IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients,

Plaintiffs,

v.

STATE OF GEORGIA,

Defendant.

Case No. _____

VERIFIED COMPLAINT

I.
PRELIMINARY STATEMENT

1. This is a constitutional challenge to a Georgia law that is forcing pregnancy and childbirth upon countless Georgians, and at the same time prohibiting medically appropriate care for patients suffering pregnancy complications and miscarriages.[1] Plaintiffs bring this action under the Georgia Constitution's rights to privacy, liberty, and equal protection, seeking declaratory and interlocutory injunctive relief, O.C.G.A. § 9-4-1, *et seq.*, as well as a permanent injunction, O.C.G.A. § 9-5-1, *et seq.*

2. The Georgia Legislature enacted Georgia 2019 House Bill 481 ("H.B. 481," "the Act," or the "Six-Week Ban"), attached hereto as Ex. A, against a backdrop of profound health care challenges in Georgia, including a critical shortage of physicians and some of the highest rates of maternal and infant mortality in the nation. These harms are felt most acutely by Georgians of color, low-income Georgians, and people living in rural areas. Indeed, Black women in Georgia are more than twice as likely as white women to die during pregnancy.[2]

3. Instead of working to improve the safety of pregnancy and childbirth and support Georgians' reproductive health care decisions, the Legislature chose to

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[1] *See* Aff. of Martina Badell, M.D., attached hereto as Ex. B ("Badell Aff."), ¶¶ 28–37; Aff. of Carrie Cwiak, M.D., M.P.H., attached hereto as Ex. C ("Cwiak Aff."), ¶¶ 12–13, 35, 49–56; *see also* Aff. of Whitney Rice, DrPH, M.P.H., attached hereto as Ex. D ("Rice Aff."), ¶¶ 49–50, 52.

[2] Rice Aff. ¶¶ 17–23; Badell Aff. ¶ 22.

criminalize abortion beginning at approximately six weeks of pregnancy—just two weeks after a missed period and before many women[3] even know they are pregnant.[4]

4. The Six-Week Ban's exceptions for rape and incest, medical emergencies, and lethal fetal anomalies are drawn so narrowly that they fail to mitigate harm to even the most vulnerable Georgians. The young girl who has not filed a police report about her father's rapes; the woman whose doctor has counseled that pregnancy would jeopardize her life but whose health has not yet fully deteriorated; the patient whose pregnancy triggers a severe mental health episode and suicide risk; the family who receives a fetal diagnosis that would require extensive medical interventions they cannot afford—all are subject to and are being irreparably harmed by the Six-Week Ban.[5]

5. Georgians experiencing a miscarriage likewise suffer under the Act's cruel limitations. The Six-Week Ban prohibits medically appropriate care to evacuate a patient's uterus even in cases where pregnancy loss is inevitable,

[3] Consistent with the language of H.B. 481, Plaintiffs periodically use "women" to refer to people who are pregnant, but note that "not all persons who may become pregnant identify as female," and that transgender and gender non-binary people also need abortion and miscarriage care. *Reprod. Health Servs. v. Strange*, 3 F.4th 1240, 1246 n.2 (11th Cir. 2021), *reh'g en banc granted, opinion vacated on other grounds sub nom. Reprod. Health Servs. ex rel. Ayers v. Strange*, 22 F.4th 1346 (11th Cir. 2022) (mem.).

[4] Badell Aff. ¶ 25; Cwiak Aff. ¶¶ 18, 25–26.

[5] Badell Aff. ¶¶ 28, 30, 34, 39; Cwiak Aff. ¶¶ 40–48; Aff. of Samantha Meltzer-Brody, M.D., attached hereto as Ex. E ("Meltzer-Brody Aff."), ¶¶ 12, 33, 36, 40–41, 43.

extending miscarriage patients' agony and elevating their medical risk.[6]

6. The Medical Association of Georgia ("MAG"), the American College of Obstetricians and Gynecologists, and other leading state and national medical associations uniformly oppose the Six-Week Ban. MAG strongly opposed the Ban because it "violates the doctor/patient relationship" and does not "allow women and families to maintain access to quality healthcare in Georgia."[7]

7. Since 2019, the Six-Week Ban had been enjoined by federal court order as a violation of the U.S. Constitution. *SisterSong Women of Color Reprod. Just. Collective v. Kemp*, 410 F. Supp. 3d 1327, 1350 (N.D. Ga. 2019); *SisterSong Women of Color Reprod. Just. Collective v. Kemp*, 472 F. Supp. 3d 1297, 1314 (N.D. Ga. 2020). On July 20, 2022, the Eleventh Circuit Court of Appeals issued a decision vacating the permanent injunction against the Six-Week Ban based on the U.S. Supreme Court's decision in *Dobbs v. Jackson Women's Health Organization*, which overruled *Roe v. Wade*, 410 U.S. 113 (1973), and half a century of unbroken federal precedent holding that the U.S. Constitution protects the right to abortion. *SisterSong Women of Color Reprod. Just. Collective v. Governor of Ga.*, No. 20-13024, 2022 WL 2824904, at *3–4 (11th Cir. July 20, 2022) (citing *Dobbs v. Jackson Women's Health Org.*, 142 S. Ct. 2228, 2242, 2283–84 (2022)).

[6] Badell Aff. ¶¶ 36–37; Cwiak Aff. ¶¶ 49–56.

[7] Cwiak Aff. ¶ 11.

8. Hours later, the Eleventh Circuit panel issued an order *sua sponte* staying the injunction of H.B. 481 until the Court's mandate issues. *SisterSong Women of Color Reprod. Just. Collective v. Governor of Ga.*, No. 20-13024, slip op. at 3 (11th Cir. July 20, 2022). The Court's stay order put the Six-Week Ban into immediate effect on July 20 and caused chaos and devastation across Georgia, as patients with scheduled abortions—some already in clinic waiting rooms—learned they could no longer obtain this time-sensitive care in Georgia.[8]

9. Every day the Six-Week Ban is in effect, it prohibits pregnant people from obtaining essential health care to end a pregnancy, to treat serious pregnancy complications, or to manage a miscarriage. Every day, it forces countless Georgians to travel hundreds or thousands of miles out of state for abortion care, at substantial expense.[9] Worse yet, it forces Georgians who do not have the means for such travel to carry pregnancies and go through labor and delivery against their will—subjecting them to severe pain and life-threatening medical risks; preventing some from escaping abusive households; and consigning many to a life of poverty.[10]

10. H.B. 481 infringes Georgians' fundamental right under the Georgia Constitution to be free from unwarranted State interference with their "life, . . . body,

[8] Aff. of Jane Doe 1, attached hereto as Ex. E ("Doe 1 Aff."), ¶ 3; Aff. of Jane Doe 2, attached hereto as Ex. F ("Doe 2 Aff."), ¶ 4.

[9] *See, e.g.*, Doe 1 Aff. ¶ 7; Doe 2 Aff. ¶ 6.

[10] Badell Aff. ¶¶ 13–22; Cwiak Aff. ¶¶ 12–13, 34–39, 46–56; Rice Aff. ¶¶ 34, 44, 45–47.

. . . [and] health," *Pavesich v. New Eng. Life Ins. Co.*, 122 Ga. 190, 195 (1905)—a liberty interest that inherently encompasses an individual's decision whether to carry a pregnancy to term.

11. There is no State interest that justifies forcing Georgians to suffer the profound risks and life-altering consequences of pregnancy and childbirth from the earliest weeks of pregnancy, *four months* before the embryo would be able survive apart from the pregnant person's body.[11]

12. In a further affront to Georgians' privacy rights and reliance interests, H.B. 481 expands upon a preexisting statutory provision that grants district attorneys virtually unfettered access to the medical files of anyone who seeks an abortion, without a subpoena. O.C.G.A. § 16-12-141(f) (the "Records Access Provision") exposes Georgians' most intimate medical conditions and personal circumstances to state officials in bald defiance of the Georgia Constitution and Georgia Supreme Court precedent. Plaintiffs also challenge this carte blanche access to abortion patients' personal health records.[12]

13. For all of these reasons, the Six-Week Ban and Records Access Provision should be declared unconstitutional and their enforcement enjoined.

[11] Badell Aff. ¶ 26; Cwiak Aff. ¶ 20.

[12] Cwiak Aff. ¶¶ 63–66.

II.
JURISDICTION AND VENUE

14. This action arises under the authority vested in this Court by virtue of O.C.G.A. §§ 9-4-2, 9-4-3, 9-5-1, and the Georgia Constitution. Venue is proper in this Court under O.C.G.A. § 9-10-30.

15. With respect to Plaintiffs' claim for declaratory and interlocutory injunctive relief under the Declaratory Judgments Act, sovereign immunity has been waived under article I, section 2, paragraph V of the Georgia Constitution. That provision waives sovereign immunity "for actions in the superior court seeking declaratory relief from acts of the state . . . in violation of the laws of the Constitution of this state or the Constitution of the United States."

16. Article I, section 2, paragraph V of the Georgia Constitution likewise waives sovereign immunity with respect to Plaintiffs' claim for permanent injunctive relief under O.C.G.A. § 9-5-1. That provision waives sovereign immunity for claims for permanent injunctions "after awarding declaratory relief[.]"

III.
PLAINTIFFS

17. Plaintiffs are a coalition of Georgia-based obstetrician-gynecologists ("OB-GYNs"), reproductive health centers, and membership groups committed to reproductive freedom and justice.

18. Plaintiff SisterSong Women of Color Reproductive Justice Collective ("SisterSong") is a non-profit organization based in Georgia that was formed in 1997 by 16 organizations led by and representing Indigenous, Black, Latinx, and Asian American women and trans people who recognized their right and responsibility to represent themselves in advancing their needs. By asserting the human right to reproductive justice, SisterSong works to build an effective network of individuals and organizations addressing institutional policies, systems, and cultural practices that limit the reproductive lives of marginalized people. A membership organization, SisterSong organizes with a large base whose members include Georgians who can become pregnant and need the freedom to make their own health care decisions, including the decision to end a pregnancy.

19. H.B. 481's draconian prohibitions are forcing SisterSong to divert its scarce time and resources away from other work to help mitigate the sweeping harms the Six-Week Ban imposes. SisterSong and its members are directly impacted by H.B. 481's restrictions. SisterSong sues on behalf of itself and its members.

20. Plaintiff Feminist Women's Health Center ("Feminist") is a non-profit reproductive health care facility registered in the state of Georgia and located in Dekalb County. Feminist has been providing reproductive health care in Georgia since 1976. It currently provides a range of services, including abortions in compliance with the Six-Week Ban, as well as contraception, annual gynecological

examinations, miscarriage management, sexually transmitted infection testing and treatment, and transgender health care such as hormone replacement therapy. Before the Act took effect, Feminist provided abortion care up to 21.6 weeks as measured from the first day of the patient's last menstrual period ("LMP").[13] Feminist also engages in community education, grassroots organizing, public affairs, and advocacy programs to advance reproductive health, rights, and justice for all Georgians. Feminist sues on behalf of itself and its physicians, staff, and patients.

21. Plaintiff Planned Parenthood Southeast, Inc. ("PPSE") is a not-for-profit corporation registered in the state of Georgia. PPSE operates four health centers in Georgia, located in DeKalb, Gwinnett, Cobb, and Chatham counties, as well as health centers in Alabama and Mississippi. PPSE provides comprehensive reproductive health care, including family planning services, testing and treatment for sexually transmitted infections, cancer screening and treatment, pregnancy testing and all options counseling. At its four Georgia health centers, PPSE also provides medication abortion in compliance with the Six-Week Ban. Before the Act took effect, PPSE provided medication abortion up to 10 weeks LMP. PPSE and its corporate predecessors have provided care in Georgia for over 50 years. Plaintiff PPSE sues on behalf of itself and its physicians, staff, and patients.

[13] Physicians often date pregnancy with the weeks before the decimal and the days after: "21.6 weeks LMP" means "21 weeks and six days LMP."

22. Plaintiff Atlanta Comprehensive Wellness Clinic ("ACWC") is a private medical practice registered in the state of Georgia and located in Fulton County. ACWC provides reproductive health services, including abortions in compliance with the Six-Week Ban. Before the Act took effect, ACWC provided abortion care up to 13.6 weeks LMP. ACWC sues on behalf of itself and its physicians, staff, and patients.

23. Plaintiff Atlanta Women's Medical Center ("AWMC") is a private company registered in the state of Georgia and located in Fulton County. AWMC has been providing reproductive health services, including abortion care, since 1977. AWMC currently provides abortions in compliance with the Six-Week Ban; before the Act took effect, AWMC provided abortion care up to 21.6 weeks LMP. AWMC sues on behalf of itself and its physicians, staff, and patients.

24. Plaintiff FemHealth USA d/b/a carafem is a nonprofit organization registered in the state of Georgia and located in Fulton County. carafem provides reproductive health services, including abortions in compliance with the Six-Week Ban. Before the Act took effect, carafem provided abortion care up to 12.6 weeks LMP. carafem brings this action on behalf of itself and its physicians, staff, and patients.

25. Plaintiff Summit Medical Associates, P.C. ("Summit") is a professional corporation registered in the state of Georgia and located in Fulton County. Summit

has been providing reproductive health services, including abortion care, since 1976. Summit currently provides abortions in compliance with the Six-Week Ban; before the Act took effect, Summit provided abortion care up to 21.6 weeks LMP. Summit brings this action on behalf of itself and its physicians, staff, and patients.

26. Plaintiff Carrie Cwiak, M.D., M.P.H., is a board-certified OB-GYN licensed to practice in Georgia. She is Professor of Gynecology and Obstetrics and Family Planning at Emory University School of Medicine. In addition to teaching residents, her medical practice includes providing her patients with labor and delivery care and comprehensive obstetrical and gynecological care including abortions at Emory University Hospital Midtown in Fulton County, where she is Chief of Service of Obstetrics and Gynecology, and Fulton-DeKalb Hospital, d/b/a Grady Memorial Hospital, in Fulton County. Dr. Cwiak also provides reproductive health services, including abortions, at Plaintiffs Feminist and AWMC, and she is the Medical Director at Feminist. She sues as an individual on behalf of herself and her patients, and does not sue as a representative of any institution or organization not named as a plaintiff in this lawsuit.

27. Plaintiff Lisa Haddad, M.D., M.S., M.P.H., is a board-certified OB-GYN licensed to practice in Georgia. She is Medical Director at the Center for Biomedical Research at the Population Council, a non-profit global health organization, and Adjunct Associate Professor of Gynecology and Obstetrics at

Emory University School of Medicine. In addition to research and teaching residents, her medical practice includes providing her patients with labor and delivery care and comprehensive obstetrical and gynecological care including abortions at Emory University Hospital Midtown in Fulton County, and Fulton-DeKalb Hospital, d/b/a Grady Memorial Hospital, in Fulton County. Dr. Haddad also provides reproductive health services, including abortions, at Plaintiff AWMC. Dr. Haddad sues as an individual on behalf of herself and her patients, and does not sue as a representative of any institution or organization not named as a plaintiff in this lawsuit.

28. Plaintiff Eva Lathrop, M.D., M.P.H., is a board-certified obstetrician and gynecologist licensed to practice in Georgia. She is the Medical Director for a non-profit global health organization and an Adjunct Associate Professor of Gynecology and Obstetrics and Family Planning at Emory University School of Medicine. In addition to overseeing global health initiatives and teaching residents, she provides her patients with labor and delivery care and comprehensive obstetrical and gynecological care including abortions at Fulton-DeKalb Hospital, d/b/a Grady Memorial Hospital, in Fulton County. Dr. Lathrop also provides reproductive health services, including abortions, at Plaintiff AWMC. Dr. Lathrop sues as an individual on behalf of herself and her patients, and does not sue as a representative of any institution or organization not named as a plaintiff in this lawsuit.

29. Plaintiff Medical Students for Choice ("MSFC") is a 501(c)(3) non-profit organization whose mission is to create tomorrow's abortion providers and pro-choice physicians. MSFC assists medical students and residents to maintain and expand access to abortion and family planning training, including through curriculum reform, training in a clinic setting, and abortion training institutes. MSFC sues on behalf of itself, its members, and their patients.

IV.
FACTUAL ALLEGATIONS

A. Pregnancy, Miscarriage & Abortion in Georgia

30. Pregnancy is a major medical event affecting virtually every aspect of a person's physiology. Even in uncomplicated pregnancies, many patients suffer symptoms, such as nausea, vomiting, headaches, fatigue, back pain, constipation, frequent urination, dizziness, insomnia, nose bleeds, and shortness of breath, which can cause significant pain and discomfort and interfere with essential daily tasks.[14]

31. Pregnancy poses additional medical risks in both the short- and long-term for people with co-existing conditions known as "comorbidities," such as diabetes, hypertension, asthma, cardiac disease, or autoimmune disorders like lupus. It is not uncommon for someone who had been successfully managing a health

[14] Badell Aff. ¶ 13; *see also id.* at 11–12, 14–22, 34, 40.

condition to see a dramatic deterioration over the course of a pregnancy, often with lasting consequences even after the pregnancy ends.[15]

32. Because of income inequality, lack of access to health care, and other facets of structural racism, people of color are more likely to have preexisting health conditions that exacerbate the health risks and pains of pregnancy.[16]

33. In addition, people can develop conditions for the first time in pregnancy that predispose them to medical problems later in life. For instance, gestational diabetes increases the risk of diabetes after pregnancy. Pre-eclampsia increases the risks of developing other conditions such as chronic hypertension and cardiovascular disease. Pregnant people who develop peripartum cardiomyopathy (a heart disease that makes it harder for the heart to pump blood effectively) sometimes never recover normal heart function after pregnancy.[17]

34. For many, pregnancy and the postpartum period (together, the "perinatal" period) are also times of increased vulnerability to mental health issues—both new disorders and recurrences of preexisting conditions. At least one in eight women will experience psychiatric symptoms during the perinatal period, and unplanned pregnancy and low socioeconomic status are risk factors. In a recent study

[15] *Id.* ¶ 16.

[16] *Id.* ¶¶ 15, 22; *see also* Rice Aff. ¶¶ 19–20.

[17] Badell Aff. ¶ 19; *see also* Aff. of Jane Doe 3, attached hereto as Ex. G ("Doe 3 Aff."), ¶ 3.

of pregnant and postpartum Black women in south Atlanta, *more than half* reported perinatal anxiety or mood disorder symptoms.[18]

35. Pregnancy poses a significant risk of relapse or worsening of symptoms across a broad range of perinatal psychiatric illness even among patients who continue their pre-pregnancy treatment regimen (which not all choose to do, typically because of potential risks to the fetus). For some women, a mental health episode triggered by pregnancy can be so severe and debilitating that it becomes life-threatening. A relapse of mental illness also often carries long-term practical consequences, including loss of employment and massive debt.[19]

36. Labor and delivery—whether vaginal or via caesarean section ("C-section")—present their own severe medical risks. Vaginal deliveries pose risks of laceration to the vagina, pelvic floor damage, hemorrhage, infection, retained placenta, and significant blood loss, with potential long-term consequences including uterine prolapse and incontinence. A C-section is major abdominal surgery carrying even greater risks, including hemorrhage, infection, injury to surrounding organs, need for blood transfusion, need for unanticipated surgery including

[18] *See* Meltzer-Brody Aff. ¶¶ 12–13, 16–18; Badell Aff ¶ 16.

[19] Meltzer-Brody Aff. ¶¶ 12, 21, 23–26, 30, 32–33, 35–36, 39–43; Badell Aff. ¶ 34.

hysterectomy, and death. In Georgia, one in three live births is via C-section—the ninth highest rate in the nation.[20]

37. Georgia has a dearth of physicians, particularly in rural areas. The ratio of OB-GYNs to people in Georgia is far below the national average, and nearly half of Georgia counties do not have a single OB-GYN. Lacking access to care in one's community and having to travel long distances for care results in worse outcomes.[21]

38. Indeed, according to the U.S. Centers for Disease Control and Prevention ("CDC"), Georgia's rate of pregnancy-related deaths is among the ten highest in the nation: 28.8 maternal deaths per 100,000 live births in 2018–2020, compared to an average of 20.4 nationally. The threat is particularly grave for Black women, who are 2.3 times as likely to die from pregnancy as white women in Georgia. Georgia also has one of the highest rates of infant mortality in the nation.[22]

39. These statistics ultimately reflect policy choices. Indeed, Georgia's Department of Public Health has recognized that, between 2015 and 2017 (the latest years for which such data are available), 87% of pregnancy-related deaths were preventable.[23]

[20] Badell Aff. ¶ 17.

[21] Rice Aff. ¶¶ 17–18; Cwiak Aff. ¶ 57.

[22] Badell Aff. ¶ 22; Cwiak Aff. ¶ 7; Rice Aff. ¶¶ 21–22.

[23] Rice Aff. ¶ 21.

40. Georgia has the 5th lowest number of policies supportive of the health of women and children in the nation. For instance, Georgia does not require reasonable accommodations for pregnant employees, as North Carolina and South Carolina do, and Georgia denies additional benefits to families who have additional children while on government assistance, unlike its neighbor Alabama.[24]

41. While most pregnancies in Georgia and in the United States end in a live birth, the two alternative outcomes—miscarriage and abortion—are both very common. Approximately 15–20% of pregnancies end in miscarriage, and one in four women in the United States has an abortion by age 45. In Georgia, in 2019, there were 16.9 abortions per 1,000 women of reproductive age.[25]

42. Georgians who seek an abortion do so for a variety of deeply personal reasons, including familial, medical, and financial ones. Deciding whether to continue or end a pregnancy implicates a person's core religious beliefs, values, and family circumstances. Some people have abortions because it is not the right time for them to have a child or to add to their families. Some want to pursue their education; some lack the economic resources or level of partner support or stability needed to raise children; some will be unable to care adequately for their existing children or their ill or aging parents if they increase their family size. Others end a

[24] *Id.* ¶¶ 25–27.

[25] Cwiak Aff. ¶¶ 8, 50; Badell Aff. ¶ 37.

pregnancy to be able to leave an abusive partner. Some people seek abortions because of the risks continuing a pregnancy would pose to their health or life; some because they have become pregnant as a result of rape or incest; and others because they decide not to have children. Some people decide to have an abortion because of a diagnosed fetal medical condition, concluding that they do not have the societal or personal resources—financial, medical, educational, or logistical—to care for a child with physical or intellectual disabilities, or to do so and simultaneously provide for their existing children.[26]

43. Three out of four abortion patients nationwide are either poor or low-income. And in Georgia, nearly three out of four abortion patients are people of color: 65% of abortion patients in Georgia in 2019 identified as Black, 21% as white, 9% as Hispanic, and 5% as "other." Eighty-seven percent of Georgia abortion patients are unmarried, and more than 60% already have at least one child. One in five has two children, and nearly one in five already has at least three children.[27]

44. Abortion is very safe, and far safer than pregnancy. Serious complications occur in fewer than 1% of abortions. As noted *supra* at ¶ 38, according to the CDC, there were 20.4 maternal deaths per 100,000 live births nationally in

[26] Cwiak Aff. ¶¶ 9–10; Meltzer-Brody Aff. ¶ 35; *see also* Doe 1 Aff. ¶ 2; Doe 2 Aff. ¶¶ 1–2, 7; Doe 3 Aff. ¶ 3; Aff. of Jane Doe 4, attached hereto as Ex. I ("Doe 4 Aff."), ¶ 3; Aff. of Jane Doe 5, attached hereto as Ex. J ("Doe 5 Aff."), ¶ 4.

[27] Rice Aff. ¶¶ 29–31, 30 n.71; *see also* Cwiak Aff. ¶ 9.

2018–2020. By contrast, in 2013–2018, the most recent years for which data are available, the national case fatality rate for legal induced abortion was 0.41 deaths per 100,000. Every pregnancy-related complication is more common among people who continue a pregnancy to childbirth than among those who have an abortion.[28]

45. Abortion is also safer than many other common medical procedures: colonoscopy, certain dental procedures, and plastic surgery all have higher mortality rates than abortion. However, while abortion is safe throughout pregnancy, the medical risks increase as pregnancy advances. In other words, delay increases risk.[29]

46. Georgians have to overcome numerous barriers, including those imposed by state law, which make it difficult to access care early in pregnancy. For instance, a patient must hear a special government-created script and then delay care by at least 24 hours before she is permitted to consent to an abortion, O.C.G.A. § 31-9A-3(2); young people cannot obtain an abortion unless they first notify a parent or obtain a court order, *id.* § 15-11-682; and nurse practitioners and other qualified advanced practice clinicians are prohibited from providing abortions despite being permitted to provide other health services of comparable complexity and risk, O.C.G.A. §§ 16-12-141(b), 43-34-110, 43-34-25(l). Additionally, with very narrow exceptions, Georgia bars coverage of abortion through its Medicaid program (Op.

[28] Cwiak Aff. ¶¶ 14, 16; Badell Aff. ¶ 20.

[29] Cwiak Aff. ¶¶ 15, 37.

Atty. Gen. No. U94-6, March 15, 1994), in health plans offered in the state insurance exchange (O.C.G.A. § 33-24-59.17), and in health insurance plans offered to state employees (O.C.G.A. § 45-18-4).[30]

47. Under preexisting Georgia law, abortions were prohibited beginning at 22.0 weeks LMP,[31] with extremely narrow exceptions. O.C.G.A. § 16-12-141(c)(1).

B. The Six-Week Ban

i. Statutory Framework

48. Section 10 of H.B. 481 requires that, before performing an abortion, a physician first make "a determination of the presence of a detectable human heartbeat, as such term is defined in Code Section 1-2-1." O.C.G.A. § 31-9B-2(a). As amended by H.B. 481 § 3, "[d]etectable human heartbeat" is defined as "embryonic or fetal cardiac activity or the steady and repetitive rhythmic contraction of the heart within the gestational sac." O.C.G.A. § 1-2-1(e)(1).[32]

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[30] *See also id.* ¶ 27.

[31] Preexisting Georgia law prohibited abortion at "20 weeks or more," O.C.G.A. § 16-12-141(c)(1) (repealed 2019), "from the time of fertilization," O.C.G.A. § 31-9B-1(5). Because fertilization typically occurs at two weeks LMP, preexisting Georgia law banned abortions at 22 weeks LMP.

[32] H.B. 481 also redefines "natural person" throughout the Georgia code to include an "unborn child," defined as a human "at any stage of development who is carried in the womb." H.B. 481 § 3 (amending O.C.G.A. § 1-2-1(d)–(e)). In 2020, Plaintiffs won a facial permanent injunction of Section 3 as void for vagueness. *SisterSong Women of Color Reprod. Just. Collective*, 472 F. Supp. 3d at 1316, 1321. On July 20, 2022, the Eleventh Circuit vacated that injunction, finding that "[o]n its face, the statute is not void for vagueness," though acknowledging that "there might be vague applications of that definition in other provisions of the Georgia Code." *SisterSong Women of Color Reprod. Just. Collective*, 2022 WL 2824904, at *5. Plaintiffs' federal challenge to Section 3 is still pending, and they do not challenge it here.

49. Section 4 then provides that "[n]o abortion is authorized or shall be performed if an" embryo/fetus "has been determined . . . to have a detectable human heartbeat," and "[n]o abortion is authorized or shall be performed in violation of" the code section requiring such a determination. H.B. 481 § 4 (codified at O.C.G.A. § 16-12-141(b), (d)).

50. The Six-Week Ban contains three very narrow exceptions for a "medical emergency," rape or incest where there is an official police report, or a "medically futile" pregnancy, discussed *infra* at ¶¶ 68–72.

51. The definition on which H.B. 481 is premised is contradicted by medical science. The electrical impulses that can be detected beginning at approximately six weeks of pregnancy are not a "heartbeat": the cells that produce those early electrical impulses have not yet formed a functioning four-chamber heart. Because "heartbeat" is scientifically inaccurate, Plaintiffs refer to the ban on abortions after the detection of a "human heartbeat" as the "Six-Week Ban."[33]

52. Under Section 4 of H.B. 481, "abortion" does not include removing an "ectopic pregnancy" (*i.e.*, a pregnancy located outside the uterus). O.C.G.A. § 16-12-141(a)(1)(B).

53. The Act's definition of "abortion" also excludes an act "performed with the purpose of removing a dead unborn child caused by spontaneous abortion," *i.e.*,

[33] Cwiak Aff. ¶ 21; Badell Aff. ¶ 26.

caused by miscarriage. O.C.G.A. § 16-12-141(a)(1)(A). Under this definition, a patient suffering a miscarriage would be able to access medical care to empty her uterus *only if* the process of pregnancy loss has already ended embryonic/fetal cardiac activity. As long as cardiac activity persists, H.B. 481 will prohibit physicians from providing medically indicated care to complete the miscarriage—regardless of the patient's wishes and the inevitability of the demise of the pregnancy—unless the patient's health deteriorates to the point that the Act's extremely limited "medical emergency" exception is triggered.[34]

54. Section 11 of the Act imposes new reporting obligations for abortion providers to document that cardiac activity was not detectable before performing an abortion or that one of the Act's three extremely limited exceptions existed, detailed *infra* at ¶¶ 68–72. H.B. 481 §11 (codified at O.C.G.A. § 31-9B-3).

55. A physician who violates Section 4 faces potential imprisonment of one to ten years. O.C.G.A. § 16-12-140(b). Such a violation also exposes a physician to licensing penalties up to and including revocation, because it could constitute both "unprofessional conduct" under O.C.G.A. § 43-34-8(a)(7), *see* H.B. 481 § 10(b) (codified at O.C.G.A. § 31-9B-2), and independent grounds for such discipline, *see* O.C.G.A. § 43-34-8(a)(8); s*ee also* O.C.G.A. § 43-34-8(b)(1)(F) (penalties). A

[34] Cwiak Aff. ¶¶ 51, 53–56; Badell Aff. ¶ 36.

patient may also bring a civil action against the physician for violating Section 4. H.B. 481 § 4(g) (codified at O.C.G.A § 16-12-141(g)).

56. Section 4 offers affirmative defenses if a physician, nurse, physician assistant, or pharmacist "provide[d] medical treatment for a pregnant woman which results in the accidental or unintentional injury or death of an" embryo/fetus, or if "[a] woman sought an abortion because she reasonably believed that an abortion was the only way to prevent a medical emergency." H.B. 481 § 4(h)(1–5) (codified at O.C.G.A. § 16-12-141(h)(1–5)). Once a prosecutor proves the *prima facie* case of a violation of H.B. 481, an accused may try to escape conviction and incarceration by raising an affirmative defense, but they bear the burden of proving the elements of that defense.

ii. Embryonic Development at Six Weeks

57. In a typically developing pregnancy, ultrasound can generally detect embryonic cardiac activity beginning at approximately six weeks LMP. Thus, H.B. 481 prohibits virtually all abortions after approximately six weeks of pregnancy.[35]

58. At six weeks of pregnancy, many people do not even know they are pregnant. For a person with regular four-week menstrual cycles, six weeks LMP is

[35] Badell Aff. ¶ 26; Cwiak Aff. ¶ 22; *accord* H.B. 481 § 8 (codified at O.C.G.A. § 31-9A-4) (instructing Georgia Department of Public Health to publish information stating that, "[a]s early as six weeks' gestation, an unborn child may have a detectable human heartbeat").

only two weeks after their first missed period. Many people do not have regular menstrual periods, including due to a health condition, contraceptive usage, or breastfeeding, and some people mistake the vaginal bleeding common in early pregnancy for a period.[36]

59. At six weeks of pregnancy, an embryo (not yet a fetus) is wholly dependent on the pregnant woman for sustenance, and indeed will be entirely dependent on her body for another *four* months (or more) to follow. All nourishment comes to the embryo via the placenta attached to the uterus. The embryo is months away from having the physiological and functional structures necessary for sustained survival apart from the pregnant person's body.[37]

60. The Act's legislative findings provide that: "Modern medical science, not available decades ago, demonstrates that unborn children are a class of living, distinct persons and more expansive state recognition of unborn children as persons did not exist when *Planned Parenthood v. Casey* (1992) and *Roe v. Wade* (1973) established abortion related precedents." H.B. 481 § 2(3).

61. In fact, no advancements in science or technology in the last three decades have changed the consensus among the scientific community that an embryo is neither "living" nor "distinct" at six weeks LMP. While advancements in

[36] Cwiak Aff. ¶ 25.

[37] Badell Aff. ¶ 23; Cwiak Aff. ¶ 20.

ultrasound technology have improved physicians' ability to visualize fetal development and diagnose anomalies after 12 weeks LMP, there have been no such changes to our understanding of embryonic development at six weeks LMP. At that point in pregnancy, an embryo is too small—about 1/10 of an inch—for modern ultrasound to detect any anatomical features.[38]

62. Beginning at approximately 8–10 weeks, the pregnancy is referred to as a fetus. A fetus generally does not reach viability—the point at which, if born then, there is a reasonable likelihood of sustained survival with or without artificial support—until approximately 23–24 weeks LMP, or in rare cases with optimal conditions, 22 weeks. A full-term pregnancy is approximately 40 weeks LMP.[39]

iii. Challenges of Obtaining an Abortion Before Six Weeks

63. Patients who have made the decision to end a pregnancy generally obtain an abortion as soon as they can, and most abortions in Georgia and nationally occur in the first trimester. In 2019, more than nine out of ten abortions in Georgia occurred before 14 weeks of pregnancy.[40]

[38] Badell Aff. ¶ 27.

[39] Cwiak Aff. ¶¶ 19–20; Badell Aff. ¶ 23.

[40] Cwiak Aff. ¶¶ 23, 28; *see also* Doe 1 Aff. ¶¶ 2–3, 5; Doe 2 Aff. ¶¶ 3–5; Doe 3 Aff. ¶¶ 2–6; Doe 4 Aff. ¶¶ 2, 4–5.

64. However, in 2019, the majority of patients in Georgia were not able to access an abortion before six weeks of pregnancy.[41]

65. Many people do not even suspect they are pregnant by six weeks LMP, *i.e.*, four weeks post-fertilization—much less confirm the pregnancy, make the decision to obtain an abortion, fulfill Georgia's mandatory 24-hour delay requirement for abortion, O.C.G.A. § 31-9A-3(2), and access an abortion within that very early timeframe.[42]

66. Financial and logistical difficulties also prevent many patients from obtaining an abortion before six weeks LMP. Nationwide, 75% of abortion patients are poor or low-income, and Georgia's poverty rate is higher than the national average. Poverty in Georgia is especially high among Black people, who comprise the majority of Georgia abortion patients. People with low incomes are often delayed in accessing abortions as they struggle to raise funds to cover the cost of the abortion—which Georgia law prohibits most insurers from covering, *see supra* ¶ 46—as well as raise funds and navigate the logistics of childcare, transportation to and from the clinic, hotel rooms if traveling long distances to the nearest provider, and lost wages for missed work.[43]

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[41] Cwiak Aff. ¶ 28.

[42] *Id.* ¶¶ 24–25, 27

[43] *Id.* ¶¶ 27, 38; Rice Aff. ¶¶ 34–36.

67. The Six-Week Ban harms even the minority of patients who learn of a pregnancy before six weeks and have, or can quickly gather, sufficient resources to access care in Georgia. The Act's extremely early deadline compels patients to decide quickly how to proceed with their pregnancy—within just hours or days. While many patients know immediately upon learning of a pregnancy that they need an abortion, others take additional time to reflect and/or to consult with loved ones, health care providers, spiritual advisors, or other trusted confidantes.[44]

iv. The Six-Week Ban's Narrow Exceptions

68. The Six-Week Ban contains three extremely limited exceptions.

69. *First*, the Act permits otherwise banned abortion care when a "medical emergency" exists, strictly defined as "a condition in which an abortion is necessary in order to prevent the death of the pregnant woman or the substantial and irreversible physical impairment of a major bodily function of the pregnant woman." H.B. 481 § 4 (b)(1), (a)(3)) (codified at O.C.G.A. §16-12-141(b)(1), (a)(3)). It does not permit abortion care necessary to prevent: (1) substantial but reversible physical impairment of a major bodily function, (2) less than "substantial" but irreversible physical impairment of a major bodily function, or (3) substantial and irreversible physical impairment of a bodily function that is not "major." And where a physician

[44] *Compare* Doe 5 Aff. ¶¶ 2, 4, 6; *with, e.g.*, Doe 1 Aff. ¶ 2.

determines that an abortion is necessary to reduce *the risk of* death or substantial harm to the pregnant woman, they must weigh their medical judgment that an emergency exists against the threat of criminal liability.[45]

70. The Act's medical emergency exception also expressly prohibits a physician from providing an abortion that is necessary to prevent death or substantial impairment if based on "a diagnosis or claim of a mental or emotional condition . . . or that the pregnant woman will purposefully engage in" suicide, self-harm, or dangerous behaviors likely to result in death or self-harm. H.B. 481 § 4(a)(3), (b)(1) (codified at O.C.G.A. §(a)(3), (b)(1)). Instead, H.B. 481 forces a patient experiencing a mental health crisis due to pregnancy to continue that pregnancy and go through childbirth, no matter how dire or deadly the consequences. A psychiatric illness is no less of a medical condition than a physical illness—and suicide is a leading cause of maternal death.[46]

71. *Second*, the Act contains an exception for a pregnancy that is at or below 20 weeks post-fertilization (*i.e.*, 22 weeks LMP) and that is the result of rape or incest, but only when "an official police report has been filed alleging the offense of rape or incest." H.B. 481 § 4(b)(2) (codified at O.C.G.A. §16-12-141(b)(2)). In other words, if someone pregnant from rape/incest is unwilling or unable to file such

[45] Badell Aff. ¶ 29; Cwiak Aff. ¶¶ 47-48.

[46] Meltzer-Brody Aff. ¶¶ 12, 33, 35–36, 39–43; Badell Aff. ¶ 34; *see also* GA 2022 House Bill 1013 ("Mental Health Parity Act"), codified at O.C.G.A. § 33-21A-13.

a report—for instance, because she fears retaliatory violence by an abusive parent or partner—the State of Georgia will force her to carry that pregnancy to term. In the United States, only a small fraction of rapes are reported to police. This is due to a number of factors, including trauma and fear of violent retaliation from the abuser.[47]

72. *Third*, the Act permits abortion when the "physician determines, in reasonable medical judgment, that the pregnancy is medically futile," which is limited by definition to "a profound and irremediable congenital or chromosomal anomaly that is incompatible with sustaining life after birth." H.B. 481 § 4(a)(4), (b)(3) (codified at O.C.G.A. §16-12-141(a)(4), (b)(3)). But medicine is not so clear cut, and a physician cannot predict exactly how long a baby will survive, or how much they may suffer before they die. Moreover, a physician cannot be sure that their medical judgment would not later be second-guessed by a prosecutor or judge. Because of this uncertainty, pregnant people who receive a fetal diagnosis that is not definitively fatal but would be severely life-limiting, or require intervention that may be invasive, painful, and/or unaffordable, will likely be forced to carry the pregnancy to term and give birth regardless of their wishes and circumstances.[48]

[47] Cwiak Aff. ¶¶ 41–44.

[48] Badell Aff. ¶¶ 38–41; Cwiak Aff. ¶ 46.

v. The Impact of the Six-Week Ban

73. Since taking effect on July 20 and prohibiting most abortions in Georgia, the Six-Week Ban has already caused irreparable harm—with more devastation promised every day it is in effect.[49]

74. Already, Plaintiffs have had to send patients home from waiting rooms in tears and cancel hundreds of upcoming appointments—with some patients forced to travel hundreds or thousands of miles out of state at great cost, and others desperately pleading that if they cannot get an abortion past six weeks in Georgia, they will not be able to get one at all.[50]

75. Drs. Cwiak, Haddad, and Lathrop, the Health Center Plaintiffs' physicians, and MSFC's members are being prevented from exercising their clinical judgment to provide medically appropriate treatment to their patients seeking essential reproductive health care. The Six-Week Ban is undermining their ability to practice their profession and the physician-patient relationship.[51]

76. The Six-Week Ban is also decimating opportunities for physicians and medical students to provide and receive training in the provision of abortion and miscarriage care, to the detriment of MSFC's medical student and resident members,

[49] Cwiak Aff. ¶ 13; Doe 1 Aff. ¶¶ 2–7; Doe 2 Aff. ¶¶ 4–5.

[50] Cwiak Aff. ¶ 13; *see also* Doe 1 Aff. ¶¶ 3–5, 7; Doe 2 Aff. ¶¶ 4–6.

[51] Cwiak Aff. ¶ 13.

Drs. Cwiak, Haddad, and Lathrop, the Health Center Plaintiffs' physicians, and their patients.[52]

77. The Six-Week Ban is causing and will continue to cause tremendous harm to SisterSong's members and to Plaintiffs' patients who need abortion and miscarriage care in Georgia—with particularly acute consequences for Georgians of color, people with fewer financial resources, young people, and Georgians living in rural areas.[53]

78. While some Georgians can afford to drive or fly thousands of miles out of state to the nearest abortion provider, pay for overnight lodging, miss multiple days of work without losing their job, and arrange and pay for multi-day childcare (or else bring their children with them on the journey), many cannot.[54]

79. And while some Georgians are able to safely self-manage their own abortion outside of the formal medical system, others without adequate information or resources are not.[55]

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[52] Aff. of Pamela Merritt, attached hereto as Ex. K, ¶¶ 13–19; Cwiak Aff. ¶¶ 58, 61–62.

[53] Rice Aff. ¶¶ 18–20, 29–31, 33-36, 42–43, 50; Cwiak Aff. ¶¶ 13, 34–40, 55–57; Badell Aff. ¶¶ 11, 12, 15, 18, 22, 28–29, 31–34, 36, 41, 45–46; Doe 1 Aff. ¶ 2; Doe 2 Aff. ¶ 6.

[54] Rice Aff. ¶¶ 15–16, 31, 34–36; Cwiak Aff. ¶¶ 36, 38; *see also* Doe 1 Aff. ¶ 7; Doe 2 Aff. ¶¶ 6–7.

[55] Cwiak Aff. ¶ 39; Rice Aff. ¶ 42.

80. Instead—and by design—the Six-Week Ban will force countless Georgians to undergo pregnancy and childbirth against their will.[56]

81. In addition to the immense medical, physical, and emotional consequences of forced pregnancy, the Six-Week Ban will thwart the educational, employment, and financial goals of innumerable Georgians and condemn them and their families to lasting poverty.[57]

82. The Six-Week Ban will also severely jeopardize the life and health of survivors of intimate partner violence, denying them the abortion that might have enabled them to sever ties with their abuser and instead tethering them to a violent household through forced pregnancy and childbirth.[58]

83. Even those Georgians able to obtain an abortion out of state are facing significant harm. Because of full or partial abortion bans now in effect in nearly all of Georgia's neighbor states, the nearest abortion provider with capacity to care for Georgia patients will often be thousands of miles away, across multiple state lines. Such travel imposes substantial costs and logistical burdens, including arranging and paying for transportation, lodging, childcare, and losing wages for missed work. Having to raise funds and make arrangements for out-of-state travel will

[56] Cwiak Aff. ¶¶ 34–36, 38; Rice Aff. ¶¶ 34, 44; Badell Aff. ¶ 28.

[57] Rice Aff. ¶¶ 45–47; Badell Aff. ¶ 35; Cwiak Aff. ¶¶ 9–10; *see also* Doe 1 Aff. ¶ 2; Doe 2 Aff. ¶ 6.

[58] Rice Aff. ¶ 53.

significantly delay access to medical care for many of these patients, forcing them to remain pregnant for longer and increasing their medical risks.[59]

84. Moreover, the time, money, and logistical barriers involved in traveling to another state significantly elevate the risk that a patient's pregnancy and abortion decision will become known to employers, abusive partners, or other people to whom a patient may not otherwise disclose their private medical information.[60]

85. In addition, the Six-Week Ban harms the health of people with wanted pregnancies who experience pregnancy-related complications or pregnancy loss by chilling physicians from providing medically necessary, patient-centered care. The Ban will force physicians to withhold or delay medically indicated abortion and miscarriage care unless and until either (1) embryonic/fetal cardiac activity has stopped, or (2) the patient's health has deteriorated to the point of a medical emergency. The pall that the Six-Week Ban casts on a range of health or life-preserving medical care beyond abortion is jeopardizing Georgians' physical, mental, and emotional health.[61]

[59] *Id.* ¶¶ 34–38; Cwiak Aff. ¶¶ 37–38; *see also* Doe 1 Aff. ¶ 7; Doe 2 Aff. ¶¶ 6–7.

[60] Rice Aff. ¶ 39; *see also* Doe 1 Aff. ¶ 7.

[61] Badell Aff. ¶ 33; Cwiak Aff. ¶¶ 35, 47–56.

C. The Records Access Provision

86. As Georgia law has long recognized, patient medical records include deeply personal information about, *inter alia*, health status and medical and sexual history. Yet O.C.G.A. § 16-12-141(f), as amended by H.B. 481, provides Georgia prosecutors in both the judicial circuit where the abortion provider is located and the judicial circuit where the patient resides with seemingly unrestricted access to personal medical records. The law provides that "[h]ealth records shall be available to the district attorney of the judicial circuit in which the act of abortion occurs or the woman upon whom an abortion is performed resides." O.C.G.A. § 16-12-141(f). This provision violates a patient's right to privacy because it gives district attorneys a broad statutory right to access the medical records of abortion patients without any sort of due process, such as a subpoena.[62]

87. Thus, even for the minority of patients who would still be permitted to obtain an abortion under the Six-Week Ban, Georgia law presents an untenable choice: forgo essential medical care and remain pregnant against their will; flee to another state at great financial and logistical costs; or else be put in a position where, as a condition of receiving medical care, their health status and intimate details of their medical and sexual history would be exposed to employees of the district

[62] Cwiak Aff. ¶¶ 63–66.

attorney's office *in the judicial circuit where the patient resides* (as well as in the judicial circuit where the abortion provider is located), without due process of law.[63]

V.
COUNT I – DECLARATORY JUDGMENT

88. Plaintiffs reallege and incorporate herein by reference each and every allegation of paragraphs 1 through 87 inclusive.

89. This Court has the power to declare the constitutionality of Georgia statutes.

90. There is an actual, present, and justiciable controversy between Plaintiffs and the State regarding whether the Six-Week Ban is void *ab initio*; whether the Six-Week Ban violates the Georgia Constitution's rights to liberty, privacy, and/or equal protection; and whether the Records Access Provision violates the Georgia Constitution's right to privacy.

91. Because federal constitutional law clearly prohibited pre-viability abortion bans when the Six-Week Ban was enacted in 2019, the Act is void *ab initio* and unenforceable. *Adams v. Adams*, 249 Ga. 477, 478–79 (1982); *Grayson-Robinson Stores, Inc. v. Oneida, Ltd.*, 209 Ga. 613, 614–15 (1953).

92. By banning abortion from the earliest weeks of pregnancy and thus forcing pregnancy and childbirth upon countless Georgians, H.B. 481 violates

[63] *Id.*

Plaintiffs' patients' and members' rights to: (a) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (b) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

93. By specifically excluding pregnant Georgians experiencing an acute psychiatric emergency from H.B. 481's "medical emergency" exception, H.B. 481 violates Plaintiffs' patients' and members' rights to: (a) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (b) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

94. By requiring Georgians pregnant as a result of rape/incest to disclose their assault to law enforcement as a condition of ending the pregnancy, H.B. 481 violates Plaintiffs' patients' and members' rights to: (a) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (b) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

95. By allowing district attorneys to access abortion patients' personal medical records without due process protections, the Records Access Provision violates Plaintiffs' patients' and members' rights to: (a) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1,

¶ I (due process) and ¶ XXIX (inherent rights), and (b) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

96. In accordance with O.C.G.A. § 9-4-2, Plaintiffs ask this Court to declare that:

a. The Georgia Constitution's protections for liberty and privacy encompass a right to abortion;

b. Sections 4, 10, and 11 of H.B. 481 are mutually dependent and form a connected scheme that violates Plaintiffs' patients' and members' rights to: (i) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (ii) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

c. The exclusion of psychiatric illness from H.B. 481's "medical emergency" exception violates Plaintiffs' patients' and members' rights to: (i) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (ii) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

d. H.B. 481's requirement that Georgians pregnant as a result of rape/incest disclose their assault to law enforcement as a condition of ending the

pregnancy violates Plaintiffs' patients' and members' rights to: (i) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (ii) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

e. O.C.G.A. § 16-12-141(f) violates Plaintiffs' patients' and members' rights to (i) liberty and privacy guaranteed by various provisions of the Georgia Constitution, including art. I, § 1, ¶ I (due process) and ¶ XXIX (inherent rights), and (ii) equal protection as guaranteed by art. I, § 1, ¶ II of the Georgia Constitution.

97. In accordance with O.C.G.A. § 9-4-3, Plaintiffs further ask this Court to enter an interlocutory injunction and a temporary restraining order to restore the status quo ante and enjoin further enforcement of H.B. 481 pending a final determination in this matter.

COUNT II – PERMANENT INJUNCTION

98. Plaintiffs reallege and incorporate herein by reference each and every allegation of paragraphs 1 through 87 inclusive.

99. A permanent injunction is necessary to prevent irreparable harm to Plaintiffs' patients and members through the enforcement of H.B. 481 and O.C.G.A.

16-12-141(f), which unconstitutionally infringe on their rights to liberty, privacy, and/or equal protection.

100. While Plaintiffs' patients and members will suffer irreparable harm without an injunction, an injunction will not cause the State irreparable harm because the injunction will simply prevent the State from enforcing unconstitutional laws.

101. Accordingly, immediately after declaratory relief has been entered, Plaintiffs seek a permanent injunction enjoining the State of Georgia; its officers, agents, servants, employees, representatives, and attorneys, including all district attorneys in the State of Georgia; and anyone acting on behalf of, in active participation with, or in concert with the State, from enforcing Sections 4, 10, or 11 of H.B. 481 (codified at O.C.G.A. §§ 16-12-141, 31-9B-2, 31-9B-3) or O.C.G.A. § 16-12-141(f).

***

WHEREFORE, Plaintiffs respectfully request that the Court:

(1) declare Sections 4, 10, and 11 of H.B. 481 (codified at O.C.G.A. §§ 16-12-141, 31-9B-2, 31-9B-3) unconstitutional under the Georgia Constitution;

(2) declare O.C.G.A. § 16-12-141(f) unconstitutional under the Georgia Constitution;

(3) enter a temporary restraining order and interlocutory injunction prohibiting the State of Georgia; its officers, agents, servants, employees,

representatives, and attorneys, including all district attorneys in the State of Georgia; and anyone acting on behalf of, in active participation with, or in concert with the State, from enforcing Sections 4, 10, and 11 of H.B. 481(codified at O.C.G.A. §§ 16-12-141, 31-9B-2, 31-9B-3), as well as O.C.G.A. § 16-12-141(f), during the pendency of this litigation and from taking any enforcement action premised on a violation of the aforementioned laws that occurred while this order is in effect;

(4) immediately after entering declaratory relief, enter a permanent injunction prohibiting the State of Georgia; its officers, agents, servants, employees, representatives, and attorneys, including all district attorneys in the State of Georgia; and anyone acting on behalf of, in active participation with, or in concert with the State, from enforcing Sections 4, 10, and 11 of H.B. 481 (codified at O.C.G.A. §§ 16-12-141, 31-9B-2, 31-9B-3), and O.C.G.A. § 16-12-141(f);

(5) award Plaintiffs costs and fees under O.C.G.A. § 9-15-14; and

(6) grant Plaintiffs any such other, further, and different relief as the Court may deem just and proper.

Respectfully submitted this 26th day of July, 2022.

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Attorneys for Plaintiffs Feminist and MSFC

**Pro hac vice application forthcoming*

VERIFICATION OF COMPLAINT

I, Tamer Middleton, M.D., am Medical Director at Atlanta Comprehensive Wellness Clinic, and I am authorized to give this verification on behalf of Atlanta Comprehensive Wellness Clinic. I further state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 22, 42, and 72-76 relating to Atlanta Comprehensive Wellness Clinic are true and correct to the best of my knowledge and belief based on the information currently available to me.

T Middleton, MD

Tamer Middleton, M.D.

Sworn to and subscribed before me

this 25th day of July, 2022.

MARY I. STARCK.

Mary I. Starck

NOTARY PUBLIC

My commission expires:

MARY I STARCK NOTARY PUBLIC DEKALB COUNTY, GEORGIA MY COMMISSION EXPIRES SEPTEMBER 24, 2022

VERIFICATION OF COMPLAINT

I, Elizabeth Barnes, am President at The Women's Centers, and I am authorized to give this verification on behalf of Atlanta Women's Medical Center. I further state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 23, 42, and 72-76 relating to Atlanta Women's Medical Center are true and correct to the best of my knowledge and belief based on the information currently available to me.

Elizabeth Adams Barnes

Elizabeth Barnes

Sworn to and subscribed before me

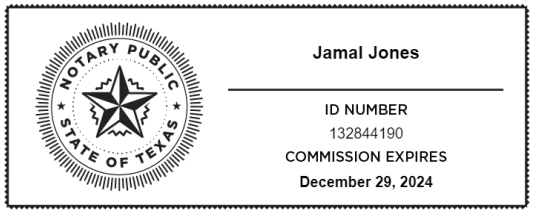
this 25th day of July, 2022.

Jamal Jones

NOTARY PUBLIC

State of Texas; County of Harris

My commission expires: 12/29/2024



Notarized online using audio-video communication

VERIFICATION OF COMPLAINT

I, Melissa Grant, am Chief Operations Officer at FemHealth USA d/b/a carafem, and I am authorized to give this verification on behalf of FemHealth USA d/b/a carafem. I further state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 24, 42, and 72-76 relating to FemHealth USA d/b/a carafem are true and correct to the best of my knowledge and belief based on the information currently available to me.

MGrant

Melissa Grant

Sworn to and subscribed before me

this 25 day of July, 2022.

NOTARY PUBLIC

My commission expires: DEC 31 2025

SANDEEP SHARMA
Notary Public
Commonwealth of Virginia
Registration No. 7171705
My Commission Expires Dec 31, 2025

VERIFICATION OF COMPLAINT

I, Carrie Cwiak, M.D., M.P.H., state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 26, 42, and 72-76 relating to me are true and correct to the best of my knowledge and belief based on the information currently available to me.

Carrie Cwiak, M.D., M.P.H.

Sworn to and subscribed before me

this 25th day of July, 2022.

IRA KATZ
NOTARY PUBLIC
COBB COUNTY, GEORGIA
MY COMMISSION EXPIRES
AUGUST 23, 2024

NOTARY PUBLIC

My commission expires: 08/23/2024

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; and CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients, and MEDICAL STUDENTS FOR CHOICE, on behalf of themselves, their members, and their patients.

Plaintiffs,

v.

STATE OF GEORGIA

Defendant.

Case No. _____

VERIFICATION OF KWAJELYN JACKSON

I, Kwajelyn Jackson, am Executive Director at the Feminist Women's Health Center, and I am authorized to give this verification on behalf of Feminist Women's Health Center. I further state under oath that I have reviewed the Verified Complaint and the statements contained in Paragraphs 8, 17, 20, 42, and 72-76 are true and correct to the best of my knowledge and belief based on the information currently available to me.

Kwajelyn J. Jackson
Executive Director
Feminist Women's Health Center
1924 Cliff Valley Way NE,
Atlanta, GA 30329
Phone: 404-248-5452/
404-849-5597
kwajelynj@feministcenter.org

Sworn to and subscribed before me
this 24th day of July, 2022.

Charisse Jackson Youngblood
NOTARY PUBLIC

My commission expires: March 27, 2023

CHARISSE JACKSON YOUNGBLOOD
My Commission Expires
NOTARY PUBLIC
March 27, 2023
CLAYTON COUNTY, GEORGIA

VERIFICATION OF COMPLAINT

I, Lisa Haddad, M.D., M.S., M.P.H., state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 27, 42, and 72-76 relating to me are true and correct to the best of my knowledge and belief based on the information currently available to me.

Lisa Haddad, M.D., M.S., M.P.H. MDMSMPH

Sworn to and subscribed before me

this 25 day of July, 2022.

NOTARY PUBLIC

My commission expires: 11/23/2024

VALERIE WINROW
Notary Public - State of Georgia
Cobb County
My Commission Expires Nov 23, 2024

VERIFICATION ON OATH OR AFFIRMATION

State of Georgia

County of Fulton

} ss.

Subscribed and sworn to (or affirmed) before me

this 25 (Day) day of July (Month), 2022 (Year), by

Lisa Haddad, M.D. M.S. MPH

Name of Signer No. 1

Name of Signer No. 2 (if any)

VALERIE WINROW
Notary Public - State of Georgia
Cobb County
My Commission Expires Nov 23, 2024

Signature of Notary Public

Place Notary Seal/Stamp Above

Any Other Required Information (Residence, Expiration Date, etc.)

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

VERIFICATION OF COMPLAINT

I, Eva Lathrop, M.D., state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 28, 42, and 72-76 relating to me are true and correct to the best of my knowledge and belief based on the information currently available to me.

Eva Lathrop, M.D.

Sworn to and subscribed before me

this 25 day of JULY, 2022.

NOTARY PUBLIC

My commission expires: 02/03/2025

KEVIN LARRY
NOTARY PUBLIC
ROCKDALE COUNTY
STATE OF GEORGIA
My Comm. Expires Feb. 03, 2025

This certificate pertains to a 1 page document dealing with/entitled VERIFICATION OF COMPLAINT and signed on 7/25/2022

Jurat Certificate (Verification on Oath or Affirmation)

State of Georgia

County of FULTON

Signed and sworn to (or affirmed) before me on JULY 25, 2022
Date

by EVA LATHROP,
Printed name of individual making statement

who is

____personally known

or

_X_ proved to me on the basis of satisfactory evidence to be the person

who appeared before me.

(signature of notary public)

Notary Public, State of Georgia

Stamp/Seal

My commission expires: 02/03/2025

KEVIN LARRY
NOTARY PUBLIC
ROCKDALE COUNTY
STATE OF GEORGIA
My Comm. Expires Feb. 03, 2025

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; and CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients, and MEDICAL STUDENTS FOR CHOICE, on behalf of themselves, their members, and their patients. Plaintiffs, v. STATE OF GEORGIA Defendant.	Case No. _____

VERIFICATION OF PAMELA MERRITT

I, Pamela Merritt, am Executive Director at Medical Students for Choice, and I am authorized to give this verification on behalf of Medical Students for Choice. I further state under oath that I have reviewed the Verified Complaint and the statements contained in Paragraphs 17, 29, 72, and 74-76 are true and correct to the best of my knowledge and belief based on the information currently available to me.

Pamela Merritt
Executive Director
Medical Students for Choice
PO Box 40935
Philadelphia, PA 19107
Phone: 215-605-9373/
215-625-0800
Pamela@msfc.org

Sworn to and subscribed before me
this 21 day of July, 2022.

NOTARY PUBLIC

My commission expires: 16 Dec 2023

TIMOTHY C SLATER II
Official Seal
Notary Public - State of Illinois
My Commission Expires Dec 16, 2023

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; and CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients, and MEDICAL STUDENTS FOR CHOICE, on behalf of themselves, their members, and their members' patients. Plaintiffs, v. STATE OF GEORGIA Defendant.	Case No. _____

VERIFICATION OF COMPLAINT

I, Stephanie Fraim, am Acting Chief Executive Officer of Planned Parenthood Southeast, Inc., and I am authorized to give this verification on behalf

of Planned Parenthood Southeast, Inc. I further state under oath that I have reviewed the Verified Complaint, and the statements contained in Paragraphs 8, 17, 21, 42, and 72-76 related to Planned Parenthood Southeast, Inc. are true and correct to the best of my knowledge and belief based on the information currently available to me.

Stephanie Fraim

Sworn to and subscribed before me

this 25 day of July, 2022.

NOTARY PUBLIC

My commission expires: 3/8/2024.

JENNIFER CARROLL
Notary Public, Georgia
Fulton County
My Commission Expires
March 08, 2024

VERIFICATION OF COMPLAINT

I, Monica Simpson, am the Executive Director of SisterSong Women of Color Reproductive Justice Collective ("SisterSong") and I am authorized to give this verification on behalf of SisterSong. I further state under oath that I have reviewed the Verified Complaint and that paragraphs 17-19, 72, and 76 relating to SisterSong and our members are true and correct to the best of my knowledge and belief based on the information currently available to me.

Monica Simpson

Sworn to and subscribed before me

this 23 day of July, 2022.

NOTARY PUBLIC

My commission expires: 2/13/2026

William Bishop
NOTARY PUBLIC
DeKalb County, GEORGIA
My Commission Expires 02/13/2026

VERIFICATION OF COMPLAINT

I, Tanya Little, am Executive Director at Summit Centers of Georgia and Michigan, and I am authorized to give this verification on behalf of Summit Medical Associates, P.C. I further state under oath that I have reviewed the Verified Complaint and that paragraphs 8, 17, 25, 42, and 72-76 relating to Summit Medical Associates, P.C. are true and correct to the best of my knowledge and belief based on the information currently available to me.

Tanya Little

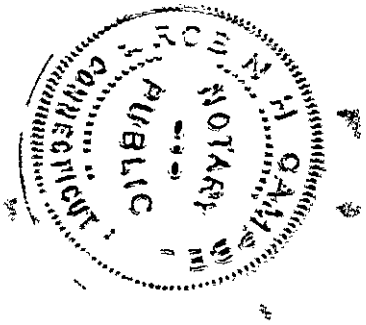
Sworn to and subscribed before me

this 25th day of July, 2022.

