substantially below the national average. In Iowa, are you familiar with the fact that in 2014 both the number, the rate and the ratio, was the lowest number since 2004?

A. I did know that the rate was low, yes.

Q. All right. So when we look at Iowa's rate, the national rate -- do you know what the rate in California is where you practice?

A. I can't give you a specific number.

Q. How about 19 and a half percent? Does that sound about right?

A. It's not a percentage. It's the rate.

Q. I'm sorry. 19 and a half per thousand?

A. Yeah.

Q. Does that sound accurate?

A. That sounds probably correct, yeah.

Q. All right. I got it all the -- so Iowa is half the national rate, California is substantially above the national rate; right?

A. Correct.

Q. And so, I mean, not only do we have, you know, differences in patient profiles just demographically, we have differences in the demand for and selection of abortion as an option in states; correct?

A. That is correct. I -- also my understanding is, you know, Iowa has always been a really great success story because of the investment that has been made here in expanding access to the most effective contraception and really has resulted in a reduction in unintended pregnancy

and a reduction in abortions. It's a pretty big success. My understanding is that investment has decreased in recent years and also with the closure of clinics that are providing family planning services, I'm concerned that the historic lows may not predict the future.

Q. Okay. But, I mean, from that answer, I understand -- I mean, access to contraception is yet another factor that could contribute to the reduction in the abortion rate; right?

A. That is correct.

Q. And so in your Texas study, for example, where you talk about abortion rates before and after House Bill 62 or 82, whatever it was, you controlled for contraception; right?

A. It was House Bill 2.

Q. House Bill 2. Thank you.

A. It -- it's not so much that we were able to control for it in the analysis, but in the -- in the setting in Texas because of the closure of so many family planning clinics, the reduction in hours that were documented through other research from me and others that it is highly unlikely that the reduction in the abortion rate that he saw there was related to improvements in contraception, which is different from what's happened here in Iowa.

Q. But you didn't specifically control for it in your analysis?

A. That's correct.

Q. And just like you didn't -- neither did Joyce or the authors in Mississippi. They didn't control for that factor as a potential reason why abortion rates had decreased; right?

A. We didn't. No, Joyce did not control that.

Q. So why don't you turn to Exhibit 26, which was something you talked about yesterday a little bit, the Gatter study; right?

A. Yes.

Q. And I want to talk about it in a couple different ways. I mean, first of all, this is -- this is a big cohort, what they described as a large urban abortion provider in 2011; correct?

A. Correct.

Q. And I can't tell. Looks like it was in the Los Angeles area; is that also correct?

A. I believe so, yes.

Q. All right. And so if we talk about your practice and your experience, is the patient population that you see similar -- more similar to this population or to an Iowa population?

A. It's similar to this, I would say.

Q. Right. And so -- and you would agree with me that there are differences in both the demographics and also the attitudes of different sets of people; right? That's why you study things?

A. Yes, I would agree with you.

Q. And so based both on location and also the cultural issues that flow from where you live can affect people's attitudes and how they approach healthcare, for example; right?

A. Yes, I think that's correct.

Q. And so I think yesterday you pointed to this in particular, I think when you were having -- we were having a discussion, or you and your -- and the lawyer were talking about this idea of decisional certainty and being firm in the decision and, you know, being committed, whatever the words that you were using; right?

A. I don't understand the question, your question.

Q. This certainly was an issue when you were talking about this study?

A. Yes.

Q. And the reason -- it was a bad question, but one of the things that happened is we talked -- you look at different studies and people use different terms, you know. Decisional certainty, you measure the certainty or measure the uncertainty. There's different ways to approach the

same question; right?

A. Well, there were validated scales for measuring decisional certainty.

Q. Exactly. But let's just look really quickly at the demographics. If you turn to page 84 of Exhibit 26, you've got a description of the characteristics of the 15,000 visits, and I couldn't quite tell what that meant. There were 15,000 different women, but I think they selected that, so I think this is individual women in the Table 1; right?

A. I believe that these are visits, yes, and it is possible that women might have had multiple visits.

Q. Okay.

A. So if the pregnancy is multiple visits, we stop at the final visit.

Q. I just wasn't sure. It's not real clear, but I don't think they counted people twice, but maybe they did. But if you look at it, we see just a couple things, you know. They talk about age, the distribution of age, and you have said that you've done kind of a more broad examination of Iowa women, there's a data set that's better. So all I've got is Exhibit 28, but when you look at age distribution of Exhibit 26, does it look roughly the same as what your experience is in Iowa?

While you're looking, the other issue you talked

about on this study was really the decision to view an ultrasound and whether it changed a result; right?

A. Are you talking about Gatter?

Q. Yes. No. Yeah. Gatter.

A. Yes.

Q. Exhibit 28 -- 26?

A. Mm-hmm. I would say that I'm just eyeballing. The age distribution seems fairly --

Q. Pretty close?

A. Pretty close.

Q. Okay. How about race?

A. Certainly there's a larger proportion of Hispanic women in the Gatter study than I would estimate are seen here in Iowa.

Q. Right. Well, in Gatter, the cohort is 17 percent white, right, and in Exhibit 28 -- I understand you think it is a limited sample, 82 percent to 85 percent white. So higher than 80 percent, right, in Exhibit 28, which is the Grossman study of Iowa women related to telemed? So a big difference in race; right?

A. Correct.

Q. And then what about previous pregnancies? Does that look pretty similar to?

A. That's a little bit -- the Gatter study is a little bit higher than the national. Well, actually, I'm

not sure this is actually pregnancy, not that they had a live initiative birth. So that actually seems fairly comparable, certainly with national data, I would say.

Q. Fair enough.

If -- and then we go down this particular case -- or this particular study, you cited for something related to what you -- what this study characterizes as decisional certainty. Isn't that what we talked about with this study?

A. That's correct.

Q. And so when you look at these numbers, it's your -- if I understand your testimony yesterday, that this is something that you believe would reflect what you see similarly in other states, including Iowa?

A. The -- I'm sorry. I don't understand the question.

Q. I mean, I don't think we have a data set on decisional certainty for Iowa, do we?

A. I'm not aware of any.

Q. So you're asking the Court to look at this study and somehow give it weight as to what the decisional certainty might be in Iowa; correct? So I'm asking you: Does this look, based on your experience, on what you would expect to see in Iowa?

A. Well, first of all, I would say that in analysis

where they also looked at the association between the demographic factors, including race, which I think was the only one that we -- race or ethnicity is the only one we have really identified is very different from Iowa. There was no association between race ethnicity and continuing the pregnancy in this study.

Q. Okay. Want to turn to page 82 -- I'm sorry -- 83 of this study. If you look kind of the -- in the results column about a third of the way down, there's a discussion and a -- follow along with me. So it's about halfway through the second paragraph. It says, "The vast majority of women (85.4 percent) were certain about their decision to have an abortion, but 7.4 percent expressed medium or low decision certainty;" right? Is that -- did I read it right so far?