NOTARY PUBLIC

My commission expires:

ROBIN H. CAMPBELL
Notary Public, State of Connecticut
My Commission Expires 03/31/2024



Exhibits to Verified Complaint

Exhibit	Document
A	House Bill 481
B	Affidavit of Martina Badell, M.D.
C	Affidavit of Carrie Cwiak, M.D., M.P.H.
D	Affidavit of Whitney S. Rice, DrPH, M.P.H.
E	Affidavit of Samantha Meltzer-Brody, M.D.
F	Affidavit of Patient Jane Doe 1
G	Affidavit of Patient Jane Doe 2
H	Affidavit of Patient Jane Doe 3
I	Affidavit of Patient Jane Doe 4
J	Affidavit of Patient Jane Doe 5
K	Affidavit of Pamela Merritt

EXHIBIT A

House Bill 481 (AS PASSED HOUSE AND SENATE)

By: Representatives Setzler of the 35th, Lott of the 122nd, Taylor of the 173rd, Bonner of the 72nd, Ehrhart of the 36th, and others

A BILL TO BE ENTITLED

AN ACT

To amend Chapter 2 of Title 1 of the Official Code of Georgia Annotated, relating to persons and their rights, so as to provide that natural persons include an unborn child; to provide that such unborn children shall be included in certain population based determinations; to provide definitions; to amend Article 5 of Chapter 12 of Title 16 of the Official Code of Georgia Annotated, relating to abortion, so as to provide definitions; to revise the time when an abortion may be performed; to provide for exceptions; to provide for the requirements for performing an abortion; to provide for a right of action and damages; to provide for affirmative defenses; to amend Chapter 6 of Title 19 of the Official Code of Georgia Annotated, relating to alimony and child support, so as to provide a definition; to provide a maximum support obligation for certain circumstances; to amend Chapter 7 of Title 19 of the Official Code of Georgia Annotated, relating to parent and child relationship generally, so as to provide that the right to recover for the full value of a child begins at the point when a detectable human heartbeat exists; to amend Chapter 9A of Title 31 of the Official Code of Georgia Annotated, relating to the "Woman's Right to Know Act," so as to provide for advising women seeking an abortion of the presence of a detectable human heartbeat; to provide for the content of certain notices; to repeal certain penalties; to amend Chapter 9B of Title 31 of the Official Code of Georgia Annotated, relating to physician's obligation in performance of abortions, so as to require physicians performing abortions to determine the existence of a detectable human heartbeat before performing an abortion; to provide for the reporting of certain information by physicians; to amend Chapter 7 of Title 48 of the Official Code of Georgia Annotated, relating to income taxes, so as to provide that an unborn child with a detectable human heartbeat is a dependent minor for income tax purposes; to provide for legislative findings; to provide for related matters; to provide for standing to intervene and defend constitutional challenges to this Act; to provide a short title; to provide for severability; to provide an effective date; to repeal conflicting laws; and for other purposes.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF GEORGIA:

SECTION 1.

This Act shall be known and may be cited as the "Living Infants Fairness and Equality (LIFE) Act."

SECTION 2.

The General Assembly of Georgia makes the following findings:

(1) In the founding of the United States of America, the State of Georgia and the several states affirmed that: "We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness – that to secure these Rights, Governments are instituted among men;"

(2) To protect the fundamental rights of all persons, and specifically to protect the fundamental rights of particular classes of persons who had not previously been recognized under law, the 14th Amendment to the United States Constitution was ratified, providing that, "nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny any person within its jurisdiction the equal protection of the laws";

(3) Modern medical science, not available decades ago, demonstrates that unborn children are a class of living, distinct persons and more expansive state recognition of unborn children as persons did not exist when *Planned Parenthood v. Casey* (1992) and *Roe v. Wade* (1973) established abortion related precedents;

(4) The State of Georgia, applying reasoned judgment to the full body of modern medical science, recognizes the benefits of providing full legal recognition to an unborn child above the minimum requirements of federal law;

(5) Article I, Section I, Paragraphs I and II of the Constitution of the State of Georgia affirm that "[n]o person shall be deprived of life, liberty, or property except by due process of law"; and that "[p]rotection to person and property is the paramount duty of government and shall be impartial and complete. No person shall be denied the equal protection of the laws"; and

(6) It shall be the policy of the State of Georgia to recognize unborn children as natural persons.

SECTION 3.

Chapter 2 of Title 1 of the Official Code of Georgia Annotated, relating to persons and their rights, is amended by revising Code Section 1-2-1, relating to classes of persons generally, corporations deemed artificial persons, and nature of corporations generally, as follows:

″1-2-1.

(a) There are two classes of persons: natural and artificial.

(b) 'Natural person' means any human being including an unborn child.

~~(b)~~(c) Corporations are artificial persons. They are creatures of the law and, except insofar as the law forbids it, they are subject to be changed, modified, or destroyed at the will of their creator.

(d) Unless otherwise provided by law, any natural person, including an unborn child with a detectable human heartbeat, shall be included in population based determinations.

(e) As used in this Code section, the term:

(1) 'Detectable human heartbeat' means embryonic or fetal cardiac activity or the steady and repetitive rhythmic contraction of the heart within the gestational sac.

(2) 'Unborn child' means a member of the species Homo sapiens at any stage of development who is carried in the womb.″

SECTION 4.

Article 5 of Chapter 12 of Title 16 of the Official Code of Georgia Annotated, relating to abortion, is amended by revising Code Section 16-12-141, relating to restrictions on the performance of abortions and availability of records, as follows:

″16-12-141.

~~(a) No abortion is authorized or shall be performed in violation of subsection (a) of Code Section 31-9B-2.~~

~~(b)(1) No abortion is authorized or shall be performed after the first trimester unless the abortion is performed in a licensed hospital, in a licensed ambulatory surgical center, or in a health facility licensed as an abortion facility by the Department of Community Health.~~

~~(2) An abortion shall only be performed by a physician licensed under Article 2 of Chapter 34 of Title 43.~~

~~(c)(1)~~(a) As used in this article, the term:

(1) 'Abortion' means the act of using, prescribing, or administering any instrument, substance, device, or other means with the purpose to terminate a pregnancy with knowledge that termination will, with reasonable likelihood, cause the death of an unborn child; provided, however, that any such act shall not be considered an abortion if the act is performed with the purpose of:

(A) Removing a dead unborn child caused by spontaneous abortion; or

(B) Removing an ectopic pregnancy.

(2) 'Detectable human heartbeat' means embryonic or fetal cardiac activity or the steady and repetitive rhythmic contraction of the heart within the gestational sac.

(3) 'Medical emergency' means a condition in which an abortion is necessary in order to prevent the death of the pregnant woman or the substantial and irreversible physical impairment of a major bodily function of the pregnant woman. No such greater risk shall be deemed to exist if it is based on a diagnosis or claim of a mental or emotional condition of the pregnant woman or that the pregnant woman will purposefully engage in conduct which she intends to result in her death or in substantial and irreversible physical impairment of a major bodily function.

(4) 'Medically futile' means that, in reasonable medical judgment, an unborn child has a profound and irremediable congenital or chromosomal anomaly that is incompatible with sustaining life after birth.

(5) 'Spontaneous abortion' means the naturally occurring death of an unborn child, including a miscarriage or stillbirth.

(b) No abortion is authorized or shall be performed if ~~the probable gestational age of the~~ an unborn child has been determined in accordance with Code Section 31-9B-2 ~~to be 20 weeks or more unless the pregnancy is diagnosed as medically futile, as such term is defined in Code Section 31-9B-1, or in reasonable medical judgment, the abortion is necessary~~ to have a detectable human heartbeat except when:

~~(A)~~(1) ~~Avert the death of the pregnant woman or avert serious risk of substantial and irreversible physical impairment of a major bodily function of the pregnant woman. No such condition shall be deemed to exist if it is based on a diagnosis or claim of a mental or emotional condition of the pregnant woman or that the pregnant woman will purposefully engage in conduct which she intends to result in her death or in substantial and irreversible physical impairment of a major bodily function~~ A physician determines, in reasonable medical judgment, that a medical emergency exists; ~~or~~

~~(B)~~(2) ~~Preserve the life of an unborn child~~ The probable gestational age of the unborn child is 20 weeks or less and the pregnancy is the result of rape or incest in which an official police report has been filed alleging the offense of rape or incest. As used in this paragraph, the term 'probable gestational age of the unborn child' has the meaning provided by Code Section 31-9B-1; or

(3) A physician determines, in reasonable medical judgment, that the pregnancy is medically futile.

~~As used in this paragraph, the term 'probable gestational age of the unborn child' has the meaning provided by Code Section 31-9B-1.~~

~~(2) In any case described in subparagraph (A) or (B) of paragraph (1) of this subsection, the physician shall terminate the pregnancy in the manner which, in reasonable medical judgment, provides the best opportunity for the unborn child to survive unless, in reasonable medical judgment, termination of the pregnancy in that manner would pose~~

~~a greater risk either of the death of the pregnant woman or of the substantial and irreversible physical impairment of a major bodily function of the pregnant woman than would another available method. No such greater risk shall be deemed to exist if it is based on a diagnosis or claim of a mental or emotional condition of the pregnant woman or that the pregnant woman will purposefully engage in conduct which she intends to result in her death or in substantial and irreversible physical impairment of a major bodily function. If the child is capable of sustained life, medical aid then available must be rendered.~~

(c) In conducting an abortion, if the child is capable of sustained life, medical aid then available shall be rendered.

(d) No abortion is authorized or shall be performed in violation of subsection (a) of Code Section 31-9B-2.

(e)(1) No abortion is authorized or shall be performed after the first trimester unless the abortion is performed in a licensed hospital, in a licensed ambulatory surgical center, or in a health facility licensed as an abortion facility by the Department of Community Health.

(2) An abortion shall only be performed by a physician licensed under Article 2 of Chapter 34 of Title 43.

~~(d)~~(f) ~~Hospital or other licensed health facility~~ Health records shall be available to the district attorney of the judicial circuit in which the ~~hospital or health facility is located~~ act of abortion occurs or the woman upon whom an abortion is performed resides.

(g) Any woman upon whom an abortion is performed in violation of this Code section may recover in a civil action from the person who engaged in such violation all damages available to her under Georgia law for any torts.

(h) It shall be an affirmative defense to prosecution under this article if:

(1) A licensed physician provides medical treatment to a pregnant woman which results in the accidental or unintentional injury to or death of an unborn child;

(2) An advanced practice registered nurse or registered professional nurse, as such terms are defined in Code Section 43-26-3, or a licensed practical nurse, as such term is defined in Code Section 43-26-32, engages in the practice of nursing to provide care for a pregnant woman which results in the accidental or unintentional injury to or death of an unborn child;

(3) A licensed pharmacist engages in the practice of pharmacy, as such term is defined in Code Section 26-4-4, to provide care for a pregnant woman which results in the accidental or unintentional injury or death of an unborn child;

(4) A licensed physician assistant, as such term is defined in Code Section 43-34-102, provides care to a pregnant woman which results in the accidental or unintentional injury to or death of an unborn child; or

(5) A woman sought an abortion because she reasonably believed that an abortion was the only way to prevent a medical emergency."

SECTION 5.

Chapter 6 of Title 19 of the Official Code of Georgia Annotated, relating to alimony and child support, is amended by revising paragraph (4) of subsection (a) of Code Section 19-6-15, relating to child support, guidelines for determining amount of award, continuation of duty of support, and duration of support, and by adding a new subsection to read as follows:

"(4) ~~'Child' means child or children~~ Reserved."

"(a.1)(1) As used in this chapter, the term 'child' means child or children, including any unborn child with a detectable human heartbeat as such terms are defined in Code Section 1-2-1.

(2) Notwithstanding any provision of this Code section to the contrary, the maximum amount of support which the court may impose on the father of an unborn child under this Code section shall be the amount of direct medical and pregnancy related expenses of the mother of the unborn child. After birth, the provisions of this Code section shall apply in full."

SECTION 6.

Chapter 7 of Title 19 of the Official Code of Georgia Annotated, relating to parent and child relationship generally, is amended by revising paragraph (1) of subsection (c) of Code Section 19-7-1, relating to in whom parental power lies, how such power lost, and recovery for homicide of child, as follows:

"(c)(1) In every case of the homicide of a child, minor or sui juris, there shall be some party entitled to recover the full value of the life of the child, either as provided in this Code section or as provided in Chapter 4 of Title 51. For the homicide of an unborn child, the right to recover for the full value of the life of such child shall begin at the point at which a detectable human heartbeat, as such term is defined in Code Section 1-2-1, is present."

SECTION 7.

Chapter 9A of Title 31 of the Official Code of Georgia Annotated, relating to the "Woman's Right to Know Act," is amended by revising paragraph (1) of Code Section 31-9A-3, relating to voluntary and informed consent to abortion and availability of ultrasound, as follows:

"(1) The female is told the following, by telephone or in person, by the physician who is to perform the abortion, by a qualified agent of the physician who is to perform the abortion, by a qualified agent of a referring physician, or by a referring physician, at least 24 hours before the abortion:

(A) The particular medical risks to the individual patient associated with the particular abortion procedure to be employed, when medically accurate;

(B) The probable gestational age and presence of a detectable human heartbeat, as such term is defined in Code Section 1-2-1, of ~~the~~ an unborn child at the time the abortion would be performed; and

(C) The medical risks associated with carrying ~~the~~ an unborn child to term.

The information required by this paragraph may be provided by telephone without conducting a physical examination or tests of the patient, in which case the information required to be provided may be based on facts supplied to the physician by the female and whatever other relevant information is reasonably available to the physician. Such information may not be provided by a tape recording but must be provided during a consultation in which the physician or a qualified agent of the physician is able to ask questions of the female and the female is able to ask questions of the physician or the physician's qualified agent. If in the medical judgment of the physician any physical examination, tests, or other information subsequently provided to the physician requires a revision of the information previously supplied to the patient, that revised information shall be communicated to the patient prior to the performance of the abortion. Nothing in this Code section may be construed to preclude provision of required information in a language understood by the patient through a translator;"

SECTION 8.

Said chapter is further amended by revising paragraph (3) of subsection (a) of Code Section 31-9A-4, relating to information to be made available by the Department of Public Health, format requirements, availability, and requirements for website, as follows:

"(3) Materials with the following statement concerning unborn children with a detectable human heartbeat, as such term is defined in Code Section 1-2-1, and of 20 weeks' or more gestational age:

'As early as six weeks' gestation, an unborn child may have a detectable human heartbeat. By 20 weeks' gestation, ~~the~~ an unborn child has the physical structures

necessary to experience pain. There is evidence that by 20 weeks' gestation unborn children seek to evade certain stimuli in a manner which in an infant or an adult would be interpreted to be a response to pain. Anesthesia is routinely administered to unborn children who are 20 weeks' gestational age or older who undergo prenatal surgery.'

The materials shall be objective, nonjudgmental, and designed to convey only accurate scientific information about ~~the~~ an unborn child at the various gestational ages."

SECTION 9.

Said chapter is further amended by repealing in its entirety Code Section 31-9A-6.1, relating to civil and professional penalties for violations and prerequisites for seeking penalties.

SECTION 10.

Chapter 9B of Title 31 of the Official Code of Georgia Annotated, relating to physician's obligation in performance of abortions, is amended by revising Code Section 31-9B-2, relating to requirement to determine probable gestational age of unborn child, as follows:

"31-9B-2.

(a) Except in the case of a medical emergency or when a pregnancy is diagnosed as medically futile, no abortion shall be performed or attempted to be performed unless the physician performing ~~it~~ such procedure has first made a determination of the ~~probable gestational age~~ presence of a detectable human heartbeat, as such term is defined in Code Section 1-2-1, of ~~the~~ an unborn child ~~or relied upon such a determination made by another physician~~.

(b) ~~Failure~~ In addition to any criminal or civil penalties provided by law, failure by any physician to conform to any requirement of this Code section constitutes unprofessional conduct for purposes of paragraph (7) of subsection (a) of Code Section 43-34-8 relating to medical licensing sanctions."

SECTION 11.

Said chapter is further amended by revising subsection (a) of Code Section 31-9B-3, relating to required reporting of physicians and departments, confidentiality, and failure to comply, as follows:

"(a) Any physician who performs or attempts to perform an abortion shall report to the department, in conjunction with the reports required under Code Section 31-9A-6 and in accordance with forms and rules and regulations adopted and promulgated by the department:

(1) If a ~~determination of probable gestational age was made~~ detectable human heartbeat, as such term is defined in Code Section 1-2-1, exists, the probable gestational age, ~~determined~~ and the method and basis of the determination;

~~(2) If a determination of probable gestational age was not made, the basis of the determination that a medical emergency existed or that a pregnancy was diagnosed as medically futile;~~

~~(3)~~(2) If ~~the probable gestational age was determined to be 20 or more weeks~~ a detectable human heartbeat, as such term is defined in Code Section 1-2-1, exists, the basis of the determination that the pregnant woman had a medically futile pregnancy, that a medical emergency existed, or that the pregnancy was the result of rape or incest ~~or had a condition which so complicated her medical condition as to necessitate the termination of her pregnancy to avert her death or to avert serious risk of substantial and irreversible physical impairment of a major bodily function, or the basis of the determination that it was necessary to preserve the life of an unborn child~~; and

~~(4)~~(3) The method used for the abortion ~~and, in the case of an abortion performed when the probable gestational age was determined to be 20 or more weeks, whether the method of abortion used was one that, in reasonable medical judgment, provided the best opportunity for the unborn child to survive or, if such a method was not used, the basis of the determination that the pregnancy was medically futile or that termination of the pregnancy in that manner would pose a greater risk either of the death of the pregnant woman or of the substantial and irreversible physical impairment of a major bodily function of the pregnant woman than would other available methods~~.″

SECTION 12.

Chapter 7 of Title 48 of the Official Code of Georgia Annotated, relating to income taxes, is amended by revising subsection (a) of Code Section 48-7-26, relating to personal exemptions, as follows:

″(a) As used in this Code section, the term 'dependent' shall have the same meaning as in the Internal Revenue Code of 1986; provided, however, that any unborn child with a detectable human heartbeat, as such terms are defined in Code Section 1-2-1, shall qualify as a dependent minor.″

SECTION 13.

Any citizen of this state shall have standing and the right to intervene and defend in any action challenging the constitutionality of any portion of this Act.

SECTION 14.

All provisions of this Act shall be severable in accordance with Code Section 1-1-3.

SECTION 15.

This Act shall become effective on January 1, 2020.

SECTION 16.

All laws and parts of laws in conflict with this Act are repealed.

EXHIBIT B

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients,

Plaintiffs,

v.

STATE OF GEORGIA,

Defendant.

Case No. _____

Affidavit of Martina Badell, M.D.

I, MARTINA BADELL, MD, hereby affirm under penalty of perjury that the following statements are true and correct:

I. Background and Qualifications

1. I am a board-certified obstetrician/gynecologist ("ob/gyn") and a board-certified maternal-fetal medicine specialist in Georgia, with 16 years of experience in obstetrics, high-risk pregnancies, ultrasound, and prenatal diagnosis. Maternal-fetal medicine (also called perinatology) is an area of obstetrics that focuses on the medical management of high-risk pregnancy.

2. I am the Director of the Emory Perinatal Centers. In that capacity, I supervise two busy perinatal centers in Atlanta and Decatur with multiple perinatal sonographers, genetic counselors, and high-risk nurses. We perform detailed fetal ultrasounds, offer prenatal genetic testing, and perform inpatient and outpatient high-risk pregnancy consultations. Additionally, I train maternal-fetal medicine fellows and ob/gyn residents.

3. I am also an Associate Professor in the Department of Obstetrics and Gynecology at the Emory University School of Medicine, where I provide care to patients as a maternal-fetal medicine specialist. My medical practice focuses on people whose pregnancies are high-risk, whether because the pregnant person has an underlying condition that is exacerbated by pregnancy, a pregnancy-related

condition that puts the pregnancy at risk, or because the pregnancy is affected by a fetal diagnosis.

4. Though abortion care is not generally within the scope of my practice, I perform selective reductions if a pregnant person who is carrying higher-order multiple fetuses (*i.e.*, three or more fetuses) desires reduction to attempt to improve the perinatal outcomes of the remaining fetuses or based on a diagnosis for one of the fetuses. I also refer patients for whom abortion is indicated based on medical conditions diagnosed during the course of prenatal care to abortion providers.

5. I received my medical degree in 2006 from the University of Rochester School of Medicine and Dentistry. Ever since graduating medical school, I have been caring for pregnant patients in Georgia. I completed my residency in Obstetrics and Gynecology, followed by a three-year fellowship in Maternal-Fetal Medicine, at the Emory University School of Medicine. In 2020, I became the Director of the Maternal-Fetal Medicine Fellowship and have trained many residents and fellows to be ob/gyns and maternal-fetal medicine physicians.

6. My research focuses on high-risk pregnancy, including HIV and pregnancy, and other infectious diseases in pregnancy. I have authored over fifty articles in peer-reviewed journals, such as the *Journal of the American Medical Association* and *Obstetrics & Gynecology* on diagnosis and pregnancy care for women with various medical conditions.

7. I am a member of several professional organizations, including the American College of Obstetricians and Gynecologists ("ACOG"), the Society for Maternal-Fetal Medicine ("SMFM"), the American Institute of Ultrasound Medicine, and the Georgia Obstetrical and Gynecological Society. I am on SMFM's publication committee, which develops guidelines to help maternal-fetal medicine specialists across the country provide evidence-based perinatal care.

8. My curriculum vitae, which sets forth my expertise and credentials in greater detail and contains a full list of my publications, is attached as Exhibit 1.

9. I submit this declaration as an individual and not in my capacity as an employee of Emory or any other organization.

II. Summary of Opinions

10. I am familiar with Georgia's ban on abortion after detection of embryonic or fetal cardiac activity ("the Ban"). The Ban is not based on medical science. Instead, prohibiting physicians from providing abortion care after approximately 6 weeks from the pregnant person's last menstrual period ("LMP")[1] except in very limited circumstances contravenes the standard of care and will compromise physicians' ability to provide essential, evidence-based healthcare to pregnant Georgians.

[1] In obstetrics and gynecology, pregnancy is generally measured from the patient's LMP. For a patient with regular menstrual cycles, fertilization typically occurs at approximately 2 weeks after the pregnant person's LMP.

11. The Ban will aggravate the high rate of maternal morbidity and mortality in Georgia, which disproportionately impacts Black Georgians, by compelling pregnancy and childbirth. Moreover, the Ban's narrow exceptions for a "medical emergency" or managing a "spontaneous abortion" are far from adequate to protect the health of Georgians who experience pregnancy-related complications. The Ban places physicians in an impossible position—forced to choose between risking prosecution for providing timely, medically appropriate abortion care or miscarriage management, and subjecting their patients to unnecessary suffering and risks to their health. The confusion and chaos that unfolds when physicians' ability to exercise their clinical judgment is compromised by the threat of criminalization will have dire consequences.

12. The Ban's narrow definition of "medically futile" will also undermine the autonomy of patients faced with complex and challenging circumstances. The Ban prevents maternal-fetal medicine specialists from providing accurate, patient-centered options counseling to enable patients to make the best decisions for themselves and their families, and prevents us from offering selective reduction of higher-order multifetal pregnancies, even to protect the pregnant person's health and/or improve perinatal outcomes for the remaining fetuses. For these reasons, too, the Ban harms even those Georgians with wanted pregnancies.

III. Health Risks of Pregnancy and Childbirth

13. Pregnancy causes physiological changes that impact every aspect of the pregnant person's health and permanently alters their body. Even a normally progressing pregnancy places additional demands on the pregnant person's organ systems from early in pregnancy. For instance, pregnancy increases cardiac output, as well as demands on the kidney and liver, and decreases lung capacity. The expansion of the uterus displaces other organs, putting pressure on the bladder and on surrounding muscles and ligaments. Even in healthy, uncomplicated pregnancies, these and other physiological changes often cause symptoms including shortness of breath, nausea, vomiting, fatigue, headaches, back pain, nose bleeds, dizziness, insomnia, frequent urination, and constipation.

A. Pregnancy-Related Morbidity

14. Maternal morbidity describes any short- or long-term health problem resulting from pregnancy or childbirth.[2] Many health conditions attributed to or exacerbated by pregnancy can adversely affect the pregnant person's health, both during pregnancy and long-term. Common pregnancy-related conditions range from uncomfortable, such as urinary tract infections; to debilitating, such as Hyperemesis Gravidarum (severe, persistent nausea and vomiting); to potentially

[2] *What Are Maternal Morbidity and Mortality?*, National Institutes of Health (accessed July 21, 2022), available at https://orwh.od.nih.gov/mmm-portal/what-mmm.

life-threatening, such as premature rupture of membranes (which can lead to infections including sepsis); pre-eclampsia (high blood pressure and protein in the urine), HELLP syndrome (hemolysis, elevated liver enzymes and low platelets), and pulmonary embolism (a blood clot in the main artery of the lung).[3]

15. For instance, hypertensive disorders (high blood pressure) in pregnancy are increasingly common pregnancy complications in the United States.[4] Pregnant people who develop pre-eclampsia (high blood pressure after the 20th week of pregnancy with protein in the urine) experience symptoms such as swelling of limbs, headaches, and vision loss, and are at increased risk of serious complications such as eclampsia (seizures), liver injury, and hemorrhage. Severe pre-eclampsia can be exceedingly dangerous to the pregnant person and the fetus, always requiring hospitalization and often requiring urgent delivery, even if the fetus is pre-term. There are substantial racial and regional disparities in the

[3] *Pregnancy Complications*, Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-complications.html; Tanya M. Medina, M.D. & D. Ashley Hill, M.D., *Preterm Premature Rupture of Membranes: Diagnosis and Management*, 73(4) Am. Fam. Physician (2006); Baha M Sibai, MD, *HELLP syndrome (hemolysis, elevated liver enzymes, and low platelets)*, UpToDate (accessed July 23, 2022), available at https://www.uptodate.com/contents/hellp-syndrome-hemolysis-elevated-liver-enzymes-and-low-platelets; *Blood Clots and Pregnancy*, March of Dimes (accessed July 23, 2022), available at https://www.marchofdimes.org/complications/blood-clots-and-pregnancy.aspx.

[4] Nicole D. Ford, et al., *Hypertensive Disorders in Pregnancy and Mortality at Delivery Hospitalization—United States, 2017–2019*, Centers for Disease Control and Prevention (April 29, 2022), https://www.cdc.gov/mmwr/volumes/71/wr/mm7117a1.htm.

prevalence of hypertensive disorders in pregnancy.[5] The rate of hypertensive disorders in pregnancy is highest among Black women as compared with other racial groups and is higher among those delivering in hospitals in the South and Midwest than in other regions of the United States.[6] Pregnant people with a history of chronic high blood pressure, sickle cell disease, lupus, and morbid obesity—all conditions that are more prevalent among Black Americans[7]—are at greatest risk of developing pre-eclampsia.

16. In addition to causing various health conditions, pregnancy can also exacerbate underlying physical and mental health conditions, known as "co-morbidities." These include (but are not limited to) diabetes, hypertension, asthma, cardiac diseases, autoimmune disorders, depression, and anxiety. For instance, pregnancy increases a diabetic person's demand for insulin by almost 100%. To

[5] *Hypertensive disorders in pregnancy affect 1 in 7 hospital deliveries*, Centers for Disease Control and Prevention (April 28, 2022), available at https://www.cdc.gov/media/releases/2022/p0428-pregnancy-hypertension.html.

[6] *Id.*

[7] *Facts About Hypertension*, Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/bloodpressure/facts.htm; *Data & Statistics on Sickle Cell Disease*, Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/ncbddd/sicklecell/data.html; Maria Dall'Era, *Systemic lupus erythematosus*, in John B. Imboden et al., (eds), Current Rheumatology Diagnosis and Treatment 3rd ed, New York, NY:McGraw-Hill (2013); *Adult Obesity Facts*, Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/obesity/data/adult.html.

safely manage diabetes during pregnancy, a patient must monitor their blood sugar four times a day and visit their obstetric provider weekly, if not more frequently, during the final two months of pregnancy. Without appropriate monitoring and treatment, untreated diabetes during pregnancy can result in fetal demise, diabetic ketoacidosis (very high blood sugar requiring hospitalization), and birth defects. Perinatal depression, which includes major and minor depressive episodes that occur during pregnancy or in the first 12 months after delivery, affects at least one in eight pregnant people.[8] Those with a history of mental health disorders are at especially high risk of experiencing mood disorder episodes during the perinatal period. A recurrence is particularly likely if the pregnant person discontinues a medication treatment regimen due to concerns about harm to the fetus.

17. Childbirth, whether through vaginal delivery or caesarean section, carries substantial risks and can cause long-term damage to the pregnant person's body. Vaginal deliveries pose risks of laceration to the vagina (which occurs in approximately 50% of first pregnancies) and surrounding structures, retained placenta, significant blood loss, and infection. In Georgia, one in three (33.9%) live

[8] *See Depression During and After Pregnancy*, Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/reproductivehealth/features/maternal-depression/index.html.

births in 2020 were caesarean deliveries, the ninth highest rate in the nation.[9] Caesarean sections are major abdominal surgeries that require a multiple-day hospital stay for recovery. They pose risks of significant blood loss, which may require a blood transfusion, injury to surrounding structures such as the bladder and the bowels, infection at the incision site, blood clots, and death. In addition, scarring at the incision site can lead to future pregnancy complications, such as an ectopic pregnancy that implants in the caesarean scar or placental accreta (when the placenta attaches too deep in the uterine wall, which can result in uterine rupture, need for hysterectomy, and high risk of postpartum hemorrhage and ICU admission).

18. The incidence of maternal morbidity is exceedingly high in Georgia. While there exists limited population-level data on the rate of pregnancy-related complications, a large-scale study of pregnancies among Georgians enrolled in a managed care plan showed that at least one complication occurred in approximately half of all pregnancies.[10] The prevalence of pregnancy-related complications was even higher among Black Georgians.[11]

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[9] *Cesarean Delivery Rate by State*, Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/nchs/pressroom/sosmap/cesarean_births/cesareans.htm.

[10] F. Carol Bruce, *Extent of Maternal Morbidity in a Managed Care Population in Georgia*, Paediatr Perinat Epidemiol. 26(6):497-505 (Nov. 2012).

[11] *Id*. at 5.

19. Complications of pregnancy and childbirth can have lifelong health impacts. For instance, pre-eclampsia increases the risks of developing other conditions such as chronic hypertension and cardiovascular disease. Gestational diabetes increases the risk of diabetes after pregnancy. Pregnant people who develop peripartum cardiomyopathy (a heart disease that makes it harder for the heart to pump blood effectively) sometimes never recover normal heart function after pregnancy. Scar tissue from caesarean deliveries can increase the risks of future medically indicated abdominal surgeries. And pregnant people who experience birth trauma or perinatal depression are at higher risk of long-term mental illness.

B. Pregnancy-Related Mortality

20. At 20.4 deaths per 100,000 live births,[12] the rate of pregnancy-related deaths in the United States in 2018-2020 far exceeds that of other developed countries and continues to increase.

21. A pregnancy-related death is defined as a death during pregnancy, or within one year after the end of pregnancy from health problems related to pregnancy.[13] Pregnancy-related death can result from pregnancy complications,

[12] *Maternal deaths and mortality rates by state for 2018-2020*, Center for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/nchs/maternal-mortality/MMR-2018-2020-State-Data.pdf.

[13] *Id.*

such as eclampsia or thrombosis pulmonary embolism; complications during labor and delivery, such as sepsis or hemorrhage; and complications during the postpartum period, such as cardiomyopathy.

22. With 28.8 pregnancy-related deaths per 100,000 live births, Georgia's maternal mortality rate far exceeds the national average.[14] In 2015-2017, the pregnancy-related mortality ratio was 2.3 times higher for Black Georgians than it was for non-Hispanic white Georgians.[15] Georgia's steep maternal mortality rate is due to a number of social determinants of health, including lack of access to healthcare providers, geographic disparities in access to obstetric services, and poverty.[16] High rates of underlying chronic health conditions in Georgia, especially among Black Georgians, also contribute to the maternal mortality crisis.[17] Structural racism and inequities in healthcare further contribute to the disproportionately high rate of Black maternal mortality in Georgia.[18]

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[14] *Maternal deaths and mortality rates by state for 2018-2020*, *supra* note 12.

[15] Ga. Dep't of Public Health, *Maternal Mortality Factsheet 2015-2017 Data*, https://dph.georgia.gov/document/document/maternal-mortality-factsheet-2015-2017-data/download.

[16] Elizabeth Armstrong-Mensah et al., *Geographic, Health Care Access, Racial Discrimination, and Socioeconomic Determinants of Maternal Mortality in Georgia, United States*, Int J MCH AIDS 10(2):278-286 (2021).

[17] *See supra* note 7.

[18] *When the State Fails: Maternal Mortality & Racial Disparity In Georgia*, Yale Global Health Justice Partnership (Feb. 2018).

IV. Embryonic and Fetal Development

23. A developing pregnancy is referred to as an embryo until approximately 8-10 weeks LMP and as a fetus thereafter. Until birth, an embryo or fetus is connected to the pregnant person via the placenta and wholly dependent on the pregnant person for sustenance. Prior to viability—the point in pregnancy when a fetus has a reasonable likelihood of sustained survival outside the womb—an embryo or fetus lacks the functional and physiological structures to sustain life. In a normally developing pregnancy, a fetus is generally not viable prior to 23–24 weeks LMP (and even then, only with artificial support), and some fetuses never become viable because they develop without the structures and systems essential for life. Therefore, the legislative finding that "unborn children are a class of living, distinct persons" is scientifically inaccurate,[19] especially as applied to a pre-viability embryo or fetus.[20]

24. Before the advent of pregnancy tests and ultrasound technology, pregnancy was detected by relying on the pregnant person's missed period and/or self-reporting of fetal movement, known as "quickening." Most pregnant people do not feel fetal movement until 16–20 weeks LMP, though this can vary from individual to individual. Based on fetal size and uterine position within the pelvis,

[19] *See 2019 Legislative Summary*, Georgia OBGyn Society, https://gaobgyn.org/2019-legislative-summary.

[20] H.B. 481, 2019-2020 Leg., Reg. Sess. § 2(3) (Ga. 2019).

it is highly unlikely that a pregnant person can feel fetal movement prior to 14 weeks LMP.

25. Today, human chorionic gonadotropin (hCG) pregnancy tests can detect pregnancy by identifying pregnancy hormones in the blood or urine. At-home hCG tests can accurately detect pregnancy hormones in the urine 1–2 weeks after the pregnant person's first missed period. In other words, if a pregnant person starts taking at-home pregnancy tests at the earliest possible opportunity, they will generally already be 4 weeks LMP into pregnancy by the time they get a positive result.

26. With ultrasound technology, embryonic cardiac activity is detectable as early as 6 weeks LMP—*four months* before viability. The cardiac activity detectable at that early point in pregnancy is not a "heartbeat": the embryo has not developed a functioning, four-chamber heart. Rather, it is electrical impulses from the cells that would ultimately develop into a heart in a normally progressing pregnancy.

27. However, no advancements in science or technology in the last three decades have changed the consensus among the scientific community that an embryo is neither "living" nor "distinct" at 6 weeks LMP. While advancements in ultrasound technology have improved physicians' ability to visualize fetal development and diagnose anomalies after 12 weeks LMP, there have been no

such changes to our understanding of embryonic development at 6 weeks LMP. At that point in pregnancy, an embryo is too small—about 1/10 of an inch—for modern ultrasound to detect any anatomical features. That remains just as true now as in 1992.

V. The Ban Is Endangering People Who Suffer from Pregnancy-Related Complications and Hamstringing Physicians from Providing the Standard of Care

28. The Ban forces Georgians at significant risk of perinatal morbidity and mortality to remain pregnant against their wishes. The Ban's narrow medical emergency exception is insufficient to protect pregnant Georgians from such harm, and is resulting in denial or delay of essential, time-sensitive healthcare. When faced with the threat of draconian criminal penalties, physicians treating pregnant people experiencing medical crises will be forced to spend crucial time consulting with legal counsel, documenting compliance, and engaging in other legal due diligence even as their patient's risk increases and/or health deteriorates. Denials or delays in care will undermine physician-patient relationships, further erode the most marginalized Georgians' trust in healthcare providers, and cause harm to patients. Moreover, because the Ban makes it impossible for physicians to fulfill their oath to prevent harm to their patients, I am concerned that the Ban will deter the most promising physicians and future physicians from practicing in Georgia, which will in turn aggravate the physician shortage in the state.

29. The definition of "medical emergency" does not provide physicians with any guidance as to what conditions qualify, nor what it means for an abortion to be "necessary in order to prevent the death of the pregnant woman or the substantial and irreversible physical impairment of a major bodily function of the pregnant woman."[21] It is my expert opinion that the Ban will have a chilling effect on some physicians faced with the risk that their clinical judgment will be second guessed by a prosecutor and a jury. The Ban does not relieve us of our duty to provide the standard of care in which we are trained, but if it remains in effect, our ability to provide the standard of care will be in question. This is borne out by countless reports of pregnant people in states where abortion bans have recently taken effect being denied medically indicated abortion care.[22] This is also evidenced by a recent study of maternal morbidity and fetal outcomes among Texas patients after two Texas laws took effect that ban abortion after detection of embryonic or fetal cardiac activity (just like the Ban), and prohibit medication abortion after 7 weeks LMP. That study found that the Texas bans led to an increased rate of serious maternal morbidity, including life-threatening

[21] H.B. 481, 2019-2020 Leg., Reg. Sess. § 4(3) (Ga. 2019).

[22] J. David Goodman and Azeen Ghorayshi, *Women Face Risks as Doctors Struggle With Medical Exceptions on Abortion*, The New York Times (July 20, 2022), available at https://www.nytimes.com/2022/07/20/us/abortion-save-mothers-life.html.

complications such as uterine rupture and hemorrhage.[23] The confusion and chaos that has already played out on the ground in states where abortion is banned demonstrates the horrific costs to patients' well-being when physicians are forced to weigh the threat of severe criminal penalties and massive liability against the best interests of the patient.

30. In my practice, I have come across countless scenarios in which it would be unclear whether and when the medical emergency exception could be invoked. If a pregnant patient is experiencing renal failure, does she have to be on dialysis before a physician may perform an abortion that would otherwise be prohibited by the Ban? If a pregnant patient has a cardiac lesion, does a physician have to wait until she experiences heart failure to intervene? If a pregnant patient has a clogged blood vessel, does a physician have to wait until she experiences chest pain before terminating the pregnancy to prevent pulmonary embolism? If the treatment for a cancer patient is harmful to the fetus, can a physician perform a post-cardiac activity abortion so that the patient may initiate treatment as soon as possible?

31. These real-world situations reach far beyond the obstetric field and will impact every area of medicine, from the emergency room to specialties such

[23] Anjali Nambiar et al., *Maternal morbidity and fetal outcomes among pregnant women at 22 weeks' gestation or less with complications in two Texas hospitals after legislation on abortion*, Am J Obstet Gynecol S0002-9378(22):00536-1 (July 2022).

as cardiology, oncology, and nephrology. In providing high-risk obstetric care, I frequently have to advocate for patients to receive diagnostic tests or treatment that physicians who lack familiarity with obstetrics are, at times, hesitant to provide due to fear of harming the pregnancy. I am deeply concerned that, with the Ban in effect, such denials and delays in essential, time-sensitive healthcare for people experiencing pregnancy-related complications will become increasingly common and will result in significant risks to the pregnant person. The ripple effects will even harm patients who are not pregnant. For instance, we are already seeing pharmacists refuse to fill prescriptions for medications like Methotrexate, which is a treatment for lupus and other autoimmune disorders, because it can cause an abortion.[24]

32. Studies show that Black patients experience more and longer delays receiving medical care than non-Hispanic white patients.[25] If the Ban remains in effect, implicit bias in the application of the medical emergency exception would

[24] Rose Horowitch, *State abortion bans prevent women from getting essential medication*, Reuters (July 14, 2022), available at https://www.reuters.com/world/us/state-abortion-bans-prevent-women-getting-essential-medication-2022-07-14/.

[25] Michael T. Halpern & Debra J. Holden, *Disparities in timeliness of care for U.S. Medicare patients diagnosed with cancer*, Curr Oncol 19(6):e404-13 (Dec. 2012); Jasmine M. Miller-Kleinhenz et al., *Racial Disparities in Diagnostic Delay Among Women With Breast Cancer*, J Am Coll Radiol 18(10):1384-1393 (Oct. 2021).

contribute to the already disproportionate rate of Black maternal mortality and morbidity in Georgia.[26]

33. When a pregnant patient is experiencing acute trauma and an abortion is indicated, withholding such treatment until their condition has deteriorated to a certain threshold creates unnecessary risks to their health. Yet, the Ban's medical emergency exception forces physicians to do exactly that. This will result in worse patient outcomes and unnecessary suffering, and is contrary to medical ethics.

34. Further, the exclusion of mental health conditions from the medical emergency exception is not based on science and will endanger pregnant patients. A mental health crisis can be just as dangerous as physical trauma. Pregnancy can bring on acute onset of psychiatric illness or exacerbate serious mental illnesses such as bipolar disorder, panic disorder, and depression. Such illnesses can be life-threatening when accompanied by suicidal ideation, which can develop as a result of mental health deterioration during pregnancy. The Ban's failure to recognize that abortion is sometimes necessary to preserve a patient's mental health will contribute to preventable pregnancy-associated mortality and morbidity.

35. Even people with highly desired pregnancies, when faced with a pregnancy-related complication that poses a serious risk to their health, sometimes

[26] *See* Bani Saluja & Zenobia Bryant, *How Implicit Bias Contributes to Racial Disparities in Maternal Morbidity and Mortality in the United States*, J Womens Health 30(2): 270-273 (Feb. 2021) at 271.

make the difficult decision to terminate their pregnancy. Many patients in this position already have one or more children to care for. Chilling physicians from providing abortion care to Georgians experiencing pregnancy-related complications will thus have reverberating impacts on pregnant people's lives and families.

36. The Ban's definition of "spontaneous abortion" will also force physicians to delay time-sensitive care to the detriment of pregnant Georgians. For instance, if a patient is experiencing pre-viable premature rupture of membranes with contractions but fetal cardiac activity has not yet ended, the Ban prohibits physicians from evacuating the pregnancy unless the "medical emergency" exception applies. Similarly, as long as fetal cardiac activity persists, the Ban prohibits physicians from removing a pregnancy that is no longer viable due to placental abruption (separation of the placenta from the uterine wall). Withholding treatment under such circumstances subjects pregnant patients to unnecessary pain and exposes them to risks such as infection, hemorrhage, and need for hysterectomy.[27] Such complications can result in long-term health consequences, including adversely impacting future fertility.

[27] Nambiar et al., *supra* note 23.

37. Pregnancy loss is common; approximately 15–20% of detected pregnancies end in miscarriage. For patients over the age of 40, the miscarriage rate exceeds 40%.[28] Many pregnancies that end in miscarriage are wanted pregnancies. Experiencing a miscarriage can be traumatic and devastating, especially for patients who would do whatever it takes to have a child. For such patients, it can be a relief when I recommend intervention to facilitate a miscarriage that has already started and enable them to start the process of healing. Forcing a patient to wait until cessation of cardiac activity or until their condition has deteriorated to the point when the medical emergency exception can be invoked would unnecessarily prolong their suffering.

VI. The "Medically Futile" Exception Is Insufficient

38. The Ban's exception for "medically futile" pregnancies is narrowly defined to include only "profound and irremediable congenital or chromosomal anomal[ies] that [are] incompatible with sustaining life after birth."[29] Medicine is highly complex and rarely black-and-white. While there are a few fetal diagnoses that are always incompatible with life after birth, there are many more for which the prognosis is very poor and potentially lethal. It is unclear whether the

[28] American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Gynecology, *ACOG Practice Bulletin No. 200: Early Pregnancy Loss*, Obstet Gynecol 132(5):e197-e207 (Nov. 2018).

[29] H.B. 481, 2019-2020 Leg., Reg. Sess. § 4(4) (Ga. 2019).

"medically futile" exception applies only to anomalies that are always fatal, or if it includes anomalies that are fatal in the majority or in some cases. Nor is it clear how long an expected life span after birth can be before the exception no longer applies. For instance, there is no way for a physician to know whether they can rely on the exception to perform a post-cardiac activity abortion if a fetus is diagnosed with type 1 spinal muscular atrophy, which is generally fatal within two to three years after birth.

39. Moreover, it is also unclear to what extent the "medical futility" exception covers anomalies that are life-limiting. A clinician has no way of knowing whether it encompasses anomalies that would require the pregnant person and/or the baby to undergo painful and risky medical intervention for a slim chance of survival after birth. For instance, a fetus with a single cardiac ventricle requires multiple surgeries after birth and may require heart transplantation for sustained survival. Some babies with large neck or mouth masses require surgery at the time of delivery, which is risky for the pregnant person and the baby. Babies born with severe hydrocephalus need a shunt in the brain and may never have fully functional neural development. Some anomalies require extensive support after birth, such as around-the-clock nursing care, assisted feeding, and physical and speech therapy. There is no one-size-fits-all answer when pregnant people are faced with such diagnoses. Instead, patients should have the autonomy to decide for themselves

whether to continue their pregnancy based on the anticipated needs for the child, their values, their family and financial situations, and other highly individualized considerations.

40. My patients are generally people with wanted pregnancies. After receiving a fetal diagnosis, some choose to continue their pregnancies in spite of risks to their own health. I have also had patients choose to carry a pregnancy to term despite a fatal fetal diagnosis just to have the opportunity to hold their baby for an hour. From my experience providing care to such patients, I know firsthand how devastating it is for a parent to watch their baby die days, weeks, or months after birth. I cannot fathom how much worse the emotional toll would be if the parent was forced to carry a pregnancy to term and give birth *against* their wishes under such circumstances.

41. In caring for patients with high-risk pregnancies, a core part of my practice is diagnosing genetic anomalies and providing patients with compassionate options counseling. With the continued advances in our understanding of genetics and the technology of prenatal diagnostics, physicians have developed the ability to screen for a wide array of genetic anomalies. Such information empowers pregnant people to make the best, most informed decisions for themselves and their families. The Ban's exceedingly narrow definition of "medically futile" inhibits physicians from offering patients such information,

which undermines patients' autonomy and contravenes medical ethics. Indeed, high-risk obstetrics patients who were counseled about their options prior to prenatal diagnostic tests (such as amniocentesis or chorionic villus sampling) last week will not have the same options available when they return for their results. It is especially cruel to take away patients' ability to decide whether to continue a pregnancy after receiving a fetal diagnosis without providing robust support for families caring for children with disabilities—which the state of Georgia fails to do.

VII. The Ban Will Adversely Impact Patients with Wanted, High-Risk Pregnancies

42. The Ban also prevents me from offering selective reduction of pregnancy to my high-risk obstetrics patients. Selective reduction of pregnancy is generally performed at approximately 12–14 weeks LMP. It is not technically feasible to perform a selective reduction procedure at or prior to 6 weeks LMP because of the positioning of the pregnancy within the uterus.

43. Some high-risk obstetrics patients elect to undergo selective reduction in order to manage the risks associated with carrying three or more fetuses or when indicated because of a fetal diagnosis in one fetus in a multiple pregnancy. Multiple pregnancy increases the risk of neonatal demise, cerebral palsy, and pre-term birth. For instance, the infant mortality rate for quadruplets is approximately

four times higher than the infant mortality rate for twins.[30] Reducing a higher-order multiple pregnancy by one or more fetuses decreases spontaneous pregnancy loss rates.[31] Multifetal pregnancies also increase the risk of maternal morbidity and mortality. Pregnant people with higher-order multifetal pregnancies are more likely to develop pre-eclampsia, gestational diabetes, and postpartum hemorrhage.[32]

44. The likelihood of multifetal pregnancy increases with age. Multifetal pregnancies are especially common among patients who undergo infertility treatment. However, more expensive infertility treatments such as IVF are associated with a lower risk of higher-order multifetal gestations than less costly infertility treatments such as controlled ovarian hyperstimulation.[33] Further, pregnant people are more likely to limit the number of embryos transferred in a given IVF cycle if they have the financial resources to attempt another cycle if necessary.[34] Therefore, infertility patients of lower socioeconomic status are more likely to develop higher-order multifetal gestations.

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[30] American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Obstetrics, Society for Maternal-Fetal Medicine. *Multifetal Gestations: Twin, Triplet, and Higher-Order Multifetal Pregnancies: ACOG Practice Bulletin, Number 231*. Obstet Gynecol 137(6):e145-e162, (June 1, 2021).

[31] *Committee Opinion No. 719: Multifetal Pregnancy Reduction*. Obstet Gynecol 130(3):e158-e163, e159 (Sept. 2017).

[32] *Id.*

[33] *Id.*

[34] *Id.* at e160.

45. Denying high-risk obstetrics patients the option of selectively reducing a high-order multiple pregnancy increases risks to their health and lives, undermines patient autonomy, can decrease the likelihood that any of their fetuses will survive, and increase the risks to the health of any surviving fetuses.

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46. For these reasons, I believe that the Ban endangers the health of Georgians capable of becoming pregnant, and prevents not only ob/gyns, but physicians across disciplines, from providing evidence-based, medically necessary reproductive healthcare. The Ban harms pregnant Georgians seeking abortion, as well as those with wanted pregnancies. Accordingly, the Ban will worsen the maternal morbidity and mortality crisis in Georgia and increase racial disparities in maternal and infant outcomes.

I declare under penalty of perjury that the foregoing is true and correct to the best of my personal knowledge.

Martina Badell, MD

Sworn to and subscribed before me

this 25th day of July, 2022.

NOTARY PUBLIC

My commission expires: 2/13/2026

William Bishop
NOTARY PUBLIC
DeKalb County, GEORGIA
My Commission Expires 02/13/2026

EXHIBIT 1

EMORY UNIVERSITY SCHOOL OF MEDICINE

Revised: *July 25, 2022*

1. Martina Louise Badell, MD, FACOG

2. Office Address:

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3. E-mail Address:

4. Citizenship: United States

5. Current Titles and Affiliations:

   a. Academic Appointments:

      i. Associate Professor, Division of Maternal Fetal Medicine (MFM), Department of Gynecology and Obstetrics, Sept 2020-present

   b. Clinical Appointment:

      i. Physician Member, The Emory Clinic, Emory University School of Medicine, July 2013 – present

      ii. Director Emory Perinatal Center, Emory University School of Medicine, July 2014 – present

   c. Other Administrative Appointments:

      i. Guest Researcher and Consultant, National Center for Emerging and Zoonotic Infectious Diseases, Division of Reproductive Health, Centers for Disease Control and Prevention, July 2014 – present

      ii. Fellowship Director, Maternal Fetal Medicine, Department of Gynecology and Obstetrics, Emory University School of Medicine, July 2020-present

6. Previous Academic Appointments:

      i. Clinical Research Assistant in Obstetrics and Gynecology, Baylor College of Medicine (07-12/2004), The University of Texas at Houston (01-06/2005)

      ii. Administrative Chief Resident, Department of Gynecology and Obstetrics, Emory University School of Medicine, 2009-2010

      ii. Assistant Professor, Division of Maternal Fetal Medicine (MFM), Department of Gynecology and Obstetrics, July 2013-August 2020

      iii. Assistant Fellowship Director, Maternal Fetal Medicine, Department of Gynecology and Obstetrics, Emory University School of Medicine, July 2015-June 2020

7. Licensure / Boards:

    a. GA: 2006 – present

8. Specialty Boards:

    a. American Board of Obstetrics and Gynecology, Board Certified December 2012 – present
    b. Maternal Fetal Medicine, Board Certified April 2015 – present

9. Education:

    a. 1997-2001, Bachelor of Arts in Biochemistry, University of Texas at Austin, Austin, Tx, Phi Beta Kappa
    b. 1999-2000, Study Abroad, The University London, Queen Mary and Westfield College
    c. 2001-2006, Doctor of Medicine with Distinction in Community Service, University of Rochester School of Medicine and Dentistry. Rochester, NY

10. Post Graduate Training:

    a. 2006-2010, Resident, Emory University School of Medicine, Department of Gynecology and Obstetrics, Atlanta, GA, Carla P. Roberts, MD, PhD
    b. 2010-2013, Fellow, Emory University School of Medicine, Department of Gynecology and Obstetrics, Division of Maternal Fetal Medicine, Atlanta, GA, Michael K. Lindsay, MD

11. Continuing Professional Development Activities:

    a. Society of Maternal Fetal Medicine Fellows Conference, 2010
    b. National Institute of Child Health and Human Development (NICHD) MFM Fellows Meeting, 2011
    c. “Exxcellence” in Clinical Research: The Foundation in Women’s Healthcare, 2012
    d. Emory Professional Leadership Enrichment and Development Program (EM-ProLEAD), 2020
    e. EmPower: Quest for Excellence, Ob/Gyn Physician LEAN Training, 2020
    f. Unconscious/Implicit Bias Training, 2020

12. Committee Memberships:

    a. National and International:

        i. Expert Forum on the Diagnosis, Evaluation, And Management of Zika Virus Infection Among Infants, 2017

        ii. Zika Care Connect Healthcare Professional Network, 2017

        iii. Expert Forum on Antibiotic Treatment and Prophylaxis of Plague, Co-Lead for Breakout Session on Pregnant Women, Centers for Disease Control and Prevention, 2018 – 2019

        iv. The Department of Health and Human Services Panel on Treatment of HIV-Infected Pregnant Women and Prevention of Perinatal Transmission, 2019 – Present

        v. A Harmonized INfrastructure FOR Monitoring Global Health Outcomes of the HIV

FREE Generation (INFORM) Technical Working Group The INFORM – HIV FREE project is an NICHD R21 funded two-year project (R21 HD093531), 2019-2020

vi. Society of Maternal Fetal Medicine Program Director Committee, 2020 – Present

vii. American Board of Obstetrics & Gynecology Maternal-Fetal Medicine Subspecialty Certifying Examiner, 2020 – Present

viii. Virtual Anthrax Expert Forum, Centers for Disease Control and Prevention, 2021

ix. American Board of Obstetrics & Gynecology Maternal-Fetal Medicine Qualifying Examination Subcommittee, 2021 – Present

x. Society for Maternal Fetal Medicine Publication Committee, March 2022- present

xi. Society for Maternal Fetal Medicine COVID Taskforce, April 2022- present

b. Regional:

1. Committee Member, Georgia Fetal and Infant Mortality Review for HIV (FIMR/HIV), 2015 – 2016
FIMR/HIV was a community process that helped identify and address missed opportunities associated with perinatal HIV exposure and transmission. We worked with stakeholders in the community to identify gaps in care. Met quarterly for a year to review cases of perinatal HIV transmission.

2. Committee Member, Perinatal HIV Services Coordination Committee, 2015 - 2017
In collaboration with Georgia Department of Public Health, Emory University developed the Perinatal HIV Services Coordination (PHSC) program to identify gaps in the perinatal HIV-care continuum by working directly with delivery hospitals and providers.

3. Invited participant, “Atlanta Birth Center” Annual CQI Meeting, 2021 – Present
Participated as MFM expert on reviewing all the policies and procedures.

c. Institutional:

1. Residency Interview Committee Member, Department of Gynecology and Obstetrics, Emory University, 2008 – present.

2. Maternal fetal Medicine Fellowship Interview Committee Member, Department of Gynecology and Obstetrics, Emory University, 2011 – present.

3. Gynecology and Obstetrics Residency Selection Committee, Department of Gynecology and Obstetrics, Emory University, 2013

4. Quality Enhancement Committee Member, Emory University Hospital Midtown Labor and Delivery, 2015-present.

5. Program Evaluation Committee Member, Emory University Department of Gynecology and Obstetrics, 2013- present

6. Clinical Competency Committee Member, Gynecology and Obstetrics Residency, Department of Gynecology and Obstetrics, Emory University.
2014 – present.

7. Program Evaluation Committee, Chair, Emory University Department of Gynecology and Obstetrics, Maternal-fetal Medicine fellowship 2016- present

8. Clinical Competency Committee Chair, Maternal fetal Medicine Fellowship, Department of Gynecology and Obstetrics, Emory University, 2016 – present.

9. Moderator, Resident Research Day, May 2017
Moderated annual resident research day, annual research day where Emory Ob/Gyn residents present completed research projects.

10. Judge, 52nd Annual Clinical Topics in Gynecology and Obstetrics, John D. Thompson Resident & Fellow Resident Research Day, May 2-4 2018

11. Neonatal Chief Search Committee, Emory University School of Medicine, Feb 2018-Dec 2019

12. Executive Education Committee, Department of Gynecology and Obstetrics, 2019 - Present

13. Department of Gynecology and Obstetrics COVID response team, MFM Lead, 2020

14. Department of Gynecology and Obstetrics Teaching Pod, Faculty Lead, 2021

13. Peer Review Activities:

a) Manuscripts:

i. Journal of Women's Health, 2018
ii. BMC Pregnancy and Childbirth, 2018
iii. Journal of International AIDS Society, 2018
iv. Emerging Infectious Diseases, 2020

14. Consultantships/Advisory Boards:

a. Expert Consultant, Center for Reproductive Rights, New York City, NY, 2018
Provided expert report for Jackson Women's Health Organization on behalf of itself and its patients in conjunction with the legal team at Center for Reproductive Rights. The result was that Mississippi House Bill 1510, one of the most restrictive abortion laws in the country was declared unconstitutional

15. Editorial Board:

a. Editorial Board Member, Ob/Gyn News, 2018-present

16. Honors and Awards*:*

University of Texas at Austin, TX

1. Top Graduate from a Texas High School Valedictorian Scholarship, 1997
2. Alpha Epsilon Delta, Premedical Honor Society, 1998
3. Du Pont Enrichment Scholarship in Biochemistry, 1998-1999
4. University of Texas College Scholar, 1998-2000

5. Phi Beta Kappa, 2001

University of Rochester School of Medicine and Dentistry, Rochester, NY

1. Office of Medical Education International Research Grant (Quito, Ecuador), 2002
2. Hoffman Day Group Volunteer Award, 2003
3. URSMD Class of 1996 Community Service Award, 2004
4. Gold Humanism Honor Society, 2004
5. Office of Medical Education Fellowship Award in Clinical Research, 2004-2005
6. Alpha Omega Alpha, 2005

Emory University School of Medicine, Atlanta, GA

1. "Best Intern Award" Department of Gynecology and Obstetrics, 2007
2. Golden Apple Teaching Award (3 consecutive years): Department of Gynecology and Obstetrics, 2007-2009
3. Bayer Healthcare Pharmaceutical Best Teaching Resident, 2008
4. 2nd Place Research Proposal, John D. Thompson 42nd Resident Research Day, 2008
5. CREOG Highest Score Award, 2008
6. Association of Professors of Gynecology and Obstetrics Resident Scholar, 2009
7. CREOG Honor Roll, 2009
8. 2nd Place Research Project, John D. Thompson 43rd Resident Research Day, 2009
9. Outstanding Clinician Award in Maternal-Fetal Medicine, -awarded to a the resident who exhibited clinical skills in Maternal-fetal medicine, 2010
10. Outstanding Clinical Research Proposal by a Fellow, Department of Gynecology and Obstetrics, 2011
11. Excellence in Teaching Residents Award- awarded to the best teaching fellow in Department of Gynecology and Obstetrics, 2012, 2013
12. Council on Resident Education in Obstetrics and Gynecology National Faculty Award, Department of Gynecology and Obstetrics, 2015
13. Faculty Recognition Award, "Hidden Gem", Department of Gynecology and Obstetrics, 2015
14. Excellence in Teaching Award, Maternal Fetal Medicine, Department of Gynecology and Obstetrics, 2015
15. Doctors Day, Featured Doctor, Department of Gynecology and Obstetrics 2017 & 2018
16. Department of Gynecology and Obstetrics Faculty Honoree, Celebration of Faculty Excellence, Emory University School of Medicine, 2019
17. Emory School of Medicine Researcher Appreciation Day Recognition, 2020
18. Emory School of Medicine Doctors' Day Recognition, 2021
19. Castle Connolly Top Doctor of Atlanta, 2022

17. Society Memberships:

1. American Congress of Obstetrics and Gynecology, 2006-present
2. Society for Maternal Fetal Medicine, 2010-present
3. Georgia Obstetrical and Gynecological Society, 2012-present
4. American Institute of Ultrasound Medicine, 2016-present

18. Clinical Service Contributions:

a. Director of Emory Midtown Perinatal Center
Expanded clinical services to provide inpatient and outpatient MFM consultative care. Increased patient volume from approximately 5,000 ultrasounds a year to ~11,000. Now

provide prenatal diagnostic procedures not previously available. Expanded complement of staff significantly. Developed reputation as referral center for the region for care of medically complicated pregnant women and fetal anomalies, *2014- present*

b. American Institute of Ultrasound Medicine Accreditation (AIUM) accreditation
Worked to obtain and re-accredit the Emory Midtown Perinatal Center as an AIUM ultrasound unit. *Initial accreditation 2014, reaccredited 2017*

c. SCOPE certification (Safety Certification in Outpatient Practice Excellence)
SCOPE is a safety and quality certification created by The American Congress of Obstetricians and Gynecologist (ACOG). The Emory Gyn/OB practice became the first practice in Georgia as well as the first faculty0staffed academic medical center practice in the nation to obtain SCOPE certification. I served as a physician champion to prepare the practice for SCOPE certification and met with the inspectors to review the practice. *2016*

d. Physician Lead for HIV in Pregnancy clinic at Grady- Initiated HIV multidisciplinary care meetings
Started monthly multidisciplinary care meetings (MFM, adult infectious disease, pediatric infectious disease) to improve the perinatal and PP care of HIV infected pregnant women and their babies. *2015- present, monthly meeting, weekly update of patient list*

e. Protocol development and patient education handouts for Emory Midtown Perinatal Center
Standardized patient care protocols for perinatal care, developed standard patient handouts for common perinatal conditions, *2015- present*

f. Emory's Adult Congenital Heart Center, Maternal Fetal Medicine lead
Coordinate care for pregnant women with congenital heart disease, lead monthly case conference, participated in Emory's Adult Congenital Heart Association accreditation *2015-present*

g. Initiated high risk obstetric care meeting
Started a monthly multidisciplinary care meeting (MFM, general ob/gyn, neonatology) to improve communication and management plans for complex perinatal patients, *2016-present, initially monthly now quarterly*

h. COVID-19 MFM Response
Developed and helped implement a new "Emory Prenatal Care Model in the setting of COVID-19".
Developed "Emory MFM Guidelines: Care for the admitted COVID+ pregnant patient" which were utilized across multiple Emory sites including Midtown, Decatur and John's Creek and Grady Memorial Hospital.
Participated in daily GynOb COVID-19 update calls
Created new clinical templates, worked with administration to adapt staffing, scheduling, clinical space and patient administration

i. Infectious Disease Ponce Obstetric Mobile Integrated Health (MIH) Program
Helped Develop and implement MIH program for our pregnant patients with HIV.

19. Community Outreach:

a. General:

i. Co-Founder, Sojourner House Women's Health Group, Rochester, NY, 2001 – 2003

Founded and ran a monthly education group on women's health issues at Sojourner House, a shelter for homeless women and their children to help them with housing and development of skills and education.

ii. Co-Founder, Operation Smile, University of Rochester School of Medicine and Dentistry Chapter, 2002 – 2003
Started Operation Smile at University of Rochester to help fundraise for children with cleft lip and palate around the globe.

iii. Parent Volunteer, Atlanta International School, 2013 – Present
Volunteer for classroom activities and WorldFest activities.

b. Media Appearances:

i. Ob Gyn News, Aug 2018
Interview by Ob.Gyn News to provide opinion on the USPTF recommendation on syphilis infection screening in pregnant women

ii. Ob Gyn News, September 2018
Interviewed by Ob.Gyn News for "View on the News" to provide perspective on new study regarding gestational weight gain and maternal/neonatal outcomes

iii. Ob.Gyn News, Dec 2018
Interviewed by Ob.Gyn News for opinion on article about national trends and reported risk factors among pregnancy women with syphilis

iv. 11Alive News, Feb 2, 2021
Interviewed for "Study finds COVID-19 antibodies can transfer from pregnant mom to baby

v. WSB-TV 2 Atlanta, Feb 8, 2021
Interviewed for "New Emory study reveals promising findings about pregnant women with COVID-19"

vi. Emory School of Medicine, Department of Gynecology and Obstetrics, April 2021
Fellowship Recruitment Video

vii. OBGyn NEWS, November 2021 Newsletter
"Current Recommendations for HIV care in Pregnancy"

20. Formal Teaching:

a. Medical Student Teaching:

1. Monthly Medical Student III Maternal Fetal Medicine (MFM) lecture, Every 6 Weeks, 60 minutes, 20-30 3rd year Emory Medical Students, 2010 - 2013
Lecture about "labor and preterm labor"

2. Debate Moderator, Emory School of Medicine Medical Student Gynecology and Obstetrics Rotation, Once every 6 weeks, 60 minutes, 2011 – 2013
Served as faculty moderator for medical student debates that focused on maternal

fetal medicine topics. Primary topics were "Management of short cervix" and "Cesarean Section on Demand."

3. Medical Student Preceptor, Maternal Fetal Medicine (MFM), Emory University School of Medicine, 1 student/day, 4 days/week, 2013 - 2015
   MFM faculty member responsible for optimizing the experience for the Emory 3rd year medical students that spend one clinical day of their Ob/Gyn rotation at the Emory Perinatal Center at Midtown.

4. Ob/Gyn Ethics Didactic Supervisor, Emory University School of Medicine Medical Student Gynecology and Obstetrics Rotation, *approximately once every 6 weeks for 2 hours,* 2015-2020
   Serve as the faculty moderator for the medical students' case presentation and discussion on ethical issues encountered during their Ob/Gyn rotation.

b. Graduate Program:

i. Residency Program

1. Annual CREOG Review lecture, Emory Gynecology/Obstetrics, 2014 - 2019
   Annual 60-minute lecture to all Emory Gyn/Ob residents reviewing maternal fetal medicine topics that may be included on the resident CREOG exam.

2. Annual Lecture, Congenital Heart Disease in Pregnancy and Diabetes in Pregnancy, Atlanta, GA, 2013 – present
   Annual 60-minute lecture to all Emory Gyn/Ob residents

3. COVID-19 In pregnancy: Labor and Delivery considerations, *60-minute lecture to Emory Gyn/Ob residents,* April 2020

ii. Fellowship Programs:

1. Bi-Weekly Lecture, *Creasy and Resnik's Maternal Fetal Medicine Principles and Practices,* Division of Maternal Fetal Medicine, Department of Gynecology and Obstetrics, Emory University School of Medicine, 2013 – 2020
   Participate in Bi-weekly 60 minute review of 2 chapters with fellows.

2. Monthly Fellowship Research Conference, Division Maternal Fetal Medicine, Emory Department of Gynecology and Obstetrics, 2013- present

3. Monthly Maternal Fetal Medicine Fellow Ultrasound Conference, Emory Department of Gynecology and Obstetrics, 2013-present

4. Maternal Fetal Medicine (MFM) Division Fellow Journal Club, Emory Department of Gynecology and Obstetrics, 2013 – present
   Serve as faculty lead twice a year for a journal club discussion

5. Combined Neonatology/Obstetric Meeting, Emory Department of Gynecology and Obstetrics and Department of Pediatrics, 2013 - present

Serve as faculty mentor for anomaly list and participate in discussion on complex perinatal cases, monthly

6. Faculty Mentor, Rotating Medical Genetics Fellow, *1 fellow per year 1-2 years, one month rotation,* 2014 – present
Rotating medical genetics fellow rotates in our perinatal center as a required rotation of their fellowship to learn perinatal genetics.

7. Faculty Mentor, Rotating Neonatology Fellow, *1 fellow per year 1-2 years, one-month rotation,* 2014 – present
Rotating medical genetics fellow rotates in our perinatal center as a required rotation of their fellowship to learn perinatal genetics. On average,

8. Annual Lecture, Division of Maternal Fetal Medicine, Department of Gynecology and Obstetrics, Emory University School of Medicine, 2016 – present
Formal lecture to MFM fellows on perinatal topic

9. Lecture, Care of the HIV Infected Pregnant Women, Infectious Disease Fellow Conference, Department of Internal Medicine, Emory University School of Medicine, 2016
Invited 60-minute lecture to Infectious Disease fellows and faculty.

10. Lecture, Diabetes in Pregnancy, Reproductive Endocrinology and Infertility Fellows Conference, Department of Gynecology and Obstetrics, Emory University School of Medicine, 2017
Invited 60-minute lecture to Emory REI Division, fellows and faculty.

11. Lecture, Perinatal Management of Pregnant Women with HIV, Infectious Disease Fellow Conference, Department of Internal Medicine, Emory University School of Medicine, 2019
Invited 60 minute lecture to Infectious Disease fellows and faculty.

iii. Master's and PhD Programs:

1. Invited Lecture, Prenatal Screening and Diagnosis, Genetic Counseling Graduate School, Emory University, 2016
Invited 60 minute lecture to genetic counseling study program

iv. Physicians

1. General Oral Board Preparation instruction and practice

a. Heather Hipp, MD, board certified, 2013
b. Stacia Crochet, MD, board certified 2017
c. Sabrina Gerkowicz, MD, board certified 2017
d. Austin Schirmer, MD, board certified 2017
e. Jade Stafford, MD, board certified 2018
f. Megan Lawley, MD, board certified 2018
g. Charisma Manley, MD, board certified 2018

2. Maternal fetal Medicine Board Preparation instruction and practice

a. Erin Burnett, MD, board certified 2017
b. Jason Vaught MD, board certified 2018

c. Iris Krishna, MD, board certified 2018
d. Fyama Wenner, MD, board certified 2018
e. Angela Martin, MD, board certified 2019

21. Supervisory Teaching:

a. Postdoctoral Fellows Directly Supervised:

1. Iris Krishna MD, 2012-2014, Emory MFM faculty
Thesis Co-Mentor. Project evaluating cell free fetal DNA results and adverse perinatal outcomes
Awarded: Outstanding Research Investigation 2015
Presented as poster at national SMFM meeting 2015
Published Prenatal Diagnosis, 2016.

2. Angela Matlack Martin, MD, 2013-2017, MFM Faculty University of Kansas
Research co-mentor. Project evaluating clinical management of super obesity in pregnancy
Published in Journal of Perinatology 2014.

3. Bassam Rimawi, MD, 2014-2017, MFM Faculty at University of South Alabama
Co-author: Management of HIV Infection during Pregnancy in the United States: Updated Evidence-Based Recommendations and Future Potential Practices. Infect Dis Obstet Gynecol, 2016.
Resident Research Day (RRD) Mentor.
Thesis Co-mentor: Project evaluating placental transfer of HIV medications.
Awarded: Outstanding Fellow Research Proposal 2014-2015
Presented as a poster at national meeting SMFM in 2016
Published in Antimicrobial Agents and Chemotherapeutics, 2017

4. Stephen Kyle Gonzales, MD, 2014-2017, MFM Faculty at University of Tennessee College of Medicine, Chattanooga
Resident Research Day (RRD) Mentor.
Thesis Co-mentor: Project evaluating villous explants from preeclamptic placentas.
Awarded: Outstanding Fellow Research Proposal 2015-2016
Presented as a poster presentation at national meeting SMFM in 2017.
Published in Pregnancy Hypertension 2018

5. Misti Patel MD, 2015-2018, MFM Faculty at Mercer University
Resident Research Day (RRD) Mentor.
Thesis Co-mentor: Project evaluating chronic and acute stress on perinatal outcomes using Grady Trauma Project Data.
Presented as a poster presentation at national meeting SMFM in 2017

6. Charisma Manley, MD 2016-2019, MFM Faculty at Emory
Resident Research Day (RRD) Mentor
Thesis Co-mentor: Project evaluation transcription factor AP2A in preeclampsia pathology
Presented as a poster presentation at national meeting SMFM in 2019
Published in Pregnancy Hypertension, 2020

7. Naima Joseph, MD MPH, 2017-2020, MFM Faculty at University of South Alabama
Co-author: Sociodemographic Predictors of SARS-CoV-2 Infection in Obstetric Patients. Emerg Infect Dis. 2020 Nov.

Resident Research Day (RRD) Mentor.
Thesis Co-mentor: Maternal Antibody Response, Neutralizing Potency, and Placental Antibody Transfer After Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-2) Infection
Awarded: Outstanding Fellow Research Proposal 2021
Presented as a oral plenary at national meeting SMFM in 2021
Published in Obstetrics and Gynecology, 2021

b. Residency Program:

1. Daily clinical supervision of resident on MFM rotation, Division of Maternal Fetal Medicine, Emory Department of Gynecology/Obstetrics, Atlanta, GA
PGY2 resident on MFM rotation for 6 weeks at a time. Residents participate in perinatal center, antepartum consultations and OR procedures under direct attending supervision.
2013 – present

2. Heather Hipp MD, 2014, Emory REI faculty
Grand Rounds Sponsor. *Mentor in developing outline, structure, critical literature review, and slide set development and presentation for Emory Gynecology and Obstetrics Grand Rounds presentation "Preconception Carrier Screening."*

3. Marissa Platner, 2015, Emory MFM faculty
Mentored during residency and application for MFM fellowship. Now mentor as new MFM faculty

4. Rachel Shulman, MD, 2016, USCF MFM Fellow, CA.
Mentored during residency and application for MFM fellowship.
Co-author: *Paper on maternal skeletal disorders*

5. Heather Link, MD, 2016, University of Rochester MFM Fellow, NY.
Research mentor. Resident Research Day (RRD) Project. Project on impact of hypertension guidelines on obstetric management.
Awarded Excellence in Resident Research 2013-2014
Presented at national SMFM meeting in 2016.

6. Jewels Bishop, MD, 2016, Johns Hopkins MFM Fellow, MD.
Research Mentor. Resident Research Day (RRD) *Project on factors influencing aneuploidy screening and diagnostic choices.*

7. Leilah Sprung-Zahedi, MD, 2018, Washington University MFM Fellow, MO.
Research Mentor. Resident Research Day (RRD) Project
Perceived barriers to Antepartum HIV medication adherence in HIV infected pregnant women.
Awarded Excellence in Resident Research Award 2015-2016
Presented at annual ACOG meeting in 2018
Published in Infectious Diseases in Ob/Gyn 2018
Mentor: Current Strategies to Prevent Maternal-to-Child Transmission of Human Immunodeficiency Virus. Published Clin Perinatol. 2018

8. Sarah Kellerhalls, MD, Present, Emory Gyn/Ob Resident
Research mentor Project "*Evaluating Use of Ultrasound Simulation to Meet Recommended Obstetric Ultrasound Goals in Residency*".

9. Danielle Vuncannon, MD, Present, Current Emory Gyn/Ob Resident.
   Grand Rounds Mentor: Mentor in developing outline, structure, critical literature review, and slide set development and presentation for Emory Gynecology and Obstetrics Grand Rounds presentation "Stress, Pregnancy Outcomes and Opportunity for Intervention"

10. Alexander Forrest, MD, Present, Emory Gyn/OB Resident
    Research mentor Project "Fetal Ultrasound Surveillance in Pregnancy Complicated by Syphilis"

11. Brian Druyan, Present, Emory Gyn/Ob Resident
    Grand Rounds Mentor: *Mentor in developing outline, structure, critical literature review, and slide set development and presentation for Emory Gynecology and Obstetrics Grand Rounds presentation "Periviability: Tiny Steps Towards a Great Leap Forward"*

c. Thesis Committee

1. Cassandra Pickens, PhD, Rollins School of Public Health, Emory University, 2016
   Thesis: Assess whether term elective labor induction in obese women reduces the odds of cesarean delivery and maternal morbidity compared to expectant management

2. Megan Angley, PhD Candidate, Rollins School of Public Health, Emory University, Present
   Thesis: Cardiovascular Risks Associated with Pregnancy in African American Women with Systemic Lupus Erythematosus

3. Jennifer Pagano, Genetic Counselor Candidate, Emory University School of Medicine, Present
   Thesis: Spinocerebellar Ataxia Patient Perceptions and Knowledge Gaps Regarding Reproductive Options

22. Lectureships:
    a. National and International:

1. "Prenatal Diagnosis and Imaging: CNS Abnormalities and Congenital Infections" *National Birth Defects Prevention Network Meeting, Virtual Annual Meeting*, Oct 2017

2. "Zika: Prenatal Imaging and Data Abstraction" *US Zika Pregnancy Registry (USZPR) and Zika Birth Defects Surveillance (ZBDS) Grantee Meeting*, Atlanta, GA, April, 2017

3. "Prenatal Diagnosis: Disorders of Sex Development" *National Birth Defects Prevention Network Meeting,* Atlanta, GA*,* March 2018

4. "Strategies to minimize perinatal mortality in twins." *Advances in Fetology; Innovations and updates in fetal therapy and fetal cardiology.* Hosted by Cincinnati Fetal Center, Atlanta, GA, Sept, 2018

5. "Pregnancy after Liver Transplantation." *23rd Annual Society of Pediatric Liver Transplantation (SPLIT) Meeting,* Atlanta, GA, Sept, 2018

6. "COVID-19 Disease in Pregnancy" *Association of Maternal Fetal Medicine of the Atlantic (AMMFA) and the Colombian Federation of Perinatology (FECOPEN),* Columbia – Virtual, COVID pandemic, April 2020

7. "COVID-19 and Pregnancy: USA's Experience" *International School for Perinatal*

Medicine Specialist, Kazan State Medical Academy Kazan, Republic of Tatarstan, Russian Federation Global Collaborating Center in Reproductive Health, Webinar, September 2021

8. "Outpatient COVID-19 Treatment Strategies for High-Risk Population" CDC/IDSA COVID-19 Clinical Call- Webinar with >1,000 participant, January 22, 2022

9. "MFM Fellowship Program Directors Panel" Virtual Resident Forum at Society for Maternal Fetal Medicine National Meeting, Feb 2, 2022

10. "TB, Pregnancy and Babies- TB Expert Network" Conference hosted by CDC Division of TB Elimination, Discussant, May 5th, 2022

11. "Perinatal Management of HIV in Pregnancy" The University of Kansas School of Medicine, Department of Obstetrics and Gynecology, Grand Rounds May 13th, 2022

b. Regional:

1. *"*HIV in women: Prevention of perinatal HIV Transmission." Invited Lecture for Georgia Obstetrics and Gynecology Society and Georgia Branch of American Academy of Pediatrics, Atlanta, GA, April 2015

2. "Prevention of Mother to Child Transmission of HIV" Morehouse School of Medicine, Department of Gynecology and Obstetrics Grand Rounds, Atlanta, GA, Nov 2015

3. *"*Prevention of Mother to Child Transmission of HIV and Syphilis." Invited Webinar for Georgia American Academy of Family Medicine,*Atlanta, GA*, April 2016

4. "Updates in prenatal screening and diagnosis" Invited Grand Rounds Talk, Children's Healthcare of Atlanta, Egleston*,* Atlanta, GA*,* April 2016

5. *"Updates in prenatal screening and diagnosis" Invited Grand Rounds Talk,* Children's Healthcare of Atlanta, Scottish Rite, Atlanta, GA, May 2016

6. "Beyond the Rheumatologist and Gastroenterologist: Understanding the entire Management of Pregnant Woman Suffering from Severe Immunological Diseases", Panel Discussant, UCB (Union Chimique Belge) multinational biopharmaceutical company, Atlanta, GA, September, 2016

7. "Fetal cardiac images and updates on placental imaging" Invited talk to Maternal Gynerations, private Ob/Gyn office, Atlanta, GA, Sept 2018

c. Institutional:

1. "Preconception Counseling" Emory University Family Planning, Atlanta, GA, 2007

2. "Reproductive healthcare needs and desires in a cohort of HIV positive women", Resident Research Day, Emory University Department of Gynecology and Obstetrics, Atlanta, GA, 2009

3. "Vaginal Birth After Cesarean" Emory University, Department of Gynecology and Obstetrics Grand Rounds, Atlanta, GA, 2009

4. Brief Medical Student Lectures, Emory Gynecology and Obstetrics, 2006-2010

a. Fetal Heart Tracing Monitoring"
b. "Postpartum Hemorrhage"
c. "Preterm Labor"
d. "Diabetes in Pregnancy"
e. "Hypertension in Pregnancy"
f. "Ultrasound in Pregnancy,"

5. "Prevention of Mother to Child Transmission of HIV" Emory University, Department of Gynecology and Obstetrics Grand Rounds, Atlanta, GA, 2015

6. "Updates on Management of HIV in pregnancy" Emory University, Department of Medical Genetics Grand Rounds, Atlanta, GA, 2016

7. "Endocrine Disorders of Pregnancy" *Division of Reproductive Endocrinology and Infertility Fellow Conference lecture, Emory Department of Gynecology and Obstetrics* , Atlanta, GA, 2016

8. Discussant: Induction of Labor in HIV positive Women. A *descriptive analysis using national Pregnancy Risk Assessment Monitoring System (PRAMS) data. Emory Department of Gynecology and Obstetrics Resident Research Day*, Atlanta, GA, 2016

9. "Gestational Diabetes Update: A review of current literature and ACOG guidance" *Division of Maternal Fetal Medicine Fellow Conference lecture, Emory Department of Gynecology and Obstetrics*, *Atlanta, GA*, *2018*

10. "Perinatal Management of Pregnant Women with HIV", Emory University, Department of Gynecology and Obstetrics Grand Rounds (CME), Atlanta, GA, Apr 2019

11. "The Importance of Preconception Care" Department of Gynecology and Obstetrics 2019 Women's Health Breakfast, Atlanta, GA, May 7th, 2019

12. "Planning for Fellowships After Residency" Emory University, Department of Gynecology and Obstetrics, Emory GYN/OB Residency Retreat, Smyrna, GA, October 2019

13. "OB care updates" Emory University, Department of Gynecology and Obstetrics Grand Rounds Atlanta, GA, February, 2020

14. "Abdominal Wall Defects" Emory University, Department of Gynecology and Obstetrics, Perinatal Ultrasound Conference CME, May 2022

23. Invitations to National/International, Regional, and Institutional Conferences:

a. National and International:

1. Invited Participant. *Centers for Disease Control and Prevention (CDC) Workshop. Anthrax: Special Considerations for Pregnant and Postpartum Women*, August 2012
Participated in the Healthcare Planning and Other Clinical Considerations Work Group.

2. Speaker and Invited Participant. *Centers for Disease Control and Prevention (CDC) Workshop* Botulism Antitoxin Use and the Clinical Management of Botulism Workshop, Atlanta, GA, June 2016
Present data on botulism in pregnancy to help guide clinical management recommendations.

3. Invited Speaker, Society for Maternal Fetal Medicine Annual Meeting. 2nd and 3rd Year Fellows Retreat "What skills do I need in my toolbox to succeed after fellowship?"**,** Las Vegas, NV, Feb 2019

24. Abstract Presentations at National/International, Regional, and Institutional Conferences:

a. National and International (* indicates presenter)

1. ***Badell, M.**, Lathrop E, Haddad L, Nguygen M, Goedken P, Nash S, Cwiak C. "Contraception and STI Protection among HIV Positive Women: A Great Gap Remains." (Poster). National HIV Prevention Conference. Atlanta, GA
August 2011

2. ***Badell M,** Lathrop E, Haddad L, Goedken P, Nguyen M, Cwiak C. Contraception and STI protection among HIV positive women. (Poster) National HIV Prevention Conference, Atlanta, GA.
Aug 2011

3. ***Badell M,** Kappa D, Horowtiz A, Veldar E, Book W. Risk of preterm birth and low birth weight in women with congenital heart disease. (Poster) Society for Maternal Fetal Medicine, Dallas, Tx.
Feb 2012.

4. *Thomason, L, Veledar E, **Badell ML**, Book W. Predicting Cardiac Complications during Pregnancy in Women with Congenital Heart Disease. (Poster) American Heart Association Scientific Session 2012. Hot Topics in Adult Congenital Heart Disease Los Angeles, Ca.
Dec 2012

5. *Nair N, **Badell ML,** Tepper N. Intermittent Airway Obstruction in an Obstetrical Patient Requiring Emergency Surgery. South Atlantic Association of Obstetricians and Gynecologists (SAAOG) Meeting, West Virginia
Jan 2013.

6. ***Badell ML** and Lindsay M. Differential Characteristics of HIV-Infected Pregnant Women by Mode of HIV Acquisition – An Observational Study at an Urban Hospital. 20th Conference on Retroviruses and Opportunistic Infections. (Poster) Atlanta, GA.
Mar 2013

7. *Rahangdale L, **Badell ML** et al. Predictors of Unplanned Pregnancies among Women Living with HIV in the United States. (Poster) 20th Conference on Retroviruses and Opportunistic Infections, Atlanta, GA
Mar 2013

8. *Krishna I, **Badell M**, Loucks T, Samuel A. Perinatal outcomes in pregnancies with low fetal fraction on noninvasive prenatal testing results. (Poster) Society for Maternal Fetal Medicine.
San Diego, CA
Feb 2015

9. *Link H, Shulman R, **Badell ML.** Physician practice patterns based on *Hypertension in Pregnancy: Report of the American College of Obstetricians and Gynecologists' Task Force on Hypertension in Pregnancy.* (Poster) Society for Maternal Fetal Medicine. Atlanta, GA.
Feb 2016

10. *Smith SL, Chahroudi AM, Camacho-Gonzalez AF, Gillespie S, Wynn BA, **Badell ML**, Swartzendruber A, Hazra R, Wortley P, Chakraborty R. Evaluating Facility Infrastructure for PMTCT of HIV – A 2015 Survey of Major Delivery Hospitals in Atlanta, GA. (Poster) International AIDS Society Meeting. Durban, South Africa.
    July 2016

11. *Hackett S, Camacho A, Ford J, **Badell ML**, Blue J, Sheth A. Optimizing HIV Care Engagement among Postpartum HIV-infected Women in Atlanta: A Multidisciplinary Approach**.** (Poster) The HIV/AIDS Bureau and the 2016 National Ryan White Conference on HIV Care
    Washington, DC
    August 2016

12. *Seth A., Hacket S., Camacho-Gonzale, A., For, J., & **Badell M**. Repeat Pregnancies and HIV Care Engagement among Postpartum HIV-infected Women in Atlanta, Georgia, 2011-2015. (Poster) Inter-CFAR Joint Symposium on HIV Research in Women. Birmingham, Alabama.
    Dec 2016

13. **Vekataraman D***, Sahu M, Badell M, Sidell N and Rajakumar A. Placental Stromal Cell Decidualization and Reversible sFlt1 Expression: A Primer for Preeclampsia. NIH-Human Placenta Project: Placental Structure and Function in Real Time, Current Progress and Future Directions. (Poster) Bethesda, MD.
    January 24-25, 2017

14. *Gonzales SK, Rajakumar A, **Badell, M**, Rimawi B, Sidell N. Maternal PBMCs: a Novel source of sFlt-1 in Preeclampsia. (Poster) Society of Maternal Fetal Medicine, the Pregnancy Meeting, Las Vegas, NV.
    Feb 2017

15. *Meade CM, **Badell M**, Haddad L, Camacho-Gonzalez A, Davis SA, Tarleton JL, Grossniklaus E, Hackett S, Ford J, Blue J, mehta CC, Quigley R, Vece G, Sheth A. Postpartum HIV Care Among HIV-Infected Women in Atlanta, Georgia 2011-2016 (Poster) Annual National Meeting of the Society-of-General-Internal-Medicine (SGIM), Washington, DC
    April 2017

16. *Sprung-Zahedi L, Young M, Haddad L, **Badell ML**. Knowledge of maternal to child transmission and barriers to ART adherence among HIV positive pregnant women. (Poster) ACOG Annual Clinical and Scientific Meeting, Austin, TX
    Jan 2018

17. *Rimawi B, Gonzales SK, **Badell, M**, Rajakumar A. Differential expression of sFlt1 induced by cAMP in preeclamptic versus normal placentas. (Poster) Society of Maternal Fetal Medicine, the Pregnancy Meeting, Dallas, Texas.
    Feb 2018

18. *Gonzales SK, **Badell M**, Venkataraman,D, Sidell N, Rajakumar A. Villous Explants from Preeclamptic Placentas Induce sFlt1 in PBMCs of Normotensive Pregnancies: A Co-Culture Study. (Poster) Society for Reproductive Investigation's 65th Annual Scientific Meeting, San Diego, CA.
    March 2018

19. *Sahu M, Venkataraman D, Smith AK, **Badell ML**, Neil S, Rajakumar A. Decidual Stromal Cells of Preeclamptic Placenta Exhibit Inadequate Decidualization and Increased

sFlt1 Expression. (Poster) Society for Reproductive Investigation's 65th Annual Scientific Meeting, San Diego, CA.
March 2018

20. *Rajakumar A, **Badell ML**, Kane M, Qu1 H, Taylor RN, Sidell N. Reduced Retinoic Acid in Preeclamptic Decidua. (Poster) Society for Reproductive Investigation's 65th Annual Scientific Meeting, San Diego, CA.
March 2018

21. *Venkataraman D, Ross M, Sahu M, **Badell M**, Sidell N, Rajakumar A. Retinoic Acid Modulates sFlt1 Production in Placental Decidual Stromal Cells. (Poster) Society for Reproductive Investigation's 65th Annual Scientific Meeting, San Diego, CA.
March 2018

22. Cho S**,** Sohn Y, Kim S, **Rajakumar A*,** Badell M, Sidell N, Yoon K. Reduced Hematopoietic and Angiogenic Profiles in Cord Blood of Women with Severe Preeclampsia. 65th Annual Meeting, Society for Reproductive Investigations (Late Breaking Abstracts, Poster) San Diego, CA
March 7-10th 2018.

23. *Sheth A, Hackett S, Meade C, Davis J, Ford J, Blue J, Curtin L, Camacho-Gonzalez A, Chahroudi A, Chakraborty R, Palmore A, **Badell ML**. Improved Postpartum HIV Outcomes after Care Coordination Team Intervention. (Poster) 2018 Conference on Retroviruses and Opportunistic Infections (CROI) Boston, MA
March 2018

24. Deepak V***,** Badell M, Sidell N, **Rajakumar A**. Retinoic Acid down regulates sFlt1 in decidual stromal cells independent of decidualization. Implications to Preeclampsia. ISSHP 2018, (Young Investigator Award session, Oral) Amsterdam, Netherlands
October 6-9, 2018.

25. Deepak, V, Badell M, Sidell N, **Rajakumar A**. Preeclamptic decidual stromal cells fail to decidualize during co-culture with placental villous explants:Implications to Preeclampsia. ISSHP 2018, (Poster) Amsterdam, Netherlands,
October 6-9, 2018.

26. Manley C*, Deepak V, Ravikuma N, **Badell ML**, Sidell N, Augustine A. Defects in Placental Stromal Cell Decidualization in Preeclampsia are Mediated by Transcription Factor AP2A. SMFM Annual Meeting 2020, Feb 5-9th Grapevine, TX

27. **Kellerhals, S*,** Joseph N, **Badell ML**. Intracranial Fetal Teratoma: A Case Review. *AIUM 2020 Annual Meeting* March 21-25 NY

28. Kellerhals S*, Arluck J**, Badell ML.** Evaluating Use of Ultrasound Simulation to Meet Recommended Obstetric Ultrasound Goals in Residency. SMFM Annual Meeting 2021, Virtual

29. Joseph N*, Dunlop A, Patel R, **Badell ML**, Dude C. LB01 Maternal antibody response and placental antibody transfer following asymptomatic and symptomatic SARS-CoV-2 infection. SMFM Annual Meeting 2021, Virtual

30. Krishna I, Platner M, Patel M, Modi P, **Badell ML**. Implementation of a Standardized Checklist to Improve First Trimester Anatomy Documentation. Emory Quality Conference, April 2021, Virtual

31. Forrest, A, Joseph N, MD, Irby L, **Badell, ML**, Smith A, Dude C. Establishment of a COVID-19 Perinatal Biorepository in a Safety Net Population. William E. Booth and James Zaidan Resident Research Day at Grady; Atlanta, GA Virtual May, 2021

32. Diego D, Forrest A, **Badell ML**, Cwiak C, Klisovic M. Congenital Cardiac Disease Following Mifepristone and Misoprostol Administration: A Case Report. William E. Booth and James Zaidan Resident Research Day at Grady; Atlanta, GA Virtual May, 2021

25. Research Focus:

My research focuses on infectious disease in pregnancy, particularly HIV. As an IMPAACT (International Maternal Pediatric Adolescent AIDS Clinical Trials) investigator I participate in clinical trials to improving perinatal HIV care. I collaborate both institutionally and across the country on research evaluating the care of HIV positive pregnant women.

26. Grant Support

a. Active Support:

i. Federally Funded:

i. Site Co-Principal Investigator, PI: Andres Camancho, NICHD, **Pediatric and Adolescent HIV/AIDS research program at Emory University School of Medicine (IMPAACT),** HHSN27520130003C, $213,518, 12/1/17-current
Multisite clinical trials that will advance the prevention and treatment of HIV and its complications for infants, children, adolescents, and pregnant/postpartum women globally

ii. Site Co-Investigator, PI: Alan Tita, NIH **Chronic Hypertension and Pregnancy (CHAP) Study**, 5U01HL120338, $115,500, 12/1/17-current
A Pragmatic Multicenter Randomized Trial: Antihypertensive Therapy for Mild Chronic Hypertension during Pregnancy (CHAP)

iii. Collaborator, PI: David Carlton, NICHD, **Cooperative Multicenter Neonatal Research Network,** NIH UG1 HD027851 $188,845/year, 4/1/16 to 3/31/2021
A cooperative group of academic centers that perform multicenter clinical trials to investigate problems in neonatal medicine, particularly those related to prematurity and low birth weight

iv. Site Co-Investigator, PI: Florence Momplaisir, NIH, **A Randomized Controlled Trial of Women Involved in Supporting Health (WISH), a Peer-Led Intervention to Improve Postpartum Retention in HIV Care,** R01 $53,716, 9/1/19-current
RCT to test the efficacy of a peer-led, behavioral intervention, WISH, designed to improve retention in HIV care and viral suppression at 1 year postpartum.

v. Site PI, PI: Nadine Rouphael, NIH, **Emory Vaccine and Treatment Evaluation Unit- DMID 21-004-MOMI-Vax.** An Observational, Prospective Cohort Study of the Immunogenicity and Safety of SARS-CoC-2 Vaccines Administered during Pregnancy or Postpartum and Evaluation of Antibody Transfer and Durability in Infants, 3UM1AI148576-02S5 $5,894,818, 4/26/2021-11/30/2023
Observational study to evaluate the safety and immunogenicity of COVID vaccines in pregnancy and postpartum women and infants.

vi. Co-Investigator, PI: Vasiliki MIchopoulos, NIH/MH, The effects of pregnancy on

post traumatic symptoms and fear physiology in traumatized African American women - Impacts of COVID-19 and racial discrimination on mental, physical, and psychophysiological health in Black pregnant and postpartum persons**,** 3R01MH115174-04W1, $352,000, 6/1/2021-5/31/2022
This grant will study the impacts of COVID-19 and racial discrimination on mental, physical, and psychophysiological health in Black pregnant and postpartum persons

ii. Private:

1. PI, Emory Synergy Award, *Prenatal Infection with COVID-19: Effects on pregnancy and neonatal outcomes, the maternal-fetal immune response, and vertical transmission*, Amount: $80,000, 09/01/2020-09/01/2022

b. Previous Support:

1. Private

1. Co-Investigator, PI: Neil Sidell, Abraham J. & Phyllis Katz Foundation, **Decoding Preeclampsia**, Amount: $1,000,000, 9/1/14 – 8/31/2018
An exploratory study of blood and placental samples in preeclamptic and non-preeclamptic pregnant patients designed to identify factors on both sides of the maternal/fetal interface involved in the onset of preeclampsia and/or play a role in its progression and ultimate outcome.

27. Bibliography:

a. Published and Accepted Research Articles

1. **Badell ML**, Ramin SM, Smith JA. Treatment options for nausea and vomiting during pregnancy. *Pharmacotherapy*. Sep;26(9):1273-87; **2006.**

2. Goetzl L, Zighelboim I, **Badell M**, Rivers J, Mastrangelo MA, Tweardy D, Suresh MS. Maternal corticosteroids to prevent intrauterine exposure to hyperthermia and inflammation: a randomized, double-blind, placebo-controlled trial. *Am J Obstet Gynecol*. Oct;195(4):1031-7; 2006.

3. Navo M, Kunthur A, **Badell ML**, Coffer LW, 2nd, Markman M, Brown J, Smith JA. Evaluation of the incidence of carboplatin hypersensitivity reactions in cancer patients. *Gynecol Oncol*. Nov;103(2):608-13 2006.

4. Goetzl L, Rivers J, Zighelboim I, Wali A, **Badell M**, Suresh MS. Intrapartum epidural analgesia and maternal temperature regulation. *Obstet Gynecol*. Mar;109(3):687-90; 2007.

5. **Badell ML**, Lathrop E, Haddad LB, Goedken P, Nguyen M, Cwiak C. Reproductive healthcare needs and desires in a cohort of HIV positive women. *Infect Dis Obstet Gynecol*; June 2012.

6. **Badell ML**, Lindsay M. Thirty years later: Pregnancies in females pernatally infected with human immunodeficiency virus-1. *AIDS Res Treat; Aug* 2012.

7. Smith JA, **Badell ML**, Kunther A, Palmer JL, Tang, J, Dalrymple JL, Ramin SM. Use of complementary and alternative medications among patients in an obstetrics and gynecology clinic. *J Reprod Med*. 57(9-10)390-6; 2012

8. **Badell ML**, Kachikis A, Haddad LB, Nguyen ML, Lindsay M. Comparison of Pregnancies between Perinatally and Sexually HIV-Infected Women: An Observational Study at an Urban Hospital. *Infect Dis Obstet Gynecol;* Sept 2013.

9. Rahangdale L, Stewart A, Stewart RD, **Badell M**, Levison J, Ellis P, Cohn SE, Kempf MC, Lazenby GB, Tandon R, Rana A, Nguyen ML, Sturdevant MS, Cohan D; HOPES (HIV and OB Pregnancy Education Study). Pregnancy Intentions Among Women Living With HIV in the United States. *J Acquir Immune Defic Syndr* 1;65(3):306-11; Mar 2014

10. Martin A, Krishna I, **Martina B**, Samuel A. Can the quantity of cell-free fetal DNA predict preeclampsia: a systematic review. *Prenat Diagn*. 2014 Jul;34(7):685-91; Jul 2014.

11. Martin A, Krishna I, Ellis J, Paccione R, **Badell M**. Super obesity in pregnancy: difficulties in clinical management*. Journal of perinatology* 34(7):495-502; 2014.

12. Meaney-Delman D, Zotti ME, Creanga AA, Misegades LK, Wako E, Treadwell TA, Messonnier NE, Jamieson DJ; Workgroup on **Anthrax** in **Pregnant** and Postpartum Women. Emerg Infect Dis.20(2); Feb 2014.

13. Shulman R, Ellis J, Shore E, Kaplan FS, **Badell ML.** Maternal Genetic Skeletal Disorders: Lessons Learned From Cases of Maternal Osteogenesis Imperfecta and Fibrodysplasia Ossificans Progressiva. *J Clin Gynecol Obstet*. 4(1):184-187; 2015.

14. **Badell ML**, Meaney-Delman D, Tuuli MG, Rasmussen SA, Petersen BW, Sheffield JS, Beigi RH, Damon IK, Jamieson DJ. Risks associated with smallpox vaccination in pregnancy: A systematic review and meta-analysis*. Obstet Gynecol.* 125(6):1439-51; Jun 2015.

15. Rahangdale L, Cates J, Potter J, **Badell ML**, Seidman D, Miller ES, Coleman JS, Lazenby GB, Levison J, Short WR, Yawetz S, Ciaranello A, Livingston E, Duthely L, Rimawi BH, Anderson JR, Stringer EM; HOPES (HIV OB Pregnancy Education Study) Group. Integrase inhibitors in late pregnancy and rapid HIV viral load reduction. *Am J Obstet Gynecol*. 214(3):385; Mar 2016.

16. Krishna I, **Badell M**, Loucks TL, Lindsay M, Samuel A. Adverse perinatal outcomes are more frequent in pregnancies with a low fetal fraction result on noninvasive prenatal testing. *Prenat Diagn*. 36(3):210-5; Mar 2016.

17. Rimawi BH, Haddad L, **Badell ML**, Chakraborty R. Management of HIV Infection during Pregnancy in the United States: Updated Evidence-Based Recommendations and Future Potential Practices. *Infect Dis Obstet Gynecol*. Jul 18 2016.

18. Rimawi BH, Smith S, **Badell ML**, Zahedi-Sprung L, Sheth A, Haddad L, Chakraborty R. HIV and reproductive healthcare in pregnant and postpartum HIV infected women: adapting successful strategies. *Future Virology*; Sept 2016.

19. Rimawi BH, Johnson E, Rajakumar A, Tao S, Jiang Y, Gillespie S, Schinazi RF, Mirochnick M, **Badell ML**, Chakraborty R. Pharmacokinetics and Placental Transfer of Elvitegravir, Dolutegravir, and Other Antiretrovirals during Pregnancy. *Antimicrob Agents Chemother.* 24;61(6); May 2017.

20. Blackwell CO, Sheth AN, Nguyen ML, **Badell ML.** Successful Treatment of Azole-Resistant Candida Esophagitis in an Immunocompromised Pregnant Woman Using Anidulafungin. *Ann Pharmacother*. Jun 1 2017.

21. Parra-Saavedra M, Reefhuis J, Piraquive JP, Gilboa SM, **Badell ML,** Moore CA, Mercado M, Valencia D, Jamieson DJ, Beltran M, Sanz-Cortes M, Rivera-Casas AM, Yepez M, Parra G, Ospina Martinez M, Honein MA. Serial Head and Brain Imaging of 17 Fetuses With Confirmed Zika Virus Infection in Colombia, South America. *Obstet Gynecol.* 130(1):207-212; Jul 2017.

22. Adebanjo T, Godfred-Cato S, Viens L, Fischer M, Staples JE, Kuhnert-Tallman W, Walke H, Oduyebo T, Polen K, Peacock G, Meaney-Delman D, Honein MA, Rasmussen SA, Moore CA; Contributors.Update: Interim Guidance for the Diagnosis, Evaluation, and Management of Infants with Possible Congenital Zika Virus Infection - United States, October 2017. *MMWR Morb Mortal Wkly Rep*. 66(41):1089-1099: Oct 20 2017.

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26. Meade CM, Hussen SA, Momplaisir F, **Badell M**, Hackett S, Sheth AN. Long term engagement in HIV care among postpartum women with perinatal HIV infection in the United States. *AIDS Care.* 30(4):488-492; Apr 2018.

27. Gonzales SK, **Badell M**, Cottrell H, Rimawi B, Deepak V, Sidell N, Rajakumar A. Villous explants from preeclamptic placentas induce sFlt1 in PBMCs: An ex vivo co-culture study. *Pregnancy Hypertens*. 12:40-46; Apr 2018.

28. Momper JD, Best BM, Wang J, Capparelli EV, Stek A, Barr E, **Badell ML**, Acosta EP, Purswani M, Smith E, Chakhtoura N, Park K, Burchett S, Shapiro DE, Mirochnick M; IMPAACT P1026s Protocol Team. Elvitegravir/cobicistat pharmacokinetics in pregnant and postpartum women with HIV. *AIDS*. Aug 20 2018.

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30. Kawwass JF, **Badell ML**. Maternal and Fetal Risk Associated With Assisted Reproductive Technology. *Obstet Gynecol*. (3):763-772; Sept 2018.

31. Grayhack C, Sheth A, Kirby O, Davis J, Sibliss K, Nkwihoreze H, Aaron E, Alleyne G, Laguerre R, Rana A, **Badell M**, Momplaisir F. Evaluating outcomes of mother-infant pairs using dolutegravir for HIV treatment during pregnancy. *AIDS*. 10;32(14):2017-2021;Sept 2018.

32. Nandi P, Kalapila AG, **Badell ML**, Sheth AN. Sexually acquired acute hepatitis C infection diagnosed during pregnancy: a case report of successful postpartum treatment. *Case Rep Womens Health*. Sep 19 2018

33. Topel ML, Duncan EM, Krishna I, **Badell ML**, Vaccarino V, Quyyumi AA. Estimated Impact of the 2017 American College of Cardiology/American Heart Association Blood Pressure Guidelines on Reproductive-Aged Women. *Hypertension*. 72(4):e39-e42; Oct 2018.

34. Zahedi Sprung L, Young M, Haddad LB, **Badell ML**. Perceived barriers to Antepartum HIV Medication Adherence in HIV Infected Pregnant Women. *Infect Dis Obstet Gynecol* Oct 16, 2018.

35. **Badell ML**, Lindsay M, Loucks T, Arluck J, Book W. Perinatal outcomes among women with congenital heart disease. *J Rep Med* 63(5) 431-436, 2018

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38. Meade C, **Badell ML**, Hackett S, Mehta CC, Haddad L, Camacho-Gonzalez AF, Ford J, Holstad M, Sheth AN, Armstrong WS. HIV Care Continuum among Postpartum Women Living with HIV in Atlanta. *Infectious Diseases in Obstetrics and Gynecology*, 2019 Feb 14

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42. Patel, MB, Kellerhals S, Horton JP, Fisher MR, Krishna I, **Badell ML**. Pulmonary arterial Hypertension in pregnancy: Outline of multidisciplinary care. *Current Opinion in Gynecology and Obstetrics (In Press)*

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44. Pickens C, Hogue CJ, Howards PP, Kramer MR, **Badell ML,** Dudley DJ, Silver MR, Goldenberg RL, Pinar H, Saade GR, Varner MW, Stoll BJ. The Association between Gestational Weight Gain Z−Score and Stillbirth: A Case−Control Study. *BMC Pregnancy Childbirth BMC 2019 Nov 29;19(1)*

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b. Review Articles:
   1. Zahedi-Spung L, **Badell ML**. Current Strategies to Prevent Maternal-to-Child Transmission of Human Immunodeficiency Virus. *Clin Perinatol.* 45(2):325-337; 2018 Jun.
   2. Lee JC, **Badell ML**, Kawwass JF. The Impact of Endometrial Preparation for Frozen Embryo Transfer on Maternal and Neonatal Outcomes: A Review. *Reproductive Biology and Endocrinology* (Accepted)

c. Case reports

   i. Rimawi BH, Krishna I, Sahu A, **Badell ML**. Pregnancy in a Previously Conjoined Thoracopagus Twin with a Crisscross Heart. *Case Rep Obstet Gynecol*. Jul 27 2018

   ii. Brown JT, Harik LR, Barbee MS, Esiashvili N, **Badell ML,** Goldsmith KC, Master VA, Bilen MA. Multidisciplinary Care of Adult Wilms' Tumor During Pregnancy: A Case Report and Review of the Literature. *Clin Genitourin Cancer* 2019 Oct 2

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   iv. Brown JT, Harik LR, Barbee MS, Esiashvili N, Badell ML, Goldsmith KC, Bilen MA. Multidisciplinary Care of Adult Wilms' Tumor During Pregnancy: A Case Report and Review of the Literature. Clin Genitourin Cancer. 2020 Feb;18(1)

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2. Martin, A. **Badell M**. Umbilical Cord Blood Banking. *Postgraduate Obstetrics and Gynecology.* August 15, 2014;34(15): Aug 2014.
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28. Contributions not otherwise noted:

Presentation to Emory Healthcare Board: “Management of Pregnant Patients with Pulmonary Hypertension”
Sept, 2017

EXHIBIT C

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients, Plaintiffs, v. STATE OF GEORGIA, Defendant.	Case No. _____

AFFIDAVIT OF CARRIE CWIAK, M.D., M.P.H.

I, CARRIE CWIAK, M.D., M.P.H., hereby affirm under penalty of perjury that the following statements are true and correct:

1. I am a board-certified obstetrician-gynecologist licensed to practice medicine in Georgia, a professor of Gynecology and Obstetrics and Family Planning at Emory University

School of Medicine, and a professor of Epidemiology at Emory University Rollins School of Public Health. In addition to teaching residents, my medical practice includes providing patients with labor and delivery care and comprehensive obstetrical and gynecological care, including abortions in compliance with H.B. 481. I practice at Emory University Hospital Midtown in Fulton County, where I am Chief of Service of Obstetrics and Gynecology, and Fulton-DeKalb Hospital d/b/a Grady Memorial Hospital, in Fulton County. I also serve as the Director of the Division of Family Planning at Emory University School of Medicine, and Chief of Inpatient Obstetrics and Gynecology Service Line at Emory Healthcare.

2. I am the medical director, as well as a clinician and trainer, at Plaintiff Feminist Women's Health Center ("Feminist"), a non-profit reproductive health care facility registered in the state of Georgia and located in Dekalb County. At Feminist, I provide a range of services, including abortion in compliance with H.B. 481, contraception, annual gynecological examinations, miscarriage management, sexually transmitted infection ("STI") testing and treatment, and transgender health care, such as hormone replacement therapy. As medical director, my duties include chart review, protocol review, and arranging for medical staff training when necessary.

3. I am also a clinician and trainer at Plaintiff Atlanta Women's Medical Center ("AWMC"), a private company registered in the state of Georgia and located in Fulton County. At AWMC, I provide reproductive health services, including abortion care in compliance with H.B. 481. Here, as well as at Feminist, before the Ban took effect, I provided abortions up to 21.6 weeks LMP.

4. In these roles, I have cared for pregnant patients and trained medical students in Georgia for over two decades. I submit this affidavit to detail the immense harm that my patients,

their families, and those of us who care for pregnant people in Georgia will suffer now that H.B. 481 has been permitted to take effect, banning most abortion and some miscarriage services across our state.

Additional Qualifications

5. I received my medical degree from Saint Louis University School of Medicine in 1997; completed my residency in obstetrics and gynecology at the University of Connecticut Health Center in 2001; completed my fellowship in family planning at Emory University School of Medicine in 2003; and received a Master of Public Health degree from Rollins School of Public Health of Emory University in 2003. I am a peer reviewer for journals including *American Journal of Obstetrics and Gynecology*, *International Journal of Gynecology and Obstetrics*, *Contraception*, and *American Family Physician*. My professional memberships include the American College of Obstetricians and Gynecologists. I have published over 50 articles in peer-reviewed journals, 12 book chapters, and 6 books.

6. My curriculum vitae, which sets forth my experience and credentials in greater detail and contains a full list of my publications, is attached as Exhibit 1.

7. I submit this affidavit as an individual and not in my capacity as an employee of Emory or any other organization. My opinions are based on my education; my over two decades of experience providing obstetrical and gynecological care, including abortions, in Georgia; my attendance at professional conferences; and my familiarity with relevant medical literature and the standards and guidelines of national professional associations including the American College of Obstetricians and Gynecologists. All of the opinions in this report are expressed to a reasonable degree of medical certainty.

Abortion Care in Georgia

8. Approximately one in four women[1] in this country will have an abortion by age forty-five.[2] In Georgia in 2019, there were 16.9 abortions per 1000 women of reproductive age.[3]

9. Based on my experience and knowledge, patients seek abortion for a variety of deeply personal reasons including familial, medical, and financial. Some patients have abortions because they conclude that is it not the right time in their lives to have a child or to add to their families. For example, some decide to end a pregnancy because they want to pursue their education; some because they feel they lack the economic resources or partner support or stability they want to raise children; some because they are concerned that if they increase their family size, they will be unable to provide and care adequately for their existing children and/or for their ill or aging parents. The majority of Georgians having abortions (62%) already have at least one child,[4] and nationwide, most women who have abortions (66%) also plan to have a child or additional children sometime in the future.

10. Some patients end a pregnancy in order to be able to leave an abusive partner. Some seek abortions to preserve their life or health by reducing risk of injury or death; some because they have become pregnant as a result of rape or incest; and others because they decide not to have children at all. Some patients decide to have an abortion because of a diagnosed fetal

[1] I use "woman" or "women" as a short-hand for people who are or may become pregnant, but people of all gender identities, including transgender men and gender-diverse individuals, may also become pregnant and seek abortion services.

[2] *See* Rachel K. Jones & Jenna Jerman, *Population Group Abortion Rates & Lifetime Incidence of Abortion: United States, 2008–2014*, 107 Am. J. Public Health 1904 (2017).

[3] *See* Kortsmit K, Mandel MG, Reeves JA, et al. Abortion Surveillance — United States, 2019. Center for Disease Control and Prevention MMWR Surveill Summ 2021;70(No. SS-9): Table 2.

[4] *Id.* at Table 8.

medical condition. Some families feel they do not have the societal or personal resources—financial, medical, educational, or emotional—to care for a child with physical or intellectual disabilities, or to do so and simultaneously provide for their existing children. The decision to terminate a pregnancy is motivated by a constellation of diverse, complex, and interrelated factors, intimately related to the individual's core religious beliefs, values, and family circumstances.

11. Government interference in this individual medical decision undermines the health, well-being, and dignity of pregnant Georgians and their families. For this reason, leading Georgia medical groups have strongly opposed the Ban. The Medical Association of Georgia strongly opposed the Ban because it "violates the doctor/patient relationship" and does not "allow women and families to maintain access to quality healthcare in Georgia."[5] The Georgia OB/GYN Society and Georgia Academy of Family Physicians have also come out against the ban.[6] Additionally, more than 75 major national medical groups, including the American College of Obstetricians and Gynecologists, the American Medical Association, the American Academy

[5] Letter from Rutledge Forney, M.D., Medical Association of Georgia President, to Renee Unterman, Senate Science and Technology Committee Chairman (March 17, 2019), *available at* https://drive.google.com/file/d/1z1qoSHul-2WPXR9qCduYQ2OS3hUhFily/view; *see also* Jim Galloway, et al., *The Jolt: Medical Association of Georgia opposes 'heartbeat' bill,* The Atlanta Journal Constitution, March 19, 2022, https://www.ajc.com/blog/politics/the-jolt-medical-association-georgia-opposes-heartbeat-bill/vrftEsEfXU6Doou4Ndm2LP/.

[6] Andy Toledo, M.D., *2019 Legislative Summary*, Georgia ObGyn Society, https://gaobgyn.org/2019-legislative-summary/ (accessed July 25, 2022); Greg Bluestein (@bluestein), TWITTER (March 24, 2019 8:08 AM), https://twitter.com/bluestein/status/1108339502332948481?lang=en; *see also* Pearson K. Cunningham*, Georgia Academy Provides Information for Members following Supreme Court Reversal of Roe v. Wade*, Georgia Academy of Family Physicians (accessed July 25, 2022), https://www.gafp.org/the-supreme-courts-decision-in-dobbs-and-georgias-life-act/ (noting the Georgia Academy of Family Physicians' "long-standing policy to oppose any legislation or rule that would criminalize care").

of Family Physicians, and the American Academy of Pediatrics, have spoken out about abortion bans like H.B. 481.[7]

12. Georgia's abortion ban forces me to violate my medical and ethical obligations to ensure that those who decide to terminate their pregnancies, and those who are suffering pregnancy loss, can obtain safe and compassionate care with dignity.

13. Indeed, in the few days the ban has been in effect, it has devastated my patients, and taken a heavy emotional toll on me and my colleagues who care for pregnant people in Georgia. Since H.B. 481 took effect, some of my patients had their appointments cancelled altogether because they were too late in pregnancy. Sometimes they had just a few hours' notice, because the law took effect so suddenly. Some patients who were early enough in pregnancy were able to keep their appointments, where they were screened for fetal cardiac activity in compliance with the ban's requirements. Many of these patients were so distraught at the thought that they might not be able to get care that they were crying in the waiting room. Still others had to be turned away after fetal cardiac activity was detected, and many of these patients sobbed after clinic staff had to say they could not help them. This is all after the law has been in effect for *less than one week*, and I know that I will continue to see my patients suffering and harmed as long as this law is allowed to stand.

[7] *More Than 75 Health Care Organizations Release Joint Statement in Opposition to Legislative Interference*, American College of Obstetricians and Gynecologists (July 7, 2022), https://www.acog.org/news/news-releases/2022/07/more-than-75-health-care-organizations-release-joint-statement-in-opposition-to-legislative-interference.

Abortion Safety

14. Abortion is very safe. Serious complications are exceedingly rare, occurring in fewer than 1% of abortions.[8]

15. Indeed, abortion is one of the safest outpatient medical procedures in the United States. For instance, colonoscopy, certain dental procedures, and plastic surgery all have higher mortality rates than abortion.[9]

16. Abortion is also vastly safer than continuing a pregnancy. According to CDC data, there were 20.4 maternal deaths per 100,000 live births in 2018-2020 nationally.[10] By contrast, in 2013-2018, the most recent years for which data are available, the national case fatality rate for legal induced abortion was 0.41 deaths per 100,000 legal induced abortions.[11] Every pregnancy-related complication is more common among women giving birth than among those having abortions.[12]

[8] Committee on Reproductive Health Services: Assessing the Safety and Quality of Abortion Case in the U.S. et al., *The Safety and Quality of Abortion Care in the United States*, The National Academies of Sciences, Engineering and Medicine, 2018, at 77.

[9] *Id.* at 75, Table 2-4.

[10] *Maternal deaths and mortality rates by state for 2018-2020*, Center for Disease Control and Prevention (accessed July 25, 2022), available at https://www.cdc.gov/nchs/maternal-mortality/MMR-2018-2020-State-Data.pdf.

[11] Kortsmit, et al., *supra* note 3, at Table 15.

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

Abortion Timing & Methods

17. Almost uniformly, clinicians measure pregnancy from the first day of the patient's last menstrual period ("LMP"). They also generally date pregnancy with the weeks before the decimal point and the days after: "6.2 weeks LMP" means 6 weeks and 2 days LMP.

18. Some patients have fairly regular, four-week menstrual cycles; other patients have regular cycles of different lengths (e.g., a menstrual cycle every three weeks); and still others have irregular cycles. In a person with regular four-week cycles, fertilization typically occurs two weeks after the start of the patient's last menstrual period.

19. A full-term pregnancy is approximately 40 weeks LMP.

20. Viability—i.e., the point at which a healthy, singleton fetus has a reasonable likelihood of sustained survival outside the uterus with or without artificial aid—typically occurs at approximately 24 weeks LMP. Although survival is sometimes possible as early as 22 weeks LMP, this is rare, even under the most optimal conditions and with the highest level of care (a level of care that is often not available).

21. Although H.B. 481 states that a "heartbeat" may be detectable as early as six weeks of pregnancy, this is not clinically accurate. In a typically developing embryo, cells that eventually form the basis for development of the heart later in pregnancy produce a series of electrical impulses, referred to as "embryonic or fetal cardiac activity."

22. Embryonic cardiac activity is generally detectable via ultrasound starting at approximately 6.0 weeks LMP, but may be detectable a few days earlier or later.

23. In Georgia, like in the U.S. as a whole, the vast majority of abortions happen during the first trimester. In 2019, 93.1% of abortions occurred before 14 weeks of pregnancy. Fewer than half (43.6%) occurred at or before 6 weeks of pregnancy.[13]

24. But many abortion patients simply are not able to confirm a pregnancy and schedule and obtain an abortion before 6 weeks LMP, and even for those who can, it is extremely difficult.

25. Prior to and even after 6 weeks LMP, many patients do not know they are pregnant. This is particularly true for patients who have irregular menstrual cycles, including because of age, weight, certain medical conditions, contraceptive usage, or breastfeeding. And some people mistake the vaginal bleeding that is common in early pregnancy for a period.

26. Even for patients with highly regular four-week cycles, six weeks LMP is a mere 2 weeks after a missed period.

27. Moreover, in addition to financial and logistical barriers, my patients also have to overcome barriers imposed by state law, such as a 24-hour mandatory delay requirement and bans on insurance coverage for abortion, which make it difficult for them to access care early in pregnancy.

28. For these reasons and others, while in my experience most patients try to obtain an abortion as quickly as possible after making their decision, over half (56.4%) of abortions in Georgia in 2019, the most recent year for which data are available, occurred after 6.0 weeks LMP.[14]

[13] Kortsmit, et al., *supra* note 3, at Table 10.

[14] *Id.*

29. There are two main methods of performing an abortion: medication abortion and surgical abortion.

30. Medication abortion is a safe and effective method of ending an early pregnancy by taking two medications, mifepristone (also known as RU-486 or by its trade name in the U.S., Mifeprex®) and misoprostol, which together cause the patient to undergo a pregnancy termination within a predictable period of time.

31. In 2020, medication abortion accounted for approximately half of all abortions performed in Georgia.[15]

32. A surgical abortion does not involve any incision. Instead, the clinician safely dilates the cervix, enters the uterus through the cervix, and uses aspiration and/or instruments to empty the uterus. A first trimester abortion takes approximately five minutes to perform. In the second trimester, it is still a straightforward procedure, and usually takes about 15 minutes.

33. These medications and methods used to provide abortion care are identical to those used to provide miscarriage care.

Impact of H.B. 481

Impact on Abortion Care

34. H.B. 481 bans most abortions in Georgia, which is already having, and will continue to have, a devastating impact on patients and their families.

35. As between maintaining a pregnancy or having an abortion, H.B. 481 mandates the medically far riskier course, regardless of whether it is contrary to an individual patient's will. Forcing people to continue pregnancies against their will can pose a risk to their physical,

[15] *Id*. at Table 12.

mental, and emotional health, and even their lives, as well as to the stability and well-being of their families, including their existing children.

36. Many of my patients are poor or low-income and simply will not have the resources to travel out of state to access abortion if they are unable to get the care they need in Georgia.

37. To the extent some patients may be attempting to access abortion care by traveling out of state, that travel will generally delay their abortions, which increases the risks they face. First, delay means undergoing the risks associated with pregnancy longer. Second, although abortion is extremely safe, the risks associated with abortion increase as pregnancy advances.

38. The costs and logistics of travel make it extremely difficult for many low-income Georgians to get to an in-state abortion provider before 6 weeks, and will make it simply impossible for them to access abortion out-of-state once they exceed the very early limit in Georgia. My patients from across Georgia often tell me about the extensive preparations they had to make ahead of time in order to take off time from work, arrange childcare, and find transportation just to see me in Atlanta. This is true even for patients who *live in* the Atlanta area, and it is even more difficult for patients traveling a great distance from rural parts of the state. Being forced to travel out of state will make the costs and logistics of childcare, transportation, and overnight lodging that much more burdensome. And, because the cost of abortion increases as pregnancy advances, cost-based delay leads to further cost-based delay. The bottom line is that H.B. 481 will prevent many Georgians from accessing an abortion through the formal medical system either in or out of state.

39. Some patients who are unable to obtain an abortion legally in Georgia, and who do not have the resources to travel out of state, may attempt to end their pregnancies on their own, outside the medical system. Although the majority of people who self-manage their abortions are able to do so safely and effectively with medication, some patients will not be able to access safe methods. And even those patients who are able to access safe methods will be forced to use them without clinical guidance, increasing the medical risk.

40. Additionally, in my opinion, the law's three narrow exceptions do not allow people who need abortions because of medical complications, rape, or incest to obtain them.

41. **First**, H.B. 481's exception for sexual assault survivors applies only when "an official police report has been filed alleging the offense of rape or incest." § 4(b)(2).

42. I have cared for a sizable number of patients who have been raped.

43. I ask all of my patients if they have a history of violence, abuse, or coercion as a screener to see if they have other needs to attend to. Sometimes, in responding to that question, a patient will tell me the pregnancy is a result of rape or incest. Often, I am the first person a patient has told. If a patient is a survivor of incest, it is particularly complicated; often, they do not tell their family for fear of judgment.

44. In my experience caring for survivors of these crimes, many are never able to file a police report for many reasons, including that they fear violent retaliation by their rapist, that they were drugged at the time of the assault and do not remember the details, or that filing a report would deepen their trauma. Even if someone might eventually be in a position to file a police report documenting their rape without fear of retaliation or after processing their trauma, many are unable to do so within the timeframe that H.B. 481 requires to terminate a pregnancy

resulting from those crimes. Indeed, statistics show that 75% of rape cases are never reported to the police.[16]

45. Telling my patients who are survivors of sexual assault that they must file a police report in order for me to care for them goes against the standard of care: we are obligated to provide medical care as soon as clinically appropriate, regardless of whether law enforcement is involved. It will also undermine the doctor-patient relationship.

46. **Second**, H.B. 481's narrow exception for "medically futile" pregnancies, which is limited to the presence of "a profound and irremediable congenital or chromosomal anomaly that is incompatible with sustaining life after birth," § 4, excludes severe and potentially lethal fetal conditions that might lead patients to decide to have an abortion. For example, my patients include people who have received a fetal diagnosis of severe diaphragmatic hernia, in which the fetal intestines impinge on the lungs and prevent their development, which can result in a stillbirth. However, if the baby is born alive, it is possible that surgeries may succeed in allowing breathing – sometimes they do and sometimes they do not. Either way, doctors cannot predict exactly how long a baby will survive, nor how much they may suffer before they die. Yet, these and many other similarly severe conditions may not necessarily qualify as "medically futile" under H.B. 481.