A. Mm-hmm.

Q. You told the Court about that yesterday. There's also, like, 7 percent of missing people; right? So, like, if you look back at the chart, there's 85 percent high certainty, 4.74 middle or low certainty, and 7.2 percent we just don't know how certain they were; right?

A. Correct.

Q. Okay. But then it says compared to those who did not view, which is this dealing with the ultrasound issue. Women who viewed their ultrasound images were most likely

to be -- more likely to be younger, number one; right? And we'll talk about it in a minute, but do you recall from Roberts we were -- they made a finding that decisional uncertainty is actually higher among young women, correct -- or made an observation in Roberts?

A. Can we turn to that?

Q. Well, do you remember that or not?

A. I don't remember. I hesitate to make -- to say that specifically until we look at it.

Q. Understand. We'll get there. But age can be important, right, because we're talking about it right here? So compared to who did not view, women who viewed their images were more likely to be younger, African American, and have higher levels of poverty, and have no previous pregnancy. So all of these things correlated to this decision to view an ultrasound, right, according to this study?

A. Correct.

Q. And so when you just -- when you back away and you start talking about a study or studies that discuss a decision to view an ultrasound and the impact that might have on a decision, those factors, age, race, poverty, can have some impact on whether it's a data set that you can translate to another data set; right?

A. That's correct. And that's why I think it's

important, then, that they control for those factors in the main analysis that they were doing in Table 2, looking at the factors that were associated with continuing the pregnancy. And in those multivariable and analyses age, if I'm remembering correctly, race ethnicity, for certain, was not -- was not manifested.

Q. Well, go to page 85, if you would. You got it?

A. Yes.

Q. I think that's where you are. Just go down. So we talked about this yesterday, but on the left column there there's this full sentence beginning with "unlike," and I'm going to read it. It says, "Unlike the two existing studies on the effect of ultrasound viewing, our analyses show that voluntarily viewing was associated with some women's decisions to continue the pregnancy." Did I read that correctly?

A. That is correct.

Q. Okay. And it does. It says, "However, the effect was very small and should be considered with caution, and the effect was limited to the 7 percent of people -- of patients who had the medium or low decision certainty;" right?

A. Correct.

Q. And so when we see this population of people who present for an abortion, which is what this study group is;

right? And -- right?

A. Correct.

Q. These are people who walked in and made an appointment for abortion; correct?

A. Correct.

Q. And so we talked about decisional certainty, but even among this set of people there are people that show medium or low decisional certainty; correct?

A. Correct.

Q. And it's those people that are impacted when they voluntarily view the ultrasound; right? Yes or no.

A. Yes.

Q. Okay. Now, you can -- go ahead if you have more you want to say.

A. So this study was looking at same-day ultrasound viewing. So women came in and had the ultrasound and then either did or did not have the abortion, generally that same day. And so I guess my -- I mean, I don't know if we're talking specifically about the ultrasound viewing situation here in Iowa, but my understanding that that's not really the focus of what -- I mean, I wasn't really -- that's not the focus of what this discussion is here in this case. Is that correct?

Q. Well, certainly, the implication of what you told the judge yesterday is looking at an ultrasound doesn't

make any difference?

A. I didn't say that.

Q. Okay. So you agree that it does?

A. I believe that the -- I stated very much what was here in this paper, which is that ultrasound viewing does not have -- appear to have any effect for people that have high decisional certainty. The only measurable effect appears to be with voluntarily viewing, those who have lower decisional certainty, and it's unclear if they -- those are also patients who are more likely to choose to see the ultrasound, and it's unclear whether they're influenced by seeing the ultrasound images or they choose to see the ultrasound image so that they can be pushed toward not having an abortion.

Q. Okay. I get it. But you'll agree with me that at a minimum what this shows is there are people who have made an appointment for an abortion, walk into a clinic, and have some decisional uncertainty; right? Correct?

A. Yes.

Q. Based on the numbers, 7.4 percent?

A. Yes.

Q. And that some of those people, then, are affected by viewing the ultrasound?

A. I don't know that I -- you're -- you're putting directional casualty in that, which I did not.

Q. Well, but the study did? So go back to 85.

A. They say that there's an association. So they're saying that voluntarily viewing was associated with some women whose decision was to continue pregnancy.

Q. All right.

A. I mean, as I also mentioned, I believe, yesterday in my testimony, in my own clinical experience, you know, there is some population of women who come in and they're uncertain when they're seeking an abortion. And after going through the patient education session and talking with me or one of my physician colleagues, they don't continue with the abortion that day. And I think it's the sum of a lot of information that they get. Part of it is the ultrasound, part of it is more information about the procedure, part of it is talking through with someone else what their feelings are about the procedure.

Q. Okay. Anything else?

A. No.

Q. Okay. Well, but the primary point here is to talk about the fact that in this study, this narrow issue about ultrasound viewing that the authors pointed out that if you -- that a younger patient population showed different characteristics than population as a whole, that people who had higher levels of poverty showed different characteristics in terms of how they responded in the

analysis and people who had no previous pregnancy. You would agree with that on page 83?

A. I think they're talking there about who chooses to view, but again, they looked at those factors in a multivariable analysis as to whether they continued the pregnancy. I think only one of the age groups was significant. Race ethnicity was not significant. Poverty was not significant. Gestational age was significant, and having multiple gestation was significant.

Q. Okay. Let's move to Exhibit 31. And so this is the Joyce article that you and I were talking about a little bit earlier; right?

A. Correct.

Q. And this is an article that is based on this Mississippi -- it studies the Mississippi 24-hour waiting period; correct?

A. The 24-hour delay, yes.

Q. Right. And I think the data set is in the '90s, if I'm not mistaken. So it's one of the early data sets about waiting periods; is that fair to say?

A. Yes.

Q. And the article that you talked about yesterday, Exhibit 31, the conclusions in the abstract on page -- I guess page 4 of Exhibit 31, read the conclusion for me, if you would.

A. "The proportion of abortions performed later in pregnancy will probably increase if more states impose mandatory delay laws with in-person counseling requirements."

Q. You know what. I need to go back. One thing I forgot.

So the cover page on Exhibit 31 is from the Guttmacher Institute. Do you see that? Guttmacher Institute?

A. Yes.

Q. Are you familiar with the Guttmacher Institute?

A. I am.

Q. And they're affiliated with Planned Parenthood; is that correct?

A. I don't believe that they're affiliated with Planned Parenthood.

Q. Okay. They're not a specific affiliate?

A. As far as I know, they are not.

Q. Okay. And the way this works -- so this article was published in something called *Family Planning Perspectives* in February of 2000; is that correct?