47. **Third**, H.B. 481's "medical emergency" exception is so limited that the ban will block care for many people who desperately need abortions to protect their health. I have cared for many such patients. A patient whose health had not yet deteriorated to the point that she was

[16] Rachel E. Morgan and Barbara A. Oudekerk, *Criminal Victimization, 2018,* U.S. Department of Justice, Bureau of Justice Statistics, 8 (Sept. 2019), https://www.nsvrc.org/sites/default/files/2021-04/cv18.pdf.

in a medical emergency as narrowly defined would have to remain pregnant, regardless of the harm to their health.

48. In one of many examples I have seen in my patients, high blood pressure can worsen as pregnancy advances. In some patients, this leads to serious conditions during pregnancy including pre-eclampsia, eclampsia, cardiac hypertrophy, heart attack, and stroke; for some patients, remaining pregnant with high blood pressure can lead to heart or kidney damage well after pregnancy. Some patients with this profile seek abortion care to avoid these serious risks, while others remain pregnant and have their physicians manage the risk as best as possible. Among those who attempt to continue the pregnancy, some later decide that the risk has passed the point that they deem acceptable, and they seek an abortion at that point. But unless such a patient deteriorated to the point of a "medical emergency" as defined in H.B. 481, she would have to remain pregnant and be exposed to those near-term and long-term medical risks.

Impact on Miscarriage Care

49. Moreover, under H.B. 481, pregnant Georgians are also facing increased risk of injury or death as a result of miscarriage (which is also called spontaneous abortion or pregnancy loss).

50. Approximately 20% of pregnancies end in miscarriage. Miscarriage is common at and after 6 weeks LMP, and I care for many patients undergoing this process.

51. In many cases, a person who is miscarrying would not fall within any of Section 4's limited exceptions, including the narrow exception for "medical emergency."

52. In some cases of miscarriage, the process of pregnancy loss itself ends embryonic/fetal cardiac activity. Either no cardiac activity develops at all, or it develops, but

then stops. This is sometimes referred to as a "missed abortion." In those cases, H.B. 481 would allow a patient to access medical care to empty her uterus. *See* H.B. 481 § 4.

53. However, in other cases of miscarriage, embryonic or fetal cardiac activity persists while the individual is actively miscarrying. In these cases, the body knows the pregnancy is not viable, and begins the process of a miscarriage: the cervix starts to dilate, the membranes rupture, the uterus contracts to expel tissue, and then the cervix closes. However, this process can take some time. After the cervix has dilated, but before the uterus has expelled the tissue, a patient is considered clinically to be experiencing an "inevitable abortion," meaning that the miscarriage is certain but has not yet finished. This clinical term is wholly distinct from an "*induced* abortion" (i.e., what most laypeople simply refer to as "abortion").

54. In cases of inevitable pregnancy loss, the standard of care is to offer a patient medical treatment to empty the uterus, but H.B. 481 ties the doctor's hands if embryonic or fetal cardiac activity is still present. In those instances, H.B. 481 forces a patient to continue undergoing a miscarriage—with experiences including bleeding, cramping, partially passing the embryo/fetus, risk of infection, and physical and emotional pain—regardless of how desperately that patient wants to complete the inevitable loss of the pregnancy, and regardless of the medical risks that patient might face—unless and until the patient's condition deteriorates to the point of a "medical emergency" as H.B. 481 narrowly defines it.

55. H.B. 481 makes no distinctions between induced abortion and completion of a miscarriage: as long as there is still cardiac activity, the ban applies. For this reason, too, the Act is endangering Georgians experiencing a miscarriage by restricting clinically appropriate care intended to prevent further complications. Denying that treatment for miscarriage management

will only increase the already high pregnancy-related mortality rate that Georgians face and cruelly force patients to endure needlessly prolonged physical and mental anguish.

56. Because of H.B. 481, clinics and physicians have no choice but to turn away patients in need of banned care. Every day that it is in effect, Georgians suffer an assault to their dignity and needless risks to their health and lives.

Impact on Medical Training

57. Georgia has a critical shortage of obstetrician-gynecologists, particularly in rural areas.[17] Based on my experience practicing obstetrics and gynecology in Georgia, it is my opinion that this shortage substantially contributes to the state's high rate of pregnancy-related deaths. Research confirms that lack of access to ob/gyn care contributes to adverse health outcomes, especially for already marginalized groups.[18] By threatening obstetrician-gynecologists with criminal penalties for abortion and other standard-of-care treatment, H.B. 481 can only drive doctors out of Georgia, exacerbating the crisis. Indeed, this was a central reason why the Medical Association of Georgia opposed H.B. 481 in the Legislature: Because, if enacted and permitted to take effect, it "could undermine efforts to recruit and retain OB-GYN[s] in Georgia, and could further restrict access to health care in rural Georgia."[19]

58. Moreover, H.B. 481 will diminish the training and competency of Georgia's obstetrician-gynecologists, very likely increasing the number of preventable pregnancy-related deaths, by restricting opportunities for essential medical training in Georgia.

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[17] *See* Bridget Spelke *et al*., *Obstetric Provider Maldistribution: Georgia, USA, 2011*, 20 Matern. Child Health J. 1333, 1333–34 (2016).

[18] *Id.*

[19] Letter from Rutledge Forney, M.D to Renee Unterman, *supra* note 5.

59. Medical education proceeds in stages, and involves many different forms of knowledge transfer. At first, training consists of didactic lectures and medical school coursework. Next, for practical skill development, students often begin with simulations; during this phase, I teach them on a model. But at a certain point, working with real patients is critical.

60. Training students and residents to work with patients involves a progression as well. They first learn through observation: during this stage, I show them how to make diagnoses, provide counseling, and perform procedures. Gradually, they start participating, assuming more and more responsibility, with supervision, until they reach the competency to do it on their own. This training that happens in real time with the patient is most important.

61. H.B. 481 limits the number of abortions I can provide, and the services I can offer during counseling, thus inevitably limiting the educational experience I can provide students and residents.

62. This lack of training opportunities will not only hinder competency in abortion but also in miscarriage care, which involves identical medications and procedures.

Medical Records

63. I understand that H.B. 481 also includes a provision that allows prosecutors from the judicial circuit where an abortion took place or from where a patient lives to access the full health records of any patient who receives an abortion. I understand that it does not require the prosecutors to get a subpoena, nor does it explicitly limit the types of records to which they have access, or impose any explicit safeguards to ensure the confidentiality of patients' medical information.

64. Patients' medical records contain detailed, confidential information that clinicians record in order to ensure the patient receives the safest, highest-quality medical care, fully informed by their own medical history.

65. In addition to identifying demographic information, including a patient's age and race, medical records can and often do also include a patient's sexual history, history of abuse or intimate partner violence, history of substance abuse, and current and former medical conditions and procedures. The sharing of these records with so few standards and safeguards violates my patients' privacy and undermines the trust physicians strive to build with their patients.

66. It is my expert opinion that law enforcement's apparently unrestricted access to these patient records will result in patients' loss of privacy and trust in the medical setting, which will ultimately harm the quality of their medical care. Patients may be understandably unwilling to share with a clinician information that law enforcement might gain access to. Therefore, they may be far less forthcoming when sharing their medical history and other information clinicians need to be able to treat them.

I declare under penalty of perjury that the foregoing is true and correct to the best of my personal knowledge.

Carrie Cwiak, M.D., M.P.H.

Sworn to and subscribed before me

this 25th day of July, 2022.

NOTARY PUBLIC

EXHIBIT 1

EMORY UNIVERSITY SCHOOL OF MEDICINE
CURRICULUM VITAE

1. **Carrie A. Cwiak, M.D., M.P.H.** Revised: February 1, 2022

2. Office Address:

3. E-mail Address:

4. Citizenship: United States

5. Current Titles and Affiliations:

a. Academic Appointments:

i. Primary Appointments:

2018 - present	Professor Department of Gynecology and Obstetrics Emory University School of Medicine Atlanta, Georgia

ii. Joint and Secondary Appointment:

2018 - present	Professor Department of Epidemiology Emory University Rollins School of Public Health

b. Clinical Appointments:

2001 - present	Clinician and Trainer Medical Director, 2014-present Feminist Women's Health Center, Atlanta, Georgia
2007 - present	Director, Division of Family Planning (Acting Director 2005-2007) Department of Gynecology and Obstetrics Emory University School of Medicine, Atlanta, Georgia
2015 – present	Chief of Service Obstetrics and Gynecology Emory University Hospital Midtown
2020 – present	Chief of Inpatient Obstetrics and Gynecology Service Line Emory Healthcare
2020 – present	Clinician and Trainer Atlanta Women's Center, Atlanta, Georgia

c. Other Administrative Appointments:

2007 - present	Director, Fellowship in Family Planning (Acting Director 2005-2007) Department of Gynecology and Obstetrics Emory University School of Medicine, Atlanta, Georgia

6. Previous Academic and Professional Appointments:

2015 – 2018	Associate Professor Department of Epidemiology Emory University Rollins School of Public Health
2011 – 2018	Associate Professor Department of Gynecology and Obstetrics Emory University School of Medicine Atlanta, Georgia
2003 – 2011	Assistant Professor Department of Gynecology and Obstetrics Emory University School of Medicine Atlanta, Georgia

7. Previous Administrative and Clinical Appointments:

2003 – 2016	Director, Kenneth J. Ryan Residency Training Program in Abortion and Family Planning and Women's Options Service Department of Gynecology and Obstetrics Emory University School of Medicine, Atlanta, Georgia
2004 - 2005	Assistant Director, Fellowship in Family Planning Department of Gynecology and Obstetrics Emory University School of Medicine, Atlanta, Georgia
2005 - 2018	Medical Director, Family Planning Clinic (Acting 2018-2019) Grady Health System, Atlanta, Georgia
2009 - 2020	Clinician and Trainer Planned Parenthood Southeast, Inc., Atlanta, Georgia
2010 - 2013	Director, Division of General OB/GYN, Grady Health System (Acting 2009-2010) Department of Gynecology and Obstetrics Emory University School of Medicine, Atlanta, Georgia
2016 – 2020	Director, Translational Core Director of Community Engagement and Practice The Center for Reproductive Health Research in the Southeast (RISE) Emory University Rollins School of Public Health

8. Licensures:

2001 - present	Georgia Composite State Board of Medical Examiners

9. Specialty Boards:

2004 - present	American Board of Obstetrics and Gynecology, Obstetrics and Gynecology

10. Education:

1988 - 1992	Bachelor of Arts in Biology, Cum Laude Honors Curriculum University of San Diego, San Diego, California
1993 - 1997	Doctorate of Medicine American Medical Student Association/ National Health Service "Health Promotion/ Disease Prevention" Program Saint Louis University School of Medicine Saint Louis, Missouri

11. Postgraduate Training:

1997 - 2001	Residency, Obstetrics and Gynecology University of Connecticut Health Center Farmington, Connecticut Program Director: John Rodis, MD
2001 - 2003	Masters in Public Health in Epidemiology Rollins School of Public Health of Emory University Atlanta, Georgia Thesis Adviser: John Boring, PhD
2001- 2003	Fellowship in Family Planning Emory University School of Medicine Atlanta, Georgia Program Director: Mimi Zieman, MD

12. Continuing Additional Professional Development Activities:

2005	Early Career Women Faculty Professional Development Seminar, Association of American Medical Colleges
2007	Junior Faculty Development Course, Emory University School of Medicine
2010	Leadership Development for Physicians in Academic Health Centers, Harvard School of Public Health
2012	Mid-Career Women Faculty Professional Development Seminar, Association of American Medical Colleges
2013	Communications Workshop, Fellowship in Family Planning

2014	Exxcellence in Family Planning Research Course, The Foundation for Exxcellence in Women's Health Care
2019	EM-ProLEAD: Emory Professional Leadership Enrichment and Development Program, Emory University School of Medicine
2021	Career Advancement and Leadership Skills of Women in Healthcare, Harvard Medical School

13. Committee Memberships:

a. National and International:

2005 - 2006	Reproductive Health Model Curriculum Project Committee Association of Reproductive Health Professionals
2005 - 2008	Board of Directors, Medical Students for Choice
2008 - 2016	Kenneth J. Ryan MD Physician Leadership Award Committee Physicians for Reproductive Choice and Health
2011 - 2014	Board of Directors Chair, Membership committee Education Committee (2010-2011) Society of Family Planning
2013 – 2019	Site reviewer, Safety Certification in Outpatient Practice Excellence (SCOPE) Program, The American Congress of Obstetricians and Gynecologists
2013 – present	National Medical Committee Immediate Past Chair (2022-present) Chair (2021-2022) Vice Chair (2017-2020) Chair, Working Group 1: Contraception (2016) Executive Subcommittee (2015-present) Sylvia Clark Award Committee (2015-present) Planned Parenthood Federation of America
2014 – 2022	Fellowship in Complex Family Planning Council Vice Chair (2015-2021) Co-Chair, Core Education Task Force (2020-present) ACGME Transition Task Force (2020) Chair, Fellowship Guide to Learning Revision Subcommittee (2016-2019) Fellowship Site Reviewer (2015-2020) Ryan Residency Training Program Curriculum Review (2015)
2020 – 2022	American Board of Obstetrics and Gynecology Complex Family Planning Milestones Working Group

	Complex Family Planning Subject Matter Expert (SME) Representative

b. Institutional:

2003 - 2005	Pharmacy and Therapeutics Committee Grady Health System
2003 - 2006	Residency Oversight Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2004 - 2005	Women's Services/Neonatology Working Group Strategic Planning Committee Grady Health System
2005 - 2007	Grady Operations Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2005 - present	Steering Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2005 - 2015	Appointments and Promotions Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2010 -2013	Medical Education Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2013 - 2016	Co-Chair, Residency Clinical Competency Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2015 – 2019	Perinatal Safety Committee Women's Health Service Emory University Hospital Midtown
2015 – present	Medical Executive Committee Emory University Hospital Midtown
2015 – present	Credentials Committee Emory University Hospital Midtown
2015 – present	Operating Room and Surgical Services Committee Emory University Hospital Midtown
2015 – present	Co-Chair, Policies, Protocols, and Procedures Committee Women's Health Service

	Emory University Hospital Midtown
2016 – 2018	University Faculty Council Emory University
2016 – present	Patient Safety Committee Emory University Hospital Midtown
2018 – 2019	Facilitator, Inclusivity and Equity Working Group Department of Gynecology & Obstetrics Emory University School of Medicine
2018 – present	Policies, Protocols, and Procedures Committee Women's Health Service Emory Johns Creek Hospital
2019 – present	Executive Clinical Operations Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2019 – present	Executive Education Committee Department of Gynecology & Obstetrics Emory University School of Medicine
2020 - present	COVID-19 Response Executive Surgical and Interventional Services Leadership Working Group Patient Communication and Documentation Working Group Obstetrics and Gynecology Service Line Surgical Adjudicator Emory Healthcare
2021 – present	Co-Chair, Epic Women's Health Working Group and Clinical Leadership Group Cross Clinical Advisory Council Emory Healthcare
2022- present	Capital Committee Emory University Hospital Midtown
2022 – present	Imagine, Innovate, and Impact (I3) Award Committee Emory University School of Medicine

14. Peer Review Activities:

a. Grants:
   i. National and International:

2015 – 2018	Scientific Committee Co-chair, Interdisciplinary Innovation Grant Review Committee Society of Family Planning

b. Manuscripts:

2004 - present	American Journal of Obstetrics and Gynecology
2007 - present	International Journal of Gynecology and Obstetrics
2008 - present	Contraception
2009 - present	Fertility and Sterility
2012 - present	American Family Physician

c. Conference Abstracts:

i. National and International:

2009	Oral Abstracts Review Committee Reproductive Health Annual Meeting Society of Family Planning
2017	Oral Abstracts Judge North American Forum in Family Planning Society of Family Planning
2017	Resident Research Day Judge Department of Obstetrics and Gynecology University of Florida, Jacksonville

15. Consultantships/Advisory Boards:

2013 – 2016	Advisory Board Afaxys Pharmaceuticals
2016 – 2019	Advisory Board Medicines360

16. Editorships and Editorial Boards:

17. Honors and Awards:

1995	Mary Nawrocki Joy Medical Scholarship
2001	Alumni Award for Excellence in Undergraduate Teaching
2002	Association of Reproductive Health Professionals (ARHP)/ Wyeth Pharmaceuticals New Leaders Award
2002	American College of Obstetricians and Gynecologists (ACOG)/Organon Inc. Research Award in Contraception
2006	Golden Peach Award
2006	American Professors of Gynecology and Obstetrics (APGO) Excellence in Teaching Award
2006	Elected, Society of Family Planning
2007	Golden Peach Award
2010	Excellence in Teaching in Family Planning Award
2012	Excellence in Teaching in Family Planning Award
2013	Feminist Women's Health Center Medical Innovation and Leadership Award

2014	Medical Students for Choice Alumni Award
2016	Excellence in Teaching in Family Planning Award
2018	Commendation from Georgia House of Representatives
2020	Physicians for Reproductive Health Dr. William K. Rashbaum Award
2020	Center for Women at Emory Award for Distinguished Leadership

18. Society Memberships:

1997 - present	Fellow, American College of Obstetricians and Gynecologists
2004 - present	Physicians for Reproductive Health
2006 - present	Fellow, Society for Family Planning

19. Organization of Conferences:

a. National and International:

2006 – present	Planning Committee member, Contraceptive Technology: Quest for Excellence Conferences

b. Regional:

20. Clinical Service Contributions:

As director of the Family Planning Division, I have expanded clinical services to include: 3 outpatient sites at The Emory Clinic, and inpatient consult and surgical services at Emory University Hospital and Emory University Hospital Midtown (EUHM). I coordinated contracts with four independent Atlanta clinics for our faculty to provide reproductive health care services and train our learners. I have developed collaborations with Emory specialists (e.g. Cardiology, Rheumatology, Sickle Cell) to increase access to reproductive health care for patients and education for providers and learners. Our division faculty receive referrals from within Emory, Atlanta, Georgia, the Southeast, and beyond. This increased clinical activity has in turn significantly increased the education of our fellows, residents, and students.

As Chief of Obstetrics and Gynecology at EUHM, I have overseen a significant expansion of OB/GYN providers and clinical volume. I have integrated our service's activities into existing hospital policies and processes, utilizing existing technology within Eemr, E-bed, Surginet. As Chief of the OBGYN Inpatient Service Line for Emory Healthcare, I have built collaboration and consensus to implement evidence-based, system-wide policies, protocols, and operations. I work with other departments (e.g. Anesthesia, Radiology) to resolve challenges and best integrate solutions into the Emory Healthcare system. In addition, I foster inclusivity of the entire team via participation in committees and educational activities to include: nurses, residents, advanced practice providers, and faculty and non-faculty physicians.

21. Community Outreach:

a. General:

2011	"Stand Up for Reproductive Justice" Feminist Women's Health Center Fundraiser, Host Committee member
2013	"Vagina Monologues" Emory University Graduate School, Actor

b. Media Appearances:

Internet:

2011 (Jan)	"Pregnancy Scare in the U.K. Implicates Implanon" ABC News.com
2014 (Nov)	"Think Beyond the Pill: 4 Contraceptives You Should Consider" Yahoo.com/health
2016 (Jan)	"Pills, Patches, and Rings – What's the latest on the second-tier methods?" www.ahcmedia.com
2018 (July)	"What to Know Before Getting an IUD" Thepapergown.zocdoc.com
2019 (Feb)	"Myths About Late-Term Abortions Debunked By Actual Medical Experts" www.romper.com
2019 (March)	"Who Stands to Lose the Most Under Georgia's Anti-abortion Bill?" www.atlantamagazine.com
2019 (June)	"Your Ob-Gyn May Not Provide Your Abortion - Here's Why" www.glamour.com

Radio:

2020 (Sep)	"Roe v. Wade Under Threat as Conservative Nominee All but Assured Seat on Supreme Court" All Things Considered: Forum www.kqed.org

Television Broadcast:

2008 (Dec)	"Birth Control Pills a Safe and Effective Way of Easing Cramps" CNN Interview
2019 (Mar)	"Doctors Speak Out on 'Heartbeat Bill' Debate" www.cbs46.com

Newspaper:

2002 (Nov)	"More Choices: New birth control options include an alternative to tubal ligation" The Atlanta Journal-Constitution
2004 (May)	"Birth Control Boom: New contraceptives and natural family planning aids give couples more choices" The Atlanta Journal-Constitution
2005 (Jan)	"Look to the Future for Bold Changes in Reproductive Health" Contraceptive Technology Update newsletter
2006 (Aug)	"'Plan B' Pill Easier to Obtain" The Atlanta Journal-Constitution
2007 (May)	"Period-free Pill a Plus for Some" The Atlanta Journal-Constitution
2007 (Dec)	"Grady Hospital Gave Them Life, Now Needs Their Help" The Atlanta Journal-Constitution
2008 (May)	"New Formulations Increase Contraceptive Options" Internal Medicine News
2009 (Aug)	"Permanent Contraceptive Receives FDA Approval" Ob Gyn News

Magazines:

2004 (May)	"Now Available: Birth control with a bonus" Woman's World
2004 (Nov)	"What's Up, Doc? Going to the gynecologist is vital for your health. Here's what you need to know for your first trip" Teen Vogue
2006 (Aug)	"The Smart Girl's Guide to Birth Control" Women's Health

22. Formal Teaching:

a. Medical Student Teaching:

2001 – present	Emory University School of Medicine, Department of Gynecology and

Obstetrics, Clinical supervision and instruction of medical students in Labor and Delivery, Operating Room, outpatient clinic, and didactic lecture settings

2001 - 2002 Medical College of Georgia, Third Year Medical Student Lectures in Contraception

2001 - 2014 Emory University School of Medicine, Department of Gynecology and Obstetrics, Third Year Medical Student Lectures in Contraception, Abortion, and Ectopic Pregnancy

2005 - 2016 Emory University School of Medicine, Department of Gynecology and Obstetrics, Director of Family Planning Elective for Fourth Year Medical Students as part of the Ryan Residency Training Program in Abortion and Family Planning

2010 - 2012 Emory University School of Medicine, Medical Students for Choice, Emory Chapter, Faculty Advisor

2013 Emory University School of Medicine, Fourth Year Medical Student Capstone Pharmacology Module, Obstetrics and Gynecology cases

2014 – 2020 Emory University School of Medicine, Second Year Medical Student Elective, "Abortion in the Southeast" course lecture in Abortion Legislation

b. Graduate Programs:

i. Residency Programs:

2001 - present Emory University School of Medicine, Department of Gynecology and Obstetrics, Clinical supervision and instruction of residents in Labor and Delivery, Operating Room, outpatient clinic, and didactic lecture settings

2003 – 2007 Emory University School of Medicine, Department of Gynecology and Obstetrics, Director of PGY-2 Abortion Rotation as part of the Ryan Residency Training Program in Abortion and Family Planning. (Emory University is one of 69 residency sites established nationally under the Ryan Program to provide didactic and clinical instruction in contraception and abortion to Obstetrician/Gynecologist residents and medical students.)

2005 – 2016 Emory University School of Medicine, Department of Gynecology and Obstetrics, Director of PGY-1 Family Planning Rotation as part of the Ryan Residency Training Program in Abortion and Family Planning

2005 – present Emory University School of Medicine, Department of Gynecology and Obstetrics, Intern Bootcamp, Intrauterine Device and Implant Insertion Training

ii. Fellowship Programs:

2001 – present Emory University School of Medicine, Department of Gynecology and Obstetrics, Clinical supervision and instruction of fellows in Labor and Delivery, Operating Room, outpatient clinic, and didactic lecture settings

2003 - present Program Director
Emory University School of Medicine, Department of Gynecology and Obstetrics, Director of Complex Family Planning Fellowship. (Emory University is the 8th of 29 fellowship sites established nationally to provide didactic and clinical instruction in contraception and abortion, as well as research training to Obstetrician/Gynecologists.)

iii. Master's and PhD Programs:

2002 - present Rollins School of Public Health, Emory University, "Technology of Fertility Control" course lectures in Contraception and Abortion

2019 Emory University Center for Ethics, Masters in Bioethics Class, "Classic Issues in Bioethics," Mock trial of HB481

c. Other Categories:

2017 Georgia Institute of Technology, Project Mentor, Capstone Project, "Patient Controlled Analgesia Pump Lockbox"

d. Other: Formal Teaching: Lectureships

2003 - 2007 Faculty, Adolescent Reproductive Health Education Project, Association of Reproductive Health Professionals

2006 - 2015 Senior Faculty, Implanon/Nexplanon™ Clinical Training Program, Merck & Co., Inc.

2007 Faculty, "Using Modern Concepts and Techniques in Teaching Contraception," John Snow Institute, Training of Trainers Workshop for the Romanian Family Health Initiative Research and Training Institute, Brasov, Romania
Awards: $31,500 from Anonymous Foundation; Blue Ribbon Award for poster abstract at the 2006 American College of Obstetricians and Gynecologists Annual Clinical Meeting

24. Lectureships, Seminar Invitations, and Visiting Professorships:

a. National and International:

1. Hartford Hospital Grand Rounds, "Reproductive Health Benefits Throughout the Lifecycle," Hartford, CT, January 2004.
2. New Britain General Hospital Grand Rounds, "Greater Contraceptive Choices for Enhancing Health-Related Quality of Life," New Britain, CT, January 2004.
3. University of California at Los Angeles, Department of Obstetrics and Gynecology, Grand Rounds, "Management of Induced Abortion Complications," Los Angeles, CA, January 2007.

4. Washington Hospital Center, Department of Obstetrics and Gynecology, Grand Rounds, "Contraceptives for Complicated Medical Patients," Washington, DC, November 2007.
5. Alabama Department of Public Health, Annual Nurse Practitioner Conference, "WHO Medical Eligibility Guidelines for Contraceptives," Montgomery, AL, April 2009.
6. Arkansas Department of Public Health, Grand Rounds, "Increasing Our Effective Use of Contraception," Little Rock, AR, September 2010.
7. University of Arkansas for Medical Sciences, Department of Obstetrics and Gynecology, Grand Rounds, "The Training of Residents in Comprehensive Reproductive Health," Little Rock, AR, September 2010.
8. Tulsa County Obstetrical and Gynecological Society, "Increasing Our Effective Use of Contraception," Tulsa, OK, May 2011.
9. Oklahoma University, Department of Obstetrics and Gynecology, Grand Rounds, "Long Acting Reversible Contraception (LARC): What Does the Data Tell Us?" Tulsa, OK, May 2011.
10. Wake Forest School of Medicine, Department of Obstetrics and Gynecology, Grand Rounds, "Contraception for the Complex Medical Patient," Winston-Salem, SC, February 2013.
11. University of Louisville, Department of Obstetrics and Gynecology, Grand Rounds, "Contraception for the Medically Complex Patient," Louisville, KY July 2013
12. University of Florida, Jacksonville, Department of Obstetrics and Gynecology, "Postplacental LARC (Long-Acting Reversible Contraception)," Jacksonville, FL, August 2016
13. University of South Florida Morsani College of Medicine, Grand Rounds, Department of Obstetrics and Gynecology, "Postpartum Long-Acting Reversible Contraception," Tampa, FL, February 2017
14. University of South Carolina-Columbia School of Medicine, Grand Rounds, Department of Obstetrics and Gynecology, "Contraception for Medically Challenging Patients," Columbia, SC, May 2019
15. Southern New Hampshire Grand Rounds, Deparmtent of Obstetrics and Gyncology, "Postparru LARC: What does the data tell us?

b. Regional:

1. Office of Women's Health, Adolescent Health Update, "Contraceptive Use in Adolescents," Waycross, GA, March 2002.
2. Emory University Regional Training Center, Title X Coordinator Regional Conference, "Emergency Contraception," Atlanta, GA, May 2002.
3. Emory University Regional Training Center, Teen Pregnancy Annual Meeting, "Emergency Contraception," Atlanta, GA, August 2002.
4. Emory University Regional Training Center, Georgia Young Women's Health Summit, "Teen Pregnancy Prevention," Atlanta, GA, June 2003.
5. Emory University Regional Training Center, "Contraceptive Technology Level II," Waycross, GA, September 2003.
6. Emory University Regional Training Center, Tennessee Department of Health's Spring Update for Women's Health, "Contraceptive Update," Nashville, TN, May 2004.
7. Atlanta Medical Center, Department of Family Medicine, Grand Rounds, "Contraceptive Management and Abortion Follow-up," Atlanta, GA, September 2004.
8. Emory University Regional Training Center, Tennessee Department of Health's Spring Update for Women's Health, "Contraceptive Update," Nashville, TN, May 2005.
9. Emory University Regional Training Center, "Emergency Contraception" and "Adolescent Reproductive Health," Dalton, GA, May 2005.

10. Mercer School of Medicine, Department of Obstetrics and Gynecology, Grand Rounds, "Treatment of Complications of Abortion," Macon, GA, September 2005.
11. Emory University Regional Training Center, Annual Conference on Women and Their Health, "Adolescent Reproductive Healthcare," Atlanta, GA, May 2006.
12. Atlanta Medical Center, Department of Obstetrics and Gynecology, Grand Rounds, "Management of Induced Abortion Complications," Atlanta, GA, September 2006.
13. Emory University Regional Training Center, Dade County Health Department, "Contraceptive Technology Update," Miami, FL, November 2006.
14. Emory University Regional Training Center, Georgia Department of Human Resources Training, "Emergency Contraception," Atlanta, GA, January 2007.
15. Emory University Regional Training Center, Orange County Health Department, "Contraceptive Technology Update," Orlando, FL, February 2007.
16. Georgia Department of Human Resources/Public Health, "Contraceptive Technology: Level II Management," Atlanta, GA, June 2008.
17. Medical College of Georgia, Department of Obstetrics and Gynecology, Grand Rounds, "Contraceptive Technology Update," Augusta, GA, September 2008.
18. Augusta Obstetrical and Gynecological Society, "Guidelines for Increasing Contraceptive Use in Women with Medical Conditions," Augusta, GA, September 2008.
19. Emory University, Health Care Ethics Consortium of Georgia Annual Conference, Politics of Caring: Ethical Issues of Justice in an Era of Scarce Resources, "Reproductive Rights & Legislation – Ethical Implications," Atlanta, GA, March 2013.
20. Piedmont Hospital, Department of Obstetrics and Gynecology, Grand Rounds, "The Impact of Legislative Limits on Periviable Obstetric Care," Atlanta, GA May 2018.

c. Institutional:

1. Emory University School of Medicine, Department of Gynecology and Obstetrics, Grand Rounds, "Adolescent Reproductive Health," Atlanta, GA, March 2004.
2. Emory University School of Medicine, Department of Emergency Medicine,4th Annual State of the Art Clinical Excellence in Emergency Care, "Ultrasound Workshop: A Hands on Introduction," Atlanta, GA, March 2004.
3. Emory University, Department of Gynecology and Obstetrics, Grand Rounds, "Clinical Update on Depo-Provera Use," Atlanta, GA, February 2005.
4. Emory University, Department of Gynecology and Obstetrics, Grand Rounds, "Management of Induced Abortion Complications," Atlanta, GA, October 2006
5. Grady Health System, MD Showcase, "Why Every Woman Should Have a Reproductive Health Plan," Atlanta, GA, December 2006.
6. Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, "Reproductive Health for the Primary Care Provider" Atlanta, GA, August 2013
7. Grady Health System, Ambulatory and Community Medicine and Nurse Midwives, "Update of Family Planning Guidelines," Atlanta, GA, February 2014
8. Emory University, Department of Emergency Medicine, "Managing GYN Problems with Contraception," Atlanta, GA, March 2014
9. Emory University, Medical Students for Choice Chapter, "Medical and Legal Barriers to Accessing Family Planning Resources in Georgia," Atlanta, GA, March 2015
10. EUHM Grand Rounds, Department of Medicine, "Contraception for the Medically Complex Patient," Atlanta, GA, September 2015
11. LGBT Week, Emory University School of Medicine, "Reproductive Health issues for Women Who Sleep with Women," Atlanta, GA, October 2015

12. Emory University, Medical Students for Choice Chapter, "Reproductive Health and the Upcoming Election," Atlanta, GA, April 2016
13. Emory University Grand Rounds, Department of Gynecology and Obstetrics, "Early Pregnancy Loss," Atlanta, GA, November 2016

25. Invitations to National, Regional, Institutional Conferences:

a. National and International:

1. Centers for Disease Control's Advancing the Health of Women: Prevention, Practice, and Policy Conference, "New Methods of Contraception," Atlanta, GA, October 2002.
2. Contraceptive Technology: Quest for Excellence, "Contraception for Women with Chronic Medical Conditions," Atlanta, GA, October 2002.
3. John Snow Institute 24th Annual Reproductive Health Conference: "New Contraceptive Methods" and "Clinical Workshop: WHO Medical Eligibility Criteria for Contraceptive Methods", Portsmouth, NH, April 2003.
4. John Snow Institute 25th Annual Reproductive Health Conference, "New Methods of Contraception" and "Clinical Workshop: 25 Questions on Contraception: The Devil Is in the Details," Boston, MA, April 2004.
5. Contraceptive Technology: Quest for Excellence, Preconference, "Medical Eligibility Criteria for Contraceptive Use," and Plenary Session, "Adolescent Reproductive Health: Unique Clinical Challenges," Atlanta, GA, November 2004.
6. Contraceptive Technology: Quest for Excellence, Preconference, "Medical Eligibility Criteria for Contraceptive Use," and Plenary Session, "Adolescent Reproductive Health: Unique Clinical Challenges," Washington, DC, April 2005.
7. Annual Ambulatory OB/GYN Nursing Conference, General Session, "Adolescent Reproductive Health: Unique Clinical Challenges," and Concurrent Session, "Contraception for Women with Chronic Medical Conditions" Nashville, TN, October 2005.
8. Contraceptive Technology: Quest for Excellence, Preconference, Back to Basics: The Fundamentals of Contraception: "Practical Pointers in Providing Hormonal Contraception," and Plenary Session, "Contraception for the Medically Complicated Patient," Atlanta, GA, October 2006.
9. Medical Students for Choice Annual Meeting, "Everything You Wanted to Know About Hormonal Contraception," St. Petersburg, FL, March 2007.
10. North American Society for Pediatric and Adolescent Gynecology Annual Clinical Meeting, "Compliance, Complications, and Consent: Teaching Contraception to Our Patients," Atlanta, GA, April 2007.
11. Contraceptive Technology: Quest for Excellence, Preconference: "Why Every Woman Needs a Reproductive Health Plan" and "Update on Medical Eligibility Criteria for Contraceptive Use;" Special Session, "Implanon Clinical Training;" and Plenary Session, "Future Contraception: What's in the pipeline?" Atlanta, GA, November 2007.
12. Contraceptive Technology: Quest for Excellence, Preconference, "Update on Medical Eligibility Criteria for Contraceptive Use" and "DMPA and Bone Density: The Facts, Please;" Special Session, "Implanon Clinical Training;" and Plenary Session, "What's New, What's Next? Contraceptives in the Pipeline," Boston, MA, March 2008.
13. Medical Students for Choice Annual Meeting, "New Frontiers in Contraception" and "Practitioners' Perspectives," St. Paul, MN, April 2008.
14. Office Gynecology Conference, Special Session, "Implanon Clinical Training," Plenary Sessions, "Contraception for Women with Chronic Medical Conditions," "Managing STDs in Adolescents," and "Quick-Start, Extended Regimens and Shortened Pill-Free

Interval;" and Concurrent Session, "Preconception Counseling," Aspen, CO, August 2008.

15. Contraceptive Technology: Quest for Excellence, Preconference, "Update on Medical Eligibility Criteria for Contraceptive Use" and "Why Every Woman Needs a Reproductive Health Plan;" Plenary Session, "What's New, What's Next? Contraceptives in the Pipeline;" and Concurrent Session, "Rings and Patches: Clinical Update and Prescribing Tips," Atlanta, GA, October 2008.
16. Association of Physician Assistants in Obstetrics and Gynecology, National Women's Health Conference, "Guidelines for Increasing Contraceptive Use in Women with Medical Conditions," Atlanta, GA, March 2009.
17. American Society for Reproductive Medicine Annual Meeting, "Vaginal Rings and Other Things in Contraception," Roundtable Luncheon, Atlanta, GA, October 2009.
18. Contraceptive Technology: Quest for Excellence, Preconference: "The Pharmacology of Hormonal Contraception" and "When Things Go Wrong: Managing Side Effects;" Plenary Session, "Contraception for The Medically-Complicated Woman;" and Concurrent Session, "Contraception and Chronic Medical Conditions: Interesting Cases," Atlanta, GA, October 2009.
19. Contraceptive Technology: Quest for Excellence, Preconference: "The Pharmacology of Long Acting Reversible Contraception (LARC)," "Postpartum and Perimenopausal Use of LARC;" Special Session, "Implanon Clinical Training;" and Plenary Session, "New Data on Highly Effective Reversible Contraception," Atlanta, GA, October 2010.
20. American Society for Reproductive Medicine Annual Meeting, Postgraduate Course, "Contraception in the Medically Challenging Patient," Orlando, FL, October 2011.
21. Contraceptive Technology: Quest for Excellence, Preconference: "Contraception for Women with Chronic Medical Conditions," and Plenary Session, "LARC: Managing the Side Effects to Improve Patient Compliance," Atlanta, GA, October 2011.
22. Contraceptive Technology, Preconference: "Contraception for Women with Chronic Medical Conditions," and Plenary Session, "LARC: Managing the Side Effects to Improve Patient Acceptance," Boston, MA, March 2012.
23. Contraceptive Technology: Quest for Excellence, Preconference, "Screening for Contraception: What's Necessary, What's Not," and "In Defense of the Follow-Up Visit: Missed Pills, Loose Patches, Slippery Rings, and Bleeding Changes;" and Plenary Session, "Obesity and Contraception: What We Now Know," Atlanta, GA, November 2012
24. Medical Students for Choice, Abortion Training Institute, "Issues in Second Trimester Abortion" and "Your Path to Provision", Atlanta, GA, July 2013
25. North American Forum on Family Planning, "Contraception for Women with Complex Medical Conditions," Seattle, WA, October 2013
26. Contraceptive Technology: Quest for Excellence, Preconference, "Integrating Family Planning into Your Primary Care Practice," and Plenary Session, "Managing GYN Problems with Contraception: PCOS, Menorrhagia, and Others," Atlanta, GA, October 2013
27. CREOG and APGO Annual Meeting, Roundtable Session, "Signing Up: Advocacy, Training, and Legislation in Women's Health," Atlanta, GA February 2014
28. Fellowship in Family Planning Annual Meeting, Symposium in Second Trimester Abortion, "Second Trimester Abortion in the Teaching Hospital: Who Decides?" Chicago, IL, April 2014
29. ACOG Annual Meeting, Medical Student Workshop, "Finding the Right Shoes that Fit: Asking the Right Questions to Find the Residency Program That's Right for You," Chicago, IL, April 2014
30. National Reproductive Health (Title X) Conference, "Reproduction and Obesity: Best

Practices in the Family Planning Setting," Orlando, FL, August 2014

31. North American Forum on Family Planning, "Postpartum IUD Insertion: From Research to Reality," Miami, FL, October 2014
32. Contraceptive Technology: Quest for Excellence, Preconference, "Screening for Contraception: What's Necessary, What's Not," and "In Defense of the Follow-Up Visit: Missed Pills, Loose Patches, Slippery Rings, and Bleeding Changes;" and Plenary Session, "Managing Unscheduled Bleeding on Hormonal Contraception," and Roundtable Luncheon, "The CDC Medical Eligibility Criteria and Selected Practice Recommendations," Atlanta, GA, October 2014
33. Medical Students for Choice Annual Meeting, "Adolescent Sexual Health, Contraception and Abortion" and "Provider Panel," Atlanta, GA, November 2014
34. Fellowship in Family Planning Psychosocial Workshop, "Professionalism," San Francisco, CA, March 2015
35. ACOG Annual Meeting, Medical Student Workshop, "CV and Personal Statement," San Francisco, CA, May 2015
36. Contraceptive Technology: Quest for Excellence, General Conference, "Pills, Patches, and Rings: Update on the 2nd Tier Methods," and Concurrent Session, "Contraception and Chronic Medical Conditions: Challenging Cases," Atlanta, GA, November 2015
37. National Abortion Federation Annual Meeting, "Managing Abortion Complications: Strengthening Partnerships Between Independent Clinics and Teaching Hospitals," Austin, TX April 2016
38. Contraceptive Technology: Quest for Excellence, Preconference, "Difficult IUD and Implant Placement and Removal: Clinical Pearls" and "What Now? Contraceptive Options for Perimenopausal Women;" General Conference, "Postpartum Contraception;" and Concurrent Session and Roundtable Luncheon, "Heavy Menstrual Bleeding," Atlanta, GA, November 2016
39. North American Forum on Family Planning, "Fellowship in Family Planning," Denver, CO, November 2016
40. National Abortion Federation Annual Meeting, "Training Future Providers and Providing Sustainable Services: Establishing Harmony Between These Two Goals Montreal, Canada April 2017
41. Fellowship in Family Planning/ACOG Meeting, "Psychosocial Issues in Abortion Care Workshop," San Diego, CA May 2017
42. Planned Parenthood Federation National Medical Committee Meeting, Plenary, "IUD Placement After Infection," Atlanta, GA, October 2017
43. Contraceptive Technology: Quest for Excellence, Preconference, "Secondary Amenorrhea and Infrequent Menses" and "Cases and Questions;" Main Conference, Effective Communication and History Taking with LGBTQ Patients;" Concurrent Session, "Gender Benders: Cases in LGBTQ Care," Atlanta, GA, November 2017
44. Contraceptive Technology, Preconference, "Contraceptive Guidelines for Adolescents," "Cancer and Contraception: Prevention and Risk," and "Challenging Contraceptive Cases;" Main Conference, "What's New with the Pill?" and "Pregnancy Prevention and Family Building for Transgender and Gender Expansive Persons;" Concurrent Sessions, "Managing Early Pregnancy Loss" and "Improving Sexual Health Services for Transgender Patients: Hormonal Management and Other Issues," Washington, DC, April 2018
45. Contraceptive Technology, Preconference, "Contraceptive Counseling for Different Age Groups," "Integrating Dual Protection and Emergency Contraception Back Up Into Routine Practices," and "Challenging Cases from Menarche to Menopause;" Main Conference, "Pregnancy Prevention and Family Building for Transgender and Gender Expansive Persons;" Concurrent Sessions, "Immediate and Early Postpartum Long

Acting Reversible Contraception" and "What's New with the Pill?," Atlanta, GA, November 2018

46. Society for Maternal Fetal Medicine Annual Meeting, Workshop on Reproductive Services for Women at High-Risk for Maternal Mortality, "Counseling for Contraception After Pregnancy," Las Vegas, NV, February 2019
47. Fellowship in Family Planning and Ryan Program Meeting, 'The Physician Voice in the Courts," Los Angeles, CA, October 2019
48. Contraceptive Technology, Plenary Session, "Clinical Pearls in Contraception Panel;" Concurrent Sessions, "Cases: Contraceptive Pill Management," and "Another Round of Interesting Cases of Complex Contraception," Virtual, September 2020
49. Contraceptive Technology, Plenary Sessions, "Clinical Pearls in Contraception Panel" and "Late Breaker Panel;" and Concurrent Session, "Another Round of Interesting Cases of Complex Contraception," Virtual, September 2021

b. Regional:

c. Institutional:

1. Emory University School of Law Vulnerability and the Social Reproduction of Resilient Societies, Discussion Panel, "Vulnerability Theory and Reproductive Health in the Southeast," Atlanta, GA, May 2018

27. Abstract Presentations at National/International, Regional, and Institutional Conferences:

a. National and International:

1. **Cwiak C**, Edelman A, Hatcher RA, Zieman M, Nichols M, Jensen J, Emmons S, Khan I. CREOG/APGO Annual Meeting, Oral Abstract, "Teaching Contraception: an Interactive Presentation Using Managing Contraception," 2nd prize in oral abstract category, March 2004.
2. **Cwiak C**, Emmons S, Khan I, Edelman A. CREOG/APGO Annual Meeting, Oral Abstract, "The Impact on Long-term Knowledge and Learning Skills of Teaching Contraception to Medical Students," March 2005.
3. Megill C, Whilhelm S, **Cwiak C**. National Abortion Federation Annual Meeting, Oral Abstract, "Characteristics and Support Systems of Adolescents Presenting for Abortion," April 2005.
4. Fritsche M, Saks D, **Cwiak C**. ACOG Annual Clinical Meeting, Poster, "Medical Students' Intention to Provide Abortions Following the MSFC Reproductive Health Externship," May 2005.
5. Sales JM, Sheth A, Steiner R, Brown JL, Swartzendruber A, **Cwiak, C**, Haddad LB, Patel A. STI & HIV World Congress Meeting, Oral Abstract, "Assessment of Clinic and Community Recruited Young African American Women for PrEP Eligibility in Atlanta, Georgia," Rio De Janeiro, Brazil, 2017.
6. Lew R, **Cwiak C**, Truitt S, Jensen J, Nichols M, Edelman A. ACOG Annual Clinical Meeting, Poster, "Acceptability of Contraceptive-Induced Amenorrhea in American Women," May 2005.
7. Bednarek PH, Botha RL, Creinin MD, Reeves MF, **Cwiak C,** Jensen JT. American Society for Reproductive Medicine, Oral Abstract and Prize Paper Candidate, "The Effect of Immediate Intrauterine Device (IUD) Insertion on Bleeding Patterns Following First Trimester Suction Aspiration," October 2009.

8. Lathrop E, Telemaque Y, Goedken P, **Cwiak C**. Gates Foundation Global Family Planning Conference, Oral Abstract, "Postpartum Family Planning Program Implementation in Cap Haitien, Haiti." Kampala, Uganda, November 2009.
9. Lathrop E, Telemaque Y, Goedken P, **Cwiak C**. Global Maternal Health Conference, Oral Abstract, "Traditional and Modern Methods Used for Emergency Contraception in Haiti: A Timely Imperative?" New Delhi, India, August 2010.
10. Haddad LB, Nyirenda, M, **Cwiak C**, Tweya H, Feldacker C, Jamieson DJ, Hosseinipour M, Hoffman I, Bryant AG, Stuart GS, Noah I, Mulundila L, Samala B, Phiri S. International AIDS Society, Oral Abstract, "Contraceptive eligibility, choice and acceptance of the copper intrauterine device (IUD) among HIV+ clients at an ART clinic in Lilongwe, Malawi," Rome, Italy. July 2011.
11. Haddad LB, Nyirenda M, Tweya H, Feldacker C, Jamieson DJ, Hosseinipour M, Hoffman I, **Cwiak C**, Bryant A, Stuart GS, Martinson F, Mhango C, Hartsell S, Noah I, Mlundila L, Samala B, Phiri S**.** International AIDS Society, Poster," Successful Integration of Family Planning into HIV Care in Lilongwe, Malawi," Rome, Italy. July 2011.
12. Badell ML, Lathrop E, Haddad LB, Goedken P, Nash S, Nguyen ML, **Cwiak CA**. National HIV Prevention Conference, Poster, "Contraception and STI Protection among HIV Positive Women: A great gap remains," Atlanta, GA, August 2011.
13. Lemon E, Redd S, Berry E, Hartwig S, Lathrop E, Haddad L, Rochat R, **Cwiak C**, Hall KS. National Abortion Federation Annual Meeting, Poster, "Racial and Ethnic Differences in Abortion Trends by Gestational Age Following Implementation of Georgia's 22-Week Ban," April 2019.
14. Hartwig SA, Mosley EA, Contreras A, Filippa S, McCloud C, Carroll E, Goedken P, Haddad LB, **Cwiak C**, Hall KS. American Public Health Association Annual Meeting, Poster, "'The right thing to do would be to provide care... and we can't': Experiences with Georgia's 22-week gestational age limit," 2020.
15. Verma N, Kottke M, Goedken P, **Cwiak C**. National Abortion Federation Annual Meeting, (virtual), Poster, "A Survey of Abortion Opinions Among Residents of Georgia's 6th Congressional District," May 2021.
16. Hartwig SA, Redd S, Contreras A, Haddad L, Hall KS, **Cwiak C**. City MatCH Leadership and MCH Epidemiology Conference, Oral abstract, "Obstetric provider awareness and interpretation of the '20-week abortion ban' in Georgia." 2021.

b. Regional:

1. Henke J. **Cwiak C**. ACOG Annual District IV Meeting, Oral Abstract, "Is chlamydial for gonorrheal cervicitis a risk-factor for ectopic pregnancy?" October 2003.
2. Gill H, **Cwiak C.** ACOG Annual District IV Meeting, Poster, "Emergency Contraceptive Knowledge and Use in Patients Presenting for Elective First Trimester Abortion," Second prize, September 2007.

c. Institutional:

28. Grant Support:

a. Active Support:

i. Federal:

Contraceptive Development Program NICHD Contraceptive Clinical Trials Network – Female Sites

Sponsor: NICHD
Role: Principal Investigator, 2% effort
Amount: $5,000,000
Dates: 7/1/20 – present

ii. Private Foundation Funded:

COVID-19 Impact on Reproductive Health Services: A Qualitative Exploration
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Gold)
Amount: $15,000
Dates: 4/1/21 – present

Emory/Centers for Disease Control and Prevention Family Planning Researcher Program
Sponsor: Anonymous Foundation
Role: Co-Director, 2.5% effort
Amount: $599,000
Dates: 9/1/17 – 6/30/22

Fellowship Training Program in Family Planning and Contraception
Sponsor: Anonymous Foundation
Role: Program Director, 5% Effort
Amount: $ 4,800,000 ($300,000 annually)
Dates: 7/1/2005 – 6/30/22

Kenneth J. Ryan LARC Grant
Sponsor: Anonymous Foundation
Role: Program Director
Amount: LARC devices provided to uninsured and underinsured patients
Dates: 7/1/2005 – 6/30/22

Clinical Trials:

A Phase 3, Prospective, Multi-Center, Single-Arm, Open-Label Study to Evaluate VeraCept®, a Long-Acting Reversible Intrauterine Contraceptive for Contraceptive Efficacy, Safety, and Tolerability
Sponsor: Contramed, LLC
Role: Co-Investigator (Site Principal Investigator, 1% Effort 2018-2021)
Amount anticipated: $75,000
Dates: 2018 - present

b. Previous Support:

Research Award in Contraception, Teaching Contraception: An Interactive Presentation Using *Managing Contraception*
Sponsor: ACOG/Organon Inc.
Role: Co-Principal Investigator
Amount: $25,000
Dates: 2002 - 2003

Kenneth J. Ryan grant to Provide, Residency Training Program in Abortion and Family Planning

Sponsor: Anonymous Foundation
Role: Director of Resident Abortion Rotation and Women's Options Service
Amount: $479,000
Dates: 2003 - 2005

Reproductive Health Medical Education Project, Mid-term evaluation
Sponsor: Pathfinder International, Vietnam
Role: Clinical Team member and Co-Author of report
Amount: $21,000
Dates: 2005

Title X-Family Planning Clinic, Grady Memorial Hospital
Sponsor: Grady Memorial Hospital/DHHS-title X program
Role: Medical Director, 15% Effort
Amount: $560,000 ($40,000 annually)
Dates: 2005 – 2018

Use of a computer-based contraceptive survey providing personalized output
Sponsor: Anonymous
Role: Co-Investigator/Mentor (PI-Kottke)
Amount: $60,000
Dates: 2006 – 2009

Immediate versus delayed IUD insertion following suction aspiration between 5 and 12 weeks gestation: a prospective randomized trial
Sponsor: University of Oregon Health and Sciences Center/Anonymous Foundation,
Role: Site Principal Investigator
Amount: $51,000
Dates: 2006 - 2009

Postpartum Contraception Needs Assessment in Cap Haitien, Haiti
Sponsor: Anonymous Foundation,
Role: Co-Investigator/Mentor (PI-Lathrop)
Amount: $60, 000
Dates: 2008 - 2009

Family Planning Clinical Conference Series
Sponsor: Medical Education Grant from Duramed Research, Inc.
Role: Co-Director
Amount: $12,500
Dates: 2009 – 2010

Plan B 1.5 emergency contraception actual use study
Sponsor: Teva Women's Health Research, Inc.
Role: Site Principal Investigator
Amount: $113,000
Dates: 2009 – 2011

A Multicenter, open-label study to evaluate the efficacy and safety of a combination oral contraceptive regimen (DR-103) for the prevention of pregnancy in women
Sponsor: Teva Women's Health Research, Inc.

Role: Site Principal Investigator
Amount: $186,000
Date: 2009 – 2011

Multiple perspectives on dual protection use by young women
Sponsor: Centers for Disease Control and Prevention, Special Interest Project
Role: Advisor (Co-PIs-DiClemente/Kottke)
Amount: $329,000
Dates: 2009 – 2014

Prospective Assessment of Acceptability and Adherence Associated with Use of the Copper Intrauterine Device (CuT380A-IUD) compared to Depo-medroxyprogesterone acetate (DMPA) among HIV Positive Women in Lilongwe, Malawi
Sponsor: Anonymous Foundation
Role: Co-Investigator/Mentor (PI-Haddad)
Amount: $70, 000
Dates: 2010 - 2013

Family Planning Knowledge, Attitudes and Practices Women with a History of Bariatric Surgery and their Healthcare Providers
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Cleary)
Amount: $62, 000
Dates: 2011 – 2013

A Survey of Knowledge, Attitudes, and Practices of Family Planning Services of Army Primary Care Providers at Joint Base Lewis McChord
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Deans)
Amount: $63,000
Dates: 2014 – 2016

Implementation of Immediate Postpartum LARC in Georgia: Stakeholder analysis and barriers analysis
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Hofler)
Amount: $53,000
Dates: 2015 - 2016

Center for Reproductive Health Research in the Southeast (RISE) Planning Grant
Sponsor: Anonymous Foundation
Role: Director, Translational Core: Community Practice and Engagement 10% Effort
Amount: $380,852
Dates: 2016 – 2017

Gabapentin as an adjunct to paracervical block for perioperative pain management for surgical abortion: a randomized controlled trial
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Hailstorks)
Amount: $85,000
Dates: 2016 - 2018

Integrating PrEP Screening and Referral into Family Planning Clinics in the Southern U.S.
Sponsor: Gilead
Role: Co-investigator, 3% Effort
Amount: $197,809
Dates: 2016 – 2019

Barriers to Family Planning among women with severe mental illness
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Lawley)
Amount: $47,297
Dates: 2017 – 2019

Center for Reproductive Health Research in the Southeast (RISE)
Sponsor: Anonymous Foundation
Role: Director, Translational Core: Community Practice and Engagement; Co-PI, Evaluating the Impact of Georgia 20 week Ban, 20% effort
Amount: $6,000,000
Dates: 2017 – 2020

Evaluation of the Effectiveness, Safety and Tolerability of Levocept (Levonorgestrel-Releasing intrauterine System) for Long-Acting Reversible Contraception
Sponsor: Contramed, LLC
Role: Site Principal Investigator, 1% Effort
Amount anticipated: $68,000
Dates: 2017 - 2021

A phase 3, randomized, multi-center, open-label study of a levonorgestrel-releasing intrauterine system (20 mcg/day) and mirena® for long-term reversible contraception up to five years
Sponsor: Medicines360, Inc.
Role: Site Principal Investigator
Amount: $337, 000
Dates: 2010 - 2021

Anesthesia Providers' Perspectives on Abortion Provision
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Reeves)
Amount: $63,581
Dates: 2018 – 2019

HB481 in Georgia: A Qualitative Exploration
Sponsor: Society of Family Planning
Role: Co-Investigator/Mentor (PI-Verma)
Amount: $15,000
Dates: 2020 – 2021

29. Bibliography:

a. Published and Accepted Research Articles:

1. Todd HM, Dundoo VL, Gerber WR, **Cwiak C**, Baldassare JJ, Hertelendy F. Effect of cytokines on prostaglandin E2 and prostacyclin production in primary cultures of human myometrial cells. Journal of Maternal-Fetal Medicine, Vol. 5, No. 4, 161-7, July-August 1996.

2. Ansell DA, Schiff G, Dick S, **Cwiak C**, Wright K. Voting with their feet: Public hospitals, health reform, and patient choices. American Journal of Public Health, Vol. 88, No. 3, p.439-41, March 1998.

3. **Cwiak C**, Gellasch T, Zieman M. Peri-partum contraceptive attitudes and practices. Contraception, Vol. 70, No. 5, p.383-6, November 2004.

4. **Cwiak C**, Edelman A, Hatcher RA, Zieman M, Nichols M, Jensen J, Emmons S, Khan I. Teaching contraception: An interactive presentation using managing contraception. American Journal of Obstetrics and Gynecology, Vol. 191, No.5, p.1788-92, November 2004.

5. **Cwiak CA**, Emmons SL, Khan IM, Edelman AB. A comparison of different contraceptive curriculums and their impact on knowledge retention and learning skills of medical students. Contraception, Vol. 73, No. 6, p.609-12, June 2006.

6. Westhoff CL, Heartwell S, Edwards S, Zieman M, Stuart G**, Cwiak C,** Davis A, Robilotto T, Cushman L, Kalmuss D. Oral contraceptive discontinuation: Do side effects matter? American Journal of Obstetrics and Gynecology, Vol. 196, No. 4, p. 412, e1-6, April 2007.

7. Edelman A, Lew R, **Cwiak C**, Nichols M, Jensen J. Acceptability of contraceptive-induced amenorrhea in a racially diverse group of U.S. women. Contraception, Vol 75, No. 6, p.450-3, June 2007.

8. Hayes J, **Cwiak C**, Goedken P, Zieman M. A pilot clinical trial of ultrasound guided postplacental insertion of a levonorgestrel intrauterine device. Contraception, Vol. 76, No. 4, p.292-6, October 2007.

9. Lalor Olsen M, **Cwiak C**, Koudelka C, Jensen J. Desired qualities and hypothetical contextual use of vaginal microbicides in a diverse sample of U.S. women. Contraception, Vol. 76, No. 4, p.314-8, October 2007.

10. Kottke M, **Cwiak C.** Nondaily contraceptive options: User benefits, potential for high continuation, and counseling issues. Obstet Gynecol Surv, Vol. 63, No. 10, p. 661-8, October 2008.

11. Lathrop E, Telemaque Y, Goedken P, Andes K, Jamieson DJ, **Cwiak C.** Postpartum contraceptive needs in northern Haiti. International Journal of Gynecology and Obstetrics, Vol. 112, No. 3, p.239-42, March 2011.

12. Bednarek PH, Creinin MD, Reeves, MF, **Cwiak C**, Espey E, Jensen JT, for the Post-Aspiration IUD Randomization (PAIR) Study Trial Group. Immediate versus delayed intrauterine device insertion after uterine aspiration. New England Journal of Medicine, Vol. 364, No. 23, p.2208-17, June 2011.

13. Haddad LB, Curtis KM, Legarty-Williams JK, **Cwiak C**, Jamieson DJ. Contraception for individuals with sickle cell disease: A systematic review of the literature. Contraception, Vol. 85, No. 6, p.527-37, June 2012.

14. Badell ML, Lathrop E, Haddad LB, Goedken P, Nguyen ML, **Cwiak CA**. Reproductive healthcare needs and desires in a cohort of HIV-positive women. Infect Dis Obstet Gynecol, 2012, Epub 2012, June 13.

15. Cleary TP, Tepper NK, **Cwiak C**, Whiteman MK, Jamieson DJ, Marchbanks PA, Curtis KM. Pregnancies after hysteroscopic sterilization: A systematic review. Contraception. 2013 May; 87(5):539-48.

16. Lathrop E, Telemaque Y, Haddad L, Stephenson R, Goedken P, **Cwiak C**, Jamieson DJ. Knowledge and use of and opportunities for emergency contraception in Northern Haiti. Int J Gynecol Obstet. 2013Apr; 121(1): 60-3.

17. Allen RH, **Cwiak CA**, Kaunitz AM. Contraception in women over 40 years of age. CMAJ. 2013 Apr 16; 185(7):565-73.

18. Painter J, Cene-Kush C, Conner A, **Cwiak C**, Haddad L, Mulligan M, DiClemente R. Anticipated HIV vaccine acceptability among sexually active African-American adult women. Vaccines. 2013 Apr; 1(2), 88-104.

19. **Cwiak C**, Allen R, Kaunitz AM. Hormonal and intrauterine contraception for women aged 40 years and older. Womens Health (Lond Engl). 2013 Sep; 9(5):421-4.

20. Haddad L, **Cwiak C**, Jamieson DJ, Feldacker C, Tweya H, Hosseinipour M, Hoffman I, Bryant AG, Stuart GS, Noah I, Mulundila L, Samala B, Mayne P, Phiri S. Contraceptive adherence among HIV-infected women in Malawi: a randomized controlled trial of the copper intrauterine device and depot medroxyprogesterone acetate. Contraception. 2013 Dec; 88(6):737-43.

21. Jatlaoui T, Marcus M, Jamieson DJ, Goedken P, **Cwiak, C**. Postplacental intrauterine device insertion at a teaching hospital. Contraception. 2014 Jun; 89(6):528-33.

22. Haddad LB, Feldacker C, Jamieson DJ, Tweya H, **Cwiak C**, Bryant AG, Hosseinipour MC, Chaweza T, Mlundira L, Kachale F, Stuart GS, Hoffman I, Phiri S. Medical eligibility, contraceptive choice, and intrauterine device acceptance among HIV-infected women receiving antiretroviral therapy in Lilongwe, Malawi. Int J Gynaecol Obstet. 2014 Sep; 126(3):213-6.

23. Shifren JL, Gass ML; NAMS Recommendations for Clinical Care of Midlife Women Working Group. The North American Menopause Society recommendations for clinical care of midlife women. Menopause. 2014 Oct; 21(10):1038-62.

24. Hall KS, Steinberg JR, **Cwiak CA**, Allen RH, Marcus SM. Contraception and mental health: A commentary on the evidence and principles for practice. Am J Obstet Gynecol. 2015 Jun; 212(6):740-6.

25. Buchsbaum A, Gallo MF, Whiteman MK, **Cwiak C**, Goedken P, Kraft JM, Jamieson DJ, Kottke M. Sexually transmitted disease partner notification among African-American adolescent women. Infect Dis Obstet Gynecol, 2014, Epub 2014, Dec. 25.