A. Correct.

Q. Is that a -- is that a typical -- is that a publication, or is it a publication of the Guttmacher Institute?

A. I believe that it's -- at this point, this period, I believe that it was a -- it's -- it says published by Guttmacher Institute. It must be that it was *The Journal of Guttmacher*. I have to admit that I'm not 100 percent certain on this.

Q. All right.

A. But it is a peer-review journal.

Q. Understood. And just to be clear, it's the -- it's from the same investigators and the same data set as the article that we were talking about that the Seventh Circuit took exception to; right?

A. I believe it is, yeah.

Q. Yes?

A. I believe so. I'm not sure which article that you're -- it is that you're talking about. Is it one of the exhibits?

Q. No.

But these investigators, to the extent that a federal judge thought that the findings were based on a faulty study by biased researchers who operated in a vacuum of speculation, would that be important to you if it's stuff that you're relying upon?

A. Again, I have not read the decision. I know Ted Joyce, and he's a very well-respected economist.

Q. And the Court ultimately said, "It is apparent

that the district court's reliance upon Mississippi data to predict the effects of materially different legislation in Indiana, a notice-in-waiting provision piles a mountain of speculation upon a foundation of quicksand." That's pretty harsh words coming from a federal judge, isn't it?

A. Those are definitely harsh words.

Q. So let's go back to the front page of Exhibit -- of actually page 4 of Exhibit 31, which is the abstract. And I think, unless I misunderstood, have you -- you in your discussion yesterday -- I guess I just need to be clear -- talked about this in two respects, one is delay in the sense of delay of procedure and the concern that it would increase second trimester abortions; right?

A. Correct.

Q. And just to be clear, I mean, we've talked about this a little bit. You have mentioned it a number of times. I mean, do you think that a second trimester abortion is an unsafe procedure?

A. I do not.

Q. All right. So, I mean, we've heard testimony from Dr. Meadows and others that abortions are safe. They're safer than childbirth. And you disagree with that testimony?

A. No, I do not.

Q. Right. So this concern that when people move

from first trimester to second trimester is based on what? That there's some incremental risk even though you still think it's an absolutely safe procedure? Is that it?

A. There is a -- there is a measurable risk of complications and death, and it's clear that that increases as pregnancy advances. And it's a significant risk that -- significant increase from first trimester to second trimester. I mean, on an order of about 8 to 10 times higher risk, and is it still less than childbirth? Yes. But why would we submit women to that measurable increased risk when -- for no benefit?

Q. All right. I mean, so it's your testimony that there's a significant risk of complications and death from abortion?

A. There is a -- there are measurable risks of complications and death from abortion, and those increase as pregnancy advances. And taken overall or individually looking at week by week, these risks are still less compared to continuing the pregnancy to term. But those risks increase from the first trimester to the second trimester.

Q. And they're real; right? They're real risks?

A. Of course.

Q. So yesterday -- at the end of your testimony yesterday, you kind of took crisis counseling centers to

task for talking about or emphasizing the risks of abortion; right? You told the judge that was inappropriate?

A. That is inappropriate in a -- in a pamphlet that's entitled "Before You Decide." I think that it is critical that you present unbiased evidence about what the risks are associated with both outcomes of the decision that a women is deciding between. And to present only one of them and also to exaggerate those, I believe, is inappropriate and misleading.

Q. But you agree that there's a risk associated -- a significant risk of complications and death from an abortion?

A. There is a measurable risk that is less than continuing a pregnancy to term.

Q. Right. But, again, you agree that a second trimester abortion is still a safe procedure?

A. I do.

Q. So, again, back to the -- so the conclusion reached by the investigators in the Joyce case that you just read is that the proportion of abortions performed later in pregnancy will probably increase if more states impose mandatory delay laws with in-person counseling requirements; right?

A. Correct.

Q. And do I misunderstand your that you also pointed to this as evidence to support your kind of other opinion that women will be actually denied access to an abortion? Because I don't see it anywhere in here.

A. Yeah. I -- I think I focused my testimony related to the piece related to delay. I think that was really what the focus of my testimony was yesterday.

Q. Right. Because there's no finding here that the delay caused people to lose access to an abortion?

A. I mean, there was a measurable -- I mean, this -- there was a measurable decline in the abortion rate , but they don't have evidence in this paper or in this analysis from Mississippi clearly showing that it was because women were denied access.

Q. Right. I mean, they don't even try to attribute it to that fact anywhere in here. They don't even say that; right?

A. I believe that's correct.

Q. Yeah.

THE COURT: Mr. Thompson, I'm going to look for a break.

MR. THOMPSON: This would be fine.

THE COURT: Is this a good spot?

All right. We'll take a 15-minute break.

(The bench trial recessed at 10:27 a.m.)

(The bench trial resumed at 10:42 a.m.)

THE COURT: Mr. Thompson, do you have additional questions?

MR. THOMPSON: I do, Your Honor. Thank you.

Q. You got everything? You got water?

A. I'm good. Thank you.

Q. All right. So we're still talking about Exhibit 31, which is the Joyce study that you discussed, and if you'll flip to page 8 of the study, which is where we're talking about the characteristics of the cohort, do you see that?

A. Yes.

Q. And this was a study about delay; right?

A. Correct.

Q. And so, you know, we'll -- the age breakdown is, I think you mentioned, is -- tends to be different. It's kind of hard to match up. But let's just focus on race for a second. Mississippi, 52 percent white -- do you see that -- of the state cohort?

A. Yes.

Q. And they have it broken down, so it's 51 percent -- 51.8 percent and 52 and then the percentage, looks like it goes down in the after group; right?

A. Correct.

Q. And it's in the high 40s. So around 50 percent

if you just kind of look at -- I'll just jump to get to focus, because if you look back to the Iowa cohort that we looked at, it was 82 percent white; right?

A. On the medication abortion patients.

Q. Right.

Now, you keep qualifying it, so what's your best estimate of the total demographic number for Iowa abortion patients not just telemed?

A. I would say overall it's lower, probably in the order of 72 to 73 percent.

Q. 72, 73 percent white?

A. Yes.

Q. Okay. And so there's a racial difference. But you would agree with me there's a difference in the cohort in racial composition between the Mississippi cohort and the Iowa cohort?

A. Correct.

Q. Okay. And then if you'll flip to page 10 of the study, do you see that down at the bottom? It's really the paragraph right before the bullet point that says, alternative specifications. Do you see that?

A. Uh-huh.

Q. So it says, "There were also significant differences in abortion and timing by race, as white women were less likely to delay than nonwhite women. For

example, the proportion of second trimester procedures was 1.8 percentage points lower, and the mean gestation of a fetus nearly 2.3 days shorter among white abortion clients than among nonwhites." Do you see that?

A. Yes.

Q. So even when we're talking about a delay, race matters; right?

A. Yes. There were associations with race in that.

Q. And then if you look at page 9 of the study, at the bottom right-hand corner, that's a paragraph that says, "The outcome of previous pregnancies also independently predicted the timing of abortion. Compared with women who were having their first abortion, those who had already had one were significantly less likely to terminate their pregnancy in the second trimester, a proportion 1.7 percentage points lower, and they obtained their abortion 1.4 days sooner." Do you see that?