26. Bednarek PH, Creinin MD, Reeves MF, **Cwiak C**, Espey E, Jensen JT. Prophylactic ibuprofen does not improve pain with IUD insertion: A randomized trial. Contraception. 2015 Mar; 91(3):193-7. Daniel R. Mishell Jr, MD, 2014-15 Outstanding article award

27. Haddad LB, Feldacker C, Jamieson DJ, Tweya H, **Cwiak, C**, Chaweza T, Mlundira L, Chiwoko J, Samala B, Kachale F, Bryant AG, Hosseinipour MC, Stuart GS, Hoffman I, Phiri S. Pregnancy prevention and condom use practices among HIV-Infected women on antiretroviral therapy seeking family planning in Lilongwe, Malawi. *PloS one*. 2015 Mar; 10(3):e0121039.

28. Allen RH, **Cwiak CA**. Contraception for midlife women. Menopause. 2016 Jan; 23(1):111-3.

29. **Cwiak CA**, Allen RH. January Editorial. Contraception. 2016 Jan; 93(1):1-2.

30. Jatlaoui TC, Cordes S, Goedken P, Jamieson DJ, **Cwiak C.** Family planning knowledge, attitudes and practices among bariatric healthcare providers. Contraception. 2016 May; 93(5):455-62.

31. **Cwiak C**, Howard B, Hsieh J, Ricciotti N, Sucato GS. Sexual and Contraceptive Behaviors Among Adolescents Requesting Emergency Contraception. J Pediatr Adolesc Gynecol. 2016 Jun 16. pii: S1083-3188(16)30080-8.

32. Sridhar A, **Cwiak CA**, Kaunitz AM, Allen RH. Contraceptive Considerations for Women with Gastrointestinal Disorders. Dig Dis Sci. 2016 Nov 24.

33. Hofler LG, Cordes S, **Cwiak CA,** Goedken P, Jamieson DJ, Kottke M. Implementing Immediate Postpartum Long-Acting Reversible Contraception Programs. Obstet Gynecol. 2016 Dec 2.

34. Travers CD, Spencer JB, **Cwiak CA**, Mertens AC, Howards PP. Differences in Tubal Ligation Incidence in the State of Georgia, USA. J Rural Health. 2017 Jul 21.

35. Darney PD, Stuart GS, Thomas M, **Cwiak C**, Olariu A, Creinin MD. Amenorrhea rates and predictors during 1 year of levonorgestrel 52 mg intrauterine system use. Contraception. 2018 Mar; 97(3):210-214.

36. **Cwiak C**, Cordes S. Postpartum intrauterine device placement: a patient-friendly option. Contracept Reprod Med. 2018 April 15; 3:3.

37. Painter JE, Temple BS, Woods LA, **Cwiak C**, Haddad L, Mulligan MJ, DiClemente RJ. Theory-Based Analysis of Interest in an HIV vaccine for reasons indicative of risk compensation among African American Women. Health Ed Behav. 2018 Jun; 45(3):444-453.

38. Miller TA, Allen RH, Kaunitz AM, **Cwiak CA**. Contraception for midlife women: a review. Menopause. 2018 Jul; 25(7):817-827.

39. Deans EI, Batig AL, Cordes S, Scribner AN, Nielsen PE, Jamieson DJ, Lathrop E, **Cwiak C**. A Survey of Family Planning Training, Knowledge, and Practices Among Health Care Providers Within the Military Health System at Joint Base Lewis-McChord. Mil Med. 2019 May; 184(5-6):e394-e399.

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EXHIBIT D

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients,

Plaintiffs,

v.

STATE OF GEORGIA,

Defendant.

Case No. _____

Affidavit of Whitney S. Rice, DrPH, M.P.H.

I, WHITNEY S. RICE, DrPH, M.P.H., hereby swear under penalty of perjury that the following statements are true and correct:

I. Background and Qualifications

1. I am the Director of the Center for Reproductive Health Research in the Southeast at the Emory University Rollins School of Public Health in Atlanta, Georgia. I am also a Rollins Distinguished Assistant Professor of Behavioral, Social, and Health Education Sciences at Emory University, an Affiliated Scientist with the Emory Maternal and Child Health Center of Excellence, as well as a member of the University's Network for Evaluation and Implementation Sciences and its Center for AIDS Research.

2. I hold a Doctor of Public Health (DrPH) degree with a focus in Health Care Organization and Policy from the University of Alabama at Birmingham. While at the University of Alabama at Birmingham, I was the recipient of a traineeship from the University's Center for Excellence in Maternal and Child Health Education, Science and Practice, funded by the Maternal and Child Health Bureau of the Health Resources and Services Administration (HRSA). I also have a Master of Public Health degree in Health Policy and Management from the Emory University Rollins School of Public Health. Prior to joining Emory as faculty, I completed a postdoctoral fellowship in Health Services, Outcomes and Effectiveness Research, funded by an Agency for Healthcare Research and Quality

National Research Service Award, at the University of Alabama at Birmingham Department of Psychology in 2018. I obtained my Bachelor of Science at Georgia Institute of Technology.

3. My dissertation, titled "Measuring reproductive norms and stigma and examining their roles in unintended pregnancy-related health behavior among young adult women" was the recipient of a trainee grant from the Society of Family Planning Research Fund and yielded three peer-reviewed publications in *Perspectives on Sexual and Reproductive Health, PLOS One* and *Women & Health*.

4. I have authored or co-authored 30 peer-reviewed publications in journals such as *American Journal of Public Health* and *Social Science & Medicine*. I have also co-authored over 37 peer-reviewed abstracts presented at national and international conferences, as well as other non-peer-reviewed briefs. I have been the principal investigator or co-investigator on 10 projects funded via research award or grant.

5. I am a member of six professional associations, including the American Public Health Association, AcademyHealth, and the Society of Family Planning. I have served as a reviewer for each of those three professional associations, evaluating abstracts submitted for presentation at annual meetings and scholarship applications and grants. I am an Academic Editor for *PLOS One*,

and a reviewer for numerous peer-reviewed scientific publications, including most of the previously mentioned journals as well as *BMC Public Health, Women's Health Issues,* and *Sexuality Research and Social Policy*.

6. Finally, I have received multiple honors and awards, including the 2019 Thought Leader Fellowship from the Emory Institute for Developing Nations, 2019 Outstanding Young Professional Award from the American Public Health Association Sexual and Reproductive Health Section, and the 2017 Outstanding Woman University of Alabama at Birmingham Postdoctoral Fellow from the University of Alabama at Birmingham Commission on the Status of Women. I also received a Social Impact Award from the Georgia Institute of Technology African American Student Union in 2018.

7. A full list of my employment history, publications, presentations, professional memberships, and awards is included in my *curriculum vitae*, which is attached as Exhibit 1.

II. Summary of Opinions

8. I am familiar with Georgia's ban on abortion after detection of embryonic or fetal cardiac activity ("the Ban"), which is generally detectable via

ultrasound at approximately six weeks of pregnancy, as measured from the pregnant woman's last menstrual period.[1]

9. Georgians—especially marginalized communities such as Black Georgians and other people of color, people who live in poverty, and people who live in rural areas—face significant challenges in accessing quality reproductive healthcare. These include a shortage of active physicians, geographic disparities in access to healthcare, inequities due to racial discrimination and systemic biases, and inadequate policies to prevent unintended pregnancy and support pregnant and postpartum people. Due to these and other factors, Georgians face a high maternal and infant morbidity and mortality rate that disproportionately impacts Black people.

10. By criminalizing abortion after just six weeks in pregnancy, the Ban forces Georgians to either (1) travel long distances to obtain abortion care out-of-state, (2) attempt to terminate their own pregnancies without medical supervision, or (3) carry their pregnancies to term and give birth against their will.

11. In my expert opinion, the Ban will prevent a significant number of Georgians seeking abortion from obtaining this safe, essential reproductive healthcare. Robust research demonstrates that an increase in the travel distance to

[1] This affidavit uses the terms "woman" and "women" throughout to refer to people capable of becoming pregnant, but people of all gender identities are capable of becoming pregnant and need access to abortion care.

the nearest abortion facility decreases the likelihood that people are able to obtain abortion. This is because the financial and logistical challenges of travel, childcare, lodging, and taking time away from work increase with travel distance, and can be prohibitive, especially for people struggling to make ends meet. And, while there are methods for safely self-managing one's abortion, marginalized communities have less access to the information and resources necessary to do so and are at heightened risk of criminalization.

12. Recent groundbreaking research demonstrates that being denied a wanted abortion increases the likelihood of experiencing pregnancy-related complications and chronic health conditions after childbirth, continued abuse by an intimate partner, and economic insecurity (for the entire family). The Ban will thus exacerbate Georgia's maternal and infant mortality and morbidity crisis, which will increase racial disparities in health outcomes. In addition to harming Georgians' physical health, the Ban's long-term impact on those who are denied an abortion will result in sweeping public health and socioeconomic consequences for Georgia communities.

III. Reproductive Health Access and Outcomes in Georgia

13. Georgia lags much of the nation in access to healthcare, including access to reproductive healthcare. A 50-State Reproductive Health and Rights Report Card published by Population Institute (an international non-profit

organization focused on achieving gender equity and access to reproductive health services) in 2021 rated Georgia with an F letter grade—on a scale from A+ (highest possible letter grade) to F- (lowest possible letter grade).[2] Notably, Georgia ranked in the bottom quarter of states. Georgia received low marks for policy decisions which both increase the likelihood of pregnancy and make it harder to get and afford healthcare when pregnant. Examples of these harmful policies include failure to require public-school sexual education about condoms and other contraceptives, failure to require provision of information about, and dispensing of, emergency contraception in emergency rooms in cases of sexual assault, and refusal to expand Medicaid under the Affordable Care Act.[3]

14. At the same time, Georgia women—particularly Black women—are battling a maternal mortality and morbidity crisis. Women's health and wellbeing prior to and during pregnancy is essential to preventing pregnancy-related deaths.[4] Access to critical and comprehensive pregnancy-related healthcare is a vital pathway to the health and survival of pregnant people. In many ways, care that

[2] *The State of Reproductive Health and Rights: A 50-State Report Card, 2021*, Population Institute (accessed July 21, 2022), available at https://www.populationinstitute.org/resource/the-state-of-reproductive-health-and-rights-a-50-state-report-card-2021/.

[3] *Id.*

[4] *Preventing Pregnancy-Related Deaths*, Center for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/reproductivehealth/maternal-mortality/preventing-pregnancy-related-deaths.html.

could prevent life-threatening complications of pregnancy is out of reach for many Georgia women, whether due to cost, distance, discrimination, or some other reason.

a. ***Poverty rates in Georgia***

15. According to 2020-2021 data from the U.S. Census Bureau, an estimated 14% of people in Georgia lived in poverty—higher than the national average in 2020 (11.4%).[5] Socially marginalized populations are even more likely to live in poverty. Twenty percent of Georgia's Black population lives in poverty compared to 11% of white Georgians.[6] An estimated 20% of Georgia children lived below the poverty line in 2020[7] (as compared to 17% nationally).[8] Women in Georgia are more likely to live in poverty (16%) as compared to Georgia men (13%).[9] Furthermore, 29% of households headed by single women lived in

[5] *Quick Facts: Tennessee; South Carolina; Florida; Georgia; Alabama*, United States Census Bureau (accessed July 21, 2022), available at https://www.census.gov/quickfacts/fact/table/NC,TN,SC,FL,GA,AL/PST045221; *Georgia*, Census Reporter (accessed July 21, 2022), available at https://censusreporter.org/profiles/04000US13-georgia/; Emily A. Shrider, et al, *Income and Poverty in the United States: 2020,* United States Census Bureau (accessed July 24, 2022), available at https://www.census.gov/library/publications/2021/demo/p60-273.html.

[6] *American Community Survey S1703 (Selected Characteristics of People at Specified Levels of Poverty in the Past 12 Months: Georgia, 2020)*, United States Census Bureau (accessed July 21, 2022), available at https://data.census.gov/cedsci/table?q=gender%20poverty%20in%20georgia&tid=ACSST5Y2020.S1703.

[7] *Id.*

[8] *American Community Survey S1703 (Selected Characteristics of People at Specified Levels of Poverty in the Past 12 Months: United States, 2020)*, United States Census Bureau (accessed July 21, 2022), available at https://data.census.gov/cedsci/table?q=poverty%20United%20States%202020&tid=ACSST5Y2020.S1703.

[9] See *American Community Survey S1703(Selected Characteristics of People at Specified Levels of Poverty in the Past 12 Months: Georgia, 2020)*, *supra* note 6.

poverty.[10] Data reported by the National Women's Law Center indicate that women in Georgia make 80 cents for every dollar a man makes.[11] Notably, Black women in Georgia make 63 cents for every dollar a non-Hispanic white man in the state makes.[12]

16. Thirty-four percent of women of reproductive age (15-49 years) in Georgia have incomes below 200% of the federal poverty level.[13] This has a direct impact on healthcare access: for instance, in Georgia, the highest proportion of women compared to any other U.S. state reported avoiding seeing a doctor due to cost (28%).[14]

b. Shortage of Physicians

17. The ratio of active physicians per 100,000 residents in Georgia (236.1) falls well below the national average (286.5).[15] Thus, Georgia ranks 38th

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[10] *Id.*

[11] *State: Georgia*, National Women's Law Center (accessed July 21, 2022), available at https://nwlc.org/state/georgia/ (which cites the U.S. Census Bureau).

[12] *Id.*

[13] *Interactive Map: US Abortion Policies and Access After Roe*, Guttmacher Institute (accessed July 21, 2022), available at https://states.guttmacher.org/policies/georgia/demographic-info.

[14] *2021 Health of Women and Children Report: Georgia*, America's Health Rankings (accessed July 21, 2022), available at https://www.americashealthrankings.org/learn/reports/2021-health-of-women-and-children/state-summaries-georgia.

[15] *State Physician Workforce Data Report, 2021*, Association of American Medical Colleges (accessed July 21, 2022), available at https://www.aamc.org/data-reports/workforce/report/state-physician-workforce-data-report.

among states (where 1 represents the highest ratio of active physicians per 100,000 residents and 50 the lowest).[16] Similarly, Georgia ranks 41st in the number of primary care physicians per 100,000 residents (81.3 relative to the national average of 94.4).[17] Already, almost half (over 70 out of 159) of Georgia's counties have no obstetrician-gynecologist ("OB-GYN"), largely in rural areas,[18] and the U.S. Department of Health and Human Services Bureau of Health Workforce projects that Georgia is on a downward trajectory with respect to OB-GYN access.[19] The agency anticipates that this decline will be due to a larger share of retirement and other workforce shifts (*e.g.*, to part-time work hours) among OB-GYNs relative to growth (*i.e.*, entrance of newly trained OB-GYNs and increased work hours).[20] This decline may be particularly consequential to the more rural areas of the state where OB-GYN providers are limited. Perhaps relatedly, Georgia ranked 46th in

[16] *Id.*

[17] *Id.*

[18] *Shortages of OB Providers, Closed and Open Labor & Delivery Units, Georgia 2020*, Georgia Obstetrical and Gynecological Society (accessed July 21, 2022), available at https://gaobgyn.org/articles/shortage-of-ob-providers-and-closed-open-labor-and-delivery-units-in-georgia/.

[19] *Projections of Supply and Demand for Women's Health Service Providers: 2018-2030*, U.S. Department of Health and Human Services (March 2021), available at https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/projections-supply-demand-2018-2030.pdf.

[20] *Id.*

the proportion of women of reproductive age that have a dedicated health provider (64%).[21]

c. Geographic disparities in access

18. In Georgia, where 78% of counties are considered rural,[22] disparities in access to healthcare between rural and non-rural areas are striking and observed across kinds of healthcare. For instance, the rate of OB-GYNs per 100,000 residents in Georgia metropolitan statistical areas ("MSA") is 14 per 100,000 residents, *more than twice* that for non-MSA, where the rate is 6.7 per 100,000.[23] Similarly, there are 21.3 pediatricians per 100,000 Georgia residents in MSA, more than double the 9.3 pediatricians per 100,000 Georgia residents of non-MSA.[24] Lacking access to care in one's community and having to travel long distances to access critical care results in worse outcomes (*e.g.*, longer stays in hospitals, non-attendance at follow-up healthcare visits, and worse survival rates).[25] In the context

[21] See *2021 Health of Women and Children Report: Georgia*, *supra* note 14.

[22] *Overview of the State of Georgia,* HRSA Maternal & Child Health (accessed July 21, 2022), available at https://mchb.tvisdata.hrsa.gov/Narratives/Overview/562befeb-42ad-4ea5-9711-07a63dc84bfb.

[23] *Results from the 2019-2020 Renewal Survey, Georgia Board of Healthcare Workforce* (accessed July 21, 2022), available at https://healthcareworkforce.georgia.gov/health-care-workforce-data.

[24] *Id.*

[25] Charlotte Kelly, Claire Hulme, Tracey Farragher et. al., *Are differences in travel time or distance to healthcare for adults in global north countries associated with an impact on health outcomes? A systematic review*, BMJ Open. 6(11) (Nov. 2016), available at https://bmjopen.bmj.com/content/6/11/e013059.long.

of pregnancy and childbirth, greater travel distance carries increased risks of pregnancy-related complications and infant mortality.[26] Living in a rural area carries greater risk of severe maternal morbidity and mortality.[27]

d. Demographics & health inequality

19. The Georgia population is 59.4% White, 33% Black, 4.6% Asian, 2.4% Two or More Races, 0.5% American Indian and Alaskan Native, and 0.1% Native Hawaiian and Other Pacific Islander.[28] The proportion of Black people in Georgia is higher than the national average, and greater than for surrounding states of Tennessee, Florida, North Carolina and South Carolina.[29] Much of Georgia's Black population is concentrated in rural counties within the state.[30] Black people in Georgia are susceptible to worse health outcomes than their counterparts due to a long history of racial discrimination and systemic racial biases that continue to affect population health and well-being.[31]

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[26] Martha Hostetter and Sarah Klein, *Transforming Care: Restoring Access to Maternity Care in Rural America,* Commonwealth Fund (accessed July 21, 2022), available at https://www.commonwealthfund.org/publications/2021/sep/restoring-access-maternity-care-rural-america.

[27] *Id.*

[28] *Quick Facts: Georgia; United States,* United States Census Bureau (accessed July 21, 2022), available at https://www.census.gov/quickfacts/fact/table/GA,US/PST045221.

[29] See *Quick Facts: Tennessee; South Carolina; Florida; Georgia; Alabama*, *supra* note 5.

[30] *Quick Facts: Georgia*, United States Census Bureau (accessed July 21, 2022), available at https://www.census.gov/quickfacts/fact/map/GA/RHI225221.

[31] Michael R. Kramer, Nyesha C. Black Stephen A. Matthews et. al., *The legacy of slavery and contemporary declines in heart disease mortality in the U.S. South*, SSM Population Health. 3: 609-617 (Dec. 2017).

20. The racism that Black Georgians face within and outside the medical system intersects with other factors that people experience discrimination and biases around, such as income, gender identity, sexual orientation, and chronic conditions.[32] Georgia's Black, rural populations facing these interrelated access and systemic bias issues are particularly vulnerable to negative healthcare outcomes. Studies show that rural Black adults are less likely to have a personal doctor and more likely to forego care due to resource limitations.[33] Additionally, rural counties that have a greater share of Black residents are more likely to lack obstetric care or lose access to it.[34]

e. Maternal and infant morbidity & mortality

21. The states in the U.S. Southeast region on the whole share the highest rates of death during pregnancy, childbirth and postpartum. Georgia's maternal

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[32] Henry J. Whittle, Anna M. Leddy, Jacqueline Shieh et. al., *Precarity and health: Theorizing the intersection of multiple material-need insecurities, stigma, and illness among women in the United States,* Social Science & Medicine. 245 (Jan. 2020); Whitney S. Rice, Carmen H. Logie, Tessa M. Napoles et. al., *Perceptions of Intersectional Stigma among Diverse Women Living with HIV in the United States*, Social Sciences & Medicine. 208: 9-17 (July 2018).

[33] Cara V. James, Ramal Moonesinghe, Shondelle M. Wilson-Frederick et. al., *Racial/Ethnic Health Disparities Among Rural Adults — United States, 2012–2015*, Center for Disease Control and Prevention MMWR. 66(23): 1-9 (Nov. 2017).

[34] Peiyin Hung, Carrie E. Henning-Smith, Michelle M. Casey et. al., *Access to Obstetric Services in Rural Counties Still Declining, with 9 Percent Losing Services, 2004–14*, Health Affairs. 36(9): 1662-1671 (Sep. 2017).

mortality rate is among the top 10 in the nation.[35] Georgia's maternal mortality rate was 28.8 deaths per 100,000 live births for the years 2018-2020, higher than the national average of 20.4 per 100,000 live births.[36] According to Georgia's own Department of Public Health, in 2015-2017 (the most recent years for which the agency provides such analysis), 87% of pregnancy-related deaths in Georgia were preventable.[37]

22. In Georgia, non-Hispanic Black women were 2.3 times more likely to die from pregnancy-related causes as compared to non-Hispanic white women from 2015-2017.[38] In the U.S., the experience of severe maternal morbidity (significant short- and long-term complications of childbirth such as sepsis and eclampsia) is also disproportionately higher among Black people as compared with other racial groups.[39] Black women are over twice as likely to experience severe

[35] *Maternal deaths and mortality rates by state for 2018-2020*, Center for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/nchs/maternal-mortality/MMR-2018-2020-State-Data.pdf.

[36] *Id.*

[37] *Maternal Mortality Factsheet 2015-2017 Data*, Georgia Department of Public Health (accessed July 21, 2022), available at https://dph.georgia.gov/maternal-mortality.

[38] *Id.*

[39] Eugene Declercq and Laurie Zephyrin, *Severe Maternal Morbidity in the United States: A Primer*, Commonwealth Fund (accessed July 21. 2022), available at https://www.commonwealthfund.org/publications/issue-briefs/2021/oct/severe-maternal-morbidity-united-states-primer.

maternal morbidity than white women (at a rate of 226 versus 105 per 10,000 births in 2016-2017).[40]

23. In Georgia in 2020, the infant mortality rate was 6.1 per 1,000 live births, exceeding the national rate of 5.4 per 1,000 live births.[41] In a similar pattern to maternal death rates, the infant mortality rate for Black infants was 2.2 times higher than that for white infants from 2017-2019.[42] Prematurity/low birth weight is listed among the leading causes of infant death within Georgia, occurring at a rate of 155.1 per 100,000 live births in 2019.[43] This is over 50% higher than the national rate of 92.2 per 100,000 live births.[44]

f. Georgia policies fall short in preventing unintended pregnancy and supporting pregnant and birthing people.

24. Preconception health—health during reproductive years, even outside of pregnancy and birth—can affect health during pregnancy.[45] Better

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[40] *Id.*

[41] *Infant Mortality Rates by State*, Centers for Disease Control and Prevention (accessed July 24, 2022), available at https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm.

[42] *Mortality and Morbidity: Data for Georgia*, March of Dimes (accessed July 24, 2022), available at https://www.marchofdimes.org/peristats/data?reg=99&top=6&stop=92&lev=1&slev=4&obj=1&sreg=13.

[43] *A Profile of Prematurity in Georgia*, March of Dimes (accessed July 24, 2022), available at https://www.marchofdimes.org/peristats/tools/prematurityprofile.aspx?reg=13.

[44] *A Profile of Prematurity in United States*, March of Dimes (accessed July 24, 2022), available at https://www.marchofdimes.org/peristats/tools/prematurityprofile.aspx?reg=99.

[45] *Overview: Preconception Health,* Centers for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/preconception/overview.html.

preconception health and access to preconception healthcare may change the course of pregnancy-related outcomes, including by improving the chances of getting pregnant at a person's preferred time, ultimately resulting in better health outcomes for pregnant people and babies.[46] However, Georgia's policies affecting this pivotal period fall far short in ensuring that people optimize the ability to plan the timing of pregnancy and identify underlying conditions and concerns early. Compared to other U.S. regions, states in the South, including Georgia, have had the least supportive contraceptive access policy climates for decades.[47] For instance, Georgia policy does not allow over the counter contraceptive methods,[48] or allow pharmacists to prescribe contraception (including emergency contraception),[49] nor does it require insurance plans to cover an extended supply of

[46] *Id.*

[47] Whitney S. Rice, Sara K. Redd, Alina A. Luke et. al., *Dispersion of contraceptive access policies across the United States from 2006 to 2021*, Preventive Medicine Reports. 27(1) (Jun. 2022).

[48] *Insurance Coverage of Contraceptives*, Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/state-policy/explore/insurance-coverage-contraceptives.

[49] *Id*. See also *Emergency Contraception*, Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/state-policy/explore/emergency-contraception.

prescription contraceptives,[50] male or female sterilization,[51] or infertility diagnosis and treatment.[52]

25. Once Georgians become pregnant, the policy environment once again spurns crucial opportunities for support. Georgia has the fifth lowest number of supportive policies for the health of women and children in the country.[53] Georgia has refused to enact policies that improve access to healthcare, such as Medicaid expansion under the Affordable Care Act. Georgia has also failed to adopt policies that support pregnant people, such as expanded family/medical leave beyond the federal Family and Medical Leave Act (FMLA), paid sick leave requirements, reasonable accommodations for pregnant workers, and restrictions on shackling pregnant prisoners.[54] Georgia further lacks policies that promote children's health education and safety, such as broad eligibility criteria for early intervention services and full-day kindergarten provision.[55] Moreover, Georgia has failed to

[50] See *Insurance Coverage of Contraceptives*, *supra* note 48.

[51] *Id.*

[52] *State Laws Related to Insurance Coverage for Infertility Treatment*, National Conference of State Legislatures (accessed July 21, 2022), available at https://www.ncsl.org/research/health/insurance-coverage-for-infertility-laws.aspx.

[53] *Evaluating Priorities: Evaluating Abortion Restrictions and Supportive Policy Across the United States*, Ibis Reproductive Health/Center for Reproductive Rights (accessed July 21, 2022), available at https://evaluatingpriorities.org/.

[54] *Id.*

[55] *Id.*

support families' financial health by denying cash benefits to children born to families receiving public assistance and limiting eligibility for Child Care and Development Fund childcare subsidies to parents who are employed, in school, or seeking employment.[56]

26. In addition to the health policies incorporated in the family-supportive state policy rankings noted above,[57] there are several additional policies that are incredibly relevant to the health and well-being of pregnant people and families.[58] As another example, midwifery-led care models provide care that is comparable to, or sometimes even better than, that provided by OB-GYNs. Thus, expanded midwife scope of practice and eligibility for Medicaid reimbursement could fill critical gaps in accessibility of maternity care. However, in Georgia, qualified community midwives other than Certified Nurse-Midwives (CNM) are ineligible for licensure and Medicaid reimbursement and CNMs are not permitted to serve as Medicaid Primary Care Providers.[59]

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[56] *Id.*

[57] *Id.*

[58] Roosa Tikkanen, Munira Z. Gunja, Molly FitzGerald et. al., *Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries*, Commonwealth Fund (accessed July 21, 2022), available at https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries.

[59] See *Midwife Medicaid Reimbursement Policies by State*, National Academy for State Health Policy (accessed July 21, 2022), available at https://www.nashp.org/midwife-medicaid-reimbursement-policies-by-state/#tab-id-2; Issue Brief: Expanding Midwifery Licensure in Georgia, Black Mamas Matter Alliance (accessed July 21, 2022), available at https://blackmamasmatter.org/wp-content/uploads/2022/05/0504_BMMA_Midwifery2.pdf.

27. Even within the Southeast region, Georgia lags behind other states on many of these policies: These include expanded family/medical leave beyond the FMLA (North Carolina), reasonable accommodations for pregnant workers (South Carolina, North Carolina), restrictions on shackling pregnant prisoners (Florida), broad eligibility criteria for early intervention services (Alabama, Florida), and providing additional benefits for children born to families on public assistance (Alabama).[60] South Carolina allows emergency rooms to dispense emergency contraception upon request, and North Carolina and Tennessee allow pharmacists to prescribe contraception.[61] Moreover, unlike Georgia, South Carolina and Florida allow both CNM and midwife reimbursement through state Medicaid,[62] and Alabama, North Carolina, and Tennessee allow CNMs to serve as Primary Care Providers for Medicaid patients.[63]

[60] See *Evaluating Priorities: Evaluating Abortion Restrictions and Supportive Policy Across the United States*, *supra* note 53.

[61] See *Emergency Contraception*, *supra* note 49. See also *Pharmacist-Prescribed Contraceptives,* Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/state-policy/explore/pharmacist-prescribed-contraceptives.

[62] *Id.*

[63] *Id.*

IV. The Ban Will Force Georgians Who Need Abortion to Either Travel Out-Of-State for Abortion Care, to Attempt to Terminate Their Own Pregnancies, or to Carry Their Pregnancies to Term and Give Birth.

a. Background on people seeking abortion

28. Approximately one out of four women obtain an abortion in their lifetime.[64] The number of abortions in the U.S. increased for all regions over the period from 2017-2020.[65] Georgia, in particular, experienced a greater increase in the number of abortions during that period (15%) as compared to the average for the rest of the South (8%), and as compared to the average for the U.S. as a whole (8%).[66] Thus, the demand for abortion care has grown inversely to increasingly restrictive abortion policy.

29. Nationally, women of color are disproportionately represented among women who obtain abortions.[67] A substantial majority of people seeking abortions have relatively low incomes.[68] Seventy-five percent of abortion patients have

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[64] Rachel K. Jones and Jenna Jerman, *Population Group Abortion Rates and Lifetime Incidence of Abortion: United States, 2008–2014*, American Journal of Public Health. 107(12): 1904-1909 (Dec. 2017).

[65] Rachel K. Jones, Jesse Philbin, Marielle Kirstein et. al., *Long-term decline in US abortions reverses, showing rising need for abortion as Supreme Court is poised to overturn Roe v. Wade, Supplemental Data Tables*, Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/article/2022/06/long-term-decline-us-abortions-reverses-showing-rising-need-abortion-supreme-court (See in particular, Supplemental Data Tables).

[66] *Id.*

[67] Jenna Jerman, Rachel K. Jones, and Tsuyoshi Onda, *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008,* Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/report/characteristics-us-abortion-patients-2014.

[68] *Id.*

family incomes below 200% of the federal poverty level.[69] Most (59%) abortion patients have previously given birth.[70]

30. An estimated 61% of abortions in Georgia in 2019 were obtained by patients who already have one or more previous birth.[71] Specifically, 25% of abortions in the state were among patients who had one previous birth; another 20% had two previous births, and 17% had three or more previous births.[72] Georgia family units experience a greater degree of concentrated or simultaneous forms of socioeconomic disadvantage (*i.e.*, receive public assistance, have family households living in poverty, are female headed households, or are unemployed) as compared to the national average (33% for Georgia, earning a state ranking of 45th, versus 25% for the U.S. overall).[73]

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[69] *Id.*

[70] *Id.*

[71] Katherine Kortsmit, Michele G. Mandel, Jennifer A. Reeves et. al., *Abortion Surveillance — United States, 2019*, Center for Disease Control and Prevention MMWR. 70(9): 1-29 (Nov. 2021).

[72] *Id.*

[73] *Health of Women and Children*, America's Health Rankings (accessed July 21, 2022), available at https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/concentrated_disadvantage_c/state/GA.

31. In 2019, approximately 65% of Georgians obtaining abortions were Black,[74] even though 33% of the state population is Black.[75] Accordingly, in a study of the characteristics of people who sought support for the costs and logistical challenges (e.g., travel, childcare, etc.) of obtaining abortion care from an abortion fund in the Southeast, 84% of people seeking assistance for abortion care in Georgia were Black.[76]

b. Background on the abortion access climate in Georgia

32. In 2017, abortion care in Georgia was already limited to 15 clinics located in only 5% of Georgia counties.[77] Georgia is among states with a high number of interlocking abortion restrictions, similar to other states in the South and Midwest regions. Restrictions include the Ban, a 24-hour waiting period and biased counseling requirement, a prohibition on Medicaid coverage of abortion care, and a prohibition on provision of abortion care by Advanced Practice Registered Nurses

[74] See *Abortion Surveillance — United States*, *supra* note 71.

[75] See *Quick Facts: Georgia; United States*, *supra* note 28.

[76] Whitney S. Rice, Katie Labgold, Quita T. Peterson et. al., *Sociodemographic and Service Use Characteristics of Abortion Fund Cases from Six States in the U.S. Southeast*, International Journal of Environmental Research and Public Health. 18(7) (Apr. 2021).

[77] State Facts About Abortion, Guttmacher Institute (accessed July 24, 2022), https://www.guttmacher.org/fact-sheet/state-facts-about-abortion-georgia#.

and other qualified healthcare providers, among other medically unnecessary laws.[78]

33. In Georgia in 2019, 56% of abortions occurred after six weeks of pregnancy.[79] There are physiological reasons why many people do not even know they are pregnant by that point. Indeed, specific population groups are less likely to recognize pregnancy early in gestation due to menstrual cycle irregularity.[80] These groups include young women and women with chronic conditions that disproportionately affect Black women, [81] namely polycystic ovary syndrome (PCOS),[82] obesity,[83] and diabetes.[84] Further, as detailed further below, many

[78] See *Evaluating Priorities: Evaluating Abortion Restrictions and Supportive Policy Across the United States*, *supra* note 53. See also *After Roe Fell: Georgia*, Center for Reproductive Rights (accessed July 21, 2022), available at https://reproductiverights.org/maps/abortion-laws-by-state/?state=GA.

[79] See *Abortion Surveillance — United States*, *supra* note 71.

[80] Jenna Nobles, Lindsay Cannon, and Allen J. Wilcox, *Menstrual irregularity as a biological limit to early pregnancy awareness*, Proceedings of the National Academy of Sciences USA. 119(1) (Jan. 2022).

[81] *Id.*

[82] Chan JL, Sujata Kar, Eszter Vanky et. al., *Racial and ethnic differences in the prevalence of metabolic syndrome and its components of metabolic syndrome in women with polycystic ovary syndrome: a regional cross-sectional study*, American Journal of Obstetrics & Gynecology. 217(2) (Aug. 2017).

[83] *Adult Obesity Facts*, Center for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/obesity/data/adult.html#:~:text=Obesity%20affects%20some%20groups%20more%20than%20others&text=Non%2DHispanic%20Black%20adults%20(49.9,Hispanic%20Asian%20adults%20(16.1%25).

[84] *Prevalence of Diagnosed Diabetes*, Center for Disease Control and Prevention (accessed July 21, 2022), available at https://www.cdc.gov/diabetes/data/statistics-report/diagnosed-diabetes.html.

patients are delayed in seeking abortion due to factors such as cost and logistics.[85] People who are struggling to make ends meet are especially likely to be delayed in seeking abortion.[86]

c. The Ban Will Significantly Increase Travel Burdens and Costs for Georgians Attempting to Obtain Abortion Care after Six Weeks.

34. The Ban forces those who can afford to do so to travel out-of-state for abortion care after six weeks, and denies others access to abortion care entirely. Because marginalized populations, such as people of color and those having difficulty making ends meet, are already both more likely to be delayed in seeking abortion and less likely to be able to overcome financial and logistical barriers,[87] the Ban makes it even more difficult, or impossible, for them to obtain abortion care.

35. For people struggling to make ends meet, any additional costs and logistical burdens can push abortion out of reach. Travel of even short distances can present significant obstacles, as people must find or save money for the cost of transportation and other travel-related expenses and potentially take time off from

[85] Lawrence B. Finer, Lori F. Frohwirth, Lindsay A. Dauphinee et. al., *Timing of steps and reasons for delays in obtaining abortions in the United States. Contraception*. 74(4):334-344 (Oct. 2006).

[86] *Id.*

[87] *Id.*

work.[88] The burdens of traveling for abortion are magnified for those who are economically disadvantaged, as 75% of Americans who have abortions are low-wage workers,[89] and people with minimum wage jobs are less likely to receive paid time off.

36. A prospective study of survey data collected from pregnant Americans seeking abortion services and information from 2017-2018 found that women who faced longer travel distances encountered a greater number of distance related-barriers to accessing care (*e.g.*, having to arrange transportation, having to make multiple trips to the facility, having to arrange care for a child or another family member).[90] Prior studies suggest that women with lower incomes, those living in rural areas, and those with other lived experiences characteristic of Georgia women, tend to both travel longer distances to obtain abortion care *and* face greater difficulty overcoming the financial and logistical costs of travel.[91] Accordingly, women with greater travel distances to the nearest abortion provider

[88] Amy N. Addante, Rachel Paul, Megan Dorsey et. al, *Differences in Financial and Social Burdens Experienced by Patients Traveling for Abortion Care*, Women's Health Issues. 31(5): 426-431 (Sep./Oct. 2021).

[89] See *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008*, *supra* note 67.

[90] Elizabeth A. Pleasants, Alice F. Cartwright, and Ushma D. Upadhyay, *Association Between Distance to an Abortion Facility and Abortion or Pregnancy Outcome Among a Prospective Cohort of People Seeking Abortion Online*, JAMA Network Open. 5(5) (May 2022).

[91] Jill Barr-Walker, Ruvani T. Jayaweera, Ana Maria Ramirez et. al, *Experiences of women who travel for abortion: A mixed methods systematic review*, PLoS One. 14(4) (Apr. 2019).

were also more likely to still be pregnant and seeking an abortion, or to still be pregnant and planning to continue the pregnancy, compared to those with shorter travel distances.[92]

37. When Texas' Senate Bill 8 ("SB 8"), which also banned abortion at approximately six weeks of pregnancy, went into effect in September 2021, Texas saw a 50% shortfall in the number of in-state abortions in the first 30 days that SB8 was in effect.[93] Nearly 1,400 Texans traveled out-of-state (to Arkansas, Colorado, Kansas, Louisiana, Mississippi, New Mexico, and Oklahoma) for abortion care in each of the first four months that SB8 was in effect.[94] These figures are an underestimate because they do not include data from several clinics in those states, nor from other states that Texans traveled to.[95]

38. The Ban will likely cause an even greater shortfall in the number of abortions that Georgians are able to obtain and an even greater travel burden for

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[92] See *Association Between Distance to an Abortion Facility and Abortion or Pregnancy Outcome Among a Prospective Cohort of People Seeking Abortion Online*, *supra* note 90.

[93] Kari White, Elsa Vizcarra, Lina Palomares et. al., *Initial Impacts of Texas' Senate Bill 8 on Abortions in Texas and at Out-of-State Facilities*, Texas Policy Evaluation Project/The Univeristy of Texas Austin (accessed July 21, 2022), available at https://sites.utexas.edu/txpep/files/2021/11/TxPEP-brief-SB8-inital-impact.pdf.

[94] Kari White, Asha Dane'el, Elsa Vizcarra et. al., *Out-of-State Travel for Abortion Following Implementation of Texas Senate Bill 8*, Texas Policy Evaluation Project/The Univeristy of Texas Austin (accessed July 21, 2022), available at https://sites.utexas.edu/txpep/files/2021/11/TxPEP-brief-SB8-inital-impact.pdf.https://sites.utexas.edu/txpep/files/2022/03/TxPEP-out-of-state-SB8.pdf.

[95] *Id.*

those Georgians who can afford to leave the state to access care. Because most neighboring states (Alabama, Tennessee, South Carolina, Mississippi) already have total bans or six-week bans on abortion in effect, Georgians who are unable to obtain abortion care in the state are now forced to travel hundreds of miles, across one or multiple state lines, to access abortion.[96] In contrast, abortion was legal in all of Texas' neighboring states at the time when SB8 went into effect.

39. The need to arrange for logistics and travel out-of-state also increases the risk that the abortion will be discovered by people to whom patients may not otherwise disclose their healthcare decision (including, potentially, employers),[97] which increases the risk that patients will experience loss of social status, overt discrimination, shame, loss of opportunities, and rejection. Along those lines, studies suggest that people who traveled greater distances to seek abortion care

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[96] A recent New York Times article estimated that, as a consequence of the *Dobbs v. Jackson Women's Health Organization* decision, the nearest abortion clinic will close for four of ten women of childbearing age in the U.S., increasing the average distance to the nearest abortion facility to 279 miles. See Quoctrung Bui, Claire C. Miller, and Margot Sanger-Katz, *Where Abortion Access Would Decline if Roe v. Wade Were Overturned*, N.Y. Times (accessed July 21, 2022), available at https://www.nytimes.com/interactive/2021/05/18/upshot/abortion-laws-roe-wade-states.html.

Economist and reproductive health policy expert Caitlin Myers estimates that a quarter of women in the U.S. who would have otherwise sought an abortion but are located in states that ban abortion will give birth. See Myers et al., *infra* note 110; see also Diana G. Foster, *Six Predictions About the End of Roe, Based on Research*, Politico (accessed July 21, 2022), available at https://www.politico.com/news/magazine/2022/06/08/the-end-of-roe-wont-cause-birth-rates-or-adoptions-to-spike-00037864.

[97] See *Association Between Distance to an Abortion Facility and Abortion or Pregnancy Outcome Among a Prospective Cohort of People Seeking Abortion Online*, *supra* note 90.

were more likely to report confidentiality concerns as a barrier to obtaining abortion.[98]

d. Georgians Who Are Unable to Obtain Abortion Care Out-of-State Will Attempt to Terminate Their Own Pregnancies Without Medical Supervision or Be Forced to Carry their Pregnancies to Term and Give Birth

40. The Ban will force Georgians who need abortion care after six weeks and are unable to travel out-of-state to either attempt to terminate their own pregnancies without medical supervision or to carry their pregnancies to term and give birth against their will.

41. There are a multitude of reasons that people choose to self-manage an abortion. Some choose to do so because they find it more empowering.[99] Others prefer self-managed abortion to maintain privacy, sometimes for fear of abortion stigma.[100] Others still may attempt to self-manage their abortions because they do not have access to clinic-based care—whether due to travel costs or other barriers.[101] Consequently, the prevalence of self-managed abortions may be highest

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[98] See *Association Between Distance to an Abortion Facility and Abortion or Pregnancy Outcome Among a Prospective Cohort of People Seeking Abortion Online*, *supra* note 90; *Experiences of women who travel for abortion: A mixed methods systematic review*, *supra* note 91.

[99] Sarah Raifman, Lauren Ralph, M. Antonia Biggs et. al., *"I'll just deal with this on my own": a qualitative exploration of experiences with self-managed abortion in the United States*, Reproductive Health. 18:91 (May 2021).

[100] *Id.*

[101] *Id.*

among people who are economically disadvantaged.[102] Online requests to one telemedicine abortion service, Women on Web, from 2017-2018 were highest from states with more restrictive abortion climates, particularly in the South.[103]

42. While some people are able to safely and effectively self-manage their own abortions, all methods to self-manage abortion carry legal risks. Women have already been prosecuted in a number of states for self-managing an abortion based on offenses such as fetal homicide and failure to report a death to a coroner.[104] Additionally, by threatening healthcare providers in Georgia with severe criminal penalties, the Ban exacerbates the climate of fear among providers and creates confusion about the potential risk of liability—and mandatory reporting obligations—for providing medically appropriate treatment to a patient experiencing pregnancy loss. The Ban thus increases the potential for—and fear of—attempts to prosecute those who self-manage an abortion, as well as those

[102] Lauren Ralph, Diana G. Foster, Sarah Raifman et. al., *Prevalence of Self-Managed Abortion Among Women of Reproductive Age in the United States*, JAMA Network Open. 3(12) (Dec. 2022).

[103] Abigail R. Aiken, Jennifer E. Starling, Alexandra van der Wal et al., *Demand for Self-Managed Medication Abortion Through an Online Telemedicine Service in the United States*, American Journal of Public Health. 110(1):90-97 (Jan. 2020).

[104] Andrea Rowan, *Prosecuting Women for Self-Inducing Abortion: Counterproductive and Lacking Compassion,* Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/gpr/2015/09/prosecuting-women-self-inducing-abortion-counterproductive-and-lacking-compassion.

suffering from a miscarriage, as the symptoms and treatment for abortion and miscarriage are often indistinguishable.[105]

43. Historical over-incarceration of Black communities, and especially of pregnant Black women, suggest that policies criminalizing abortion could similarly disproportionately affect the same communities. Research shows that Black people are more frequently subjected to traffic stops and vehicle searches, in less warranted circumstances, as compared to white drivers.[106] Black people also have a higher lifetime risk of being killed by the police relative to white peers.[107] Black people are disproportionately likely to be arrested, confined and imprisoned compared to white counterparts.[108] And, specific to pregnancy, in a study of over three decades of cases across 44 states involving arrests, detentions, forced medical

[105] Gabriela Weigel, Laurie Sobel, and Alina Salganicoff, *Criminalizing Pregnancy Loss and Jeopardizing Care: The Unintended Consequences of Abortion Restrictions and Fetal Harm Legislation*, Women's Health Issues. 30(3):143-146 (May/Jun. 2020).

[106] Emma Pierson, Camelia Simoiu, Jan Overgoor et. al, *A large-scale analysis of racial disparities in police stops across the United States,* Nature Human Behavior.4: 736–745 (May 2020).

[107] Frank Edwards, Hedwig Lee, and Michael Esposito, *Risk of being killed by police use-of-force in the U.S. by age, race/ethnicity, and sex*, Proceedings of the National Academy of Sciences. 116(34): 16793-16798 (Aug. 2019).

[108] Wendy Sawyer*, Visualizing the racial disparities in mass incarceration*, Prison Policy Initiative (accessed July 21, 2022), available at https://www.prisonpolicy.org/blog/2020/07/27/disparities/.

interventions, and other deprivations of pregnant women's liberty, Black women and women of lower income were overrepresented.[109]

44. By denying access to abortion care after just six weeks in pregnancy, the Ban forces Georgians to carry a pregnancy to term and give birth against their will.[110]

V. Impacts of Banning Most Abortions in Georgia

a. Socioeconomic Impacts

45. As an initial matter, being compelled to continue a pregnancy and give birth against one's will, may result in several long-term consequences that impact the trajectory of that person and their family's life. The preeminent study of the consequences of denial of a wanted abortion, the Turnaway Study,[111] reports several findings regarding the impacts of restrictive abortion environments on social and economic life outcomes.

46. Particularly strong methodologically, the Turnaway Study was a large prospective longitudinal study that compared a variety of outcomes for nearly

[109] Lynn M. Paltrow and Jeanne Flavin, *Arrests of and Forced Interventions on Pregnant Women in the United States, 1973–2005: Implications for Women's Legal Status and Public Health*, Journal of Health Politics, Policy and Law. 38(2): 299-343 (Apr. 2013).

[110] Caitlin Myers, Rachel Jones, and Ushma Upadhyay, *Predicted changes in abortion access and incidence in a post-Roe world*, Contraception.100(5): 367-373 (Nov. 2019). See also *supra* note 96.

[111] Diana G. Foster, *The Turnaway Study: Ten Years, a Thousand Women, and the Consequences of Having—or Being Denied—an Abortion* (Scribner, June 2, 2020).

1,000 women who received abortions later in pregnancy with those who sought but were denied abortions because their pregnancies were beyond the gestational age cut-off at the facility where they sought care. The study documented the devastating effects of abortion denial on the socioeconomic, physical, and mental well-being of women and families. In particular, being denied a wanted abortion resulted in negative social outcomes, including being more likely to fall below the federal poverty level, in greater debt, and at greater risk for eviction.[112] Existing children of women who were denied a wanted abortion lived with more economic insecurity and were less likely to reach developmental milestones.[113]

47. Additionally, a study using Turnaway Study data and Experian credit reports to conduct a difference in differences analysis demonstrated that abortion denial significantly increased financial distress.[114] Difference in differences analyses calculate the effect of a variable on an outcome by comparing the average change over time in a treatment group as compared to a control group; here, comparing economic outcomes for those who were able to receive an abortion with

[112] Diana G. Foster, M. Antonia Biggs, Lauren Ralph et. al., *Socioeconomic Outcomes of Women Who Receive and Women Who Are Denied Wanted Abortions in the United States*, American Journal of Public Health. 108(3): 407-413 (Mar. 2018); Sarah Miller, Laura R. Wherry, Diana G. Foster, *The Economic Consequences of Being Denied an Abortion*, American Economic Journal: Economic Policy. (Forthcoming).

[113] See *The Economic Consequences of Being Denied an Abortion*, *supra* note 112.

[114] *Id.*

those who were not. This methodology provides causal evidence on the negative economic and financial consequences of being denied a wanted abortion.

b. Impact on Maternal and Infant Morbidity and Mortality

48. Even more concerning, denying Georgians access to abortion care will exacerbate the existing maternal and infant mortality and morbidity crisis, with the greatest harm falling on Black communities.

49. A comprehensive review of science surrounding the safety and quality of abortion services in the United States by a National Academy of Sciences committee reported that all four abortion methods available legally in the United States—medication, aspiration, dilation and evacuation and induction—are safe and effective.[115] Furthermore, serious complications of abortion are far rarer than serious complications that occur during childbirth.[116]

50. An analysis of associations between restrictive abortion policy climates and total maternal mortality from 2015-2018 found that states with a higher number of abortion restrictions had a 7% higher rate of total maternal mortality compared with states with fewer abortion restrictions.[117] Another analysis

[115] *The Safety and Quality of Abortion Care in the United States*, National Academy of Sciences, Engineering, Medicine (2018).

[116] *Id.*

[117] Dovile Vilda, Maeve E. Wallace, Clare Daniel et al., *State Abortion Policies and Maternal Death in the United States, 2015-2018*, American Journal of Public Health. 111(9): 1696-1704 (Sep. 2021).

estimates that, if the U.S. imposed a nationwide total ban on abortion, the number of pregnancy-related deaths would increase by 7% in the first year after such a ban took effect, and in subsequent years, deaths would increase by 21%. Non-Hispanic Black people would experience the greatest increase in deaths (12% in the first year and 33% in subsequent years).[118] A third study found that abortion legalization in U.S. states (including Georgia) in the 1960s and 1970s resulted in a 30-40% decrease in non-white maternal mortality.[119]

51. Likewise, a recent study using rigorous longitudinal population-based data to examine the relationship between restrictive abortion policies and infant health outcomes over a twelve-year period found that abortion restrictions likely increase the risk of preterm birth and low birth weight infants.[120] Black individuals saw a 3% higher chance of preterm birth than non-Black people in states with more restrictive abortion policies.[121] Another longitudinal analysis of the association between abortion restrictions and infant mortality risk found that infants living in

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[118] Amanda J. Stevenson, *The Pregnancy-Related Mortality Impact of a Total Abortion Ban in the United States: A Research Note on Increased Deaths Due to Remaining Pregnant*, Demography. 58(6): 2019-2028 (Oct. 2021).

[119] Sherajum Monira Farin, Lauren Hoehn-Velasco, and Michael Pesko, *The Impact of Legal Abortion on Maternal Health: Looking to the Past to Inform the Present*, SSRN (accessed July 21, 2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3913899.

[120] Sara K. Redd, Whitney S. Rice, Monica S. Aswani et. al., *Racial/ethnic and educational inequities in restrictive abortion policy variation and adverse birth outcomes in the United States*, BMC Health Services Research. 21(1) (Oct. 2021).

[121] *Id.*

states with three or more restrictive abortion laws were significantly (10%) more likely to die before their first birthday than those born in states with no restrictions.[122]

52. The Turnaway Study reinforces these findings. It found that women who carried pregnancies to term were significantly more likely to experience life-threatening complications.[123] In fact, two study participants died of pregnancy-related causes after being denied a wanted abortion.[124] In contrast, there were no known pregnancy-related deaths among participants who received a wanted abortion.[125] Women denied abortions also experienced worse physical health over a five-year period, as compared to women who received a wanted abortion, including higher rates of chronic pain and hypertension.[126]

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[122] Roman Pabayo, Amy Ehntholt, Daniel M. Cook et. al., *Laws Restricting Access to Abortion Services and Infant Mortality Risk in the United States*, International Journal of Environmental research and Public Health. 17(11) (May 2020).

[123] Caitlin Gerdts, Loren Dobkin, Diana G. Foster et. al., *Side effects, physical health consequences, and mortality associated with abortion and birth after an unwanted pregnancy*. Women's Health Issues. 26(1): 55-59 (Nov. 2015); Lauren J. Ralph, Eleanor B. Schwarz, Daniel Grossman et. al., *Self-reported physical health of women who did and did not terminate pregnancy after seeking abortion services: A cohort study*, Annals of Internal Medicine. 171(4): 238-247 (Aug. 2019).

[124] See *Self-reported physical health of women who did and did not terminate pregnancy after seeking abortion services: A cohort study*, *supra* note 123.

[125] *Id.*

[126] *Id.*

53. Finally, the Turnaway Study also found that, compared to women who are able to receive a wanted abortion, women denied wanted abortions are more likely to experience continued intimate partner violence from the man involved in the pregnancy.[127] The Study found a statistically significant reduction in physical violence over time for women who received an abortion, but no such decrease for those who were denied an abortion.[128] This was consistent with the Turnaway Study's finding that women denied abortions were slower to end romantic relationships and more likely to have sustained contact over time with the man involved in the pregnancy than women who received abortions.[129]

[127] Sarah C.M. Roberts, M. Antonia Biggs, Karuna S. Chibber et. al., *Risk of violence from the man involved in the pregnancy after receiving or being denied an abortion,* BMC. 12:144 (Sep. 2014).

[128] *Id.*

[129] Jane Mauldon, Diana G. Foster, and Sarah C.M. Roberts, *Effect of Abortion vs. Carrying to Term on a Woman's Relationship with the Man Involved in the Pregnancy*, Perspectives on Sexual and Reproductive Health. 47(1): 11-18 (Mar. 2015).

I declare under penalty of perjury that the foregoing is true and correct to the best of my personal knowledge

Whitney S. Rice, DrPH, M.P.H.

Sworn to and subscribed before me

this 25 day of July, 2022.

NOTARY PUBLIC

My commission expires: 5-7-2023

PHILLIP MOORE NOTARY PUBLIC DEKALB COUNTY GEORGIA My Comm. Exp. May 7, 2023

EXHIBIT 1

Whitney S. Rice, DrPH, MPH
[redacted]

EDUCATION

2016 – 2018	Postdoctoral Fellowship, Health Services, Outcomes and Effectiveness Research University of Alabama at Birmingham (UAB), Birmingham, AL
2016	Doctor of Public Health (DrPH), Health Care Organization and Policy University of Alabama at Birmingham (UAB), Birmingham, AL • *Dissertation: Measuring reproductive norms and stigma and examining their roles in unintended pregnancy-related health behavior among young adult women*
2012	Master of Public Health (MPH), Health Policy and Management Emory University, Atlanta, GA
2010	Bachelor of Science (BS), Literature, Media, and Communication Georgia Institute of Technology, Atlanta, GA

FACULTY APPOINTMENTS AND AFFILIATIONS

Jan 2021 – present	Rollins Assistant Professor (Tenure Track), Department of Behavioral, Social, and Health Education Sciences, Rollins School of Public Health, Emory, Atlanta, GA
Sep 2020 – present	Member, Network for Evaluation and Implementation Sciences, Emory University, Atlanta, GA
Aug 2020 – present	Affiliated Scientist, Maternal and Child Health Center of Excellence, Atlanta, GA
Apr 2020 – present	Director, Center for Reproductive Health Research in the Southeast, Rollins School of Public Health, Emory University, Atlanta, GA
Aug 2018 – present	Member, Center for AIDS Research, Emory University, Atlanta, GA
Aug 2018 – Mar 2020	Core Co-Investigator, Center for Reproductive Health Research in the Southeast, Rollins School of Public Health, Emory University, Atlanta, GA
Aug 2018 – Dec 2020	Research Assistant Professor, Department of Behavioral, Social, and Health Education Sciences, Rollins School of Public Health, Emory University, Atlanta, GA

AWARDS & RECOGNITION

- Everyday Hero Award, Department of Behavioral, Social, and Health Education Sciences, Rollins School of Public Health, Emory University, 2020
- Department Emory Institute for Developing Nations Thought Leader Fellowship, 2019
- Outstanding Young Professional Award, Sexual and Reproductive Health Section, American Public Health Association, 2019
- Inter-Center for AIDS Research Women and HIV Symposium Travel Support, 2019
- Robert Wood Johnson Foundation (RWJF) New Connections Capstone Symposium Travel Support, 2019
- Georgia Institute of Technology African American Student Union Social Impact Award, 2018

- Scholar Strategy Network (SSN) Abortion Research Accelerator Travel Support, 2018
- Center for AIDS Research Social and Behavioral Science Research Network Meeting Mentee, 2018
- Advancing New Standards in Reproductive Health-SSN Abortion Research Incubator Travel Support, 2018
- RWJF New Connections Annual Research and Coaching Clinic Travel Support, 2017
- AcademyHealth Annual Research Meeting Diversity Scholars Network Scholarship Recipient, 2017
- Outstanding Woman UAB Postdoctoral Fellow, UAB Commission on the Status of Women, 2017
- Love of Learning Award, Phi Kappa Phi Honor Society, 2015
- Second Place, Wicked Problem Case Competition, UAB School of Public Health, 2015
- Minority Training Program in Cancer Control Research Doctoral Application Support Award, University of California Los Angeles and University of California San Francisco, 2012
- Office of Minority Educational Development Tower Award, Georgia Institute of Technology, 2009

SELECTED GRANT OR CONTRACT FUNDED RESEARCH ACTIVITIES

Awarded

Principal Investigator

2022 – 2024 Center for Reproductive Health Research in the Southeast (RISE). Collaborative for Gender and Reproductive Equity, a project of Rockefeller Philanthropy Advisors. General Operating Support Award Renewal. Team: Pringle J, Hartwig S (Administrative Co-Directors). $300,000.

2022 – 2023 The Center for Reproductive Health Research in the Southeast (Continuation). Anonymous Foundation. Team: Pringle J, Hartwig S, Singh K (Administrative Co-Directors); Njoku O, Narasimhan S, Newton-Levinson A, Hairston I, Mosley E, Register L, Pillai D (Co-I). $1,000,000.

2020 – 2023 Studying the relationship of states' contraceptive-access policies to women's use of preventive health care and their health outcomes and equity. Robert Wood Johnson Foundation Policies for Action Program Advancing Equity, Diversity, and Inclusion in Policy and Law Research Award, No. 77345. Team: Arriola KJ (Career Mentor), Komro K (Research Mentor), Hall KS (National Mentor), M. Aswani (Advisor), Cwiak C (Advisor). $250,000.

2020 – 2022 Center for Reproductive Health Research in the Southeast (RISE). Collaborative for Gender and Reproductive Equity, a project of Rockefeller Philanthropy Advisors. General Operating Support Award. Team: Pringle J, Hartwig S, Singh K (Administrative Co-Directors). $300,000.

2020 – 2022 Research Leadership to Address Intersecting Structural Stigmas in HIV Prevention and Family Planning. National Institute of Child Health and Human Development (NICHD). Health Disparities Loan Repayment Program Award. Team: Hall KS (Primary Mentor), Turan JM (Mentor), Komro K (Mentor), Sales JM (Mentor), Kelley CF (Mentor). $100,000.

2021 The Center for Reproductive Health Research in the Southeast (Continuation). Anonymous Foundation. Team: Pringle J, Hartwig S, Singh K (Administrative Co-Directors); Evans D, Narasimhan S, Mosley E, Blake S, Redd S, Newton-Levinson A (Co-I). $700,000.

2019 – 2021 Research leadership for community-centered strategies to address family planning inequity. Society of Family Planning Research Fund 2019 Changemaker in Family Planning Grant Award, No. SFPRF13-CM12. Team: Hall KS (Mentor), Gomez AM (Mentor). $38,645.

2017 – 2021 RISE Engaging Georgia's faith communities for promoting reproductive health (EnFaith) project. Anonymous Foundation Grant, No. 5255. Team: Pringle J (PD), Hall KS (PI), Komro K (PI), Blevins J (Co-I). Assumed role of PI in 2018 (Consultant role from 2017 – 2018). $807,491.

2017 – 2019 State abortion access restrictions and their relationship to infant health: US, 1999-2014. Society of Family Planning Research Fund 2017 Small Research Grant, No. SFPRF11-18. Team: Sen B (Co-I) & Wingate MS (Co-I). $15,000

Co-Investigator

2018 – 2020 Abortion stigma reduction at the population level: development of a mass media intervention phase II. Society of Family Planning Research Fund. 2017 Interdisciplinary Innovation (I^2) Grant - Phase II Application. Team: Janiak E (PI), Clark J (Co-I), McCloud R (Co-I), Viswanath V (Co-I). $75,000

Advisor

2020 – 2021 Perceptions of Mental Health Among Black Youth Attending Churches in Georgia: Opportunities for Stigma Reduction. Emory Prevention Research Center. Community-Engaged Chronic Disease Prevention Research Thesis and Dissertation Funds. Team: Gore J (PI), Epps F (Collaborator). $1,000

Consultant or Other Collaborator

2019 – 2022 Factors influencing adherence to injectable PrEP and retention in an injectable PrEP research study. HIV Prevention Trials Network (HPTN) 083 Sub-Study. National Institute of Mental Health (NIMH) and National Institute of Allergy and Infectious Diseases (NIAID). Team: Safren SA (PI), Psaros C (PI), Kelley CF (Site PI). $66,550 (Award to Emory Site)

2018 – 2020 Genomics research participation among women living with HIV: A mixed-methods approach to understanding women's perceived benefits, harms, and informational needs. National Human Genome Research Institute & University of Alabama at Birmingham-University of Mississippi Medical Center Multicenter AIDS Cohort Study/Women's Interagency HIV Study Combined Cohort Study Supplement to U01AI103401. Team: Fletcher FE (PI), Bonham V (Co-I), Turan JM (Co-I), Kempf M (Co-I), Shrestha S (Co-I). $20,000

2017 – 2019 Effects of stigma and discrimination on patient-provider interactions and engagement in HIV care. NIMHD Supplement to 5U01AI103401. Team: Kempf M (PI), Turan B (Project PI), Turan JM (Co-I), Gakumo CA (Co-I), Fletcher F (Co-I). $639,663

2017 – 2018 Assessing the effects of stigma on PrEP adherence**.** University of Alabama at Birmingham Center for AIDS Research 2017 Developmental Pilot Grant. Team: Turan B (PI), Turan JM (Co-I), Batey DS (Co-I), Raper J (Co-I), Kudroff K (Co-I), and Hicks J (Co-I). $50,000

Fellowships and Traineeships

2016 – 2018 Postdoctoral Fellowship, Health Services, Outcomes and Effectiveness Research Training Program. Agency for Healthcare Research and Quality -funded T32 Institutional National Research Service Award (AHRQ T32HS013852). K. Saag (PI and Director), M. Mugavero (co-Director), B. Turan (Primary Mentor), Turan JM (Co-Mentor).

2015 – 2016 Examining the social context of reproductive health behavior and outcomes. Society of Family Planning Research Fund. 2015 Trainee Grant, No. SFPRF9-T5. Turan JM. (Mentor). $7,500

2012 – 2016 Predoctoral Traineeship, University of Alabama at Birmingham Leadership Education in Maternal and Child Public Health Program. Health Resources and Services Administration Training Grant T76MC00008. Wingate MS (PI).

2011 Summer and Fall Field Placement/Internship. Health Resources and Services Administration - funded Emory Public Health Training Center (UB6HP20199). Miner K (PI).

PUBLICATIONS

* Indicates author was a community research partner or other non-academic stakeholder during the time that work was completed
† Indicates author was a mentored student/trainee during the time that work was completed

Peer-Reviewed Publications

1. **Rice WS**, †Redd SK, †Luke AA, Komro K, Arriola KJ, Hall KS. Dispersion of Contraceptive Access Policies Across the United States from 2007 to 2021. *Preventive Medicine Reports*. 2022 Jun; 27: 101827. doi: 10.1016/j.pmedr.2022.101827.
2. Mark A, Foster AM, Madera M, Prager S, Reeves M, **Rice WS**, Jones RK. The National Abortion Federation's 45th Annual Meeting: Together Again. *Contraception*. 2022 May; 109: 82-83. doi: 10.1016/j.contraception.2022.03.001. PMID: 35278408.
3. Budhwani H, Gakumo CA, Yigit I, **Rice WS**, Fletcher FE, Whitfield S, Ross S, Konkle-Parker DJ, Cohen MH, Wingood GM, Metsch LR, Adimora AA, Taylor TN, Wilson TE, Weiser SD, Sosanya O, Goparaju L, Gange S, Kempf M, Turan B, Turan JM. Patient Health Literacy and Communication with Providers among Women living with HIV: A Mixed Methods Study. *AIDS and Behavior*. 2022 May; 26(5): 1422 - 1430. doi: 10.1007/s10461-021-03496-2. PMID: 34642834.
4. †Redd SK, Hall KS, Aswani M, Sen B, Wingate M, **Rice WS**. Variation in Restrictive Abortion Policies and Infant Health in the United States from 2005-2015. *Women's Health Issues*. 2022 Mar-Apr; 32(2): 103-113. doi: 10.1016/j.whi.2021.10.006. PMID: 34801349.
5. Mosley EA, Narasimhan S, Blevins J, Dozier J, Pringle J, †Clarke LS, *Scott C, †Kan M, Hall KS, **Rice WS**. Sexuality-based stigma and inclusion among Southern Protestant religious leaders. *Sexuality Research and Social Policy*. 2021 Nov. doi: 10.1007/s13178-021-00662-y.
6. †Redd SK, **Rice WS**, Aswani M, Blake S, Julian Z, Sen B, Wingate M, Hall KS. Racial, Ethnic, and Educational Disparities in Restrictive Abortion Policy Variation and Adverse Birth Outcomes. *BMC Health Services Research*. 2021 Oct; 21: 1139. doi: 10.1186/s12913-021-07165-x. PMID: 34686197. PMCID: PMC8532280.
7. **Rice WS**, †Labgold K, *Peterson QT, Higdon M, *Njoku O. Sociodemographic and Service Use Characteristics of Abortion Fund Cases from Six States in the U.S. Southeast. *International Journal of Environmental Research and Public Health*. 2021 Apr; 18(7): 3813. doi: 10.3390/ijerph18073813. PMID: 33917408. PMCID: PMC8038751.
8. Fletcher FE, Amutah-Onukagha N, †Attys J, **Rice WS**. How Can the Experiences of Black Women Living With HIV Inform Equitable and Respectful Reproductive Health Care Delivery? *AMA Journal of Ethics*. 2021 Feb; 23(2): E150-159. doi: 10.1001/amajethics.2021.156. PMID: 33635196.
9. Fletcher FE, †Sherwood NR, **Rice WS**, Yigit I, †Ross SN, Wilson TE, Weiser SD, Johnson MO, Kempf MC, Konkle-Parker D, Wingood G, Turan JM, Turan B. Resilience and HIV Treatment Outcomes among Women Living with HIV in the U.S.: A Mixed-Methods Analysis. *AIDS Patient Care STDS*. 2020 Aug; 34(8): 356-366. doi: 10.1089/apc.2019.0309. PMID: 32757978. PMCID: PMC7415239.
10. †Dozier JL, Hennink M, Mosley E, Narasimhan S, Pringle J, †Clarke L, Blevins J, *James-Portis L, *Keithan R, Hall KS, **Rice W**. Abortion attitudes, religious and moral beliefs, and pastoral care among Protestant religious leaders in Georgia. *PLoS ONE*. 2020 Jul; 15(7): e0235971. doi: 10.1371/journal.pone.0235971. PMID: 32678861. PMCID: PMC7367465.

11. **Rice WS**, Fletcher FE, †Akingbade B, †Kan M, Whitfield S, †Ross S, Gakumo CA, Ofotokun I, Konkle-Parker DJ, Cohen MH, Wingood GM, Pence BW, Adimora, AA, Taylor TN, Wilson TE, Weiser SD, Kempf M, Turan B, Turan JM. Quality of Care for Black and Latina Women Living with HIV in the U.S.: A Qualitative Study. *International Journal for Equity in Health*. 2020 Jul; 19(1):115. doi: 10.1186/s12939-020-01230-3. PMID: 32631424. PMCID: PMC7336413.
12. Epstein AE, **Rice WS**, Goldfarb S, Wingate MS. The Weathering Hypothesis and Stillbirth: Racial Disparities Across the Life Span. *Ethnicity & Health.* 2020 Apr; 25(3): 354-366. doi: 10.1080/13557858.2017.1420145. PMID: 29278922. Not applicable to Public Access Policy.
13. Fletcher FE, **Rice WS**, Ingram LA, Fisher C. Ethical Challenges Related to Conducting Qualitative Research with African American Women Living with HIV in the South: Lessons from the Field. *Journal of Health Care for the Poor and Underserved*. 2019 Nov; 30(4S). doi: 10.1353/hpu.2019.0122. PMID: 31735725. Not applicable to Public Access Policy.
14. **Rice WS**, Stringer KL, †Sohail M, Crockett KB, †Atkins GC, Kudroff K, Batey DS, *Hicks J, Turan JM, Mugavero MJ, Turan B. Accessing Pre-Exposure Prophylaxis (PrEP): Perceptions of Current and Potential PrEP Users in Birmingham, Alabama. *AIDS and Behavior*. 2019 Nov; 23(11): 2966-2979. doi: 10.1007/s10461-019-02591-9. PMID: 31297683. PMCID: PMC6803068.
15. **Rice WS**, Turan B, Fletcher FE, Napoles TM, Walcott M, Batchelder A, Kempf MC, Konkle-Parker D, Wilson TE, Tien PC, Wingood G, Neilands TB, Johnson MO, Weiser SD, Turan JM. A Mixed Methods Study of Anticipated and Experienced Stigma in Healthcare Settings among Women Living with HIV in the U.S. *AIDS Patient Care STDS*. 2019 Apr; 33(4):184-195. doi: 10.1089/apc.2018.0282. PMID: 30932700. PMCID: PMC6459270.
16. **Rice WS**, Sheira LA, *Greenblatt E, *Blodgett M, *Cockrill K. The Stigma of Being a Young Parent: Development of a Measurement Tool and Predictors. *Journal of Child and Family Studies*. 2019 Mar; 28(3): 642-655. doi: 10.1007/s10826-018-01306-3. Not applicable to Public Access Policy.
17. Turan B, **Rice WS**, Crockett KB, Johnson MO, Neilands TB, Ross SN, Kempf MC, Konkle-Parker DJ, Wingood GM, Tien P, Cohen M, Wilson TE, Logie CH, Sosanya O, Plankey M, Golub E, Adimora AA, Parish C, Weiser SD, Turan JM. Longitudinal Associations between Internalized HIV-related Stigma Antiretroviral Treatment Adherence among Women Living with HIV: The Mediating Role of Depression. *AIDS*. 2019 Mar; 33: 571-576. doi: 10.1097/QAD.0000000000002071. PMID: 30702521. PMCID: PMC6362840.
18. **Rice WS**, Turan B, White K, Turan, J. Norms and Stigma around Unintended Pregnancy in Alabama: Associations with Recent Contraceptive Use and Dual Method Use among Young Adult Women. *Women & Health*. 2018 Nov-Dec; 58(10): 1151-1166. doi: 10.1080/03630242.2017.1414099. PMID: 29240532. PMCID: PMC6320308.
19. **Rice WS**, Logie C, Napoles TM, Walcott M, Batchelder AW, Kempf M, Wingood G, Konkle-Parker D, Turan B, Wilson TE, Johnson MO, Weiser SD, Turan JM. Perceptions of Intersectional Stigma among Women Living with HIV in the United States. *Social Science & Medicine.* 2018 Jul; 208: 9-17. doi: 10.1016/j.socscimed.2018.05.001. PMID: 29753137. PMCID: PMC6015551.
20. Crockett KB, **Rice WS**, Turan B. Associations between Multiple Forms of Discrimination and Tobacco Use Among People Living with HIV: The Mediating Role of Avoidant Coping. *JAIDS*. 2018 May; 78(1): 9-15. doi: 10.1097/QAI.0000000000001636. PMID: 29373394. PMCID: PMC5889311.
21. Kay ES, **Rice WS**, †Atkins GC, Batey DS, Turan B. Experienced HIV-related stigma in healthcare and other contexts: Associations with psychosocial and health outcomes. *JAIDS.* 2018 Mar; 77(3): 257–263. doi: 10.1097/QAI.0000000000001590. PMID: 29140873. PMCID: PMC5807196.

22. Turan B, Rogers AJ, **Rice WS**, †Atkins GC, Cohen MH, Wilson TE, Adimora AA, Merenstein D, Adedimeji A, Wentz EL, Ofotokun I, Metsch L, Tien PC, Johnson MO, Turan JM, Weiser SD. Association between Perceived Discrimination in Healthcare Settings and HIV Medication Adherence: Mediating Psychosocial Mechanisms. *AIDS and Behavior.* 2017 Dec; 21(12): 3431–3439. doi: 10.1007/s10461-017-1957-5. PMID: 29081045. PMCID: PMC5705383.
23. **Rice WS**, Burnham K, Mugavero MJ, Raper JL, †Atkins GC, Turan B. Association between Internalized HIV-related Stigma and HIV Visit Adherence. *JAIDS.* 2017 Dec; 76(5): 482-487. doi: 10.1097/QAI.0000000000001543. PMID: 28885270. PMCID: PMC5680126.
24. Goldfarb S, **Smith W**, Epstein AE, †Burrows SL, Wingate MS. Disparities in prenatal care utilization among U.S. versus foreign-born women with chronic conditions. *J Immigrant Minority Health.* 2017 Dec; 19(6): 1263–1270. doi: 10.1007/s10903-016-0435-x. PMID: 27221086. Not applicable to Public Access Policy.
25. **Rice WS**, Goldfarb S, Epstein AE, †Burrows SL, Wingate MS. Disparities in Infant Mortality by Race Among Hispanic and non-Hispanic Infants. *Matern Child Health J*. 2017 Jul; 21(7): 1581-1588. doi: 10.1007/s10995-017-2290-3. PMID: 28197819. PMCID: PMC5498242.
26. Turan B, Hatcher A, Weiser S, Johnson M, **Smith W**, Turan JM. Framing Mechanisms Linking HIV-Related Stigma, Adherence to Treatment, and Health Outcomes: A Conceptual Framework. *Am J Public Health.* 2017 Jun; 107(6):863-869. doi: 10.2105/AJPH.2017.303744. PMID: 28426316. PMCID: PMC5425866.
27. **Rice WS**, Turan B, Stringer KL, Helova A, White K, *Cockrill K, Turan JM. Norms and Stigma regarding Pregnancy Decisions following an Unintended Pregnancy: Development and Predictors of Scales among Young Women in the U.S. South. *PLoS ONE.* 2017 Mar; 12(3): e0174210. doi: 10.1371/journal.pone.0174210. PMID: 28328960. PMCID: PMC5362217.
28. Fazeli PL, Turan JM, Budhwani H, **Smith W**, Raper JL, Mugavero MJ, Turan B. Moment-to-moment associations between acts of discrimination and internalized stigma and moderating factors in people living with HIV: An experience sampling study. *Stigma and Health.* 2017 Aug; 2(3): 216-228. doi: 10.1037/sah0000051. PMID: 28966982. PMID: PMC5614514.
29. **Smith W**, Turan JM, White K, Stringer KL, Helova A, Simpson T, *Cockrill K. Social Norms and Stigma regarding Unintended Pregnancy and Pregnancy Decisions: A Qualitative Study of Young Adult Women in Alabama. *Perspect Sex Reprod Health*. 2016 Jun; 48(2):73-81. doi: 10.1363/48e9016. PMID: 27166869. PMCID: PMC5022769.
30. Turan B, **Smith W**, Cohen MH, Wilson TE, Adimora AA, Merenstein D, Adedimeji A, Wentz EL, Foster AG, Metsch L, Tien PC, Weiser SD, Turan J. Mechanisms for the negative effects of internalized HIV-related stigma on ART adherence in women: The mediating roles of social isolation and depression. *JAIDS*. 2016 Jun; 72(2):198-205. doi: 10.1097/QAI.0000000000000948. PMID: 26885803. PMCID: PMC4868649.

Under Peer Review

1. *Nobel K, †Luke AA, **Rice WS**. Racial Disparities in Pregnancy Options Counseling and Referral in the US South. *Under Review following Revision*.
2. †Turner D, †Lindsey A, †Shah P, †Sayyad A, **Rice WS**, Mosley, EA. "'Doulas shouldn't be considered visitors, we should be considered a part of [the]team': Doula Care in Georgia during the COVID-19 Pandemic". *Under Review following Revision*.
3. Mosley EA, *Ayala S, *Jah Z, Hailstorks T, *Hairston I, Hernandez N, **Rice WS**, …, *Dixon Diallo D, Hall KS. "'I wish the process had a bit more humanity to it...a bit more holistic'*:* A Community-Led Medication Abortion Study with Black and Latinx Women in Georgia". *Under Review following Revision*.
4. Redd SK, AbiSamra R, Blake S, Komro K, Neal R, Reeves E, **Rice WS**, Hall KS. Medication Abortion "Reversal" Laws: How Unsound Science Paved the Way for Dangerous Abortion Policy. *Under review.*

Public Scholarship

1. Redd SK, **Rice WS**. Twelve-Year Trends in US State-Level Contraceptive Access Policies. P4A Spark, US; 2021.
2. White K, **Rice WS**. Abortion deserts could come with Supreme Court's next case. The Hill, US; 2021.
3. Turan J, **Smith WD**. The reproductive stigmas faced by low-income young women in the Deep South. Key Findings Brief. Scholars Strategy Network, Cambridge, MA; 2016.

Selected Oral Abstract Presentations

1. **Rice WS**, †Redd SK, †Luke AA, Komro K, Arriola KJ, Hall KS. Dispersion of Contraceptive Access Policies Across the United States from 2007 to 2017. Accepted for presentation in panel, "Reproductive and Maternal Health: The Critical Role of Health Policies and Government Spending" at the 2022 ASHEcon Conference, 2022, Austin, TX.
2. *Nobel K, †Luke AA, *Johnson M, **Rice WS**. Racial Disparities in Pregnancy Options Counseling and Referral in the US South. Oral presentation at the American Public Health Association Annual Meeting, 2021, Denver, CO.
3. **Rice WS,** *Njoku O. Building power in the U.S. Southeast using findings from a Black-led abortion access research partnership. Oral presentation at Black Maternal Health Virtual Conference, 2021, Virtual.
4. Singh K, Mosley E, Narasimhan S, **Rice WS**. Knowledge justice: Advancing toward community-driven sharing of scientific knowledge in sexual and reproductive health. Workshop presentation at JusticeNOW2020, 2020, Virtual.
5. Ghorashi A, Cloud L, Skuster P, Crepps J, Rebouche R, †Redd S, **Rice W,** Hall KS. Leveraging an interdisciplinary public health framework to advance understanding of the impacts of abortion restrictions. Panel presentation at Society of Family Planning Annual Research Meeting, 2020, Virtual.
6. †Redd S, Hall KS, Blake S, Hockenberry J, Komro K, **Rice W**. The Effects of Restrictive Abortion Policies on Infant Health Outcomes in the U.S. Accepted for oral presentation at AcademyHealth Annual Research Meeting, 2020, Boston, MA.
7. Mosley EA, Narasimhan S, †Dozier J, Pringle J, †Clarke L, Blevins J, Komro K, Hall K, **Rice WS**. Intersections of Abortion Stigma with Sexual and Gender Minority Stigma in Southern Faith Communities. Accepted for oral presentation at Population Association of America, 2020, Washington, DC.
8. **Rice WS**, Discussant for panel session, "Women's Reproductive Health: Delivery of Contraception and Abortion Care". Oral presentation at AcademyHealth Annual Research Meeting, 2019, Washington, DC.
9. Pringle J, Mosley E, *Woods C, *Scott C, **Rice WS**. Laying the groundwork: Abortion-related research in southern faith communities. Panel presentation at the National Abortion Federation Annual Social Scientists' Research Meeting, 2019, Chicago, IL.
10. **Rice WS**, Stringer KL, †Sohail M, Crockett KB, †Atkins GC, Kudroff K, Batey DS, *Hicks J, Turan JM, Mugavero MJ, Turan B. Accessing Pre-Exposure Prophylaxis (PrEP): Perceptions of Current and Potential PrEP Users in a City in the Deep South. Oral presentation at the National HIV Prevention Conference, 2019, Atlanta, GA.
11. **Rice WS**, Stringer KL, Crockett KB, †Atkins GC, Batey DS, Turan B. Intersectional stigmas and HIV Pre-Exposure Prophylaxis (PrEP) uptake: perceptions of current and potential PrEP users in Birmingham, Alabama. Datablitz oral presentation at Intersectional Stigma Pre-Conference Session, 13th International Conference on HIV Treatment and Prevention Adherence, 2018, Miami, FL.
12. **Rice WS**, Turan B, Napoles TM, Walcott M, Batchelder A, Liptrot MJ, Brodie EA, Kempf M, Konkle-Parker D, Wilson TE, Tien PC, Wingood G, Neilands TB, Johnson MO, Weiser SD, Turan JM. A Mixed Methods Study of Anticipated and Experienced Stigma in Healthcare Settings. Oral presentation at AIDS Impact 13th International Conference, 2017, Cape Town, South Africa.

13. Fletcher, F and **Rice WS**. Reproduction and Motherhood Matters for Black Women Living with HIV/AIDS: An Integrated Public Health Framework. Oral presentation at American Public Health Association (APHA) Annual Meeting & Exposition, 2017, Atlanta, GA.
14. **Rice WS**, Mugavero MJ, Raper JL, †Atkins GC, Turan B. Association between Internalized HIV Stigma and Visit Adherence: Downstream Effects on Antiretroviral Therapy Adherence. Oral presentations at Agency for Healthcare Research and Quality 23rd Annual NRSA Research Trainees Conference, 2017, New Orleans, LA; and 12th International Conference on HIV Treatment and Prevention Adherence, 2017, Miami, FL.
15. **Smith W**, Goldfarb S, Epstein A, Wingate MS. Disparities in Adverse Infant Health Outcomes by Race among Hispanic and Non-Hispanic Infants. Oral presentation at APHA Annual Meeting and Exposition, 2015, Chicago, IL.

Selected Poster Abstract Presentations

1. †Dakwa M, Narasimhan S, **Rice WS**. Perceptions and Experiences Regarding Quality of Life amongst Black Women Diagnosed with Endometriosis. Poster presented at the AMCHP 2022 Annual Conference, 2022, Virtual.
2. †Labgold K, *Peterson QT, *Njoku O, **Rice W**. In Service to Adolescents and Young Adults: Abortion Fund Cases in Six U.S. Southeast States from 2017-2019. Poster presented at the Society of Family Planning Annual Meeting, 2021, Virtual. Published in *Contraception* Oct 2021 Issue; 104(4): 458.
3. **Rice WS**, †Redd SK, †Luke AA, Komro K, Arriola KJ, Hall KS. Dispersion of Contraceptive Access Policies Across the United States from 2007 to 2017. Accepted for poster presentation at the American Public Health Association (APHA) Annual Meeting, 2021, Denver, CO. Poster presented at the Society of Family Planning Annual Meeting, 2021, Virtual. Published in *Contraception* Oct 2021 Issue; 104(4): 468-469.
4. Narasimhan S, Mosley EA, Hall KS, Pringle J, †Dozier JL, Clarke L, **Rice W**. Examining Gender Norms and Sexual Stereotyping among Southern Faith Leaders. Poster presented at the Society of Family Planning Annual Meeting, 2021, Virtual. Published in *Contraception* Oct 2021 Issue; 104(4): 471.
5. †Dozier JL, Hennink M, Mosley E, Narasimhan S, Pringle J, Clarke L, Blevins J, *James-Portis L, *Keithan R, Komro K, Hall, KS, **Rice WS**. "Even if I deeply disagree…I'm going to continue to love you": Abortion attitudes and pastoral care among Protestant religious leaders in Georgia, USA. Poster accepted for poster presentation at NAF Annual Meeting, 2020, Washington, D.C. (Conference Canceled)
6. †Redd S, **Rice WS**, Hall KS. Implications of Restrictive Abortion Laws on Unintended Births in the U.S.: A Cross-Sectional Multilevel Analysis. Poster presented at the APHA Annual Meeting and Exposition, 2019, Philadelphia, PA.
7. **Rice WS**, Fletcher FE, Whitfield S, †Kan M, †Ross S, Gakumo CA, Ofotokun I, Konkle-Parker DJ, Cohen MH, Wingood GM, Pence BW, Adimora, AA, Taylor TN, Wilson TE, Weiser SD, Kempf M, Turan B, Turan JM. "When you walk in the door, it's all about you": Perspectives of U.S. Women Living with HIV on the Quality of Care they Desire and Receive. Poster presented at the Inter-CFAR HIV in Women Symposium, 2019, Chicago IL.
8. **Rice WS**, Turan B, †Engel I, White K, Turan, J. Norms and Stigma around Unintended Pregnancy in Alabama: Associations with Recent Contraceptive Use and Dual Method Use among Young Adult Women. Poster presented at AcademyHealth Annual Research Meeting, 2017, New Orleans, LA.
9. **Smith W**, Napoles TM, Walcott M, Batchelder A, Kempf M, Wingood GM, Konkle-Parker DJ, Logie C, Turan B, Johnson M, Weiser SD, Turan JM. HIV treatment implications of HIV-related stigma and other intersecting social stigmas for women living with HIV. Poster presented at the Center for AIDS Research Joint Symposium on HIV Research in Women, 2016, Birmingham, AL.
10. **Smith W**, †Lechtrek MT, Turan J, Lanzi R, Turan B. Examining the specific effects of stigma experienced within healthcare settings on the well-being of people living with HIV. Poster presented at the International Conference on Stigma, 2016, Washington, DC.

11. **Smith W**, Napoles TM, Walcott M, Batchelder A, Kempf M, Wingood GM, Konkle-Parker DJ, Logie C, Turan B, Johnson M, Weiser SD, Turan JM. Examining the Implications of Intersectional Stigma for HIV Treatment Adherence among Women Living with HIV. Poster presented at the 11th International Conference on HIV Treatment and Prevention Adherence, 2016, Ft. Lauderdale, FL.
12. **Smith W**, Stringer K, *Cockrill K, White K, Simpson T, Turan J. Reproductive Stigma as a Determinant of Health Decision-Making: the Influence of Community Norms and Expectations in Reproductive Decision-Making in Alabama. Poster presented at UAB 10th Annual Health Disparities Research Symposium, 2015, Birmingham, AL.

INVITED PRESENTATIONS

1. Rice, W.S., *Stigma in Health Care Settings and Engagement in Care among Women Living with HIV*. Emory Center for AIDS Research (CFAR) Science Network Seminar (hosted by the Emory CFAR Prevention Science Core, Virtual, March 18, 2021.
2. Shaw M, Crear Perry J, Muchomba F, Rice W, *Research Igniting Action: State Innovations in Advancing a Human Rights Framework for Reproductive and Maternal Health*. RELEVENT: Action Research Symposium (convened by the Robert Wood Johnson Foundation Research, Evaluation, and Learning Team), Virtual, January 14, 2021.
3. Rice, W.S., *Sexual and Reproductive Health Stigma Research: from Implications to Intervention*. Emory University Department of Behavioral, Social and Health Education Sciences Seminar, Virtual, August 25, 2020.
4. Rice, W.S., *Opportunity & Early Experiences: Public Scholarship in Reproductive Health in the Southeast*. Scholars Strategy Network (SSN) Georgia Chapter Meeting, Atlanta, GA, Feb 11, 2019.
5. Rice, W.S., *Perceptions of Reproductive Stigma and Access to Care among Young Adults in the U.S. Southeast: Implications for Health Equity*. Emory University Center for Reproductive Health Research in the Southeast Seminar, Atlanta, GA, Jun 19, 2018.
6. Rice, W.S., *Implications of Reproductive and HIV-related Stigma for Health Outcomes and Health Service Utilization*. Johns Hopkins University Department of Population, Family, and Reproductive Health Seminar, Baltimore, MD, Sep 18, 2017.
7. Rice, W.S., *Stigma in Reproductive and Women's Health*. Emory Department of Gynecology and Obstetrics Grand Rounds, Atlanta, GA, Mar 17, 2017.
8. Rice, W.S., *HIV Stigma in Healthcare Settings: Health Effects and Mechanisms of Intervention*. New York State Department of Health AIDS Institute Quality of Care Clinical and Consumer Advisory Committee Meetings, New York, NY, Dec 13-14, 2016.

TEACHING EXPERIENCE

Title (Course Number)	University	Role	Semester	Format	Enrolled
Socio-Behavioral Measurement (BSHES 542)	Emory University	Instructor	Fall 2020	Online	36
Theory Driven Research and Practice (BSHES 520)	Emory University	Co-Instructor	Fall 2019	In-person	26
Introduction to Public Health Systems and Population-Based Health Programs (HCO 600)	University of Alabama at Birmingham	Instructor	Fall 2014	Online & In-person sections	121

Guest Lecturer

Graduate

- Program Planning in Health Promotion, Department of Behavioral, Social and Health Education Sciences, Rollins School of Public Health, Emory University, Atlanta, GA, Instructor – Dr. Yue Guan, October 7, 2021
- The Global Elimination of Maternal Mortality from Abortion (GEMMA) Seminar, Hubert Department of Global Health, Emory University, Virtual, Instructors – Drs. Roger Rochat and Antoinette Nguyen, February 22, 2021
- Population and Health Outcomes Research Seminar Series (EPI 690), Department of Epidemiology, University of Alabama at Birmingham, Virtual, Instructors – Dr. Michael Mugavero and Dr. Emily Levitan, February 12, 2021
- Foundations in Maternal and Child Health (BSHE/EPI/GH/HPM 596), Departments of Behavioral, Social and Health Education Sciences, Epidemiology, Global Health, and Health Policy and Management, Rollins School of Public Health, Emory University, Atlanta, GA, Instructor – Dr. Silke Von Esenwein, April 9, 2020
- Behavioral Epidemiology (BSHES 516), Department of Behavioral, Social and Health Education Sciences, Rollins School of Public Health, Emory University, Atlanta, GA, Instructor – Dr. Kelli S. Hall, September 25, 2018 and October 08, 2019
- Politics of Public Health (EH 571), Department of Environmental Health, Rollins School of Public Health, Emory University, Atlanta, GA, Instructor – Dr. Richard F. Doner, March 5, 2019
- Qualitative and Mixed Methods Research in Public Health (HCO 628/728), Department of Health Care Organization and Policy, UAB School of Public Health, Birmingham, AL, Instructor – Dr. Janet M. Turan, October 30, 2017
- Introduction to Public Health Systems and Population-Based Health Programs (HCO 600), Department of Health Care Organization and Policy, UAB School of Public Health, Birmingham, AL, Instructor – Dr. Martha S. Wingate, September 15, 2015
- Special Topics in Health Education – Sexual Health Awareness through Peer Education (HE 490/691), Department of Human Studies, UAB School of Education, Birmingham, AL, Instructor – Katrina Kudroff, November 13, 2014

Undergraduate

- Introduction to Sociology (SOC 1101), School of History and Sociology, Georgia Institute of Technology, Atlanta, GA, Instructor – Dr. Kate Pride Brown, November 6, 2019
- Race, Gender, and Social Inequality: Reproductive Health Care in the US (WGS 224), Women and Gender Studies Program, Massachusetts Institute of Technology, Boston, MA, Instructor – Dr. Elizabeth Janiak, April 3, 2019
- Health Professions and Careers (MCHP 203), College of Health Sciences, Alabama State University, Montgomery, AL, Instructor – Dr. Catrina Waters, February 5, 2014; February 11, 2015; February 10, 2016; February 8, 2017; & February 7, 2018
- MCH Summer Internship Orientation, Alabama MCH Leadership Network, UAB and Alabama State University, Birmingham, AL, Instructor – Dr. Anne Turner Henson, June 1, 2015

Graduate Teaching Assistant

- Qualitative and Mixed Methods Research in Public Health (HCO 628/728), Department of Health Care Organization and Policy, UAB School of Public Health, Birmingham, AL, Instructor – Dr. Janet M. Turan, Fall 2013 and 2015
- MCH Fundamentals II: Application of Essential MCH Skills, (HCO 606) Department of Health Care Organization and Policy, UAB School of Public Health, Birmingham, AL, Instructor – Dr. Julie Preskitt, Spring 2015

MENTORSHIP

Committee chair (thesis/dissertation)

- Melanie Dakwa, MPH, Behavioral, Social and Health Education Sci., Emory University, 2021-2022
  Thesis Title: *"It's Like Your Body is Fighting Against You...": Perceptions and Experiences Regarding Quality of Life in Black Women Diagnosed with Endometriosis*
- Joyce Cheng, MPH, Behavioral, Social and Health Education Sciences, Emory University, 2021-2022
  Thesis: *Examining clinical personnel's roles in facilitating person-centered abortion care for minors in the Southeastern United States*
- Janelle Gore, MPH, Behavioral, Social and Health Education Sciences, Emory University, 2020-2021
  Thesis: Perceptions of Mental Health Among Black Youth Attending Churches in Georgia: Opportunities for Stigma Reduction

Committee member (thesis/dissertation)

- Wenting Huang, PhD Student, Behavioral, Social and Health Education Sci., Emory University, 2022 –
  Dissertation: Pre-exposure Prophylaxis (PrEP) Access among Men who have Sex with Men in China
- Ci'erra Larsen, MPH, Hubert Department of Global Health, Emory University, 2021-2022
  Thesis: *Barriers to Abortion Access for Young Southerners: A Qualitative Analysis of Case Notes from ARC-Southeast*
- Michelle Anaba, MPH, Behavioral, Social and Health Education Sci., Emory University, 2021-2022
  Thesis: *A Qualitative Study on the C-Section Experiences of Black Women in the Southeast United States*
- Celeste Ellison, MPH, Hubert Department of Global Health, Emory University, 2020 – 2021
  Thesis: *"I want to be around for her so I got to do it, I don't have a choice": Exploring the role of motherhood in healthcare engagement for women living with HIV in the United States*
- Sara Redd, PhD, MSPH, Behavioral, Social and Health Education Sciences, Emory University, 2018 – 2020
  Dissertation: *Variation in Restrictive Abortion Policies in America: Implications for Maternal and Infant Health and Health Disparities*
- Michelle Fletcher, MPH, Hubert Department of Global Health, Emory University, 2019 – 2020
  Thesis: *How women living with HIV (WLWH) respond to and mange HIV-related stigma*
- Christine Cooper, MPH, Hubert Department of Global Health, Emory University, 2019 – 2020
  Thesis: *Strategies to reduce sexual and reproductive health stigma: A systematic review of interventions to reduce abortion, infertility, contraceptive use, and sexuality stigma*
- Busola Akingbade, MPH, Hubert Department of Global Health, Emory University, 2019 – 2020
  Thesis: *A systematic review on the moral and faith-based values surrounding reproductive health stigma in the United States*
- Jessica Dozier, MPH, Hubert Department of Global Health, Emory University, 2018 – 2019
  Thesis: *"Even if I deeply disagree…I'm going to continue to love you": Exploring abortion attitudes and pastoral care among Protestant religious leaders in Georgia*

Research mentorship (non-thesis/dissertation)

- Alina Luke, MPH, PhD Student, Behavioral, Social and Health Education Sciences, Emory University, 2020 – present
- Sara Redd, PhD, MSPH, Postdoctoral Fellow, RISE, Health Policy and Management, Emory University, 2020 – present
- Da Hyeun (Diana) Ji, MPH Student, GRA, BSHES, Emory University, 2021 – 2022
- Halley Riley, MPH, PhD Candidate, Graduate Research Assistantship (GRA), Center for Reproductive Health Research in the Southeast (RISE), BSHES, Emory University, 2021

- Vienna Madrid, MPH Student, Rollins Earn and Learn (REAL) Program, Behavioral, Social and Health Education Sciences, Emory University, 2020 – 2021
- Busola Akingbade, MPH Student, Rollins Earn and Learn (REAL) Program, Behavioral, Social and Health Education Sciences, Emory University, 2019 – 2020
- Sara Redd, MSPH, PhD Student, Graduate Research Assistantship, Behavioral, Social and Health Education Sciences, Emory University, 2018 – 2020
- Mary Kan, B.A. Student, Summer Undergraduate Research Experience program, Emory College, 2019
- Stevie Burrows, MPH, MPH Program Practicum Advisor, Health Care Organization and Policy, University of Alabama at Birmingham, 2015

Teaching mentorship

- Swathi Sekar, MPH, PhD Student, TATTO 605 Teaching Assistantship - BSHE 542, Behavioral, Social and Health Education Sciences, Emory University, 2020
- Isis Fuller, MPH, Teaching Assistant for BSHE 542, Behavioral, Social and Health Education Sciences, Emory University, 2020
- Erica Braham, MPH, Teaching Assistant for BSHE 520, Behavioral, Social and Health Education Sciences, Emory University, 2019

SERVICE

National and International Level

- Scientific Committee, National Abortion Federation 46th Annual Meeting, 2021-2022
- Guest Editor: *International Journal of Environmental Research and Public Health* Special Issue, "Social, Structural, and Policy Determinants of Maternal and Child Health and Health Inequities", 2020-2021
- Academic Editor: *PLOS ONE*, 2018 – 2020
- Ad Hoc Peer Reviewer: *American Journal of Public Health*, *PLOS ONE*, *Social Science & Medicine*, *Health Equity*, *Contraception*, *Stigma and Health*, *BMC Public Health*, *Women's Health Issues*, *AIDS*, *AIDS and Behavior*, *Sexuality Research and Social Policy*, *Journal of Social Issues*, *Journal of Acquired Immune Deficiency Syndromes*, *Culture, Health & Sexuality*, *Perspectives on Sexual and Reproductive Health*, *Sexual and Reproductive Healthcare*
- Grant Reviewer, 2021 Public Policy Research to Advance Racial Equity and Racial Justice Award, Policies for Action, Robert Wood Johnson Foundation
- Grant Reviewer, 2021 Emerging Scholars in Family Planning Award, 2020 Changemaker in Family Planning Award, 2020 Increasing Access to Medication Abortion Grant, 2018 Emerging Scholar Grant Award, and 2017 Trainee Grant Award, Society of Family Planning Research Fund
- Reviewer, 2018 AcademyHealth Annual Research Meeting Diversity Scholars Network Scholarship
- Abstract Reviewer, HIV/AIDS section, American Public Health Association (APHA) 2017 Annual Meeting
- Abstract Reviewer, Sexual and Reproductive Health section, APHA 2017 and 2019 Annual Meeting
- Abstract Reviewer, 2019 AcademyHealth Annual Research Meeting
- Abstract Reviewer, 2019 Society of Family Planning Annual Meeting

School and University Level

- Representative for the Department of Behavioral, Social and Health Education Sciences, Research Advisory Committee, Rollins School of Public Health, Emory University (2021-2023)
- Member, Search Committee for the Assistant Director of the Research Administration Services Public Health and Nursing Unit, Emory University (2021)

- Reviewer, Emory Global Health Institute Field Scholars Award (2021)
- Member, Assistant Dean for Diversity, Equity and Inclusion Search Committee, Rollins School of Public Health, Emory University (2020)
- Member, Center for Reproductive Health Research in the Southeast (RISE) Diversity, Equity and Inclusion Committee, Rollins School of Public Health, Emory University (2019-2020)
- At-Large Member, Community and Diversity Committee, Rollins School of Public Health at Emory (2019)
- Judge, UAB Office of Undergraduate Research's Expo (Spring & Summer 2015, Spring & Summer 2017)

Departmental Level

- Member, PhD Application Review Committee, Department of Behavioral, Social and Health Education Sciences, Rollins School of Public Health, Emory University (2020-present)
- Member, Clinical Research Track Faculty Search Committee, Department of Behavioral, Social and Health Education Sciences, Rollins School of Public Health, Emory University (2019-2020)

Local and Community Level

- Board of Directors, Feminist Women's Health Center, Atlanta, GA (2021 – 2024)
- Technical assistance to facilitate the development of Alabama Department of Public Health's Title V 5-Year Needs Assessment, Birmingham, AL (2015)
- Technical assistance to support Jefferson County Department of Health in Community Matters 20/20 needs assessment and strategic planning, Birmingham, AL (2014)
- Board of Directors, Tomorrow's Luminaries Foundation, Atlanta, GA (2011 – 2014)
- Mentor, Tomorrow's Luminaries Foundation, Atlanta, GA (2009 – 2010)
- Vice President, Georgia Institute of Technology Caribbean Student Association, Atlanta, GA (2009-2010)
- Volunteer Attendant, Emergency Care Center, Grady Memorial Hospital, Atlanta, GA (2009)

SELECTED CONSULTANCIES

- RISE, Emory University, Atlanta, GA. Provision of expertise on all aspects of EnFaith project development, particularly related to reproductive stigma and related measurement. (2017-2018)
- UAB Center for AIDS Research Behavioral and Community Sciences Core, Birmingham, AL. Co-led aspects of a qualitative data workshop, specifically an overview of qualitative data coding, tips from the field, and a guided example. (2017 & 2018)
- The Sea Change Program, Berkeley, CA. Manuscript development and peer-review publication process management. (2017-2018)
- Ibis Reproductive Health Inc., Oakland, CA. Participant recruitment, informed consent, conduct of cognitive interviews, and data management. (2017)

SELECTED CONTINUED PROFESSIONAL DEVELOPMENT

Strategic Communications Training — 05/04 & 18/2022
Center for Public Interest Communications
Supported by RISE

Alan Alda Center for Communicating Science Workshop — 05/11 – 12/2022
Emory University Center for Faculty Development and Excellence

Racial Equity Workshop Phase 1: Foundations in Historical and Institutional Racism — 06/10 – 06/11/2021
Racial Equity Institute, LLC
Emory Department of Behavioral, Social and Health Education Sciences (BSHES)

Faculty Success Program — 01/17 – 04/10/2021
National Center for Faculty Development & Diversity
Supported by Emory University Office of the Provost

Critical Conversations: Foundational Tools to Have Meaningful and Productive Conversations about Racism, Sexism, Homophobia, Inequity, Oppression and Power — 03/24 & 03/31/2021
Capital City Justice Group
Emory BSHES Department

Managing to Change the World, 101 Edition: People of Color and Indigenous Cohort — 07/08 – 07/22/2020
The Management Center
Supported by the Society of Family Planning Changemaker in Family Planning Award

Inclusive Pedagogy Workshop — 02/21/2020
Faculty Professional Development
Emory BSHES Department

Learning to Be Better Teachers Conference — 01/15/2020
Office of Faculty Academic Advancement, Leadership and Inclusion
Emory University School of Medicine

Challenging White Supremacy Workshop — 10/24/2019
Let's Talk About Sex! Pre-Conference Gathering
Led by Southeastern Alliance for Reproductive Equity

Liberating Structures Training — 10/16/2019
Faculty, Postdoc, and PhD Student Professional Development
Emory BSHES Department

Reproductive Justice Workshop and Training: Scientists in Solution — 10/06/2019
Hosted by 500 Women Scientists, Atlanta Pod
Led by Jackson and Marshall Consulting Group LLC

Summer Teaching Intensive — 08/08 – 08/09/2019
Emory University Center for Faculty Development and Excellence

Reproductive Justice 101 — 05/15/2019
Emory Center for Reproductive Health Research in the Southeast (RISE) Retreat
Led by SisterSong Women of Color Reproductive Justice Collective

Reproductive Justice and Faith Training — 04/30 – 05/01/2019
Emory RISE EnFaith Study Team Meeting
Led by SisterReach

Mentor Training — 04/17 & 04/24/2019
Faculty, Postdoc, and PhD Student Professional Development
Emory BSHES Department

Quality Academy: Leadership for Healthcare Improvement, — 05/31 & 06/02/2011
Emory University Healthcare Office of Quality and Risk

PROFESSIONAL MEMBERSHIPS

- SisterSong Women of Color Reproductive Justice Collective (2019 - present)
- Robert Wood Johnson Foundations New Connections Network Member (2017 – 2019)
- Scholars Strategy Network Scholar (2016 – present)
- Society of Family Planning (2014 – present)
- Association of Teachers of Maternal & Child Health [ATMCH] Member (2014 – present)
- AcademyHealth Member (2013 – present)
- American Public Health Association Member (2012 – present)

SELECTED MEDIA CITATION, HIGHLIGHTS OR EDITORIAL COVERAGE

Quoted in News Article

- Gaffney T. STAT. These researchers study abortion in states likely to ban it. That will make their jobs even harder. June 2022.
- Krishnakumar P and Wolfe D. CNN. How outlawing abortion could worsen America's maternal mortality crisis. May 2022.
- Kasadha B. *TheBodyPro*. PrEP Messaging for Black Women Must Include Compassion and Respect. July 2021.

Press Release or Highlight

- Emory University Rollins School of Public Health. Rollins News Article. New Study Examines Abortion Access in the Southeast. May 2021.
- Policies for Action (P4A) News. What We Gain by Increasing Diversity In Research: Five New Scholars Join Policies for Action. April 2020.
- Guttmacher Institute. Perspectives@50. Unintended Pregnancy and Stigma in Alabama. November 2018.
- Pebody R. *NAM Aidsmap News*. It's not just HIV stigma – sexism, racism and poverty stigma commonly reported by women living with HIV in the United States. June 2018.
- Association of Schools and Programs of Public Health (ASPPH) Member Research and Reports. UAB Investigators Develop and Test Scales to Measure Norms and Stigma regarding Pregnancy Decisions. March 2017.
- ASPPH Member Research and Reports. UAB Scientists Investigate Social Norms and Stigma Regarding Unintended Pregnancy. May 2016.

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- Jagannathan M. *MarketWatch*. 'I'm thankful that I had my abortion': Supreme Court will hear challenge on Mississippi abortion law — here's what's at stake. June 2021.
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- Gordon M. *NPR*. OPINON: Doctors Should Be More Candid With Their Patients. April 2021.
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- Nowell C. *Teen Vogue*. Chrissy Teigen Starts Crucial Conversation About Pregnancy Loss and Reproductive Stigma. October 2020.

EXHIBIT E

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER; PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients, and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients.

Plaintiff,

v.

STATE OF GEORGIA

Defendant.

Case No.

AFFIDAVIT OF SAMANTHA MELTZER-BRODY, M.D.

I, Samantha Meltzer-Brody, being duly sworn, hereby state the following:

1. I am a board-certified psychiatrist and Chair of the Department of Psychiatry at University of North Carolina's ("UNC") School of Medicine, where I also serve as the Assad Meymandi Distinguished Professor. I have been on the faculty of the UNC Department of Psychiatry for twenty years.

2. In addition to those responsibilities, I serve as the Director of UNC's Center for Women's Mood Disorders ("the Center"), a comprehensive outpatient, inpatient, and research program with the first perinatal psychiatry inpatient unit in the United States. I founded the perinatal psychiatry program within the Center in 2004, and then served as the Director of that program for 15 years before becoming the Center Director.

3. I received a B.S. from Simmons College in Boston, Massachusetts in 1989 with Distinction in Biology and Psychology, and an M.D. from Northwestern University Medical School in 1996. After medical school, I spent four years as a Resident in Psychiatry at Duke University Medical Center, including serving as the Chief Resident during my final year. I subsequently completed a two-year fellowship in the UNC Chapel Hill's School of Public Health's Health Care and Prevention Program, and simultaneously served as a Robert Wood Johnson Clinical Scholar.

4. I have authored or co-authored well over a hundred books and articles relating to women's mental health in peer-reviewed journals, such as:

- "Women's Mood Disorders: A Clinician's Guide to Perinatal Psychiatry" (UNC Women's Mood Disorders handbook, 2021)
- "Psychosocial Stress and Trauma: Relevance to Women's Reproductive Health Across the Lifespan" (*Behavioral and Social Science in Medicine: Principles and Practice of Biopsychosocial Care*, 2021)
- "Achieving Clinical Response in Postpartum Depression Leads to Improvement in Health-Related Quality of Life" (*Current Medical Research and Opinion*, 2021)
- "Self-Harm in Women with Postpartum Mental Disorders" (*Psychological Medicine*, 2019)
- "Adverse Life Events Increase Risk for Postpartum Psychiatric Episodes: A Population Based Epidemiologic Study" (*Depression and Anxiety*, 2017)
- "The EPDS-Lifetime: Assessment of Lifetime Prevalence and Risk Factors for Perinatal Depression in a Large Cohort of Depressed Women," (*Archives of Women's Mental Health*, 2013)
- "Exacerbation of Psychotic Disorders During Pregnancy in Context of Medication Discontinuation" (*Psychosomatics*, 2013)
- "Evaluation and Management of Opioid Dependence in Pregnancy" (*Psychosomatics*, 2012)

In addition, I co-authored an Evidence Report on "Perinatal Depression: Prevalence, Screening Accuracy, and Screening Outcomes," for the Agency for Healthcare Research and Quality in the U.S. Department of Health and Human Services (2005).

5. I am frequently invited to give presentations on topics relating to the interaction between mental health and pregnancy. For example, I was the keynote speaker at the Royal College of Psychiatrists' international congress in 2022, and the keynote speaker at the North Carolina Psychiatric Association's Annual Meeting in October 2020. I presented at the American Psychiatric Association's May 2019

meeting on "Management of Psychiatric Illness During Pregnancy and Postpartum: What Every Psychiatrist Needs to Know." I have presented on reproductive psychiatry at grand rounds (which are regularly occurring educational lectures featuring invited experts) at leading medical institutions across the country.

6. I am a member of several professional societies, including the American Psychiatric Association, the Marcé Society of North America (a society focused on perinatal mental health, for which I served as President from 2018 to 2020), and Postpartum Support International. I am also a reviewer for numerous peer-reviewed journals, including the *American Journal of Obstetrics and Gynecology*, *JAMA Psychiatry*, *Lancet Psychiatry*, *Journal of Women's Health*, *Obstetrics and Gynecology*, and *Archives of Women's Health*.

7. I have received many honors and awards. For instance, in 2020, I was awarded the O. Max Gardner Award, the highest honor of the UNC System, given to the faculty member "that has the made the greatest contribution to the welfare of the human race." In 2019, I was honored with the American Psychiatric Association's Alexandra Symonds Award for Outstanding Contributions to Women's Mental Health. I was recognized in 2021 by Expertscape as the number one postpartum researcher in the world.

8. My curriculum vitae, which sets forth my experience and credentials in greater detail and contains a full list of my publications, is attached as Exhibit 1.

9. The opinions expressed below are informed by my education and training; my extensive, multi-decade research and scholarship into mental health during pregnancy and the postpartum period (the "perinatal period"); my ongoing review of relevant literature relating to reproductive psychiatry; and my attendance at and participation in conferences relating to reproductive psychiatry.

10. My opinions are also informed by my more than two decades of clinical practice. Many of the patients at the UNC Center for Women's Mood Disorders are Medicaid-eligible or uninsured, although we also serve a wealthier, privately insured population. The vast majority of my patients range in age from 18 to 50, and live with a broad range of mental health disorders, including bipolar disorder, major depressive disorder, anxiety disorders including post-traumatic stress disorder (PTSD), and psychotic disorders. Approximately 40% of patients at the Center are pregnant during the course of our treatment; an additional 60% present at the Center during the postpartum period. Many of our pregnant patients have mental disorders defined in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition ("DSM-V"); others have had their mental health compromised by pregnancy, but do not (yet) satisfy the DSM-V's criteria for a formal diagnosis.

11. Throughout this declaration, I generally use "women" to refer to people who may become pregnant because the majority of our pregnant patients identify as women, but it is important to note that transgender and gender non-binary people

can become pregnant too.

I. The Impact of Pregnancy on Mental Health

12. The perinatal period is a time of increased vulnerability to mental health issues. On one end of the spectrum, some women experience new or worsened anxiety and mood disorders during pregnancy or postpartum that may cause them significant distress and interfere with their daily lives, but do not rise to the level of suicidal ideation or psychosis. On the other end, some pregnant and postpartum women experience life-threatening mental illness, engaging in active suicidal ideation and/or experiencing psychotic symptoms (such as hallucinations) that may lead them to cause harm to themselves or to others. Indeed, suicide is a leading cause of maternal death.[1]

13. Research shows, and my clinical experience reinforces, that at least one in eight pregnant women in the general population will experience a mental health disorder during the perinatal period, whether in the form of a preexisting condition or a disorder that arises for the first time during the pregnancy or postpartum.[2] For

[1] M.W. O'Hara and K.L. Wisner, *Perinatal Mental Illness: Definition, Description and Aetiology*, 28 Best Practice & Research Clinical Obstetrics & Gynaecology 3 (2014); Richard A. Epstein et al., *Treatment of bipolar disorders during pregnancy: maternal and fetal safety and challenges*, 7 Drug, Healthcare, and Patient Safety 7 (2015).
[2] Brenda L. Bauman et al., Centers for Disease Control & Prevention, *Vital Signs: Postpartum Depressive Symptoms and Provider Discussions About Perinatal Depression – United States, 2018*, 69 Morbidity & Mortality Weekly Report 575 (2020) [hereinafter "*CDC Perinatal Depression Report*"]; M.W. O'Hara and K.L. Wisner, *supra* n. 1.

instance, according to the U.S. Centers for Disease Control and Prevention (CDC), 13.6% of Georgians with a recent live birth reported symptoms of postpartum depression in 2018.[3]

14. These estimates may underrepresent the actual prevalence, given that many pregnant women who have mental health issues do not seek care—for instance, due to stigma around mental illness, fear of receiving treatment, fear of having their children taken away, or mistaking symptoms of mental illness as normal responses to pregnancy—and these issues therefore go undetected.

15. Moreover, these studies only quantify the rates of *diagnosable* mental health disorders among pregnant women: they do not reflect the numbers of women whose mental health is negatively impacted by the physiological changes and psychosocial stressors associated with pregnancy, but whose symptoms do not rise to the level of a DSM-V diagnosis.

16. For certain high-risk subsets of the population, the prevalence of perinatal mental illness is even higher. For instance, low-socioeconomic status, stressful life events, and a history of physical or sexual abuse are all associated with a higher risk of perinatal depression.[4] As another example, in a 2014 study of

[3] *CDC Perinatal Depression Report*, *supra* n.1.
[4] Elizabeth O'Connor et al., *Interventions to Prevent Perinatal Depression: Evidence Report and Systematic Review for the US Preventive Services Task Force*, 321(6) JAMA 588 (2019) [hereinafter "*Task Force Perinatal Depression Report*"]; *CDC Perinatal Depression Report*, *supra* n.1.

pregnant women seeking prenatal care at federally qualified health care centers, one in nine women met criteria for either sub-threshold (i.e., clinical symptoms that do not meet official diagnostic criteria) or threshold PTSD, with unstable housing found to be the strongest predictor of PTSD.[5]

17. In a recent study of pregnant and postpartum Black women living in south Atlanta, Georgia, *more than half* the participants reported symptoms of perinatal mood and anxiety disorders. A significant portion of this population had experienced early adverse events that are associated with mental illness, such as growing up in a household with someone who has a mental illness or substance use disorder.[6]

18. In addition, having an unplanned pregnancy further elevates the risk of mental illness throughout the perinatal period.[7] This is intuitive: pregnancy is a transformative period of enormous change to one's body, home, and life. If unprepared for it, the scope of the changes may feel untenable and destabilizing.

19. While prior mental illness is one of the strongest risk factors for mental

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[5] H.G. Kim et al., *Posttraumatic Stress Disorder Among Women Receiving Prenatal Care at Three Federally Qualified Health Care Centers*, 18 Maternal & Child Health Journal 1056 (2014).

[6] Natalie D. Hernandez, *Prevalence and predictors of symptoms of perinatal Mood and anxiety disorders among a sample of urban Black women in the South*, 26 Maternal & Child Health J. 770 (2022).

[7] *See, e.g.*, *Task Force Perinatal Depression Report*, *supra* n. 3; Lotte Muskins et al., *The Association of Unplanned Pregnancy with Perinatal Depression: A Longitudinal Cohort Study*, 25 Archives of Women's Mental Health 611 (2022).

illness during pregnancy, some people receive a diagnosis for the first time during the perinatal period. Potential risk factors include early adverse life experiences, significant psychosocial discord (such as relationship dysfunction or rape), medical complications during pregnancy, and a history of mood symptoms with other hormonal changes (e.g., the use of hormonal contraception or fertility treatment).

20. Clinicians and researchers have documented a significant rise in perinatal mental illness since the start of the COVID-19 pandemic. A scientific review of women in the perinatal period during 2020 found extremely high rates of depressive symptoms (27%) and anxiety symptoms (50%).[8] While those numbers have likely dropped as the COVID-19 pandemic has become less disruptive overall, I continue to see perinatal patients in my clinical practice whose mental health is impacted by anxiety relating to COVID-19.

21. For those with a prior diagnosis, the perinatal period poses a significant risk of relapse or worsening of symptoms across a broad range of psychiatric illness. For instance, in one study of 542 women with OCD, 33% experienced a worsening of symptoms during pregnancy.[9] As an illustration, I recall one patient whose OCD

[8] Shorey et al, *Anxiety and depressive symptoms of women in the perinatal period during the COVID-19 pandemic: A systematic review and meta-analysis*, 49 Scandinavian J. of Public Health 730 (2021).

[9] V. Guglielmi et al., *Obsessive-Compulsive Disorder and Female Reproductive Cycle Events: Results From the OCD and Reproduction Collaborative Study*, 00 Depression and Anxiety 1 (2014).

worsened so severely during pregnancy that she was effectively trapped in the shower for hours: any time a drop of water touched the wall of the shower before touching her, she felt compelled to start the showering process over.

22. I have also cared for many patients with eating disorders whose anxiety symptoms worsened severely as a result of pregnancy and the specter of significant weight gain, and countless patients whose symptoms of PTSD were exacerbated by the thought of losing control of their body and/or of a vaginal delivery.

23. Even among women who continue their pre-pregnancy treatment regimen, pregnancy often leads to a recurrence. In one seminal study on major depression, 26% of women who maintained treatment during pregnancy experienced a relapse anyway.[10] Similarly, in a study on recurrence of bipolar disorder during pregnancy, 37% of women who continued treatment nonetheless suffered a relapse.[11] And a recent systematic review of studies found that overall, among women with a prior bipolar disorder diagnosis, 55% were found to have a mood episode occurrence during the perinatal period.[12]

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[10] L.S. Cohen et al., *Relapse of Major Depression During Pregnancy in Women Who Maintain or Discontinue Antidepressant Treatment*, 295 JAMA 499 (2006) [hereinafter "*Cohen Depression Relapse Report*"].

[11] A.C. Viguera et al., *Risk of Recurrence in Women with Bipolar Disorder During Pregnancy: Prospective Study of Mood Stabilizer Discontinuation*, 164 Am. J. of Psychiatry 1817 (2007), [hereinafter "*Viguera Bipolar Disorder Recurrence Study*"].

[12] Grace A. Masters et al., *Prevalence of Bipolar Disorder in Perinatal Women: A Systematic Review and Meta-Analysis*, 83 J. Clinical Psychiatry (2022).

24. Recurrence of psychiatric illness during pregnancy can cause harms that last beyond the illness episode itself. For example, women with more severe forms of perinatal mental illness often have psychotic symptoms, and a key feature of psychotic disorders is that a patient becomes much more difficult to treat once she begins suffering symptoms (such as delusions and hallucinations) that diminish her connection to reality. In other words, it is more difficult to return to equilibrium once a woman has suffered a relapse than it is to maintain a stable condition.[13]

25. Relapse "during pregnancy is associated with a worse postpartum course."[14] For example, the recurrence of depressive and/or manic symptoms associated with bipolar disorder during pregnancy predicts a 10-times greater "risk of continued or new mood symptoms in the postpartum period," including an increased risk of postpartum psychosis.[15]

26. A relapse often also carries long-term practical consequences that can destabilize a patient and their family for years. It is common for people experiencing a severe mental health episode to lose their employment—for instance, because they cannot get out of bed or because their behavior while at work becomes erratic. In the case of bipolar disorder, manic episodes often manifest as excessive spending

[13] L. Wakil et al., *Exacerbation of Psychotic Disorder during Pregnancy in the Context of Medication Discontinuation*, 54 Psychosomatics 290 (2013).

[14] *Id.*

[15] C.L. Battle et al., *Clinical Correlates of Perinatal Bipolar Disorder in an Interdisciplinary Obstetrical Hospital Setting*, 158 Journal of Affective Disorders 97 (2014).

leading to horrendous debt and bankruptcy. Such debt can then lead to housing loss, which further exacerbates the spiral of instability.

Substance Use Disorder and Pregnancy

27. In addition to the harms posed by mental health conditions, the very high rates of co-morbidity between substance abuse and mental health conditions among pregnant women present further harms and risks. In one 2012 study of pregnant women in a substance abuse treatment program, 67.3% of the sample had a psychiatric diagnosis.[16] Other studies have estimated that "56%–73% of opioid-dependent pregnant women have a co-morbid psychiatric disorder."[17]

28. Pregnancy puts a patient with substance use disorder ("SUD") at greater risk for health complications, and can amplify the symptoms of co-occurring psychiatric disorders.[18] Moreover, the stress and anxiety that many women experience during pregnancy can exacerbate SUDs (e.g., lead to increased drinking, cigarette smoking, or use of other drugs), enhancing the risk that a woman will experience medical complications associated with substance abuse.

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[16] A. Holbrook and K. Kaltenbach, *Co-Occurring Psychiatric Symptoms in Opioid-Dependent Women: The Prevalence of Antenatal and Postnatal Depression*, 38 American Journal of Drug & Alcohol Abuse 575 (2012), [hereinafter "*Study of Psychiatric Symptoms in Opioid-Dependent Women*"].

[17] E.M. Park, et al., *Evaluation and Management of Opioid Dependence in Pregnancy*, 53 Psychosomatics 424 (2012), [hereinafter "*Opioid Dependence in Pregnancy*"]; *see also Study of Psychiatric Symptoms in Opioid-Dependent Women*, *supra* n.14.

[18] N.A. Hauge et al., *Substance Abuse Treatment Services for Pregnant Women: Psychosocial and Behavioral Approaches*, 41 Obstetrics & Gynecology Clinics of North America 267 (2014).

29. SUDs also carry very serious health risks for both pregnant women and fetuses. For example, pregnant women with opioid dependence have higher rates of obstetric problems, including preeclampsia,[19] and fetuses exposed to opioids are at risk of multiple medical complications,[20] including congenital heart defects.[21]

Medications and Pregnancy

30. Treating a pregnant woman with a mental health condition often requires a difficult balancing of the risks posed by untreated or undertreated mental illness, on the one hand, and fetal exposure to potentially teratogenic medication, on the other. Because of the risks that certain medications pose to fetal development, many women choose to discontinue psychotropic medications during pregnancy—and face a high probability of relapse as a result. For example, a study on relapse of major depression during pregnancy found that 68% of women who discontinued medication experienced a relapse.[22] In another study on recurrence during pregnancy among women with bipolar disorder, an overwhelming 85.5% of patients who discontinued medication suffered a relapse.[23]

31. One widely used medication with significant teratogenic risks is

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[19] *Opioid Dependence in Pregnancy*, *supra* n.15; S. Minozzi et al., *Maintenance Agonist Treatments for Opiate-Dependent Pregnant Women (Review),* 12 the Cochrane Library 2 (2013).

[20] *Opioid Dependence in Pregnancy*, *supra* n. 15.

[21] *Id*.

[22] *Cohen Depression Relapse Report*, *supra* n. 8.

[23] *Viguera Bipolar Disorder Recurrence Study*, *supra* n. 9.

valproate (also known as valproic acid), an anticonvulsant widely used to treat bipolar disorder. In a study reviewing claims for Medicaid recipients with psychiatric disorders in New York State, "over 20% of childbearing-aged women receiving mood stabilizers were treated with valproate."[24] Gestational exposure to valproate is associated with congenital malformations, fetal death, and other serious adverse outcomes.[25] Valproate exposure can affect infant neurodevelopment.[26]

32. But if a woman with bipolar disorder discontinues her mood stabilizer medication during pregnancy, she is 2.3 times more likely to experience a recurrence of her illness, and likely to spend a greater proportion of her pregnancy experiencing an illness episode than a woman who maintains her mood stabilizer during pregnancy.[27] As explained above, because pregnancy may exacerbate bipolar disorder, women who discontinue mood stabilizers during pregnancy are at greater risk of suffering especially depressive or dysphoric mood episodes, which are "associated with high rates of premature mortality (due largely to suicide, but also accidents, [and] substance-abuse related events . . .)."[28] Recurrence risks are even

[24] K.L. Wisner et al., *Valproate Prescription Prevalence Among Women of Childbearing Age*, 62 Psychiatric Services 218 (2011).