A. Yes.

Q. So, moreover, having had at least two previous abortions relative to never having one lowered the proportion of second trimester procedures by 2.5 percentage points and also lowered the gestational age by more than a fifth of a week, which is, I think, what, a little over a day? So again, race and whether you've had an abortion before as a patient affects how much delay you actually

measure in these data sets that measure this delay issue; right?

A. There was an association of that, yes, in this study, yes.

Q. Got it.

Let's go to Exhibit 42. This is the White study in which you were a coauthor. Got it?

A. Yes.

Q. Okay. Sorry.

And again, if you would, read the conclusions on the abstract.

A. "Although most women returned for their abortion procedure, many traveling long distances had a week or more between visits. Because delays may limit women's options for affordable abortion care, evidence-based policies should be adopted to facilitate women's timely receipt of services."

Q. And so, again, here, I mean, there is -- this is something that you've talked about in the context of delay; right?

A. Correct.

Q. But just to be clear, there is no specific finding in this study that the delays are what caused people not to return for their abortions?

A. No. This is -- this paper -- I was not drawing

any conclusion related to whether people were being prevented from obtaining a wanted abortion.

Q. Exactly. And then to the extent that it sounded like you were saying that yesterday, you're not suggesting this is a study that shows delay causes loss of access?

A. I did not say that yesterday.

Q. All right. Now, one of the things you have talked about is, I think, you yesterday -- earlier this morning were talking about distance and your concern about the distance that Iowans have to drive to obtain services; right?

A. Correct.

Q. And so one of the things that is set forth here in the abstract, at least, observes that 19 percent of women did not return for abortion; correct?

A. To the -- to clinics that we had data from. There were three other clinics in the state that we did not have data from.

Q. Right. I understand. But there's no attempt to say why. Nobody is asking why they didn't return, so we're not talking about that question.

A. No.

Q. But the one thing that you say in the next sentence is what? "The distance traveled was not associated with return for an abortion visit." In other

words, their return, whether or not they returned was not associated with distance; right?

A. That is correct.

But this was in a setting where we only had data from two of the five clinics, I believe, in the state, so I don't feel like we can rightly make an assessment about that. We're just -- I'm able to talk about what we had access to the data to. It did not return to -- there was no association between returning to those two facilities and distance.

Q. Right. So it doesn't support either the proposition that distance causes the lack of return to the clinic or that the bill itself causes women to be unable to obtain abortions; right?

A. Neither of those two conclusions were supported by this study.

Q. If you'll turn to page 3 -- page numbers are up in the right-hand corner of Exhibit 42. Do you see it?

A. I'm sorry. I see page 3.

Q. Page 3. And just above Table 1 there's a last paragraph before it kind of -- it's part of a description I want to read. It says, "Although the majority of women who attended the in-person consultation visit returned to this clinic system for an abortion, 19 did not return." There's the table. The next sentence, though, says, "In

multivariable-adjusted logistic regression, young women younger than 18 years of age had higher odds of not returning for an abortion visit than women 18 to 24 years of age;" right?

A. Yes.

Q. So you and I talked a couple of times about the fact that -- and I think we're going to get to the -- to the Ralph study -- that there -- that there is data that suggests that younger women have more decisional uncertainty than older women; is that correct?

A. Could we look at the Ralph study?

Q. We can. But, I mean, you have read all this stuff. Are you familiar with the general proposition?

A. Maybe that's generally true, but if we're going to refer specifically to the Ralph study, I would like to look at that.

Q. I will get you there.

A. Again, just to highlight, I don't think this finding related to returning -- whether these women returned to the two of the five clinics in Alabama, they were more likely to be -- you know, I don't think that had anything to do necessarily. We can't make an assessment whether or not it's related to decision uncertainty or not, since that wasn't assessed here.

Q. Right. Okay.

We'll pick up just on one of the things that we can talk about cohorts, and we're talking about differences in characteristics of cohorts. But sometimes limitations a of study deal with who they collect the data from and whether or not people respond to questionnaires or come back for interview; right? As an investigator?

A. That's a limitation of survey-based studies. Some of these data that we are reviewing in these publications were based on statistic data, which would include the entire universe of patients.

Q. Got it.

So two things. So if you will pull out -- I'm sorry -- Exhibit 34, which is Ralph, which you mentioned, I think, earlier. Find it?

A. Yes.

Q. And there's a -- there's a couple of issues that I want you to look at. And, again, just to kind of orient us, this is a study that was the subsequent analysis and part of the data set that the Roberts study was based on; correct?

A. Correct.

Q. So they're connected, and we'll get there. But if you look at page 274 of this study, which is about -- I know the pages are kind of hard in these things -- probably about 6 pages back in Exhibit 34.

A. Yes.

Q. It's right under that Table 3. Do you see it?

A. Yes.

Q. And this is back to the decisional conflict issue that you and I have been talking about. So the final down on the right-hand corner, it says, "Mean scores on the DCS" -- which is that decisional conflict scale; right?

A. Correct.

Q. -- "were significantly higher indicating more conflict among women age 19 years and under as compared to women aged 20 years and older." So they had a significant difference for young people on this measure of how conflicted they are; right?

A. Correct.

Q. And then get me way through the tabs. And then it was kind of a broader cushion on the other end of the spectrum. So if you look at page 276. It's two pages after where we flipped. Under paragraph 3.3, the first full -- the second full paragraph you'll see in the middle of it, it says -- specifically it talks about -- I will read the whole paragraph so you have context. "In multivariate analyses, women's age, endorsement of abortion myths, and religious affiliation were associated with scoring above the 90th percentile on the DCS." In other words, this is that decisional conflict scale, and we're in

a -- in a study here where the higher the number the more the conflict; right?

A. Correct.

Q. Right. Whereas when we were looking at the Los Angeles study, the higher the score, the more the certainty?

A. I believe that's correct.

Q. It measured certainty, but it was a conflict. I just want to make clear.

So here it says on the DCS, age and endorsement of abortion myths were associated with scoring above the 90th percentile on the TBS. Specifically, women age 35 years and older were less likely to have scores reflecting high conflict for the DCS. And so if you kind of compare what we talked about for age -- women aged 19 years and under and women 35 years and older, you have kind of this spectrum of conflict that the older women tend, you know, to show -- tend to show less conflict. The younger women show more conflict; right?