[25] *Id.*

[26] *Id.*

[27] *Viguera Bipolar Disorder Recurrence Study*, *supra* n. 9.

[28] S. Gentile, *Lithium in Pregnancy: the Need to Treat, the Duty to Ensure Safety*, Informa Healthcare (2012).

greater and earlier if the woman rapidly discontinues her mood stabilizing treatment, as is often the case where the pregnancy was unplanned.[29]

33. Even if a relatively safer treatment option exists, switching medications mid-pregnancy is far from a cure-all. First, the woman faces a serious risk that the new medication will not be as effective as her pre-pregnancy treatment, and that she will suffer a relapse. A relapse poses serious health risks not only for the patient, but also for the fetus, which will be exposed to the consequences of the woman's psychiatric symptoms on her body. "Well-documented behavioral risks that accompany acute manic or depressive relapses . . . include increases in impulsive and risky behaviors, . . . substance use, poor adherence to prenatal care, disruptions in support structures and family functioning, and maternal suicide: a leading cause of perinatal mortality."[30] Second, switching medications during pregnancy—even to a medication for which there is more positive safety data—necessarily means that the fetus will be exposed to at least two different medications and their respective risks. In other words, changing to a new, safer medication during pregnancy may not solve all of the concerns.

34. The lack of reliable data on the risks of medications used to treat mental illness further complicates treatment decisions for pregnant women. For self-evident

[29] *Viguera Bipolar Disorder Recurrence Study*, *supra* n. 9.

[30] Richard A. Epstein et al., *supra* n. 1.

ethical reasons, randomized placebo-controlled studies that examine the effects of medication use on pregnant women largely do not exist.[31] Observational studies are plagued by multiple confounding variables and the lack of an adequate control group, making it difficult to determine the role of the underlying illness versus the medication use on fetal outcomes.[32]

35. In sum, when a woman who needs medication to manage a mental illness (or illnesses) becomes pregnant, she has a deeply personal and complex decision to make. She can (1) continue her medication, though doing so may harm the fetus and may increase the likelihood that she will ultimately have to navigate logistical and financial challenges of caring for a child with disabilities that she does not have the supports or resources to raise; (2) discontinue or switch medications, risking a relapse that would certainly cause harm to her, would likely have negative repercussions for any other family members, and may harm the fetus as well; or (3) continue her medication and terminate the pregnancy.

II. H.B. 481's Impact on Georgians Seeking to End a Pregnancy for Their Mental Health

36. I have reviewed H.B. 481 (or "the Act"), which bans abortion in Georgia at approximately six weeks of pregnancy as dated from a patient's last

[31] J.L. Payne and S. Meltzer-Brody, *Antidepressant Use During Pregnancy: Current Controversies and Treatment Strategies*, 52 Clinical Obstetrics & Gynecology 469 (2009).

[32] *Id.*

menstrual period. It is my expert opinion that the Act will cause significant harm to Georgians by preventing people who seek to terminate a pregnancy for their mental health from doing so. Further, it is my expert opinion that the Act's deliberate exclusion of severe and life-threatening psychiatric conditions from its "medical emergency" exception is medically unfounded and will result in wholly preventable deaths of pregnant people in Georgia who need a life-saving abortion.

37. As detailed above, there is extensive research showing that a substantial number of women experience a new mental health condition, or a recurrence of a preexisting mental health condition, during pregnancy or the postpartum period. This body of research is confirmed by my more than two decades of clinical practice specializing in perinatal mental health.

38. Most of my patients come to me because they wish to continue a pregnancy despite their mental illness and seek my help in doing so. Even so, I have personally cared for a substantial number of patients who ultimately determined that a termination of pregnancy was essential for their mental health, and who saw a substantial mitigation of symptoms following the abortion. For some patients, there is simply no other treatment approach, either pharmaceutical or therapeutic, that would be nearly as effective as abortion at helping them stabilize.

39. People's lives are complex, especially for those navigating a mental illness. Put simply, many of my patients are hanging on by a thread. Adding an

unplanned pregnancy and the prospect of having to care for a newborn to the equation can unravel any precious stability. Indeed, when one of my patients has a recurrence of an underlying mental health issue due to pregnancy, the symptoms of the underlying condition are often compounded by the anxiety of having a recurrence—i.e., the recognition that they are now both pregnant and unwell, and the anxiety of how much worse their illness might become if the pregnancy continues. Particularly for patients who suffered severe symptoms during a previous pregnancy, the fear of what another pregnancy may mean for their mental health, and therefore for their lives, can be all-consuming.

40. For instance, I recall one patient who came to me with debilitating postpartum psychosis, a condition related to bipolar disorder that is often characterized by delusional thinking, typically focused on the infant. It is common for women experiencing postpartum psychosis to believe that their infant is possessed by the devil; many well-known cases of infanticide are a manifestation of untreated postpartum psychosis. The symptoms are excruciating for both the patient and other family members, and there is a strong association between postpartum psychosis and maternal suicide. This patient was still in my treatment—no longer experiencing postpartum psychosis but still navigating her bipolar disorder—when she learned of an accidental pregnancy. She was gravely concerned about either stopping her medication during pregnancy and experiencing a worsening of her

bipolar disorder, or continuing her medication and exposing the fetus to serious teratogenic risks. But even more than that, she was terrified at the thought of experiencing postpartum psychosis again and potentially hurting her child or herself. This patient told me repeatedly that she felt such overwhelming distress at the thought of continuing the pregnancy that she would rather die than go on. Instead, she and her husband made the decision to end the pregnancy, after which she saw a marked improvement in her mental state.

41. I have cared for numerous patients with a history of panic disorder whose conditions worsened dramatically due to an unplanned pregnancy, with the panic attacks becoming far more frequent and destabilizing. During a panic attack, a person typically experiences a rapidly increased heart rate, sweating, and shortness of breath. There is a grave sense of dread and impending doom; the patient is often convinced they are about to die. When such attacks become frequent, many patients begin avoiding the people and places that they associate with anxiety, which can hugely undermine their ability to work, function, or care for children. I can recall multiple patients whose panic disorder became so untenable during pregnancy that they felt they would rather kill themselves than remain pregnant. Fortunately, those patients were able to obtain the abortions they needed. After ending their pregnancies, all saw a substantial decrease in their anxiety and panic symptoms that allowed them to become functional again.

42. I recall another patient who became incapacitated with a mix of depression and anxiety after she became pregnant and her sexual partner refused to have any involvement in raising the child. Her mental illness jeopardized her employment and therefore her ability to put food on the table and a roof over her children's heads. But once she terminated the pregnancy, her acute symptoms resolved and she was able to continue to work and take care of her kids.

43. There is no medical justification for excluding psychiatric illnesses from H.B. 481's definition of a medical emergency. The patients I describe above—and many others for whom I have cared over the years—were at serious risk of death or other forms of self-harm due to a mental health episode triggered or exacerbated by pregnancy. Such patients are experiencing a life-threatening medical emergency, and an abortion may be medically necessary to mitigate the symptoms of their illness. The reality is that pregnant women in Georgia are going to die because of the Legislature's medically indefensible distinction between psychiatric and physical crises: both are *medical* emergencies, as any credible clinician would agree.

44. To be clear, the Act's definition of medical emergency is extremely limited and inadequate to preserve the health of pregnant Georgians. Even if patients with psychiatric conditions were not carved out from this exception, it still would not protect many patients who determine that an abortion is medically necessary to preserve their mental health—patients who are already suffering an acute mental

health episode triggered by pregnancy, or who reasonably fear that they will suffer an acute mental health episode either during pregnancy or postpartum based on their experience during a prior pregnancy, but who are not at immediate risk of death or "substantial and irreversible physical impairment of a major bodily function."

I declare under penalty of perjury that the foregoing is true and correct.

Dr. Samantha Meltzer-Brody

Dr. Samantha Meltzer-Brody

SWORN TO AND SUBSCRIBED
before me

Malik Carrington

This 23rd day of July, 2022

Malik Carrington
NOTARY PUBLIC
Orange County
North Carolina
My Commission Expires 05/02/2026

NOTARY PUBLIC
STATE OF GEORGIA

My commission expires:
05/02/2026

EXHIBIT 1

CURRICULUM VITAE (June 2022)
SAMANTHA E. MELTZER-BRODY, MD, MPH

PERSONAL INFORMATION

Address: [redacted]

Phone: [redacted]
E-mail:

EDUCATION

Executive Certificate	Harvard School of Public Health
1/26-2/7/2020	Program for Clinical Department Chairs
Fellowship:	
2000-2002	School of Public Health, UNC Chapel Hill MPH, Health Care and Prevention Program
2000-2002	Robert Wood Johnson Clinical Scholar at UNC Chapel Hill.
Residency:	
1999-2000	Chief Resident PGY IV, Duke University/Durham VA Medical Center
1996-2000	Resident in Psychiatry, Duke University Medical Center
Medical School:	
1992-1996	MD, Northwestern University Medical School, Chicago, Illinois
Undergraduate:	
1985-1989	Simmons College, Boston, Massachusetts B.S. with Distinction in Biology and Psychology Honors Thesis in Psychology; Department Honors in Biology

EMPLOYMENT HISTORY

10/1/2019-current	Chair, UNC Department of Psychiatry Assad Meymandi Distinguished Professor Director, UNC Center for Women's Mood Disorders
8/2/2019-current	Full Professor with tenure
7/2018-7/2021	Executive Medical Director, System Wide Well-Being Program for UNC Health Care System and School of Medicine

5/2018-10/1/19	Ray M. Hayworth Distinguished Professor of Mood and Anxiety Disorders
12/2014-10/1/19	Associate Chair for Faculty Development, UNC Department of Psychiatry
10/2016-8/2019	Associate Professor with Tenure, Department of Psychiatry
7/2012-10/1/2019	Director, Taking Care of Our Own Program, UNC SOM
7/2004-10/1/19	Director, Perinatal Psychiatry Program, UNC Center for Women's Mood Disorders, University of North Carolina at Chapel Hill
10/2016-2018	Director, SOM Wellness Initiative, UNC SOM Dean's Office
10/2015-9/2016	Tenure Track Associate Professor, Department of Psychiatry, University of North Carolina at Chapel Hill
6/2015-2018	Clinical Associate Professor and Associate Vice Chair for Faculty Development, UNC Department of Pediatrics
11/2010-10/2015	Clinical Associate Professor, Department of Psychiatry, University of North Carolina at Chapel Hill
8/2002 -10/2010	Clinical Assistant Professor, Department of Psychiatry, University of North Carolina at Chapel Hill
8/2002-4/2006	Attending Psychiatrist, UNC Psychiatry Consultation-Liaison Service, University of North Carolina at Chapel Hill
2000-2002	Instructor in Psychiatry, University of North Carolina at Chapel Hill
1996-2000	Residency in Psychiatry, Duke University Medical Center
1989-1992	Research Coordinator, Massachusetts General Hospital Clinical Psychopharmacology Unit, Boston, Massachusetts

CERTIFICATION/LICENSURE

License 2001-present	North Carolina Medical License #97-01489
Diplomate 2001-present	Board Certified, American Board of Psychiatry and Neurology. Recertification completed February 2011 (through 2021)
DEA License 2001-present	Current Drug Enforcement Administration License—renewed

HONORS AND AWARDS

2022	Named to Forbes List of 16 Healthcare Innovators You Should Know
2021	Named to Forbes List of Visionary Women over 50: **The Visionary List: Meet The Women Over 50 Shaping The Future Of Science, Technology And Art**
2021	Named to Forbes List of 'Women over 50 Working to Improve our Collective Mental Health' as part of the Forbes 2021 initiative to highlight women over 50 who are changing the world.
2021	Expertscape ranking of number one postpartum depression researcher in the world.
2020	O. Max Gardner Award—This award is the highest honor the UNC System (17 universities) confers on faculty and is given to the faculty member "that has the made the greatest contribution to the welfare of the human race."
2008-present	Selected to *The Best Doctors of America* database
2019	American Psychiatric Association 2019 Alexandra Symonds Award (Outstanding Contributions to Women's Mental Health)
2019	Raleigh *News and Observer* Tar Heel of the Month, May 2019
2012-2017	Sanders Clinician Scholar Award— to study and develop educational efforts that enhance the effectiveness of direct personal clinical practice and strengthen doctor-patient interaction. Director, UNC "Taking Care of Our Own" Program. Initial funding 2012-2016. Funding renewed in May 2016 through 2018.
2016	North Carolina Psychiatric Association Eugene Hargrove Award
2016	Junior Faculty Mentor of the Year, UNC Department of Psychiatry
2016	Selected for UNC Faculty Learning Community on Strategy and Leaders, a campus-wide initiative
2016	UNC School of Medicine, Academy of Educators, inducted May 2016
2015	Arnold Kaluzny Distinguished Alumni Award, Public Health Leadership Program, UNC School of Public Health
2015	Triangle Business Journal Physician Health Care Hero

2014	UNC Innovation Center Pilot Grant Award
2012	Top-10 Women in Medicine, Triangle Medical Journal
2011	Eleanor Rubinow Award for Excellence in Women's and Children's Mental Health, University of North Carolina
2009	Selected for Mid Career Leader Initiative, Dean's Office, UNC School of Medicine
2003	UNC Representative to "Future Leaders in Psychiatry" Conference, West Palm Beach, Florida
1998-2000	Bristol-Myers Squibb APA Fellowship in Community Psychiatry (Designed to contribute to professional development of residents about opportunities in public sector psychiatry)
1999	Anxiety Disorders Association of America (ADAA) Junior Travel Award
1999	Chief Resident, Duke University, Durham VA Medical Center
1998-1999	Advancement in Psychiatry in General Medical Education (Grant from Pfizer) A medical student teaching program run by psychiatry residents which increases interest and training in screening for depression and anxiety in the primary care setting.
1995	Lilly Award of Excellence For outstanding performance & excellence in the psychiatry clerkship
1989	Simmons College Alumnae Honor Award Awarded to a graduating senior demonstrating excellence in scholarship, leadership and contribution to college life
1989	Stephen R. Deane Award in Psychology For academic excellence in Psychology
1988	Simmons College Academy, Academic honor society
1988	Barbara Rosen Scholar Recipient, For academic excellence in the sciences.

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Books and Chapters

1) Bauer A and **Meltzer-Brody S**. Sex Differences in Psychopharmacological Treatment, Kaplan and Sadock, 2022, in press.

2) Patterson R, Krohn H, Meltzer-Brody S, Brexanolone and Other Neurosteroids, The American Psychiatric Publishing Textbook of Psychopharmacology, 6th edition, editors and Schatzberg and Nemeroff 2022, in press.

3) National Academies of Sciences, Engineering, and Medicine. 2021. Novel Molecular Targets for Mood Disorders and Psychosis: Proceedings of a Workshop. Washington, DC: The National Academies Press: https://doi.org/10.17226/26218.

4) Cox E, Barker L, Vigod S, **Meltzer-Brody S**, Premenstrual Dysphoric Disorder and Peripartum Depression, Tasman's Psychiatry, 5th edition Springer, in press.

5) Women's Mood Disorders: A Clinician's Guide to Perinatal Psychiatry, handbook with co-authors all from UNC Center for Women's Mood Disorders, (Cox E, editor), Springer, published July 2021.

6) Anderson E, **Meltzer-Brody S**, Leserman J, Girdler S**.** Psychosocial Stress and Trauma: Relevance to Women's Reproductive Health Across the Lifespan. (2021) *In Behavioral and Social Science in Medicine: Principles and Practice of Biopsychosocial Care*. (S. Waldstein, editor) Springer.

7) Guintivano J, Putnam KT, Sullivan PF, **Meltzer-Brody S**. Clinical Phenotypes of Peripartum Depression and Time of Onset: The PACT Consortium (in press). *Biomarkers of Postpartum Psychiatric Disorders* (Payne J and Osborne L, editors), Elsevier.

8) Gavin N, **Meltzer-Brody S**, Glover V, Gaynes G**.** Is Population-Based Identification of Antenatal and Postnatal Depression and Anxiety Desirable? A Public Health Perspective on the Perinatal Depression Treatment Cascade (2015) *In Identifying Perinatal Depression and Anxiety: Evidence-based Practice in Screening, Psychosocial Assessment and Management*– Wiley-Blackwell, Oxford, UK, pp 1-39.

9) Sirulnik L, Lara-Cinisomo S, Wisner KL, **Meltzer-Brody S.** The Importance of Cultural Factors in the Treatment of Perinatal Depression (2014) *In Perinatal Depression Among Spanish Speaking Women: A Global Perspective on Detection and Treatment*, Springer New York, pp 114-122.

10) Rogan S, Payne J, **Meltzer-Brody S**. Relationship between depressive mood and maternal obesity: implications for postpartum depression (2014). *In Obesity During Pregnancy in Clinical Practice*, (Nicholson and Baptiste-Roberts, editors), Springer-Verlag, London. pp 99-120.

11) Rubinow DR, Schmidt PJ, **Meltzer-Brody S**, Harsh V. Gonadal Hormones and Behavior in Women: Concentrations vs. Context (2009). *In Hormones, Brain and Behavior 2nd Edition* (Donald Pfaff, Ed-in-Chief), Elsevier, San Diego, CA. pp. 85-118.

12) Rubinow DR, Schmidt PJ, **Meltzer-Brody S**, Harsh V. Neurobiology of Menstrual-Cycle Related Mood Disorders, (2008) *Neurobiology of Mental Illness*, Edited by Drs. Charney and Nestler, 3rd Edition, Oxford University Press. pp. 544-555.

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14) **Meltzer-Brody S**. Pregnancy and Depression: The Tip of the Iceberg? (2016) *In The LongTerm Impact of Medical Complications in Pregnancy: A Window into Fetal and Maternal Health*, Edited by Dr. Eyal Sheiner, CRC Press, Taylor & Francis Group, United States, ISBN 9781498764674

Peer-reviewed Journal Articles

1) Kratzke IM, Barnhill JL, Putnam KT, Rao S, Meyers MO, **Meltzer-Brody S**, Farrell TM, Bluth K. (2022). Self-compassion training to improve well-being for surgical residents. *Explore (NY),* PMID: 35534424.

2) Guintivano J, Aberg K, Clark S, Rubinow DR, Sullivan PF, **Meltzer-Brody S**, Edwin J C G van den Oord EJ. (2022) Transcriptome-Wide Association Study for Postpartum Depression Implicates Altered B-cell Activation and Insulin Resistance, *Molecular Psychiatry*, Jun;27(6):2858-2867. PMID: 35365803.

3) Krohn H, Guintivano Frische R, Rackers H, Steed J, **Meltzer-Brody S**. (2022) App-Based Ecological Momentary Assessment to Enhance Clinical Care for Postpartum Depression: Pilot Study, JMIR Formative Research Mar 23;6(3). PMID: 35319483.

4) Singla D, Hossain S, Ravitz P, Schiller C, Andrejek N, Kim J, LaPorte L, **Meltzer-Brody S**, Silver R, Jung J, Dimidjian S. (2022) Scaling up patient-centered psychological treatments for perinatal depression in the wake of a global pandemic, *Frontiers in Psychiatry (Public Mental Health section)*, PMID: 35197873.

5) Kiewa J, **Meltzer-Brody S**, Milgrom J, Bennett E, Mackle T, Hickie IB, Colodro-Conde L, Medland SE, Martin NG, Wray NR Byrne EM. (2022) Perinatal depression is associated with higher polygenic risk for major depressive disorder than non-perinatal depression, *Depression and Anxiety*, PMID: 34985809.

6) Singla DR, Hossain S, Ravitz P, Schiller CE, Andrejek N, Kim J, La Porte L, **Meltzer-Brody SE**, Silver R, Vigod SN, Jung JW, Dimidjian S. (2022). Adapting behavioral activation for perinatal depression and anxiety in response to the COVID-19 pandemic and racial injustice. *J Affective Disorders*, 299:180-187. PMID: 34875282

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7) Stuebe AM, **Meltzer-Brody S**, Grewen K. What is "normal" endocrine function during exclusive breastfeeding*? Breastfeeding Medicine*. (2011) 6(S1): S3. Presented at the Academy of Breastfeeding Medicine International Meeting, Miami, FL, November 2011.

8) Stuebe AM, Grewen K, **Meltzer-Brody S**. (2011) Effect of Maternal History of Depression/Anxiety on Emotional Response to Infant Feeding. *Reprod Sci* 2011;18(3S):338A.

9) Haeri S, Baker A, Johnson N, Stuebe A, **Meltzer-Brody S**, Barrow D, Boggess K. (2011) 825: Do pregnant women with depression have a pro-inflammatory profile? *Am J Obstet Gynecol* 2011;204(1):S322.

10) Watkins S, **Meltzer-Brody S**, Zolnoun D, & Stuebe A. (2010) Early breastfeeding experience and postpartum depression: A longitudinal study. *Breastfeed Med* 2010;5(6). Presented at Academy of Breastfeeding Medicine International Meeting, San Francisco, CA, October 2010.

11) **Meltzer-Brody S**, Stuebe A, Thorp J, Rubinow D, Dole N. (2010) Elevated corticotropin releasing hormone (CRH) during pregnancy and risk of postpartum depression. *Biol Psychiat* 2010 May;67:(9S):226S.

12) **Meltzer-Brody S MD, MPH**, David Rubinow MD, Kate Menard MD, MPH, Robert Strauss MD, John Thorp MD, Daniel Clarke-Pearson MD. A New Interdisciplinary Model for the Identification and Treatment of Postpartum Depression (2010) *Obstetrics and Gynecology*, Special Issue of the Annual Meeting of the American College of Obstetrics and Gynecology (ACOG), San Francisco

13) Payne J, **Meltzer-Brody S**, Blackmore-Robertson E, Rubinow D.Understanding the Pathogenesis of Perinatal Depression: The Interaction of Stress, Genetics, and Neurobiology, (2009) *Biological Psychiatry*, Special Issue of the Annual Meeting of Biological Psychiatry, Vancouver, BC CANADA.

14) **Meltzer-Brody S,** Leserman J**,** Pedersen C, Rinaldi, K, Rubinow D. (2008) Psychiatric Comorbidity in Women with Perinatal Depression BIRCWH and Specialized Centers of Research on Sex and Gender Factors Affecting Women's Health (SCOR) Presentation Abstracts**,** *Journal of Women's Health*. October 1, 2008, 17(8): 1247-1251.

15) **Meltzer-Brody S,** Zolnoun D, Steege J, Rinaldi K, Leserman J. An Open Label Trial of Lamotrigine for Chronic Pelvic Pain. (2008) *Psychosomatic Medicine*, Special Issue of the Annual Meeting of the American Psychosomatic Society, Baltimore, Maryland

16) **Meltzer-Brody S**, Schmidt P, Dancer K, Schenkel L, Blair J, Rubinow D. Aberrant Information Processing in Women with Premenstrual Dysphoric Disorder (PMDD) (2007) *Biological Psychiatry*, Special Issue of the Annual Meeting of Biological Psychiatry, San Diego.

17) **Meltzer-Brody SE**, Leserman J, Steege JF, Zolnoun D, Madison A, Green E. Explaining Pelvic Pain: The Effects of Past Trauma and PTSD. (2004) *Psychosomatic Medicine*, Special Issue of the Annual Meeting of the American Psychosomatic Society. Orlando, Florida, March 2004.

Other Refereed Products of Scholarship

1) Stokes SB, Kanwar R, Jain S, Adapa K, **Meltzer-Brody S**, Mazur L. Hospitalist burnout and sociotechnical factors contributing to workplace stress, *Industrial and System Engineering Magazine*, February, 2021, 53:2.

2) Kimmel M, **Meltzer-Brody S**. *UpToDate, 2015,* Breastfeeding infants: Safety of exposure to antipsychotics, lithium, stimulants, and medications for substance use disorders

3) Kimmel M, **Meltzer-Brody S**. *UpToDate 2015,* Safety of infant exposure to antidepressants and benzodiazepines through breastfeeding.

4) **Meltzer-Brody S**, Physician Burnout: It's Time to Take Care of Our Own, July 2014 http://thehealthcareblog.com/blog/2014/07/02/physician-burnout-its-time-to-take-care-of-our-own

Manuscripts Under Review or in Press at a Refereed Journal

1) Singla, D. R., Hossain, S., Adrejek, N., Cohen, M. J., Dennis, C. L., Kim, J., La Porte, L., **Meltzer-Brody, S. E**., Puerto-Nino, A., Ravitz, P., Schoueri-Mychasiw, N., Silver, R., Vigod, S., Zibaman, M., Schiller, C. E. (in submission). Culturally-Sensitive Psychotherapy for Perinatal Women: A Mixed Methods Study. *Journal of Consulting and Clinical Psychology, in press.*

2) Spelke MB, Okumu E, Perry NR, Blette B, Paul R, Schiller CE, Ncheka JM, Kasaro MP, Price JT, **Meltzer-Brody S,** Stringer JS, Stringer EM. Interpersonal therapy vs. antidepressant medication for treatment of postpartum depression and anxiety among women with HIV in Zambia: a randomized feasibility trial." Journal of the International AIDS Society, in press.

3) Ng'oma M, **Meltzer-Brody S**, Stewart R, Chirwa E. Perinatal Depression, Adaptation, Psychosocial Intervention, The Thinking Healthy Programme-Peer Delivered, Low- and Middle-Income Countries, *Malawi Medical Journal*, in press.

4) Pouget J, Taylor V, Dennis CL, Grigoriadis S, Oberlander T, Frey B, Van Lieshout R, Guintivano J, **Meltzer-Brody S**, Kennedy James, Vigod, S, Preliminary insights into the genetic architecture of postpartum depressive symptom severity using polygenic scores. *Personalized Medicine in Psychiatry, in press.*

5) Hofheimer J, McGowan EC, Smith, LM, **Meltzer-Brody S**, Carter BS, Dansereau LM, Pastyrnak S, Helderman JB, Neal CR, DellaGrotta SA, O'Shea MD, Lester BM. Risk Factors for Postpartum Depression and Severe Distress in Mothers of Very Preterm Infants.Obstetrics and Gynecology, revision re-submitted, 29 pages, June 2022.

6) Bauer A, Guintivano G, Krohn H, Sullivan PF, **Meltzer-Brody S**. The Impact of the COVID-19 Pandemic on Maternal Mental Health, submitted to *Psychological Medicine*, 22 pages, April 2022.

7) Kimmel MC, Long E, Penalver-Bernabe B, Kia K, Rackers HS, Grewen KM, **Meltzer-Brody S.** The Microbiota-Gut-Brain Axis and Perceived Stress in the Perinatal Period submitted to *Psychosomatic Medicine, June 2022*

8) Schiller, C. E., *Thompson, K. A.[4], *Prim, J., Krohn, H., Meyer, E., Tauber, J., Charguia, N., & **Meltzer-Brody, S. E.** (in submission). Scaling up a COVID-19 Mental Wellbeing Program for Healthcare Workers: Lessons Learned and Future Directions from a Large Academic Medical Center, submitted to *American Journal of Psychiatry, February 2021.*

9) Kulisewa K, Dussault JM, Bengtson AM, Gaynes BN, Hosseinipour MC, Go V, Kutengule A, LeMasters K, **Meltzer-Brody S**, Midiani D, Mphonda S, Udedi M, Pence BW.The Feasibility and Acceptability of a Task-Shifted Intervention for Perinatal Depression among Women Living with HIV in Malawi: A Qualitative Analysis", submitted to BMC Psychiatry, 23 pages, December 2021.

10) Collaton J, Dennis CL, Taylor VH, Grigoriadis S, Oberlander TF, Frey BN, Ryan Van Lieshout RV, Guintivano J, **Meltzer-Brody S**, Kennedy JL, Vigod SN. The PPD-ACT App: Feasibility of a mobile application for recruiting women with postpartum depression and psychosis to a psychiatric genetics study**,** *Journal of Medical Internet Research*, revision resubmitted, March 2021.

11) Kiewa J, **Meltzer-Brody S**, Milgrom J, Bennett E, Mackle T, Hickie IB, Colodro-Conde L, Medland SE, Martin NG, Wray NR Byrne EM. Lifetime Prevalence and Risk Factors for Perinatal Depression in a large Cohort of Women with Depression, submitted to *BMC Psychiatry*, 16 pages, March 2021.

Recent and Accepted Refereed Presentations:

1) **International Marce Society Symposium Presentation:** A Comprehensive Brexanolone Treatment Program: Clinical Lessons, 90 day outcomes for PPD, and active research projects London, UK, upcoming September 2022.

2) **ACNP Mini Panel,** *Neuroendocrinology of Irritability in Women across the Reproductive Lifespan*, December 3-6, 2021, Puerto Rico.

3) **American Society of Clinical Psychopharmacology**, June 3, 2021—Keynote Plenary Session: *Integrating New and Novel Treatments into Clinical Practice and Education*, Brexanolone and Sage 217. June 1-4, 2021, Virtual Conference.

4) **Novel Molecular Targets Virtual Workshop for the National Academies of Sciences, Engineering and Medicine,** "Novel Molecular Targets in Mood Disorder and Psychosis," March 9, 2021.

5) **American Society of Clinical Psychopharmacology**, Annual Meeting Keynote Plenary on Brexanolone and Sage-217 for PPD: Integrating New and Novel Treatments into Clinical Practice, Miami, Florida, May 2020.

6) Keynote Address (virtual): International Marce Society Conference, October, 2020.

7) Keynote Address (virtual): North Carolina Psychiatric Association Annual Meeting, October 2020.

8) Altemus M, Mangla K, Osborne L, **Meltzer-Brody S**, Fitelson E. Symposium Presentation: Women's Reproductive Mental Health: Focus on Hormones, Immune Function and Mood Across the Life Cycle, The American Psychiatric Association Annual Meeting, Philadelphia, PA. April 26, 2020.

9) **Meltzer-Brody S**, Riesenberg R, Epperson CN, Deligiannidis K, Rubinow DR, Haihong L, Bankole K, Dray D, Kanes SJ. Concomitant Antidepressants in Placebo-Controlled, Double-Blind, Randomized Trials of Brexanolone Injection in Adult Women with Postpartum Depression, Poster Presentation, The American Psychiatric Association Annual Meeting, Philadelphia, PA. April 2020.

10) **Meltzer-Brody S**, Vigod S, Stowe Z, Oberlander T, Symposium Presentation: Mental Illness in Pregnancy: An Early Adverse Life Event? Novel Approaches to understanding the impact of exposures on vulnerability. World Congress of Biological Psychiatry, Vancouver, Canada, June 2019.

11) **Meltzer-Brody S**, Payne J, Bergink, V. Management of Psychiatric Illness During Pregnancy and Postpartum: What Every Psychiatrist Needs to Know, American Psychiatric Association Meeting, May 2019, San Francisco, CA.

12) **Meltzer-Brody S**, The American Psychiatric Association Alexandra Symonds Awardee Lecture, May 2019, San Francisco, CA. "Is this as good as it gets? The importance of disruptive innovation in perinatal psychiatry and women's health, May 21, 2019.

13) **Meltzer-Brody et al**, Brexanolone Injection, a GABA-a Receptor Modulator, in Postpartum Depression: Integrated Analysis of Multiple Depression Measures, Poster Presentation, American Psychiatry Association Annual Meeting, May 2019, San Francisco, CA.

14) **Meltzer-Brody S.** Is Breast Always Best? Understanding the Intersection of Maternal Mental Health and Breastfeeding, Symposium participant, International Association of Women's Health, Paris France, March 2019.

15) **Meltzer-Brody et al,** Analysis of the Efficacy and Safety of Brexanolone Injection in Subgroups from an Integrated Dataset of Placebo-Controlled Postpartum Depression Studies, Poster Presentation, International Association of Women's Health, Paris France, March 2019.

16) **Meltzer-Brody S**, Jones I, Apter G. International Association of Women's Health, Paris, France, March 2019.

17) **Meltzer-Brody S**, Efficacy and Safety Analyses from Double-Blind Randomized, Placebo Controlled Trials of the GABAA Receptor Modulator Brexanolone Injection in Postpartum Depression, Psychiatric Research Society annual meeting, Park City, Utah, March 2019.

18) **Meltzer-Brody S**, et al, Drug Development in Psychiatry: Bridging Industry, Academia, and Government, American College of Neuropsychopharmacology, Hollywood, Florida, December 13, 2018.

19) **Meltzer-Brody S**, et al. Neurosteroids and GABA: Role in Postpartum Depression, Mood and Anxiety Disorders, American College of Neuropsychopharmacology, Hollywood, Florida, December 10, 2018.

20) Schad A, **Meltzer-Brody S**, et al, Making Wellness Systemic: From Medical Education to Clinical Practice, International Conference on Physician Health, October 12, 2018, Toronto, Canada.

21) **Meltzer-Brody S**, et al, A New System-Wide Approach to Increase Physician Well Being and Engagement at a Large Public Academic Health Care System, International Conference on Physician Health, October 11, 2018, Toronto, Canada.

22) **Meltzer-Brody S**. et al, Brexanolone iv, a GABA-A Receptor Modulator, in the Treatment of Postpartum Depression: Overview of Clinical Studies, International Meeting of the Marce Perinatal Depression Society, Bangalore, India, September 2018.

23) **Meltzer-Brody S**. et al, Brexanolone iv, a GABA-A Receptor Modulator, in the Treatment of Postpartum Depression: Overview of Clinical Studies Presented at the Annual Meeting of Postpartum Support International, Houston, Texas, July 2018.

24) **Meltzer-Brody S et al,** Maternal Mental Health: New Advances in Research to Help Women Now, Symposium Presentation at The American Psychiatric Association, May 2018, NY, New York.

25) **Meltzer-Brody S**, et al, Fact or Fiction? Antidepressants Aren't Safe in Pregnancy Symposium Presentation at The American Psychiatric Association, May 2018, NY, New York.

26) Coe C, Brown, Connolly A, **Meltzer-Brody S**. Maybe All We Need is a Casserole: Using Maslow's Hierarchy of Need to Address Wellbeing, Resilience, and Burnout, AAMC Continuum Connections Conference, Orlando, FL. April, 2018.

27) **Meltzer-Brody S**. et al, Brexanolone iv, a GABA-A Receptor Modulator, in the Treatment of Postpartum Depression: Overview of Clinical Studies Presented at the 2018 North American Society for Psychosocial Obstetrics & Gynecology (NASPOG) Biennial Meeting, Philadelphia, PA. April 2018.

28) **Meltzer-Brody S et al**, American College of Neuropsychopharmacology, Hot Topics Oral Presentation and poster presentation: Phase 2 and 3 Randomized, Placebo-Controlled Trial of SAGE-547 Injection in Severe Postpartum Depression, Palm Springs, California, December 2017.

29) **Meltzer-Brody S**, Perinatal Mental Health Society Conference, Symposium Chair and Speaker: Investigating the Biomarker Signature of Postpartum Mood Disorders. Chicago, Illinois, November 2017

30) **Meltzer-Brody S**, Perinatal Mental Health Society Conference, Symposium Chair and Speaker: Using Novel Technology to Investigate the Genetic Signature of Postpartum Mood Disorders: The PPD ACT app. Chicago, Illinois, November 2017

31) **Meltzer-Brody S**, Perinatal Mental Health Society Conference, Phase 2 and 3 Randomized, Placebo-Controlled Trial of SAGE-547 Injection in Severe Postpartum Depression Chicago, Illinois, November 2017

32) **Meltzer-Brody S**, Charguia N, Raphael-Grimm, Jennifer Tauber, Holly Krohn, Creating an Integrated Emotional Support Program: Lessons Learned American Physician Health Conference, San Francisco, CA, Oct 2017.

33) **Meltzer-Brody S.** Keynote address**,** Postpartum Support International Annual Conference, Using Novel Approaches to Investigate and Treat Postpartum Depression: The power of team science and positively disruptive technology July 14, 2017, Philadelphia, Pennsylvania.

34) **Meltzer-Brody S,** Kanes SJ, Gunduz-Bruce, H, Raines S, Colquhoun H, Arnold R, Schacterle A, Doherty J, Epperson N, Deligiannidis K, Riesenberg R, Hoffmann E, Rubinow D, Jonas J, Paul S. A Phase 2, Randomized, Placebo-Controlled Trial of SAGE-547 Injection in Severe Postpartum Depression, Postpartum Support International Conference, July 14, 2017, Philadelphia, Pennsylvania.

35) **Meltzer-Brody S,** Kanes SJ, Gunduz-Bruce, H, Raines S, Colquhoun H, Arnold R, Schacterle A, Doherty J, Epperson N, Deligiannidis K, Riesenberg R, Hoffmann E, Rubinow D, Jonas J, Paul S. A Phase 2, Randomized, Placebo-Controlled Trial of SAGE-547 Injection in Severe Postpartum Depression, Annual Meeting of American Society of Clinical Psychopharmacology, May 31, 2017, Miami, Florida.

36) Williams K, Flynn H, Sharkey K, Sharma V, **Meltzer-Brody S**, Treatment Resistance in Perinatal Depression: Differential Diagnosis and Treatment Strategies, 7th World Congress on Women's Mental Health, upcoming March 2017, Dublin, Ireland.

37) Rasgon N, **Meltzer-Brody S**, Robakis T, Knijff E, Monk C. Vulnerability and Intervention in Postpartum Psychiatric Disorders, 7th World Congress on Women's Mental Health, upcoming March 2017, Dublin Ireland.

38) **Meltzer-Brody S**, Maintaining Provider Wellness in an Ever-Changing Environment*,* 2017 Annual Scientific Session of the North Carolina Chapter of the American College of Physicians, February 2017, Greensboro, North Carolina.

39) **Meltzer-Brody S**, Ian Jones, Jeannette Milgrom, Naomi Wray, The PPD ACT app: Using Technology for Large Scale International Screening and Genetic Studies of Postpartum Depression, Annual Meeting of the International Marce Society, September 2016, Melbourne, Australia.

40) **Kanes S, Meltzer-Brody S, et al,** A Phase 2 Randomized Controlled Trial of SAGE-547 in Postpartum Depression, Annual Meeting of the International Marce Society, September 2016, Melbourne, Australia.

41) **Meltzer-Brody S**, Munk-Olsen T, Adverse Life Events and Risk of Postpartum Depression in the Danish Registers, Annual Meeting of the International Marce Society, September 2016, Melbourne, Australia.

42) **Meltzer-Brody S**, Freeman M, Cohen L. Unraveling the Complexities of Psychotropic Prescribing during Pregnancy, Panel Presentation at the Annual Meeting of the American Society of Clinical Psychopharmacology, upcoming May 30 2016, Scottsdale, Arizona.

43) **Meltzer-Brody S**, Osborne L, Bergink V, Payne J. Advances in Identifying Biomarkers of Postpartum Mood Disorders, Symposium Presentation of the Society of Biological Psychiatry Annual Meeting, May 2016, Atlanta.

44) Kanes SJ, Colquhoun H, Doherty J, Raines S, Rubinow D, **Meltzer-Brody S**. The Open-label, Proof-of-concept Study of SAGE-547 (Allopregnanolone) in the Treatment of Postpartum Depression Symposium poster presentation of the Society of Biological Psychiatry Annual Meeting, May 2016, Atlanta.

45) **Meltzer-Brody S**, Wardrop R. Building Resiliency, Promoting Wellness, and Avoiding Burnout One Physician at a Time, Workshop Presentation, North Carolina Annual Meeting of the American College of Physicians (ACP), February, 2016, Greensboro, NC.

46) Stringer E, Casilla-Lennon M, Johnson, J, **Meltzer-Brody S**. Antepartum Depression in urban population of pregnant adolescents and young adults may contribute to preterm birth. Society of Maternal Fetal Medicine, February 2016, Atlanta, Georgia.

47) Osborne L, Hermann A, **Meltzer-Brody S**, Burt V, Fitelson E, Miller, L. Symposium Participant, Reproductive Psychiatry Education: Toward a National Curriculum, Perinatal Mental Health Meeting, November 4-6 2015, Chicago, IL.

48) **Meltzer-Brody S**, Munk-Olsen T, Vigod S, Bergink V. Symposium Participant, Triggers for new-onset and recurrent psychiatric episodes in the postpartum period: updates in etiology and risk factors on the path toward prevention. Perinatal Mental Health Meeting, November 4-6 2015, Chicago, IL.

49) Lara-Cinisomo S, Stuebe A, Lara-Cinisomo S, **Meltzer-Brody S**, Houk K, Pearson B, Grewen K, McKenney K, DiFlorio A, Ferguson E, Cox E. Pathways to postpartum depression and lactation difficulties: Exploring neuroendocrine, contextual and pharmacological associations, Perinatal Mental Health Meeting, November 4-6, 2015, Chicago, IL.

50) **Meltzer-Brody S**, Symposium Participant, Pregnancy is Not Protective: Meeting the Needs of Our Highest Risk and Sickest Patients During Pregnancy and the Postpartum Period, Perinatal Mental Health Meeting, November 4-6 2015, Chicago, IL.

51) Cox E, Sowa N, **Meltzer-Brody S**, Gaynes, G. The Perinatal Depression Treatment Cascade: Baby steps towards improving outcomes, Perinatal Mental Health Meeting, November 4-6 2015, Chicago, IL.

52) **Meltzer-Brody S**, Plenary Talk, Development of a Perinatal Psychiatry Unit. Annual Meeting of Association of Medicine and Psychiatry, October 2 2015, Chicago, IL,

53) **Meltzer-Brody S**, Symposium Participant, The PACT Perinatal Psychiatry Genetic Consortium, World Federation Society of Biological Psychiatry, Athens, Greece, June 2015.

54) Holmes E, Connolly AM, Hamer R, Penaskovic K, Rubinow D, Denniston C, **Meltzer-Brody S**. The Epidemic of Resident Physician Burnout: Contributors and Potential Interventions to Take Care of Our Own, American Psychiatric Association Annual Meeting, upcoming Toronto, Canada, May 2015.

55) Connolly AM, Holmes E, Clark L, Denniston C, **Meltzer-Brody S**, Physician Burnout: Creating an Institutional Process to Detect, Identify and Mitigate Symptoms, Annual Meeting of the Council on Resident Education In Obstetrics and Gynecology/Association of Professors of Gynecology and Obstetrics. San Antonio, Texas, March 4-7, 2015

56) **Meltzer-Brody, S**. Symposium Participant, Genetic and Epigenetic Contributions to Reproductive-Related Mood Disorders, American College of Neuropsychopharmacology, Phoenix, AZ, December 2014.

57) **Meltzer-Brody S**, Symposium Participant, Exploring the genetic and biomarker evidence that postpartum depression is a genetically more homogeneous subtype of MDD World Congress Psychiatric Genetics Conference, Copenhagen October 2014.

58) **Meltzer-Brody S**, Symposium Participant, How can we meet the research challenges of Perinatal Psychiatry?, The International Marce Society for Perinatal Mental Health, Swansea Wales,UK, Sept 2014.

59) **Meltzer-Brody S**, Symposium Participant, Weight and eating disorders in the perinatal period, The International Marce Society for Perinatal Mental Health, Swansea Wales,UK, Sept 2014.

60) **Meltzer-Brody S**, Symposium Participant, Bipolar disorder and childbirth - perspectives from around the world, The International Marce Society for Perinatal Mental Health, Swansea Wales,UK, Sept 2014.

61) Cox L, Stuebe A, Grewen K, Rubinow D and **Meltzer-Brody S.** Symposium Participant A brain-to-blood examination of the conditional relation between mental health, sex, and social stress: What can we learn from a person-dependent approach? International Society for Psychoneuroendocrinology, Montreal, Canada, August 2014.

62) **Meltzer-Brody S**, Plenary Speaker, Psychopharmacologic Treatment of Mood and Anxiety Disorders in Pregnancy. Postpartum Support International Conference, Chapel Hill, North Carolina, June 18, 2014.

63) Cox L, Stuebe A, Grewen K, Rubinow D and **Meltzer-Brody S**. Oxytocin and HPA Stress Reactivity in Postpartum Women, Society of Biological Psychiatry, New York, May 2014.

64) Killian-Farrell C, Rizo CF, Bledsoe-Mansori S, Pollard N, **Meltzer-Brody, S**. (2014) Deconstructing the Effects of Interpersonal Violence, Childhood Trauma, and Loss on Perinatal Depression in Adolescent Mothers. Annual Meeting, Society for Social Work and Research, January 2014.

65) Knickmeyer R, **Meltzer-Brody S**, Woolson S, Hamer R, Smith K, Lury K. Gilmore J. Rate of Chiari I Malformation in Children of Mothers with Depression. American College of Neuropsychopharmacology, Hollywood, FL, December 2013.

66) **Meltzer-Brody S.** Evidence of the Puerperal Trigger in Perinatal Psychiatry Illness: What do we Know Now? Chicago Perinatal Meeting Symposium, Chair, November 2013.

67) **Meltzer-Brody S**. The UNC Center for Women's Mood Disorders, Clinical and Research Training Opportunities. Perinatal Mental Health Meeting, Chicago, IL, November 2013.

68) **Meltzer-Brody, S**. The Impact of Postpartum Depression on Maternal and Child Health Outcomes: Pathophysiology, Screening and Treatment. Academy of Breastfeeding Medicine Annual Meeting, Plenary Speaker, Philadelphia, PA November 2013.

69) **Meltzer-Brody, S**. Pearson, B, Girdler, S, Hamer R. NCDEU Annual Meeting, Double Blind Placebo Controlled Pilot Study of Adjunctive Quetiapine SR in the Treatment of PMDD, Hollywood, Florida, May 2013.

70) **Meltzer-Brody, S. Annual Meeting of the American Psychiatric Association (APA).** Before It's Too Late: Moving Toward a Preventative Model in Psychiatry by Building Resiliency Throughout the Lifespan, May 2013.

71) **Meltzer-Brody, S. Annual Meeting of the American Psychiatric Association (APA).** Perinatal Psychiatry: New Opportunities for Prevention, Treatment, and Education, May 2013**.**

72) **Meltzer-Brody, S.** Annual Meeting of the Society of Psychosomatic Medicine: Panel Discussant at Reproductive Psychiatry Symposium, November 2012, Atlanta, GA.

73) **Meltzer-Brody S**, Jones I, Stowe Z, Wisner K, Schmidt P, Sullivan P, Rubinow D. The Development of an International Perinatal Psychiatric Genetic Consortium, Marce Society International Meeting, Paris, France, October 2012.

74) **Meltzer-Brody S**, Brandon A, Bullard E, Burns L, Rubinow D. The Development of the First Perinatal Psychiatry Inpatient Unit in the United States, Marce Society International Meeting, Paris, France, October 2012.

75) **Meltzer-Brody S,** Challenges in Phenotyping and Genotyping in Postpartum Depression, Conference Presentation, Karolinska Institute, Stockholm, Sweden, June 2012.

76) **Meltzer-Brody S**, Boschloo L, Jones I, Sullivan P, Penninx B. Assessing Phenotyping, Genotyping and Risk Identifiers for Lifetime Perinatal Depression in a Large Cohort of Women with Major Depressive Disorder, Society for Biological Psychiatry, Symposium Oral Presentation, May 2012, Philadelphia Pennsylvania.

77) **Meltzer-Brody S**, Bledsoe SE, Johnson N, Killian C, Thorp JM. North American Society of Psychosomatic Obstetrics and Gynecology (NASPOG), A Prospective Study of Adolescent Mothers and Postpartum Depression, Providence, Rhode Island Oral Presentation on April 2012.

78) **Meltzer-Brody S**, Brandon A, Bullard E, Rubinow D. Inpatient Perinatal Psychiatry Unit. North American Society of Psychosomatic Obstetrics and Gynecology (NASPOG). Poster Presentation on April 2012, Providence Rhode Island.

79) **Meltzer-Brody S**, Sullivan PF, Jones I, Penninx B. Phenotyping, Prevalence, and Genetic Signature of Postpartum Depression in the NESDA GWAS Study. Presented at the XIXth World Congress of Psychiatric Genetics, September 2011 in Washington, DC.

80) **Meltzer-Brody S**, Stuebe A, Pearson B, Elam M, Grewen K. Neuroendocrine Pathophysiology in Postpartum Depression and Lactation Failure. Poster presentation at the annual meeting of the Society of Biological Psychiatry in San Francisco, CA, May 2011.

81) Johnson N, Killian C, Bledsoe SE, Brody, S, Thorp JM, **Meltzer-Brody S**. A Prospective Study of Adolescent Mothers and Postpartum Depression: Examining the Risk Presented at the 23rd Annual William Droegemueller Resident Clinical Studies Program, April 2011.

82) **Meltzer-Brody S**, Girdler S, Pearson B, Rinaldi K, Hamer R, Rubinow D. Persistent Disturbance in HPA-Axis Activation and Sympathetic Reactivity to Stress in Euthymic Women with Histories of Major Depression and Postpartum Depression. Poster presentation at the American College of Neuropsychopharmacology (ACNP) Annual Meeting in Miami Florida given on December 2010.

83) **Meltzer-Brody S**, Zerwas S, Bulik C. Eating Disorders in Women with Perinatal Depression, Oral Plenary Presented at the Marce Society International Meeting, Pittsburgh, PA October 2010.

84) Grewen K, **Meltzer-Brody S**, Stuebe A. Neuroendocrine Pathophysiology in Postpartum Depression and Lactation Failure, Oral Presentation presented at the Marce Society International Meeting, Pittsburgh, PA October 2010.

85) **Meltzer-Brody S,** Stuebe A, Dole N. Rubinow D. Thorp J. Elevated Corticotropin Releasing Hormone (CRH) during Pregnancy and Risk of Postpartum Depression, Poster Presentation Society for Biological Psychiatry, New Orleans, LA May 2010.

86) **Meltzer-Brody S**, Rubinow D, Menard K, Strauss R, Thorp J, Clarke-Pearson D. A New Interdisciplinary Model for the Identification and Treatment of Postpartum Depression, Poster Presentation Annual Meeting of the American College of Obstetrics and Gynecology (ACOG), San Francisco, May 2010

87) **Meltzer-Brody, S,** Stuebe A, Dole N. Rubinow D. Thorp J. Elevated Corticotropin Releasing Hormone (CRH) during Pregnancy and Risk of Postpartum Depression, Society for Biological Psychiatry, New Orleans, LA, May 2010.

88) **Meltzer-Brody, S**, Abramowitz J, Killenberg S, MD, Leserman J, Ph.D., Pedersen C, Rubinow D. Obsessional Thoughts and Compulsive Behaviors in a Sample of Women with Postpartum Depression, Poster presentation at the Annual Meeting of the North American Society of Psychosomatic Obstetrics and Gynecology, Richmond, VA, February 2010.

89) Bullard E, Raines C, **Meltzer-Brody S,** Rubinow D. A New Interdisciplinary Approach to Specialized Inpatient Perinatal Psychiatric Treatment, Poster presentation at the Annual Meeting of the North American Society of Psychosomatic Obstetrics and Gynecology, Richmond, VA February 2010.

90) **S. Meltzer-Brody**, K Yonkers, M. O'Hara Webinar: Identifying and Treating Maternal Depression Strategies and Considerations for Health Plans, Sponsored by The National Institute for Health Care Management NIHCM Foundation, December 2009.

91) **Meltzer-Brody, S,** Zeifel J, Lake P. My Hormones must be our of Whack: The Role of Gonadal Hormones in the Etiology and Treatment of Women's Mood Disorders, Symposium presented at the Annual Meeting of the American Society of Reproductive Medicine (ASRM), Atlanta, Georgia, October 2009.

92) **Meltzer-Brody S,** Understanding Postpartum Depression: Stress Reactivity and Genetic Contributions, Annual Meeting of Biological Psychiatry, oral presentation as part of a symposium, Vancouver, BC CANADA, May 2009.

93) Delatte R, Cao H, **Meltzer-Brody S**. Menard K, Universal Screening for Postpartum Depression: An Inquiry Into Provider Attitudes and Practice. Presented at the 29th Annual Meeting of the Society for Maternal Fetal Medicine, January 2009.

94) **Meltzer-Brody S** Building Interdisciplinary Research Careers in Women's Health, NIH Conference. Psychiatric Comorbidity in Women with Perinatal Depression, November 2008.

95) Delatte R, Cao H, **Meltzer-Brody S**. Menard K, Universal Screening for Postpartum Depression: An Inquiry Into Provider Attitudes and Practice. Presented at the Annual Meeting of the North Carolina Obstetrical and Gynecological Society, Myrtle Beach, SC, June 2008.

96) Delatte R, Cao H, **Meltzer-Brody S**. Menard K, Universal Screening for Postpartum Depression: An Inquiry Into Provider Attitudes and Practice, Presented at the 23rd Annual William Droegemueller Resident Clinical Studies Program, April 2008.

97) **Meltzer-Brody S,** Zolnoun D, Steege J, Rinaldi K, Leserman J. An Open Label Trial of Lamotrigine for Chronic Pelvic Pain. American Psychosomatic Society Annual Meeting, Baltimore, Maryland, March 2008

98) **Meltzer-Brody S**, Schmidt P, Dancer K, Schenkel L, Blair J, Rubinow D. Aberrant Information Processing in Women with Premenstrual Dysphoric Disorder (PMDD). Annual Meeting of the Society for Biological Psychiatry, San Diego, May 2007.

99) **Meltzer-Brody S**, Leserman J, Rinaldi K, Zolnoun D, Steege, J. The Efficacy of Lamotrigine in the Treatment of Women with Chronic Pelvic Pain. Presented at the Annual Meeting of the American Psychiatric Association, Toronto, Canada, May 2006.

100) **Meltzer-Brody S,** UNC Women's Health Research Day**,** The Efficacy of Lamotrigine in the Treatment of Women with Chronic Pelvic Pain (CPP). UNC, Chapel Hill, NC. April 2006

101) **Meltzer-Brody S,** Leserman J. The Impact of Anxiety on Women's Health: Focusing on the Link Between Trauma and Chronic Pain, Presented as part of a Symposium entitled "Impact of Stress on Brain and Body," American Psychiatric Association Annual Meeting May 2005.

102) **Meltzer-Brody S,** "Does Perinatal Screening for Depressive Symptoms with Subsequent Intervention Lead to Improved Outcomes? A Systematic Review of the Evidence", Presented as part of Symposium entitled, A Systematic Evidence Based Review of Perinatal Depression," American Psychiatric Association Annual Meeting May 2005.

103) Gaynes BN, Gavin N**, Meltzer-Brody S,** Agency for Healthcare Research and Quality, Safe Motherhood Group Perinatal Depression Systematic Review, Washington, DC, September 2004.

104) **Meltzer-Brody S.** The Annual Meeting of the American Psychiatric Association, "The Health Impact of Sexual and Physical Abuse and PTSD among Women with Pelvic Pain", New York, New York, May 2004.

105) Gaynes BN, Gavin N, **Meltzer-Brody** S, Second International Conference on Women's Mental Health**,** "Systematic Review of the Evidence: Does Screening for Perinatal Depression with Subsequent Intervention Lead to Improved Outcomes?", Washington, D.C., March 2004.

106) **Meltzer-Brody SE**, Leserman J, Steege JF, Zolnoun D, Madison A, Green E. Explaining Pelvic Pain: The Effects of Past Trauma and PTSD. Presented at the American Psychosomatic Medicine Conference. Orlando, Florida, March 2004.

107) Gaynes BN, Gavin N, **Meltzer-Brody** S, Lohr KN, Swinson T**,** Agency for Healthcare Research and Quality, Safe Motherhood Group: Perinatal Depression Feasibility Study, Rockville, MD, October 2003

108) **Meltzer-Brody SE,** Scott J, Hartmann K, Miller W, Garrett J, & Davidson JRT. Screening and Prevalence of Post-Traumatic Stress Disorder in Outpatient Gynecology. Presented at the Future Leaders in Psychiatry Conference, Palm Beach, FL, June 2003

109) **Meltzer-Brody SE,** Scott J, Hartmann K, Miller W, Garrett J, & Davidson JRT. Screening and Prevalence of Post-Traumatic Stress Disorder in Outpatient Gynecology Robert Wood Johnson Clinical Scholars Annual Meeting, Ft Lauderdale, FL, November 2002.

110) **Meltzer-Brody SE**, Connor KM, Churchill E, Davidson JRT. The effects of fluoxetine on individual symptoms in PTSD. ACNP 38th annual meeting, Acapulco, Mexico, December 1999.

111) **Meltzer-Brody, S** Bristol-Myers Squibb Fellows Workshop, "Cultural Competence: Critical Issues in Psychiatry" Annual Meeting APA Institute on Psychiatric Services, October 1999.

112) **Meltzer-Brody SE**, Churchill E, Davidson JRT. Derivation of the SPAN: a brief diagnostic screening test for post-traumatic stress disorder. NCDEU 39th annual meeting, Boca Raton, Florida, June 1999

113) **Meltzer-Brody, S.** Committee on Women Workshop, "What's Next? Issues in Mid-Career Development" Annual Meeting of the American Psychiatric Association, May 1999.

114) **Meltzer-Brody SE**, Mouton A, Ge Y, Sanchez R, Zee PC. Effects of scheduled bright light exposure on subjective measurements of vigor in residents of an assisted living facility. APSS 8th annual meeting, Boston, Massachusetts, June 1994.

115) Pollack MH, Otto MW, **Meltzer-Brody SE**, Rosenbaum JF, Sachs GS. Acute and long-term outcome of cognitive-behavioral therapy for benzodiazepine discontinuation of panic patients. NCDEU 31st annual meeting, Boca Raton, Florida, June 1991.

116) Pollack MH, Otto MW, Rosenbaum JF, Sachs GS, O'Neil C, Asher R, **Meltzer-Brody SE**. Longitudinal course of panic disorder. Findings from the MGH naturalistic study. 143rd annual meeting of the American Psychiatric Association, New York, NY, May 1990.

TEACHING RESPONSIBILITIES:

Course Director

July 2018-present	Lectures on Health Care Worker Wellness related issues for UNC Health and School of Medicine broadly.
July 2012-present	Seminar Director, Taking Care of Our Own Program Lecture Series A lecture series developed as part of the Sanders Clinician Scholars Program covering topics on Professionalism, Physician Burnout syndrome and Interpersonal Effectiveness offered to all Clinical Departments in the UNC School of Medicine.
June 2012-present	Supervisor, UNC Psychiatry Resident's Teaching Clinic in Women's Mood Disorders A weekly didactic lecture is given prior to the start of the clinic. Supervision of residents and medical students during the weekly half day specialty clinic in women's reproductive mood disorders.
2006-present	UNC Perinatal Psychiatry Monthly Team Meeting A monthly conference covering topics on women's reproductive mood disorders; attended by Faculty, Residents, and Medical Students within the UNC Department of Psychiatry and other departments
2006-present	Perinatal Psychiatry, MS-IV Clinical Clerkship Elective Coordinator Four-week specialty elective clerkship for MS-IV students interested in a Perinatal Psychiatry intensive experience.

CME: Course Director

Marce of North America, Biennial Meeting, Chapel Hill, North Carolina, Oct 2019. (The President of the organization is responsible for hosting the biennal meeting).

Scientific Program Committee Member, Postpartum Support International Conference, hosted by UNC Center for Women's Mood Disorders, June 2014, Chapel Hill, North Carolina.

UNC Department of Psychiatry, Women's Mental Health Symposiums, 11/08, 11/10, 11/11 and 4/13.

Lectures (to students, residents, grad students, fellow or post docs)—recurring, annual

Medical Students:

MS-IV Students:	Capstone Course Instructor: Physician Burnout Prevention, 2012-present
MS-II Students:	Small Group Leader, Psychiatry Module, 2005-present
MS-III Students:	Psychiatry Clerkship Rotation, Perinatal Psychiatry Lecture every 6 weeks throughout the academic year, 2004-present
MS1-MS IV	Domestic Violence Day, Panel Discussion and Participant, 2004-present
MS-II Students:	Diagnosis and Treatment of Anxiety Disorders and Perinatal Mood Disorders, 1 hour, 2 times per year, 2002-present

Psychiatry Residents:

PGY 2: Mood and Anxiety Disorders Module, 4 lectures given weekly on a one month block. 2012-current

PGY2: Various Lectures to Second Year Psychiatry Residents, approximately 1 hour, 2 times per year, on Women's Reproductive Mental Health Issues, 2002-present

PGY3: Various Lectures on Consultation Liaison Psychiatry, 1 hour 4 times per year, 2002-present.

PGY4: Various Lectures on selected women's reproductive mood disorders topics, 1 hours, 2 times per year, 2002-present

Fellows/Post-doctoral Scholars:

T32 Training Program in Women's Mood Disorders, UNC Department of Psychiatry. 3 fellows yearly, 2012-present.

Department of Obstetrics and Gynecology, Various Lectures on Perinatal Psychiatry Given to Fellows in Maternal Fetal Medicine (MFM) and Reproductive Endocrinology and Infertility, 2006-present.

Panel Discussion regarding Career Options for MD/MPH Graduates in the Health Care and Prevention Program of the School of Public Health, MPH, Spring 2005-current.

Lecture for Epidemiology 896, Postdoctoral Fellows and Junior Faculty funded by the UNC K12 Program, "Balancing Choices in Early Career Academic Medicine", 2008- onward.

Residency Training Programs Across the Entire UNC SOM—(I lecture across all departments regarding physician burnout and perinatal psychiatry—more than 50 lectures in sum).

Maintaining Mental Health During Residency "Myths of the 80 Hour Work Week", Various Lectures Given Annually to OB-GYN PGY I-IV Residents, 2005-present

Special Topic Seminars on Women's Reproductive Mental Health Given Annually to PGYI-IV Residents, 2005-present

Residency Training Program, Various Lectures on General Adult Psychiatry, and Perinatal Psychiatry October 2004-present

Carolina Global Breastfeeding Institute
Mary Rose Tulley Training Course-- an IBLCE-approved Pathway 2 clinical training program in breastfeeding and lactation. Annual Lecturer on Perinatal Depression, 2013-current.