A. Right. And I think that the important part of this --

Q. Well, first, say -- is that correct?

A. That is correct.

Q. Okay. Go ahead.

A. The -- I think the important conclusion of this

paper that I didn't focus on yesterday is what they were really trying to do here was look at the agreement between this validated scale, the decisional conflict scale, and this TBS, which is a more simplified scale that is commonly used by abortion educators and clinics. And what I show here is that there's a very good correlation between these two scales, which I find the take-away being that abortion clinicians are doing a good job of assessing decisional certainty in their current standard practice that they're doing. And that scale performs well compared to a larger, longer validated scale that's used for other health -- in other health settings.

Q. Okay. Just -- if you go to page 271 just before we move on, that's actually the table that -- of Exhibit 34, I'm sorry. That's the table that summarizes the demographic information?

A. Uh-huh.

Q. And you've got, for example, race, and this is a Utah cohort; right?

A. Yep.

Q. It's 66 percent white; right?

A. Which doesn't seem that different to me from 72 percent, 73 percent, which is what I estimate --

Q. For Iowa?

A. -- for Iowa.

Q. So the Utah cohort of the things we've looked of at so far, is the most similar to the Iowa profile; right?

A. Probably. There's probably a larger Hispanic population in Utah than there is here.

Q. And very different from the Los Angeles cohort we saw; correct?

A. Correct.

Q. Which is similar to your patient base; right?

A. Similar, yes. Yeah.

Q. Well, and different than Alabama and Mississippi and the other places we have just talked about; right?

A. Yes.

Q. Okay. Then go back to page 276 one more time. I'm sorry. Can't follow my own tabs. We're going to go to the bottom right-hand corner of page 276, and this is where the investigators talk about the limitations of their study; right? Correct?

A. Correct.

Q. And studies always have this section. There's a -- they also want to point out things that they know might be a weakness in their analysis or their data set; correct?

A. Correct. Any good study would have this section.

Q. All right. I will agree with that.

So here's what it says. It says, "This study had

several limitations. Our sample was limited to women seeking abortion care in four Utah facilities, and as a result differed from the national profile of women seeking abortions in several respects." And this is the line I just want to focus on. "First, adolescent women," young women, "adolescent women were underrepresented here, 6 percent, as compared to nationally 18 percent. Thus, our finding" in which they refer -- we talked to you about a minute ago "that adolescent women scored higher on each scale -- this is the uncertainty scales -- merits additional explanation with a larger and more representative sample of younger women."

So there's a concern that if it underrepresents young women and young women show more conflict, that could affect the outcome; right?

A. That's correct.

Q. And then if you go -- if you turn to the next page set, 277 of Exhibit 34 and up in the left-hand corner, that text wraps up kind of halfway down that big paragraph. And it does here, talks -- let me back up. It talks for a minute about, really, just affiliation, which they say, you know, in Utah would be a different profile than in the rest of the country; right?

A. Yes.

Q. And you agree -- would you agree that it's

appropriate, especially in the context of a study relating to abortion to observe that there may be differences in different populations driven not just on hard demographic issues but on their belief systems?

A. Yes, I believe that's correct.

Q. And so would you acknowledge to me that when -- for example, your discussion of rural Iowa, that the only thing that distinguishes a county in rural northwest Iowa from Polk County, for example, is not just the distance from an abortion clinic; right?

A. Correct.

Q. And so you've got cultural differences. You've got all kinds of things related to rural Iowa and rural America, including belief systems?

A. Correct. But I would say the best paper that we've talked about here that addresses that issue is our paper that was published in JAMA, where we looked at this in Texas. And we were actually -- we were able to look at the changes in distance for a given county. So there's no reason to believe between 2012 and 2014 that those belief systems changed in a rural county in Texas. What did change was the distance to the nearest clinic. And we observed a significant reduction in the abortion rates in those counties.

Q. Right. But just to be clear, and you keep

pointing to that. So there was a change in the law, and then a change in rates; right? If I understand your analysis. From Point A to Point B and from before and after. I mean, you've not done any analysis like that in Iowa?

A. This law hasn't gone into effect.

Q. Right. That's my point. So you don't have any data that suggests that the -- that the rates have changed relative to this law going into effect. I mean, there's no suggestion that rates have changed in any way other than they continue to go down; right?

A. We are not able to present data about the effect of this law since it is my understanding it only went into effect for a few hours.

Q. Because there's no data; right?

A. It's impossible that there could be data.

Q. Right. But in the middle of the paragraph, the author's note, "Finally, approximately one-third of our sample did not complete the follow-up interview." Some people who presented for the informational visit and were -- who they talked to, then they didn't participate in the follow-up, and that's a pretty big chunk of people, right, a third of the cohort?

A. Yes.

Q. Okay. And it says, "our results might be biased

[illegible] with high uncertainty were more likely to be lost in follow-up;" right?

A. Correct.

Q. And so if people who decided they didn't want to go through with an abortion are, you know, overrepresented in the people who don't want to, then, take the survey, then it would -- it would be biased in the sense that it wouldn't report that high certainty; right?

A. I believe in the Roberts paper they point out that they -- they're based on the people they were able to get in touch with. They -- the data indicated that the majority of those people who are lost in follow-up sought abortion care at other abortion provider facilities, not that they didn't obtain an abortion, of the 30 percent who were not contacted.

Q. Yeah. But it didn't say all of them?

A. No. No. They can't say all of them.

Q. Right. And it further can't say why the people who didn't follow-up or didn't seek an abortion chose not to seek an abortion because they didn't get the information?

A. Well, they did talk to -- are you talking about Roberts now?

Q. We'll get to Roberts. You just mentioned Roberts, and we jumped ahead.

So let's move -- we'll get there in a minute.

A. May I say something else?

Q. Sure.

A. I mean, I think I'm not -- the -- I talked about -- I think the two important findings from the Ralph paper are, one, what I just said, that there shows -- there's good correlation between the scale that many abortion providers are currently using to assess decision certainty and a larger more in-depth validated scale suggests that abortion providers are doing a good job of assessing decisional certainty with their standard counseling.

The other finding is that overall the decisional certainty is high measured on these validated scales for the patients that participated in this survey with the caveats that we just discussed.

I think in the context of the other papers that we have looked at, which have much lower loss to follow-up, for example -- the Gatter study had a different assessment of decisional certainty -- also showing high proportions with high decisional certainty. I think all of these data are consistent in that the vast majority of women seeking abortion are sure of their decision.

Q. Okay. I mean, I guess to follow-up on that point, though -- and we've talked through these different

data sets -- you would agree with me that even as to these sets of patients who have presented to an abortion clinic who have decided -- who have scheduled and made an appointment and show up at an abortion clinic, that all these data sets show there is a portion of women who had either, you know, moderate or even high uncertainty, and it's not -- and I don't quarrel with your number about vast majority, but a percentage of people -- in L.A., 7.4 percent, in Utah, it was higher, depending on how you draw the line.

But there's a percentage of people who already made an appointment for an abortion who have high decisional uncertainty; right?

A. Yes, that's correct. Even in my own practice in San Francisco.

Q. Right. And your practice is that at that point you tell them to take more time?

A. Correct. By making an individual assessment rather than a blanket statement that they all have to come back in 72 hours.

Q. Right.

Let's turn to Exhibit 37, which is Sanders, "The Longest Wait." I think you talked about that. Find it?

A. Yes.

Q. Now, this one is a different set of Utah women;

correct?

A. Correct.

Q. And you told the Court yesterday that -- and in this stat, it looks like a -- if I understand it correctly, that it was a before-and-after analysis of the 72-hour period; right?

A. I believe there are two analyses in this paper. One is looking at the proportion of patients who return after the initial information counseling visit.

Q. Yes. And then the impact stuff.

A. And the survey, yes.

Q. So I want to focus for a minute on delay. And what it -- what it said was, if I understand it, before the 72-hour period 80 percent of the cohort returned for an abortion; right?

A. That was at -- there was a 24-hour --

Q. I'm sorry. I'm not being clear.

So this is isn't a 0 to 72?

A. Yeah.

Q. This shows that change from a 24-hour to a 72-hour; right?

A. Correct. With the limitation that they're not working with all of the data from the state. They're working, I think, with the data from, what was it, three abortion facilities that provided 90 percent of abortions.

Q. And, I mean, I can't, all these studies have limitations; right?

A. Correct.

Q. And, I mean, to be honest, I don't have to prove anything here. I mean, you're the ones that presented these studies to the Court and are asking the Court to rely upon the studies; right?

A. Correct.

Q. But -- so it's a before-and-after shot of the 72-hour change. And so with the 24, 80 percent returned for an abortion; right? Correct?

A. Correct.

Q. And then when the cohort of the -- after the 72, it was 77 percent?

A. Correct.

Q. So there's a difference, an absolute difference of 3 percent? I'm not quite sure what the exact percentage is. But they then observe what the delay was, and so read, if you would, read the conclusion on this abstract for me, please.

A. "Utah's extended waiting period showed a small reduction in the proportion of counseled women who returned for their abortion procedure statewide. Women who had abortions after the law was enacted reported several burdensome aspects of the law."

Q. Got it. So, I mean, it showed a small reduction; right? And they're kind of like the other studies you and I have talked about. The authors don't make or attempt to make any conclusion about whether that small reduction in people who returned was a result of the 72-hour waiting period or the delay is caused by that period; right?

A. I agree. They can't prove casualty from this.

Q. And, in part, because unlike the Roberts study, they didn't ask those people, you know, in the second cohort why it is that they didn't return. They just know they didn't return?

A. No. I'm sorry. You said like the Roberts study?

Q. No. Unlike the Roberts study, they didn't ask why.

A. Correct. They do report, however, in the survey part of this paper the burdensome aspects of the law that women had to face.

Q. But again, no conclusion that the 72-hour waiting period caused delay that denied access to an abortion?

A. No. But they do report the delay that women -- the interval that women did have to wait between when they had that consultation visit and the abortion, that 62 percent of women reported that more than seven days had passed since they visited the clinic for counseling and signed the consent form.

Q. Okay.
Now let's get to Roberts. It's Exhibit 35. Got it?
A. Yes.
Q. And turn to page 185. Are you there?
A. Yes.
Q. About halfway down the left hand column. I'm going to read a sentence. Says -- begins with "other advocates." "Other advocates argue that waiting periods are needed to give women time to change their minds. 8 percent of women reported changing their minds." Do you see that sentence?
A. Yep.
Q. Now, you've -- they go on to say, We note that a 'change of mind' may best describe only those who indicated at the information visit that they preferred having an abortion and were not conflicted and then who decided to do it. That kind of qualified it. But the authors say 8 percent of women reported, quote, changing their minds; correct?
A. But below they say our estimate of 2 percent changing their minds.
Q. I understand that. But just go with me. So "8 percent of women reported changing their minds." Did I read that correctly?

A. You read that they reported changing their minds.
Q. That is the author's conclusion -- the words written by the authors?
A. That sentence is correct. There's additional information in this paragraph.
Q. I understand, and I think you told the Court yesterday that you disagree with that characterization that they changed their minds; is that right? Or did I misunderstand you yesterday?
A. I don't believe I said that. I think there was another sentence in here that I think is appropriate where they were talking about, I think, something about whether women were prevented, whether this study shows that women were prevented from obtaining a wanted abortion.
Q. Yeah. Doesn't show that; right?
A. It doesn't -- it doesn't show that, although they do document one women who was prevented from having an abortion.
Q. We're going to talk about that in a minute, but let's go -- flip to page 183, which is a table, because, you know, they interviewed these people. They did a survey; right?
A. That's correct.
Q. And so there were open questions -- what they called open-ended questions which kind of asked people just

to be descriptive, and then there were closed-ended questions which are kind of yes-no; right?
So when I ask you a question, it's for a yes-or-no answer, that's designed to be a close-ended question; correct?
A. There's also the likert scales that they're also asking.
Q. But anyway, so if we look at the table, it lists close-ended questions that were asked of the participants; right? And the very first close-ended question is changed mind. Do you see that?
A. Correct.
Q. And it reports that of the people who were still pregnant on follow-up, 71 percent of them said, yes, I changed my mind. So I get that you kind of don't like that characterization, but that's what they said?
A. But there's also additional data given in the paper which we can review where they talk about how women presented. Some of those women presented to the abortion clinic saying that they wanted to have a baby, and they were clearly very conflicted. They said I changed my mind because I initially went to the appointment. I said I want to have a baby. If they had done that -- come to San Francisco where there is not a 72-hour waiting period, we would not have performed that abortion.

So these are people who were highly conflicted, and they actually didn't really change their documented certainty about the abortion. They changed their decision about what they were going to do. They came in undecided and sought additional information, and then they didn't have the abortion.
Q. But as we heard from Dr. Meadows yesterday, I mean, to get into the door, I mean, they have to make an appointment for an abortion to get an ultrasound and to -- right? That's what Dr. Meadows said yesterday. So they literally have to make an appointment to get in to have this conversation?
A. But I think we agree. We both said several times that there is a proportion of women, probably less than 10 percent, that have significant conflict or are unresolved in their decision. And these are the people who require additional information and additional counseling, and they require additional time before they decide what they're going to do.
Q. And you would agree with me it's not a good system if they have to make an appointment for an abortion to get that information?
A. I mean, I don't know. I wasn't here for Dr. Meadows' testimony. I can tell you that if a patient calls our facility and says she's considering an abortion

and she wants more information and she wants to figure out how far along she is and figure out what the medical risks are, we would schedule her for that. She doesn't have to be scheduled for the procedure before she could have the assessment.

Q. So you would schedule her for just an ultrasound to confirm and date the pregnancy?

A. Yes.

Q. Okay. I mean -- and you weren't here for Dr. Meadows. She testified that in Iowa women don't have that option.

A. I wasn't. I can't speak for her. I don't know what her practice is, but, no.

Q. Enough said.

Stay on page 183, top of Table 3. The open-ended question. What was the -- 53 percent of the people who were still pregnant on follow-up, what was the open-ended response?

A. Just couldn't do it. I think, again, these are -- as they talked about in some of the more textual responses, these were often people who were highly conflicted when they came in.

Q. If you will turn to page 182 of Exhibit 35.

And, again, just want to go back to something. I don't want to beat a dead horse, but this -- on this page

it's kind of a breakdown of their cohort. And you recall that this is one where the conflict scale is such where the number -- if the number is higher, there's more conflict as opposed to certainty. And so when we were back looking at the Los Angeles cohort, the higher number showed more certainty; right? And --

A. I believe so.

Q. -- so we had 7.4 percent in the Los Angeles cohort who didn't show as highly certain, 7.4 percent that were low or moderately uncertain. Does that make sense? So here we've got kind of a different scale. But if you chart it out, you've got of the 95 percent of women who come in who, quote, preferred an abortion upon presentation -- because that's how they start with this study -- that when they did this decisional conflict scale, the DCS, that 71 percent of this cohort showed a score from 0 to 25, which on this sale means high certainty or low conflict -- low conflict; right -- which the authors described at that point of certainty where you're ready to implement a decision. Do you see that? 70 -- it's up in the right-hand -- I'm sorry -- right-hand corner, first full paragraph, kind of middle of the paragraph. 71 percent of women had high scores, had scores indicating low conflict; right? And they --

A. You're on page 182?

Q. No. 182 up in the right-hand corner.

A. 71 percent, yes.

Q. Got it?

A. Yes.

Q. Okay. Low conflict. Ready to execute. 71 percent. And then on the other end of the spectrum there were this 8 percent that showed high conflict, which is delay on certainty. Do you see that number?

A. Correct.

Q. At least 21 percent in the middle; right? That's not 100 percent of the people?

A. Correct.

Q. And so if you compare this to the -- to the Los Angeles cohort where 7 percent showed moderate or low certainty, the corresponding -- and again, they don't line up, but a close approximation -- we've got 29 percent in the Utah cohort who have less than high certainty.

A. I'm not sure we can make a direct comparison because they're different scales.

Q. I know we can't. They're different scales. But if you just kind of draw the lines high and low in between, you end up with on one hand -- well, let's talk about low. You've got -- you -- the -- in Los Angeles, it's 7.4 percent who did not have the high certainty. It was low or medium certainty; right? So high certainty was --

can't do the math right now, because my brain is tired but -- everything but the 7.4 percent. In Utah we've got 8 percent plus the remainder that have less than high certainty, and the high certainty people are 71 percent. So it's -- there's 28 percent, 29 percent left over.

So my whole point is this: This reflects that different demographic groups, different cohorts, different groups of patients, can have different levels of high certainty?

A. Correct. Which is why each patient needs an individual assessment and determination of her needs.

Q. Okay. If you go down to the bottom of page 182, bottom right hand corner -- well, I'm sorry. I'm going to interrupt myself, because you did point out something I didn't want to just ignore it.

Let's go back to the front page of the study for just a minute. Don't want to be -- I don't want to -- so when we talk about -- we can go through the analysis, because it's essentially in the abstract, but you pointed it out. In the results column, it talks about among 309 women that completed the follow-up; right? Do you see that?

A. Yep.

Q. 86 percent had the abortion, and then we've talked a lot about the 8 percent that were no longer

seeking an abortion, so there's that 8 percent that we talked about where they changed their mind, and then that's the 8 percent. And then in addition to the 8 percent, you've got 3 percent that miscarried and discovered they weren't pregnant; right? So that's a reason why they didn't come back for an abortion.

And 2 percent were still seeking an abortion, and you mentioned that, I think, in your direct. They were still trying to find out where to go and about the other their options. And then you -- one woman was still deciding, hadn't made a decision. She hadn't come back, but she hadn't decided one way or the other; right? And then you pointed out that the waiting period had pushed one woman beyond her facility's gestational limit for abortion; right?

A. Correct.

Q. So we have one woman in this study for a 72-hour waiting period out of 309 women who reported that the delay pushed her past a day; right?

A. Correct.

Q. So that's -- as far as I can see out of all the stuff we've talked about all day yesterday and all day today, all these studies, this is the single data point that shows a patient being pushed, by delay, beyond a time in which she can obtain an abortion; right? One person?

A. I -- I'm not sure that I -- I understand what you're saying. Is there any other interviews with women who have reported that they have been delayed past the point of which they can --

Q. No. I'm talking about a study that says here's a person who was delayed to the point where they cannot access an abortion. That's the only place in all the studies.

A. Actually documented and spoke to that particular person and documented what happened to her, this is the only one.

Q. Right. One out of 309 in Utah.

A. Correct.

Q. Okay. Now let's go to -- back to 182, down at the right-hand corner, bottom, and this is where they're just talking about reasons and predictors. In the third paragraph -- you and I have already talked about this. Beginning -- it says, "The most common response to the open-ended question about reasons for not having an abortion was that the woman, quote, just couldn't do it, end quote," and that's -- you and I looked at that on Table 3; right?

A. Right.

Q. Go down to the -- they talked about other different things that were reported in the open-ended

questions. Is that what they're doing here?

A. Correct. Yes.

Q. So go down to the last paragraph.

A. Last paragraph where?

Q. Last paragraph at the bottom on the right-hand side, starts with "it was"?

A. Uh-huh.

Q. And these are in quotes, so this is reported by a patient, one of the people who reported that she was going to continue her abortion; right? I mean, continue her pregnancy; correct? So would you read that paragraph for me?

A. "It was a hard decision for me to make in the first place, and once I made the appointment, it kind of hit home. About two days after the information appointment, I canceled the abortion appointment. I couldn't do it. Something that I have always been against. I had my reasons that I thought were good reasons, and then I re-reasoned myself out of it."

Q. So in this case, the informational appointment and the delay made a difference to a patient?

A. I don't know that that's the case.

Q. That's not how you interpret that?

A. No. I don't know what her level of certainty was when she was assessed on the -- at that initial visit. I

don't have any indication that if she had presented to the clinic and gone through the standard counseling or it wasn't a mandatory delay, they might have very well identified this conflict in the discussion with her and told her that she needs additional time. We have no evidence indicating that this mandatory delay is -- helps with decision making compared to standard practice.

Q. Well, all we have is what she said; right? This is what the person said; right?

A. Correct.

MR. THOMPSON: I don't have any further questions at this time, Your Honor.

THE COURT: Redirect?

MS. CLAPMAN: Yes.

REDIRECT EXAMINATION

BY MS. CLAPMAN:

Q. Let's start at that paragraph that you were just at with counsel and the narrative that was being discussed. And can you read the first sentence that you were just discussing with counsel out loud?

A. "It was a hard decision for me to make in the first place, and once I made the appointment, it kind of hit home."

Q. Is it clear in that narrative which appointment she means?

A. I think she means the first appointment. I mean -- I mean, whenever -- whatever appointment she had to make to start this process, that's what I interpret this as.

Q. Trying to think if I -- okay. So while we're on the study, let's stay on the study. Can you look at Table 3 with me, please. What does this table report?

A. These are data from women who were still pregnant at the follow-up as well as women who completed the follow-up. And so it's a percentage of women who gave various responses to open- and closed-ended questions about why they had not had an abortion.

Q. Okay. And among the open-ended questions, what percentage of these patients reported financial reasons as the reason they had not had the abortion?

A. 1 percent of those who were still pregnant and 2 percent overall.

Q. And what percentage of these patients reported too far along as the reason why they had not had the abortion?

A. 9 percent of those that are still pregnant and 1 percent overall.

Q. I just want to clarify. This may have come out in the record yesterday, but I want to make sure. The Ralph paper that you relied on -- and that is at Exhibit

34, "Observing Decisional Certainty Rates" --

A. Yes.

Q. -- where is that paper set?

A. This is in Utah. These are data from Utah.

Q. Okay. And if you can turn to the limitation language that you were discussing with counsel earlier at the end of study?

A. Yes.

Q. So you discussed with counsel the sentence about approximately one-third of our sample did not complete the follow-up interview; correct?

A. Yes.

Q. Could you please -- just for clarity in the record, can you please reread the sentence with the following sentence?

A. I'm sorry. Can you just --

Q. Sure. I probably wasn't very clear. You discussed this sentence starting, "Finally, approximately one-third of our sample did not complete a follow-up interview with counsel"?

A. Please tell me what page you're on.

Q. Yes. That would be helpful. Sorry about that. Page 277 --

A. Yes.

Q. -- at the end of the study.

A. "Finally, approximately one-third of our sample did not complete a follow-up interview, and our results might be biased if those with high uncertainty were more likely to be lost to follow-up. Therefore, there were no -- there was no evidence of differential attrition by DCS or TBS score" -- which is what they looked at -- "reducing the likelihood of this bias."

Q. So what are the authors saying there?

A. I think that the authors are saying in this case that there was no -- for their purposes of comparing the two scales, that that attrition doesn't affect the comparison.

Q. If you could turn to Tab 42 for a moment. Is this the Alabama study that you were coauthor on?

A. Correct.

Q. If you could turn to page 5 and look at Table 3 with me for a moment?

A. Yes.

Q. And I'm looking at the days between visits, so the percentage of patients who were delayed certain time intervals. Looking at the column for patients who are delayed at least 14 days between their visits --

A. Yes.

Q. -- by the mandatory delay law, do you see the racial ethnic breakdown there?

A. Yes.

Q. Are there significant differences within that breakdown?

A. There were not.

Q. In your Iowa research on telemedicine, did you find that improved access to abortion in Iowa was associated with a decline in second trimester rates of abortion?

A. Yes, we did.

MS. CLAPMAN: No further questions.

THE COURT: Anything else, Mr. Thompson?

MR. THOMPSON: I do have a real brief thing that I forgot, if I could.

RECROSS EXAMINATION

BY MR. THOMPSON:

Q. On Exhibit -- do you have Exhibit 14, which is your disclosure?

MS. CLAPMAN: I'm sorry. I'm going to object for the record to cross that's beyond the scope -- to recross that's beyond the scope.

THE COURT: If it's beyond the scope, then it won't be allowed.

Anything that is within the scope?

MR. THOMPSON: No, Your Honor.

THE COURT: Dr. Grossman, thank you for your

testimony. If someone can help you out of there, you'll be free to leave.

Next witness?

MS. SALGADO: Yes, Your Honor. Petitioner calls Dr. Collins.

THE COURT: Dr. Collins, will you raise your right hand, please.

JANE COLLINS,

called as a witness, having been first duly sworn by the Court, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. SALGADO:

Q. Good morning, Dr. Collins. Thank you for waiting patiently outside.

A. No problem.

Q. Can you please state and spell your name for the record?

A. Jane Collins. J-a-n-e. C-o-l-l-i-n-s.

Q. Can you please turn to Tab No. 8 in the binder in front of you?

A. Yes.

Q. Do you recognize this document?

A. I do.

Q. What is it?

A. It's my curriculum vitae.

Q. Did you prepare it?

A. I did.

Q. Is the information on that correct?

A. Yes.

Q. Dr. Collins, I don't want to spend too much time on credentials given the Court has your CV, but I would like to briefly highlight your professional history for the Court. You are currently a professor in community environmental sociology; is that correct?

A. Yes.

Q. Where is that?

A. University of Wisconsin, Madison.

Q. How long have you held that position?

A. I've held that position since 2000.

Q. And you're also a faculty affiliate with the institute for research on poverty; is that correct?

A. Yes.

Q. And is that also at the University of Wisconsin?

A. Yes.

Q. Are you also a faculty affiliate at the Robert M. Lafollete School of Public Affairs?

A. Yes.

Q. And is that also at the University?

A. It is.

Q. Have you previously held appointments in the

Department of Sociology and Women's studies?

A. Yes.

Q. When was that?

A. From 1992 until 2000.

Q. What professional degrees do you hold?

A. I received a Ph.D. in anthropology from the University of Florida in 1981. Do you want me to continue?

Q. Yes. Go ahead.

A. I received a master's degree in Latin American studies from the University of Florida in 1978 and a bachelor's degree in anthropology from the University of Virginia in 1976.

Q. What field has been the focus of your career?

A. My research specializations are in low wage -- the study of low-wage labor, poverty, and gender.

Q. Do you teach on the topics of gender and poverty at the University of Wisconsin?

A. I do.

Q. Do you teach undergraduate and graduate courses?

A. Yes.

Q. Do you conduct any research?

A. I do.

Q. Can you tell the Court about the research that you do?

A. So I do research on these topics, and very

frequently that research involves the study of the livelihood strategies of low-wage workers. I've done research on this topic funded by the National Science Foundation, the U.S. Department of Agriculture, and state departments of Work Force Development both in the U.S. and in Latin America.

I've studied the household livelihood strategies of farm families within the U.S. and in Latin America, agricultural wage workers, garment workers, and low-wage service sector workers. In the early part of my career, it was mostly in Latin America, but for the past 20 years, most of my work has been in the Upper Midwest.

Q. You've mentioned the term "livelihood strategies." Can you explain that a little bit more?

A. It refers to the study of -- at the household level not macro level, but at the household level of how families gain income and how they allocate resources and how they make economic decisions.

Q. Have you done any research on the livelihood strategies of low-income women?

A. I have.

Q. Have you authored any publications specifically on women and poverty?

A. Yes.

Q. Can you highlight a little bit of the