Grand Rounds at UNC:

1) **UNC Department of Neurosurgery**, "Why Does Well-Being Matter and what is being done to address it at UNC? June 26, 2019.

2) **UNC Department of Pediatrics**, "Joint Grand Rounds with American Board of Pediatrics Vice Chair of Research, "The Importance of Physician Well-Being in Pediatrics and Update on the System-Wide Well-Being Program at UNC", May 16, 2019.

3) **UNC Department of Psychiatry,** "Applying Precision Medicine to Perinatal Depression: Understanding Pathogenesis to Develop Novel Treatments and Improve Outcomes, May 8, 2019.

4) **UNC Department of Neurology**, Moving Beyond Burnout to Wellness Using an Integrated Approach Across the System, February 1, 2018.

5) **UNC Department of Surgery,** Professionalism and Interpersonal Effectiveness in Academic Medicine, August 30, 2017.

6) **UNC Department of ENT,** Professionalism and Interpersonal Effectiveness in Academic Medicine, August 9, 2017.

7) **UNC Department of Urology,** Promoting Physician Engagement, How do we Take Care of Our Own, April 6, 2016

8) **UNC Department of Neurosurgery** Moving Beyond Burnout to Wellness, How do we Take Care of Our Own, January 13, 2016.

9) **UNC Department of Surgery**, Moving Beyond Burnout to Wellness, How do we Take Care of Our Own, January 6, 2016.

10) **UNC Department of Ophthalmology** Moving Beyond Burnout to Wellness, How do we Take Care of Our Own, December 9, 2015.

11) **UNC Division of Rheumatology**, Moving Beyond Burnout to Wellness, How do we Take Care of Our Own, October 9, 2015.

12) **UNC Department of Anesthesia,** Moving Beyond Burnout to Wellness, How do we Take Care of Our Own, September 8, 2015.

13) **UNC Department of Physical Medicine and Rehabilitation,** Physician Burnout and Emotional Distress: How do we Take Care of Our Own? (Part 2: Prevention at the Individual and Systems Level), January 21, 2015

14) **UNC Department of Anesthesia**, January 2014, "When Bad Things Happen to Good Doctors"

15) **UNC Department of Family Medicine,** January 2014 "Physician Burnout and Impaired Professionalism"

16) **UNC Department of Psychiatry**, Emotional Stress and Distress in Physicians: How do we Take Care of Our Own? September 11, 2013

17) **UNC Department of Physical Medicine and Rehabilitation**, Challenges to Professionalism in Medicine: Complications of Burnout Syndrome, June 26, 2013.

18) **UNC Department of Anesthesiology Grand Rounds:** Challenges to Professionalism in Medicine: Complications of Burnout Syndrome, February 27, 2013.

19) **UNC Department of Psychiatry Grand Rounds**, Phenotyping and Genotyping in Postpartum Depression, May 2012.

20) **UNC Department of Psychiatry Grand Rounds**, Understanding Postpartum Depression, Stress Reactivity and Genetic Contributions, Chapel Hill, North Carolina, December 17, 2009

21) **Grand Rounds, UNC Department of Obstetrics and Gynecology, "**Perinatal Depression and Anxiety Disorders". December 2005.

22) **Grand Rounds, UNC Department of Psychiatry**, The Impact of Trauma and PTSD on Chronic Pelvic Pain, January 2005.

Grand Rounds Outside UNC:

1) **Northwestern University Department of Psychiatry Grand Rounds,** upcoming November 2022.

2) **Georgetown Universit**y Department of Psychiatry Grand Rounds, December 2021.

3) **Stanford University Department of Psychiatry**, Grand Rounds, October 2021.

4) **McLean Hospital Harvard Medical School**, Annual Cathie Cook Endowed Lecture in Women's Mental Health, April 15, 2021.

5) **University of Cincinnati,** Department of Psychiatry, Kaplan Lecture, April 28th, 2021.

6) **The Institute of Living**, Department of Psychiatry, Hartford, CT, February 4 2021.

7) **Duke University**, Department of Family and Community Medicine, January 2021.

8) **The University of Wisconsin at Madison,** Department of Psychiatry, November 2020.

9) **The University of Nebraska,** Department of Psychiatry, Oct 30th, 2020.

10) **The University of Illinois at Chicago**, Department of Psychiatry, February 26, 2020.

11) **Washington University**, St Louis, Missouri, November 12, 2019.

12) **The University of Chicago,** Department of Psychiatry, Chicago, IL, January 17, 2019.

13) **New York University**, Department of Child Psychiatry, New York, NY, January 23, 2019.

14) **University of Massachusetts**, Department of Psychiatry, Worchester, Massachusetts, October 25, 2018.

15) **Vanderbilt University Department of Psychiatry**, Department of Psychiatry Grand Rounds, Novel Approaches to Understanding and Treating Postpartum Mood Disorders, March 2nd 2018, Nashville, TN.

16) **Mount Sinai, 6th Annual Mount Sinai Innovations in Psychiatry Symposium,** "*Women's Mental Health and Early Child Development*", February 16, 2018.

17) **University of Michigan**, Department of Psychiatry, Perinatal Depression: Using Innovative Technology to Understand the Genetic Signature, upcoming October 4, 2017.

18) **Duke University Department of Radiology**, Strategies to Prevent Physician Burnout and Increase Wellness, upcoming, April 27, 2017.

19) **Medical University of South Carolina**, Department of Psychiatry, Epidemiologic and Genetic Contributions to Perinatal Depression, April 7, 2017

20) **Inova Health, Grand Rounds Department of Obstetrics and Gynecology**, Fairfax, VA. Understanding Perinatal Depression, Pathophysiology and Genetic Contributions, upcoming, Oct 24, 2016

21) **Duke University Department of Psychiatry Grand Rounds,** Perinatal Depression, Epidemiology, Pathophysiology and Genetic Contributions, April 23, 2015.

22) **SEAHEC Internal Medicine Grand Rounds**, Physician Burnout: How do we Take Care of Our Own? Wilmington, NC, April 22, 2015.

23) **Wake Forest University Department of Psychiatry Grand Rounds,** February 10, 2015, Perinatal Depression: Epidemiology and Genetic Predictors

24) **MAHEC Psychiatry Grand Rounds**, Perinatal Depression, How to Implement Screening and Effective Treatment Into Your Practice, January 15, 2015, Asheville, NC.

25) **Brown University**, Butler Hospital, Care New England, annual Behavioral Health Quality conference, Women's Mental Health, Oct 2, 2014, Providence, Rhode Island

26) **Mercy Hospital**, Department of Pediatrics and Obstetrics and Gynecology, Joint Grand Rounds, June 2014, Springfield, Missouri

27) **Duke Regional Hospital**, Department of Obstetrics and Gynecology, December 2013

28) **Johns Hopkins,** Department of Psychiatry, Baltimore, Maryland, April 2013.

29) **Psychiatry Institute, Copenhagen University**, Copenhagen, Denmark, Development of a Perinatal Psychiatry Genetic Consortium (PACT), March 2013.

30) **Eastern Virginia Medical School,** Department of Pediatrics, Children's Hospital of King's Daughters, Postpartum Depression and Postpartum PTSD in Mothers of NICU Infants. January 31, 2013.

31) **Tulane University**, New Orleans, LA. Understanding Postpartum Depression, September 2012.

32) **Karolinska Institute**, Stockholm, Sweden, "Phenotyping and Genotyping in Postpartum Depression, June 14, 2012.

33) **Center for Neurogenomics and Cognitive Research**, "Understanding Postpartum Depression: Stress Reactivity and Genetic Contributions. June 14, 2011, Amsterdam, The Netherlands.

34) **Wake Med Grand Rounds**, Department of Obstetrics and Gynecology and Neonatology, Pathogenesis, Screening and Treatment of Perinatal Depression, May, 2010.

35) **Wake Med Grand Rounds**, Department of Pediatrics, "What Pediatricians Need to Know about Perinatal Depression PART 2", January 2009.

36) **Wake Med Grand Rounds**, Department of Pediatrics, "What Pediatricians Need to Know about Perinatal Depression", September 2008.

37) **MAHEC Psychiatry Grand Rounds,** Asheville, North Carolina, "Treatment of Depression in the Pregnant and Postpartum Woman", April 2, 2008.

38) **Duke Grand Rounds**, Clinical Case Conference, Duke University Medical Center. "A case presentation of transient global amnesia" 1998.

Continuing Education Lectures at UNC:

1) **UNC Allied Health** Lecture on Provider Burnout, May 2018.

2) **UNC Cancer Network's Telehealth Program**, Update on the Importance of Addressing Physician and Provider Burnout and Compassion Fatigue, Live Lecture via Lineberger Telehealth, Feb 7, 2018.

3) **PCORI Fourth Trimester Annual Conference**, Unmet Health Needs Engagement Meeting, The Importance of Screening and Treating Maternal Mood Disorders in the 4th Trimester, Sheraton Hotel, March 23, 2016.

4) **UNC Cancer Network's Telehealth Program**, Physician Burnout and Compassion Fatigue in Cancer Providers, Live Lecture via Lineberger Telehealth, March 9, 2016.

5) **UNC School of Medicine, Teaching Faculty Retreat Conference**, Prevention of Physician Burnout, Aycock Family Medicine Building, Chapel Hill, October 2015.

6) **UNC Hospitals Physicians Health Network**, Annual Educational Retreat, Physician Stress and Emotional Distress, Managing Burnout, March, 2015

7) **UNC Campus Health Services**, Physician Burnout: Prevention, Diagnosis and Treatment, upcoming, April 8, 2015

8) **UNC Department of Pediatrics,** Faculty Development Program, January 2014

9) **UNC Perinatal Psychiatry Innovations Training Program**, Psychopharmacology of Mood and Anxiety Disorders During Pregnancy, April 2013.

10) **UNC School of Public Health, Maternal-Child Health Seminar:** Epidemiology, Screening and Treatment of Perinatal Depression, March 23, 2011

11) **Webinar, Women's Integrated Systems for Health (WISH) Program**, Integration of Mental Health and Substance Abuse Services for Women of Reproductive Age in Clinical and Hospital Settings, March 16, 2011

12) **UNC Women's Health Conference, Department of Ob-Gyn**, Developing a Perinatal Psychiatry Program: Lessons Learned, The Friday Center, February 26, 2011

13) **UNC Women's Mental Health Conference:** The Mind-Body Solution, UNC Department of Psychiatry, The Friday Center, November 6, 2010. Served a Course Co-Director and Presenter.

14) **Managing Anxiety and Depression in Women During the Holiday Season**, Tis the Season Mental Health Conference, Sponsored by the UNC Center for Lifelong Learning, Sienna Hotel, Chapel Hill, December 4, 2009.

15) **HAM Society Symposium,** Understanding Perinatal Depression: Pathogenesis, Diagnosis and Treatment Considerations, UNC Department of Psychiatry, June 6, 2009

16) **UNC 1st Annual Symposium on Women's Reproductive Mood Disorders,** UNC Center for Women's Mood Disorder, Chapel Hill, November 1, 2008, Served as Course Co-Director and Presenter.

17) **The Art of Breastfeeding Conference:** Treatment of Postpartum Depression in the Lactating Mother, UNC, The Friday Center, October 2008.

18) **UNC Women's Leadership Council**: Update on Postpartum Depression, February 2008.

19) **Program in Humanities and Human Values, Adventures in Ideas,** Motherhood and Medicine: Myths, Midwifery, & Modern Practices, May 4-5, 2007

20) **UNC General Alumni Association**, Women's Psychological Health: "Hooking Up and Cultural Pressures", April 17, 2007

21) **Mini-Medical School, UNC School of Medicine,** Beyond the "Baby Blues": Managing Depression Before and After Pregnancy, March 13, 2007.

22) **UNC Horizons Program Annual Conference.** Trauma and PTSD in Women with Addiction, UNC Chapel Hill, NC. April 2006.

23) **Advances in Gynecology and Pelvic Pain, OB-GYN Pelvic Pain Conference at UNC.** "The Impact of Trauma and PTSD on Chronic Pelvic Pain". November 2005.

24) **UNC Nursing Oncology Conference**, " Intimate Relationships in Patients with Cancer", March 2005

25) **UNC Nursing Oncology Conference**, "Intimate Relationships in Patients with Cancer", November 5, 2003.

Outside of UNC:

1) **Annual Update & Advances in Psychiatry Conference, The University of Wisconsin at Madison,** October, 2022.

2) **Royal College of Psychiatrists International Congress, "**Precision Psychiatry in Perinatal Mental Health: Using Innovative Approaches to Improve Patient Outcomes," June 2022, Edinburgh, Scotland.

3) **Cherry Hospital**, Goldsboro, North Carolina, Women's Reproductive Mood Disorders Across the Reproductive Lifecycle, April, 2021.

4) **UNC Project, Lilongwe, Malawi**, Perinatal Depression: Epidemiology, Pathophysiology, Screening and Treatment—how to address in Low Income Countries, January 31, 2019, Lilongwe, Malawi, Africa.

5) **Royal College of Psychiatrists,** Perinatal Faculty Scientific Meeting**,** Novel Approaches in Perinatal Depression Research**:** London, England, upcoming November 13, 2018.

6) **National Network of Depression Centers (NNDC),** Plenary speaker, "The Importance of understanding the biomarker signature in perinatal depression: a step toward precision psychiatry", Annual Meeting, Baltimore, Maryland, Oct 18-19, 2018.

7) **Wayne Memorial Hospital, Physician CME Event,** Developing an Institutional Wellness Program, May 22nd, 2018.

8) **New Hanover Hospital, GME Event**, Developing an Institutional Wellness Program, Wilmington, North Carolina, May 17, 2018.

9) **Maternal Mental Health Matters Begin Before Birth Symposium** May 1, 2018, McGill University, Montreal, Canada.

10) **American College of Rheumatology**, Program Director Conference, Moving Beyond Burnout to Wellness, Chicago, Illinois, February 9, 2018.

11) **North Carolina Medical Society***,* Preventing Burnout in Primary Care: Pearls to Promote Wellness, April 26, 2017, Raleigh, North Carolina.

12) **Preventing Burnout in Psychiatrists:** Pearls to Promote Wellness, Community Psychiatrists Leadership Forum, April 22, 2017, The Friday Center, Chapel Hill, NC.

13) **Physicians Are People Too: UNC's "Taking Care of Our Own Program" for Physician Wellness and Burnout Prevention,** Durham Orange Country Medical Society, April 12, 2017, Durham North Carolina.

14) **Medical University of South Carolina,** Women's Health Research Day, Keynote Speaker, Using Social Media to Understand the Biologic Signature of Postpartum Depression, Charleston, South Carolina, April 6, 2017.

15) **Southeastern Area Health Education Center (SEAHEC),** Developing an Institutional Response to Physician Burnout, February 2017, Wilmington, North Carolina.

16) **2020 Mom Annual Conference**, Impact of Hormonal Changes During Pregnancy and Their Effect on Postpartum Depression, upcoming February 13, 2017, Los Angeles, California.

17) **North Carolina Psychiatric Association (NCPA) Annual Meeting**, Post-Partum Depression and Genetics using Apple's Health Kit, September 9, 2016, Asheville, NC.

18) **National Institute of Mental Health**, "Exploring the Phenotypic and Genetic Signature of Perinatal Mood Disorders,", Translational Research in Women's Mental Health, Webinar, July 9, 2016.

19) **American Medical Association Alliance,** Keynote Address on Physician Burnout and Impact on Physician and Family, Annual Meeting, Chicago, IL, upcoming June 8, 2016.

20) **ACAPS Presidential Panel** at the 95th Annual Scientific Meeting of the AAPS (American Association of Plastic Surgeons), Panel Participant, Stuck in a Moment: When Physician Burnout and Disruptive Behavior Challenge Professionalism. New York City, NY, upcoming May 22, 2016,

21) **Duke University Neurosteroid Conference**, The Open-label, Proof-of-concept Study of SAGE-547 (Allopregnanolone) in the Treatment of Postpartum Depression, Durham, NC, upcoming April 7, 2016.

22) **Maya Angelou International Women's Health Summit,** Winston Salem, North Carolina, Perinatal Psychiatry Illness: Assessment and Treatment, November 20, 2014.

23) **Mercy Hospital**, Springfield, Missouri, CME lecture on Assessment and Treatment of Women's Reproductive Mood Disorders. June, 2014.

24) **North Carolina Pediatric Society, Webinar,** Screening and Treatment of Postpartum Depression in the Pediatric Setting, June 26, 2013.

25) **Greensboro AHEC**, Women's Reproductive Mood Disorders, March, 15, 2013.

26) **Tidewater Perinatal Mental Health and Children's Hospital Kings Daughters, Norfolk, VA,** February 2013.

27) **MAHEC--Annual Addiction: Focus on Women Conference,** Perinatal Depression in Women with Comorbid Substance Abuse, May 2012, Asheville, North Carolina

28) **Croghan Conference**, Perinatal Depression—Screening, Treatment and Implications in Mothers of Children with Special Needs, December 2011, Research Triangle Park, North Carolina

29) **North Carolina Institute of Medicine (NCIOM)**, "Understanding Postpartum Depression", May 20, 2011, Research Triangle Park, North Carolina.

30) **Eastern AHEC, Women's Mood Disorders Across the Reproductive Lifecycle.** Greenville, North Carolina, April 14, 2011

31) **Wake AHEC, Webinar,** Update on Perinatal Mood Disorders, June, 2010

32) **Triangle Breastfeeding Alliance Conference**, Perinatal Depression and the Lactating Mother: Maximizing Mental Health and Breastfeeding Success, Wake AHEC, May 2010

33) **Update on Women's Reproductive Mood Disorders**, Northampton County Health Department, NC DHHS Health Care Provider Training Grant, March 5, 2010

34) **The National Institute for Health Care Management (NIHCM) Foundation Webinar:** *Identifying and Treating Maternal Depression: Strategies & Considerations for Health Plans,* December 2009

35) **A Collaborative Approach to Treating Women's Reproductive Mood Disorders Across the Lifecycle: Premenstrual Dysphoric Disorder, Perinatal Psychiatry, & Perimenopause"** Mountain Area AHEC (MAHEC), Asheville, NC, November 12, 2009.

36) **The Pediatric Provider and Postpartum Depression:** What Do You Need To Know? Raleigh Children's Development Services Agency, part of the NC DHHS, Raleigh, NC November 6, 2009.

37) **North Carolina Psychiatric Association (NCPA) Annual Meeting**, Postpartum Depression: Diagnostic Challenges, Pathogenesis and Treatment, New Bern, NC, October 2009.

38) **North Carolina Statewide Symposium on Postpartum Depression,** Understanding Postpartum Depression: Diagnosis, Pathogenesis and Treatment Considerations, Sponsored by Wake AHEC, Chapel Hill, NC August 6, 2009.

39) **Eastern AHEC Symposium,** Understanding Women's Reproductive Mood Disorders: Pregnancy, Postpartum, the Menstrual Cycle and Menopause , Greenville, NC, April 9, 2009.

40) **Greensboro AHEC Women's Health Symposium**, The Difficult Patient, Greensboro, North Carolina, March 9, 2009.

41) **Southern AHEC Symposium,** Women's Mood Disorders Across the Lifecycle, Pinehurst, North Carolina, February 2009.

42) **South Carolina Statewide Postpartum Depression Conference (Co-sponsored by the NIH),** Columbia, South Carolina, February 29, 2008.

43) **Wake AHEC** Anxiety and Depression in the Pregnant and Postpartum Patient: Screening, Treatments and Controversies, April 13, 2007

44) **The Perinatal Center of Northeast Ohio at MetroHealth and Case Western Reserve University 6th Annual Perinatal Center Conference "**Anxiety and Depression, & Psychiatric Emergencies in Pregnant Women October 2006

45) **Eastern AHEC,** "The Impact of Trauma and Mood and Anxiety Disorders in Women," September 14, 2004

46) **Asheville MAHEC,** "Mood and Anxiety Disorders in Women", April 5. 2004

47) **Alamance AHEC,** "Mood and Anxiety Disorders in Women", November 19, 2003.

48) **Greensboro AHEC,** "Mood and Anxiety Disorders in Women", October 15, 2003.

Lab or Research Teaching/Mentorships

Medical Student Mentees

Beanna Johnson (2020-2021**)**
Research elective: "Revisited: The Potential Role of Estrogen in the Treatment of Schizophrenia"

Bria Godley (2020-2021)
Research elective: Burnout and Underrepresented Minorities in Medicine: Prevalence, Factors and Potential Solutions

Adeolu Keku, MD, MPH student (2018-2019)
Master's Paper mentor, Postpartum Depression in fathers (beginning Aug 2018)

Kate Dickson, MD, MPH student (2017-2018)
Master's Paper mentor, Depression, Anxiety, and Suicidality in U.S. Medical Students: A Literature Review and Commentary

Christine Jackson, MS-2, Summer Research Mentor, June 2014-2018
Projects: 1) Adjunctive Quetiapine to SSRI Treatment of PMDD, completed and published
2) Risk factors for Preterm Birth in Adolescent Mothers, under review

Tatiana Acosta, MD, MPH student, (2016-2017)
Master's Paper mentor, gPACT Project (Genomics of Postpartum Depression: Action Towards Causes and Treatment). Conduct of a validation study using mobile technology by testing the app against clinical interview, February 2017.

Marianne Casilla-Lennon, MS-2, Summer Research co-mentor with Dr. Anne Steiner. (2015-2016)
Projects: The Effect of Antidepressants on Fertility, newly published in *Am J Obstetrics and Gynecology*, February, 2016.

Rachel Weiner, MD, MPH, MPH Master's Paper Mentor completed June 2014
Project Title: From Idea to Paradigm: The Integrated Primary and Mental Health Care Model in North Carolina.

Jenna Beckham MD, MPH May 2013, MPH Master's Paper Mentor
Project resulted in a manuscript: Beckham AJ, Greene TB, **Meltzer-Brody, S**. (2013) A Pilot Study of Heart Rate Variability Biofeedback Therapy in the Treatment of Perinatal Depression on a Specialized Perinatal Psychiatry Inpatient Unit, *Archives of Women's Mental Health*. 16(1):59-65. PMID: 23179141

Sarah Rogan, MD, PhD, Research Elective Mentor, Fall 2012.
Project: Relationship between depressive mood and maternal obesity: implications for postpartum depression, published as a book chapter, 2014.

April Miller MD, MPH May 2012. MPH Master's Paper Mentor
Project: Barriers to Postpartum Depression Screening in Underserved Minority Women

Postdoctoral Fellows—UNC T32 Training Program

Jerry Guintivano, PhD, 2014-current. (Completed July 2018. *Now newly funded on K01 beginning September 2018. I am a lead mentor on this new K award).*

Sandraluz Lara-Cinisomo, PhD, 2012- 2015 (now faculty at University of Illinois)

Crystal Schiller, PhD, 2011-2013, (now faculty at UNC)

Postdoctoral Fellows

Anna Bauer, PhD, Women's Mood Disorders post-doctoral fellowship 2017-2019, *K01 submitted October 2018.*

Arianna DiFloria, MD, PhD, Cardiff University, UK, Funded by a European Marie Curie Two Year Travel Fellowship, 8/2014-8/2016.

Divya Mehta, PhD, Secondary Mentor, Postdoctoral Research Fellow, University of Queensland, Queensland, Australia. Mentor on her *NARSAD* grant, 2013-2015.

Graduate Student Mentees (Clinical Co-Mentor)

Sarah Elizabeth Schoenrock, 2013-2015

Shaila Jha, 2013-2016, manuscript published.

Stephanie Watkins, Doctoral Student, UNC School of Public Health, 2010-2014.

Graduate Student Mentees (Dissertation Committee Member):

Yasmin Barrios, 2019-2021, UNC Gillings School of Global Public Health, doctoral dissertation committee member. Dissertation successfully defended, January 14, 2021.

M'wawi N'goma, 2017-current, co-mentor, doctoral dissertation committee, Malawi College of Medicine through AMARI funded PhD program, Malawi, Africa.

Kathryn Wouk, 2015-2018, co-mentor, doctoral dissertation committee Gillings School of Public Health, Department of Epidemiology, Dissertation successfully defended, June 2018.

Jessica Sparrow (Doctor of Nursing Practice Program (DNP), awarded, May 2015).

Sara Boeding (Clinical Psychology, PhD awarded 2013).

Megan Joseph Freeman (Clinical Psychology, PhD awarded 2012).

Junior and Mid-Career Faculty Mentees:

Mentor (primary) for Margo Nathan, MD, Department of Psychiatry, 2021-present

Mentor (primary) for Rebekah Nash, MD, Department of Psychiatry, 2020-present

Mentor (secondary) for Susan Martinelli, MD, Department of Anesthesia, June 2018-present

Mentor (primary) for Tiffany Hopkins , PhD, Department of Psychiatry, June 2017-present

Mentor (primary) for Susan Michos, NP, Department of Psychiatry, October 2016-present

Mentor (primary) for Amanda Harp, PhD, Department of Psychiatry, June 2016-2020

Mentor (primary) for Nadia Charguia, MD, Department of Psychiatry, June 2015-present, Taking Care of Our Own Program for Physician Burnout

Mentor (primary) for Mary Kimmel, MD, Department of Psychiatry, June 2014-present. Dr. Kimmel is currently funded on a K23.

Mentor (secondary) for Crystal Schiller, PhD, 2013-present

Mentor (primary) for Susan Killenberg, MD, Department of Psychiatry, June 2009-June 2014.

Mentor (secondary) for Stephanie Zerwas, PhD, Department of Psychiatry, (BIRCWH K12 Scholar, 2010-2012)

Mentor (primary) for Elizabeth Bledsoe, PhD, School of Social Work, (BIRCWH K12 Scholar, 2009-2011)

Mentor (primary) for Christena Raines, NP, Department of Psychiatry and Obstetrics and Gynecology, 2004-2006

<u>Resident Research Mentees</u>

Christina Pao, research track primary mentor (Psychiatry--June 2016-2018)

Rachel Frische, research track primary mentor (Psychiatry June 2016 to 2018)

Elizabeth Ferguson, research track primary mentor (Psychiatry, June 2014-2016)

Emily Holmes, (Psychiatry September 2013-present) Resident Physician Burnout Survey

Elizabeth Cox, research track primary mentor (Psychiatry, 2013-2016).
Dr. Cox joined the faculty at UNC in September 2016 in the Perinatal Psychiatry Program at the new WakeMed North site.
Poster presentation: Society of Biological Psychiatry, May 2014, New York, NY
Oral presentation: International Society of Psychoneuroendocrinology, August 2014, Montreal, Canada
Multiple manuscripts in process or submitted.

Laura Wakil (Psychiatry, 2010-2013), Published a review article and case report.

Nell Pollard Johnson (Obstetrics and Gynecology, 2009-2011)
Robert A. Ross Research Award 2011, UNC Obstetrics and Gynecology Droegemuller Resident Research Day, A Prospective Study of Adolescents and Postpartum Depression: Examining the Risk, Manuscript published in AJOG, 2013.

Thomas Pillion (Psychiatry, 2009-2010)

Rachel Delatte, (Obstetrics and Gynecology, 2008-2009).
Robert A. Ross Research Award 2008, UNC Obstetrics and Gynecology Droegemuller Resident Research Day, Universal screening for postpartum depression: an inquiry into provider attitudes and practice. Manuscript published in AJOG, 2009.

Erik Kinzie (Psychiatry Resident, 2003-2005). Published Case Report.

Clinical Teaching/Attending on Clinical Service

Psychiatry Attending, Women's Reproductive Mood Disorders Clinic (Perinatal Depression, Premenstrual Dysphoric Disorder and Perimenopausal Depression): Supervise 3-4 psychiatry residents in a weekly women's reproductive mood disorders clinic, 4 hours/month, 2004-present

Psychiatry Attending, UNC Department of Psychiatry, Integrated Call Pool, on-call duties include supervising resident physicians in the behavioral health emergency department and rounding on pschiatry inpatient units. Frequency q 15 days, 2002-present

Consultation/Liaison Service: Supervised a total of 5-6 residents daily during their 4 month Consultation/Liaison rotation (30 hours week, total 12-14 residents per year), 2002-2006.

Psychiatry Attending, Acute Diagnostic and Treatment Clinic: Supervise 3-4 psychiatry residents in a weekly follow-up psychiatric outpatient clinic (4 hours/week, 2002-2004).

Student Preceptorships

Betty-Shannon Prevatt, MA, North Carolina State University, Doctoral Student in Applied Social and Community Psychology, 2016.

Christena Raines, NP, UNC School of Nursing, Psychiatric Nurse Practitioner's Program, 2007

GRANTS

Active

(Linnan, PI of Center Grant (Total Award is $ 6,999,997 09/01/21-08/31/26
0.33 Cal Months
NIOSH $934,113
(*Meltzer-Brody and Baernholdt, co-PI's* for one of funded projects: Rural and Urban Clinician Well-being and Targeted Improvement Interventions during COVID-19)
Carolina Center for Total Worker Health and Well-Being
The mission of the Carolina Center is to generate new knowledge and implement activities to positively improve worker health and well-being in North Carolina, the southeast region, and the nation.

(Meltzer-Brody, PI) 03/01/21-02/28/23 0.60 Cal Months
Sage Therapeutics, Inc. $178,232
A Randomized, Double-Blind, Placebo-controlled Study Evaluating the Efficacy and Safety of Sage-217 in the Treatment of Adults with Severe Postpartum Depression
This is a randomized, double-blind, placebo-controlled, parallel group study of the efficacy and safety
of SAGE-217 in adults diagnosed with severe PPD.
Role: Principal Investigator

Muscatell, PI) 04/01/21-03/31/26 0.36 Cal Months
NIH
Role: Co-I $514,482 (Total Award is $2,857,746)
Neural and Molecular Mechanisms Underlying Stress-Induced Inflammatory Responses
The present project will use cutting-edge computational methods to identify neural signatures of stress-related inflammatory reactivity, and will use pharmacological tools to block an important stress-signaling pathway (i.e., beta-adrenergic signaling) and examine its effects on neural and inflammatory reactivity to stress.
Role: Investigator

1R01MH118269-01A1 (Sharkey, PI) 07/01/2019-08/31/2024 1.8 Cal
NIH/Brown University $244,997
Personalized Integrated Chronotherapy for Perinatal Anxiety and Depression
Role: UNC Clinical Site PI

(Singla/Meltzer-Brody, co-PIs) 06/01/2019-12/31/2023 2.4 Cal Months
Total grant award is $13 million dollars for three sites
PCORI $3.4 million total UNC budget over award:
Scaling up psychological treatments for perinatal depression and anxiety symptoms via telemedicine
The proposed research aims to conduct a pragmatic, multicenter randomized non-inferiority trial to test the choice of delivery mode and provider, implementing a brief, evidence-based, PT of

behavioral activation (BA) for perinatal depressive and anxiety symptoms. Specifically, we will examine whether this brief PT is as effective when delivered via teledelivery vs. in person (Aim 1), and by non-specialist providers (public health nurses) vs. specialists (primarily psychiatrists, psychologists and social workers; Aim 2)
Role: PI

UK3MC32240 (Pettiford/Kimmel, PIs) 02/01/19-05/31/23 1.2 Cal
NC DHHS/HRSA $399,644 (annual budget)
'Safeguarding Two Lives: Expanding Early Identification and Early Access to Perinatal Mental Health & Substance Abuse'
The purpose of this contract is to provide perinatal telepsychiatry consultation to providers in North Carolina (obstetricians, certified nurse midwives, nurse practitioners and primary care physicians) caring for pregnant or postpartum women as well as teletherapy services to women meeting established criteria.
Role: Perinatal Psychiatrist (10%) Effort

R01HD093901 (Stuebe, PI) 07/01/2018-06/30/2023 0.6 Cal
NIH $527,299
Mood, mother, and child: The psychobiology of dyadic resilience
The long-term goal of this research is to identify the psychobiological underpinnings of resilience among mother-child dyads exposed toPND and longer-term maternal depression and anxiety trajectories (MDATs).
Role: Co-Investigator

Johnson and Johnson Global (Charles, PI) 9/18-12/21 $100,000
Pilot Funding to develop an innovative postpartum depression program in Malawi as part of the UNC Department of Surgery program.
Role, Co-I, head of the postpartum depression project

(Drake, PI) 01/01/15-12/31/20
Doris Duke Charitable Foundation $112,886
Caregiving at Carolina: Support for Physician Scientists
This program will increase the retention of junior physician scientists at the University of North Carolina School of Medicine (UNC-SOM) by developing new, sustainable initiatives and also leveraging and integrating existing programs, infrastructure support and resources.
Role: Co-Investigator

Pending Research Support

(Schiller, PI) 09/01/21-08/31/26 0.60 Cal Months
NIH $295,108
Identification of Disparities in Diagnosis, Treatment, and Attitudes About Depression and Psychosis Symptoms in Black and Hispanic Perimenopausal Women
The objective for this application is to conduct population-based phenotypic assessment and a cross-over treatment trial comparing two evidence-based treatments in a diverse sample of women with perimenopausal emotional distress (PMED).
Role: Investigator

Role: Project 3 Co-Lead

Completed Research Support

R34MH116806 (Pence, PI) 07/01/2018-06/30/2021 0.6 Cal
NIH $148,205
Adaptation of the Friendship Bench Mental Health Intervention for HIV-infected perinatal women in Malawi
The objective of this proposal is to lay the groundwork for larger-scale testing by adapting the Friendship Bench intervention to address PND and support retention in care among perinatal HIV-infected women, as well as assess the feasibility, acceptability, and fidelity of the adapted intervention.
Role: Co-Investigator

R21MH1158606 (Stringer, PI) 07/01/18-11/30/20 0.6 Cal
NIH $150,000
A pilot trial of perinatal depression treatment in HIV infected women
Perinatal depression and HIV are
among the two biggest risks faced by postpartum mothers in many developing countries. We propose to study the feasibility of treating depression among HIV-infected pregnant women in Zambia in preparation for a phase III efficacy trial**.**
Role: Co-Investigator

(Meltzer-Brody) 07/01/2018-12/31/2019 0.96 Cal Months
Sage Therapeutics, Inc. $259,774
A Multicenter, Double-Blind, Placebo-Controlled Study Evaluating The Efficacy, Safety, Tolerability, And Pharmacokinetics Of Sage-547 Injection In The Treatment Of Adolescent Female Subjects With Moderate To Severe Postpartum Depression
The primary objective of the study is to evaluate the effects of brexanolone on depressive symptoms
when administered to adolescent female subjects diagnosed with postpartum depression (PPD).
Role: Site PI

NIH Supplement to 1R01MH104468-01 (Meltzer-Brody, PI) 8/17-5/19 $150,446
NIMH
Genotyping of sample collected in the PPD ACT app.
Role: PI

(Meltzer-Brody, PI) 07/01/18-03/31/20 0.6 Cal Months
Sage Therapeutics $258,791
A Multicenter, Randomized, Double-Blind, Parallel-Group, Placebo-Controlled Study Evaluating The Efficacy, Safety, And Pharmacokinetics Of Sage-217 In The Treatment Of Adult Female Subjects With Severe Postpartum Depression
Role: Clinical Trial Site PI

1R01MH104468-01 (Meltzer-Brody, PI) 7/1/14-4/1/19 NCE $2,335,500
Epidemiological and Genetic Predictors of Postpartum Mood Disorders
NIMH

Our ultimate goal is to rapidly learn more about the epidemiology and genetic epidemiology of PMD and integrate these findings with assessment of mechanistic genetic liability (RPS). We will do this using the unique Danish population registers in one of the first studies of this type.
Role: PI, 30% effort

APP1145645 (Byrne, PI) 01/01/18-12/31/19 0.6 Cal Months
National Health and Medical Research Council (Australia)
Postpartum Depression: Action Towards Causes and Treatment
Understanding the genetic basis of Post Partum Depression (PPD) is an important goal that will lead to the development of preventive strategies and targeted treatments that will dramatically reduce suffering for women and their families. Recruitment of a large, genetically informative sample of women who have suffered from PPD, combined with existing genetic datasets of patients with MDD will highlight the shared and unique biology of both disorders.
Role: Co-Investigator

1R01MH095992-01 (Rubinow/Sullivan, PI's) 07/01/12-3/30/19 (NCE) $5,500,5000
NIMH
Identifying Biomarkers for Post-Partum Depression in African-American Women
This study will use state of the art genomics, transcriptomics, and epigenomics to determine a biomarker signature of postpartum depression.
Role: Co-Investigator, 20% effort

NIH Bench-to-Bedside (B2B) Grant 03/01/17-02/28/19 $128,157
(PIs: Peter Schmidt & Meltzer-Brody) Intramural/NIMH
Cellular Basis for Differential Hormone Sensitivity in Women with Postpartum Mood Disorders
This project examines cellular substrate for the differential hormone sensitivity to normal hormonal changes that characterizes women with postpartum mood disorders by performing transcriptomics.

1 R01 HD073220-01A1 (Stuebe, PI). 2/13-2/19 (NCE) $2,937,808
Mood, mother and infant: The psychobiology of impaired dyadic development
Role: Co-Investigator, 7% effort

NAPND0001 (Meltzer-Brody, PI), 01/01/17-12/31/18
Janssen Research and Development
Optimizing Clinical Screening and Management of Maternal Mental Health: predicting Women at Risk for Perinatal Depression (PND) The primary objective of this study is to determine if medical, biological, psychological and social risk factors can be used to develop algorithms that will predict PND.

(Meltzer-Brody, PI) 01/01/17-12/31/18
Sage Therapeutics, Inc.
Investigating Healthcare Economics and Outcomes in Women with PPD using the PPD ACT app
This research will develop a new module on the existing PPD ACT app, in both iOS and Android platforms, to investigate healthcare economics and outcomes research on women with PPD.

Foundation of Hope (Meltzer-Brody & Sullivan, Co-PI's) 10/01/15-9/30/18 $99, 000

gPACT*a rapid, large, & inexpensive study of Postpartum Depression, Development of postpartum Depression app for widescale phenotyping and genotyping
Role: co-PI, 10% effort

UNC Center for AIDS Research (CFAR) Award 9/17-9/18 $29,990.85
NIH funding to UNC CFAR
Role: PI
Perinatal depression and engagement in HIV care among women in Malawi: formative research to support the development of a culturally appropriate mental health intervention.

1R03HD086330-01 (Beeber and Wheeler, co-PIs) 3/16-2/18 $155, 716
NIH/NICHD
Co-I, 1% effort
Enhancing Communication between Children in EI and their Depressed Mothers

NC Innovation Center Pilot grant (Meltzer-Brody, PI) 6/16-6/18 $50,000
Adaptation of the PPD ACT App to Dramatically Enhance Clinical Management for the treatment of PPD
PI, 5% effort

547-PPD-202 (Meltzer-Brody, PI) 11/11/15-11/10/17
Sage Therapeutics $153,808
A Double-Blind, Placebo-Controlled Study Evaluating the Efficacy, Safety, and Pharmacokinetics of SAGE-547 Injection in the Treatment of Adult Female Subjects with Severe Postpartum Depression
Role: PI, 7% effort

Foundation of Hope (Killenberg and Meltzer-Brody) 2/24/11- 11/1/16 $38,662
Repetitive Transcranial Magnetic Stimulation for the treatment of PPD
This study is an open label, single arm pilot study of the use of left dorso-lateral prefrontal cortex, repetitive transcranial magnetic stimulation for the treatment of postpartum depression.
Role: Co-PI, 5% effort

Mehta, PI 01/15/16-01/14/17
NARSAD Early Predictive Biomarkers of Postpartum Depression (PPD). This study is designed to confirm results of a pilot study by the Mehta lab demonstrating that gene expression profiles in blood samples from the third trimester of pregnancy could predict PPD.
Role: Collaborator and Mentor

J&J Research Grant (Meltzer-Brody, PI) 09/01/15-11/30/15 $19,117
PACT Data Analytics Project
The goal of this project is to re-analyze existing Postpartum Depression Action Towards Causes and Treatment (PACT) data to assess potential additional insights regarding timing of onset as it relates to PPD phenotypes.
Role: PI, 10% effort

Sage Pharmaceuticals (**Meltzer-Brody, PI) 8/14-8/15 $177,993.76**
An Open-Label, Proof-Of-Concept Study Evaluating the Safety, Tolerability, Pharmacokinetics, and Efficacy of SAGE-547 Injection in the Treatment of Women with Severe Postpartum Depression

Role: PI, 10% effort

NC Innovation Center Pilot grant (Meltzer-Brody, PI) 4/14-12/15 $28,844
To develop an evidence-based UNC Medical Center Peer Support system that will provide compassionate, timely, and valued emotional support of caregivers involved in adverse events in a way that compliments existing organizational mental health programs.
Role: PI, 5% effort

K23 MH085165-01A1 (Meltzer-Brody) 07/01/09-06/28/14 $830,750
NIH; HPA Stress Reactivity and Genetic Influences in PPD
The central theme of this five year K23 Mentored Career Development Award is to integrate two promising models of psychiatric illness, psychoneuroendocrinology and genetics, in order to investigate the neuroendocrine abnormalities and genetic contributions in the pathogenesis of postpartum depression.
Role: PI, 75% effort

NC TraCS 50K pilot grant, (Beeber & Meltzer-Brody, Co-PI's). 12/12-5/14 $50,000
A UNC-Community Partnership to Enhance Outcomes for Infants and Toddlers with Suspected Disability who are Enrolled in Early Intervention Services
Role, Co-PI, 5% effort

1P01DA022446-01A2 (Johns, PI) 07/01/08-06/30/13 $1,504,090
NIH
Neurobiological and Behavioral Consequences of Cocaine Use in Mother/Infant Dyads
This program project is a multidisciplinary, translational research project employing animal and human projects to focus on the elucidation of neurobiological and behavioral characteristics and responses of mothers that have primarily used cocaine during pregnancy and of offspring prenatally exposed that might impact negatively on normal mother-infant interactions.
Role: Co-Investigator, 5% effort

Astra/Zeneca (Meltzer-Brody, PI) 11/09/06-7/1/12 $90,1000

Double Blind Placebo Controlled Study of Adjunctive Quetiapine SR in the Treatment of PMDD.
This study will investigate the efficacy of the addition of quetiapine SR to treat refractory PMDD symptoms including insomnia, anxiety and irritability.
Role: PI, 10% effort

Foundation of Hope (Meltzer-Brody, PI) 05/10/08-12/31/11 $38,796
A Prospective Study of Postpartum Mood Episodes in Women with Affective Disorders
The goal of this project is an understanding of the biological basis of postpartum episodes will ultimately shed light on the vulnerability to Major Depressive Disorder and Bipolar Disorder in general.
Role: PI, 10% effort

NC TraCS 50 K pilot grant, (Meltzer-Brody, Co-PI) 1/03/10-6/04/11 $50,000
Neuroendocrine Pathophysiology in Postpartum Depression and Lactation Failure
This pilot study will investigate common neuroendocrine mechanisms underlying the development of two major clinical problems that present in the first 8 weeks after childbirth: postpartum depression and lactation failure.
Role: Co-PI, 10% effort

5K12HD001441-08 (Orringer, PI) **09/22/00-07/31/10** **$462,963**
NIH
UNC BIRCWH Career Development Program
Role: Investigator, 75% effort

Foundation of Hope grant, (Meltzer-Brody, PI) **05/17/04-05/16/07** **$35,100**
Treating Trauma and PTSD in Chronic Pelvic Pain
Role: PI, 10% effort

GlaxoSmithKline grant, (Meltzer-Brody, PI) **09/01/04-01/31/06** **$71,200**
Open Label Lamotrigine for Chronic Pelvic Pain (CPP)
Goal: Efficacy of Lamotrigine in treating women with CPP and co-morbid mood and anxiety symptoms.
Role:PI, 10% effort

PROFESSIONAL SERVICE

A. UNC School of Medicine UNC-Chapel Hill and UNC Hospitals

2022-	UNC Health Triangle West Strategy Council
2021-current	UNC Health Child and Adolescent Psychiatry state-wide initiative member
2021-current	UNC Chancellor's co-lead for campus wide Mental Health Summit
2019-current	Chair Representative to Dean's Faculty Affairs and Leadership Committee
2019-current	UNC Sheps Center for Health Services Research Advisory Board
2019-current	UNC Faculty Practice Executive Committee
2018- 2020	UNC Faculty representative elected to the School of Medicine Dean's Advisory and Nominating Committees
2016-present	UNC Faculty Committee on Research (three year renewed, now 6/19--6/22).
2019-2020	SOM Dean's Office, Chair, Berryhill Lecture Selection Committee
2016-present	SOM Dean's Office Berryhill Lecture Selection Committee
2015-present	SOM Dean's Office Co-Director, Wellness Initiative
2015-present	SOM Dean's Office Leadership Initiative Working Group
2015-present	SOM Dean's Office Faculty Affairs Leadership Development Committee
2013-present	NC TraCS Data Safety and Monitoring Committee Member
2010-present	WISH Board Member
2009-present	UNC Working Group to Address Sex Trafficking
2009-present	Grant Reviewer, NC TraCS
2007-present	UNC Center for Women's Health Research, Women's Health Report Card Advisory Board, Mental Health Expert
2007-present	Domestic Violence Day Faculty Member and Panelist
2007-present	UNC Postpartum Prevention Plus Advisory Committee
2006-2007	Co-Leader, UNC Medical School Psychosomatic Interest Group
2003-2007	Psychiatry Representative, UNC Hospitals Credentials Committee

B. Psychiatry Department

2019-present	Department Chair
2009-current	Faculty interviewer for resident applicants
2010-current	Faculty mentor for T32 Women's Mood Disorders Fellowship
2009-current	Faculty mentor for research track residents
2009-2012	Volunteer Psychiatrist at Project Homestart, Women's Homeless Shelter
2007-2009	Directed weekly Videoconference that provided consultation and supervision regarding Women's Mental Health for Alamance Health Department Providers

C. State

2019-present	Foundation of Hope Board Member

2019-present	North Carolina Psychiatric Association Department Chair Committee
2008-present	Member, North Carolina Perinatal Psychiatry Task Force
2012-2017	Board Member, Postpartum Education and Support (PES)
2006-present	North Carolina Women's Health Report Card, Mental Health Expert
2012-2013	NC State Pediatrics Postpartum Depression Screening Task Force

D. National

2020-2021	Past President and Board Member, Marce of North America (MONA)
2018-2020	President Marce of North American (MONA)
2017-current	Society of Biological Psychiatry Scientific Program Committee Member
2017--current	AMA Physician Health Conference Scientific Program Committee Member
2009-2013	Society for Biological Psychiatry Travel Award Committee
10/14-2016	Board of Directors, Medical Chair, Postpartum Progress (non-profit)
2007-2009	Society for Biological Psychiatry Membership Committee
2003-2006	American Women Psychiatrists Travel Award Committee

LEADERSHIP

Description of Administrative Duties

10/2019-present **Named Chair, UNC Department of Psychiatry in October 2019**
Responsible for administrative oversight of very large academic department of Psychiatry for all missions (education, clinical and research) that is pursuing innovative and transformative initiatives to respond to the current mental health crisis. There are over 400 faculty members, 100 +trainees and a large, robust research and clinical footprint across UNC Health.

10/1/19-present **Director, UNC Center for Women's Mood Disorders**
The UNC for Women's Mood Disorders was founded in 2006 and is a comprehensive clinical and research program focused on advancing science and providing state-of-art-treatment for women with reproductive mood disorders. The large perinatal psychiatry program and perinatal psychiatry inpatient unit, is one component of this internationally ranked center of excellence. There are ~30 individuals who work in this program. I am responsible for managing the administrative, research, and educational missions of the Center. This includes mentoring of junior faculty on both clinical and research projects and providing the financial oversight of the program. Increasingly, this role has involved significant interaction with media as a spokesperson for maternal mental health and the innovative programs at UNC.

2018-2021 **Executive Medical Director, UNC School of Medicine and Health Care Well-Being Program.** Served as the inaugural leader in this role *which dramatically expanded over the COVID-19 pandemic.* This system-wide position provides strategic oversight for Well-Being across the entire UNC Health Care System and SOM for ~35,000 people. This position is tasked with leading a comprehensive, system-wide approach to identify the best tools

already in use at each entity and find innovative ways to improve the flow of practice, enhance emotional support, and increase engagement, with the goal of meeting the ***fourth arm of the Quadruple Aim: preventing burnout and improving work life.***
https://www.unchealthcare.org/wellbeing/

2015-2018 **Director**, **UNC School of Medicine Wellness Initiative**
This initiative is comprehensive program that includes the SOM Dean's Office and liaisons across the UNC Health Care System that seeks to create a culture of wellness representation from all clinical and basic science departments in the SOM.

2015-10/1/19 **Associate Chair of Faculty Development, Department of Psychiatry**
Created and promoted opportunities for faculty professional development and to create a culture that support faculty well-being and mitigate burnout.

2014-10/1/19 **Medical Director, UNC Peer Support Program**
With funding from the Innovation Center, this program collaborates with the Patient Safety Office to train and study an innovative peer support program for health care providers involved in the critical incident reporting process.

2012-10/1/19 **Director, UNC "Taking Care of Our Own Program**
With initial funding from the Sanders Clinician Scholars Award, this program was created to serve as a mental health program for resident physicians and fellows focused on the prevention, assessment and treatment of burnout syndrome and other common mental health concerns. It has grown considerably over time and is now part of the System-Wide Well-Being program.

2004-10/1/19 **Director, Perinatal Psychiatry Program, UNC Center for Women's Mood Disorders**
For 15 years, before becoming Chair, I served as the founder and director Perinatal and Women's Mood Disorders Program, a comprehensive outpatient, inpatient, and research program with the first perinatal psychiatry inpatient unit in the US and encompassing both outpatient clinic settings at UNC (OB-GYN Clinic location, Pediatrics Clinic location, Neurosciences Clinic location), and Rex Hospital location.

2015-2018 **Associate Vice-Chair of Faculty Development, Department of Pediatrics**
Assisted the Vice Chair, Department of Pediatrics on the creation of faculty development opportunities that promote physician well-being and mitigate burnout.

Other Research:

BREXANOLONE DEVELOPMENT: *Academic PI with Sponsor (Sage Therapeutics):* I have served as the academic PI of the brexanolone clinical trials beginning with an open label study conducted at UNC and through the phase 2 and 3 multi-site double-blind placebo controlled trials. The double blind studies have both been published in *The Lancet*. Brexanolone is a proprietary formulation of allopregnanolone, a metabolite of progesterone and positive allosteric modulator of

GABA-A. The positive clinical trials led Sage Therapeutics to file with the FDA in spring 2018. I presented at the FDA Advisory Committee on November 2, 2018, which voted 17-1 in favor of brexanolone. The FDA approved brexanolone on March 19, 2019.

MOMGENES Initiative-Perinatal Psychiatry (PACT) Consortium & PPD ACT APP:
This initiative was rebranded MOMGENES in October 2019 and is the largest genetic study of postpartum depression. Originally started as the **P**ostpartum Depression: **A**ction Toward **C**auses and **T**reatment, I served as the *Founding Member and Director* of a 25 site international consortium dedicated to understanding the biological underpinnings of postpartum depression through large-scale collaborative efforts. Multiple papers, grant submissions and new iOS app called PPD ACT™ using Apple ResearchKit have been developed. The PPD ACT app was launched on March 21, 2016 and rebranded to MOM GENES in 2019 in collaboration with a pro bono contribution from the Wongdoody PR firm. The MOM GENES app screens and identifies those who have had current or lifetime symptoms of PPD and postpartum psychosis. The app also invites certain women based on survey responses to provide DNA samples (spit kits provided by the NIMH), so that researchers can study the genes of those impacted by PPD. This project has garnered widespread media attention in the *New York Times, CNN*, and many other media outlets. Our website is https://www.momgenesfightppd.org. We successfully partnered with PPD advocacy organizations to reach women that had suffered with PPD. The launch of PPD ACT was on March 21, 2016 with subsequent expansion to an Android version, Spanish version and expansion to Canada. We enrolled 11 thousand women into the project in the United States. Our overall goal is to enroll 50,000-100,000 women in the study worldwide. To date, this is a five-country project: USA, Australia,Canada, Denmark and Sweden.

GLOBAL HEALTH: Malawi Perinatal Depression Project and Zambia HIV Project: Since October 2016, I have been collaborating with UNC colleagues in Departments of Surgery, OB-GYN and Global Health to bring perinatal mental health screening and treatment to women in Malawi. I am currently collaborating with collleagues at UNC and in Edinburgh Scotland on funded projects (J and J Global funding), support from UNC CFAR, and new funding from the NIH to bring this work to perinatal women with HIV in both Malawi and now a second NIH funded project Zambia (PI, Elizabeth Stringer). This work has allowed me to collaborate with colleagues across the world on efforts to improve maternal mental health in Africa. I am now traveling twice per year to sub-Saharan Africa to work on these funded projects.

Reviewer

Journals
Archives of Women's Mental Health
American Journal of Obstetrics and Gynecology
American Journal of Psychiatry
Biological Psychiatry
British Journal of Obstetrics and Gynecology
General Hospital Psychiatry
Lancet Psychiatry
JAMA Psychiatry
Archives of Women's Mental Health
Depression and Anxiety
Journal of Affective Disorders
Journal of Clinical Psychiatry

Journal of Clinical Psychopharmacology
Journal of Women's Health
Neuropsychiatric Genetics
Obstetrics and Gynecology
Psychiatry Research
Psychosomatics
Psychoneuroendocrinology

Study Section and Other Grants and Reports

NIH, Special Emphasis Panel/Scientific Review Group ZMH1 ERB-D (03), 2/26/18.
NIH Biobehavioral Regulation, Learning, and Ethology (BRLE) study section, 2/15/16.
NIH Study Section Reviewer Neural Basis of Psychopathology, Addictions and Sleep Disorders, Oct 8-9, 2015
NIH Study Section Reviewer Special Emphasis Panel Clinical & Visual Neuroscience,10/7/15.
NIH Study Section Reviewer, Special Emphasis Panel/Scientific Review Group ZMH1 ERB-D, 6/15.
NIH Study Section Reviewer, NPAS Review Committee, Ad Hoc Reviewer 2/15
NIH Study Section Reviewer Behavioral Genetics and Epidemiology, Ad Hoc Reviewer, 6/14

Cochrane Reviewer—multiple protocols, most recently Interventions (other than psychosocial, psychological and pharmacological) for preventing postpartum depression, December 2015.

AHRQ Reviewer, Comparative Effectiveness Review, 2013; Number 106, Efficacy and Safety of Screening for Postpartum Depression

Ad Hoc Reviewer for European Foundation Grants

Professional Societies:

1/2019-present	Member, American College of Neuropsychopharmacology (ACNP)
1/2018-present	President, Marce Society of North America (MONA)
2008-present	Marce Society International
1997-present	American Psychiatric Association and North Carolina Psychiatric Association
2006-present	Society of Biological Psychiatry
2010-present	Postpartum Support International
2009-present	North American Society of Psychosomatic Obstetrics and Gynecology

SELECTED MEDIA APPEARANCES AND FEATURES

Jake Tapper, CNN, October 2021
Washington Post, October 2021
New York Times, May 2020
Washington Post, February 2020
The New York Times, April 2019
Washington Post, April 2019
Tar Heel of the Month, Raleigh News and Observer, May 2019

The New York Times, March 2019
Washington Post, March 2019
NBC National News, March 2019
CBS National News, March 2019
PBS NewsHour, March 2019
CNN, March 2019
Scientific American (August 2018)
The Boston Globe Magazine, (July 2018)
The New York Times, (Oct 2017)
The New York Times, (March 21, 2016)
The New York Times, (February 28, 2016)
The New York Times, (January 26, 2016)
NPR Science Friday
NBC News
CBS News
National Public Radio, local and national programs (Take Away, State of Things, On Point)
CNBC News
Huffington Post

SELECTED MEDIA APPEARANCES AND FEATURES CONTINUED

New York Daily News
Forbes
People Magazine
Time Magazine, Healthland
USA Today
The Advisory Board
Agency for Health Care Research and Quality (AHRQ) Innovations
The HealthCare Blog
HealthLeaders Media
Health Magazine
Glamour Magazine
Med Page Today
MedScape
Shape Magazine
Real Simple
Everyday Health
Mother and Baby, UK
Sense and Sensibility
Women's Health Magazine
Fit Pregnancy
Postpartum Progress
Psych Central
Practicing Excellence: The Physician Effectiveness Project

EXHIBIT F

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients,

Plaintiffs,

v.

STATE OF GEORGIA,

Defendant.

Case No. _____

AFFIDAVIT OF PATIENT JANE DOE 1

I, [redacted], declare and state:

1. I am 21 years old south Asian student from Georgia going to school full-time in Alabama.
2. I found out I was pregnant on Tuesday, July 19th when I took an at-home pregnancy test that was positive. I knew immediately I wanted to end the pregnancy. I am a rising pre-med senior in college, and I start school in mid-August. Having a child right now would derail my life plans and career goals. I don't think I could be successful in medical school with the added stress of raising a child.
3. I made an appointment for carafem for Wednesday, July 20th, 2022. On Wednesday, before my appointment, I was told my appointment was cancelled due to the ban going into effect. This was the first time I had heard about Georgia's abortion ban, and it went into effect only hours before my scheduled appointment.
4. I immediately felt really scared and worried. Alabama also has a complete abortion ban, so I know I will not be able to get an abortion when I go back to school next month.
5. My carafem appointment was rescheduled for Friday, July 22, 2022. During my appointment, I had my first ultrasound and was told the doctor detected fetal cardiac activity. Even though it has only been 31 days since my last sexual activity, I was told I am six weeks and two days pregnant based on the way pregnancies are dated. I was told I could not get an abortion today.
6. Not being able to receive the abortion I am seeking makes me feel scared. My parents do not know that I have a boyfriend, disapprove of pre-marital sex, and would be disappointed and change their perception of me if they knew I was pregnant. This appointment has been kept secret from them.

7. I now have to seek an out of state abortion. I share a bank account with my mother, and it will be difficult to pay for out of state travel and another medical visit, especially after already paying for today's visit with carafem where I learned I was too far along – I can't imagine that I will be able to pay for this travel without her realizing it. I estimate seeking this care will cost approximately $1,000 and require my partner also taking the time to travel with me.
8. I also feel frustrated that this horrible ban is now in effect. This is about people's lives, like mine, who are now being dictated by the government and courts. I only found out I was pregnant on Tuesday, and the very next day I had my life choices made for me.

Verification

I, [redacted], verify that the foregoing facts are true and accurate to the best of my knowledge, information, and belief.

[redacted]

Print: [redacted]

Subscribed, sworn, and acknowledged before me by [redacted] this 22 day of July, 2022.

NOTARY PUBLIC

My commission expires:

February 28, 2023

J GRANT NOTARY PUBLIC GWINNETT COUNTY, GEORGIA MY COMMISSION EXPIRES FEBRUARY 28, 2023

EXHIBIT G

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients, Plaintiffs, v. STATE OF GEORGIA, Defendant.	Case No. _____

AFFIDAVIT OF PATIENT JANE DOE 2

I, [redacted], declare and state:

1. I am a 31-year-old woman from Dekalb County, Georgia. I am engaged to my male partner and have two kids, a three-and-a-half year old with Autism and a two year old. I am self-employed and our total household income is approximately $600 a month.
2. I have a history of negative physical and mental side effects with hormonal contraceptives. I also have polycystic ovary syndrome. I tried to schedule an IUD insertion, but insurance continued to create roadblocks.
3. I went for an IUD appointment on Wednesday, June 29, 2022, but was unable to have the IUD inserted due to discomfort. My period was supposed to start that day but was delayed for a week. I took an at-home pregnancy test on Friday, July 8, 2022 that was positive. I immediately decided to end the pregnancy.
4. I scheduled an appointment with carafem for Friday, July 22, 2022 – the first appointment I could get that worked with my childcare responsibilities. But on Thursday, July 21, 2022 I was informed that my appointment for the very next day had been cancelled because of a change in the law.
5. I decided to still show up for my Friday appointment with the hopes I would be under six weeks and able to have an abortion. Ultimately, they were able to see me, and I had my first ultrasound. The doctor detected cardiac activity and told me I was six weeks on the dot. When I was told I could not have an abortion in Georgia, I felt frustrated and angry.
6. I now must travel out of state to have my abortion. I was able to make an appointment in Florida but will have to coordinate childcare and take the time and money to travel to Florida. The travel will cost several hundred dollars, which will impact my ability to pay down debts and contribute to my overall debt burden. I will have to travel alone so that

my partner can take care of our children. This prevents me from being the primary caretaker and prevents my partner from coming with me to the appointment in Florida.

7. I feel hopeless due to being denied an abortion and being forced to go out of state. I feel like the courts do not care about my mental health or the fact that having another child would put significant strain on my life, physical health, and mental health. It's nobody's business and it's not fair that another person can decide what I choose to do with my body.

Verification

I, [redacted], verify that the foregoing facts are true and accurate to the best of my knowledge, information, and belief.

[redacted]

Print: [redacted]

Subscribed, sworn, and acknowledged before me by [redacted] this 22 day of July, 2022.

NOTARY PUBLIC

J GRANT
NOTARY PUBLIC
MY COMMISSION EXPIRES
FEBRUARY 28, 2023
GWINNETT COUNTY, GEORGIA

My commission expires: February 28, 2023

EXHIBIT H

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients,

Plaintiffs,

v.

STATE OF GEORGIA,

Defendant.

Case No. _____

AFFIDAVIT OF PATIENT JANE DOE 3

I, [redacted], affirm and state:

1. I am a 32-year-old woman from Douglas County, Georgia. Both my partner and I are self-employed gig workers who together make approximately $3,000 a month. I have three kids: a 16-year-old, an 11-year-old, and a 4-month-old.
2. I found out I was pregnant about two weeks ago. My period is usually regular but was late, so I decided to take an at-home pregnancy test. The test was positive, and I thought I was around six weeks pregnant.
3. I knew immediately I wanted to have an abortion. My most recent pregnancy was difficult for me. After giving birth, I had to spend two weeks in the hospital due to post-partum pre-eclampsia, low blood pressure, and an elevated heart rate. I almost died from pregnancy just a few months ago, so I knew an abortion now was right for me.
4. After my positive pregnancy test, I contacted three clinics and was able to make an appointment for Feminist Women's Health Center for Saturday, July 23, 2022.
5. On Thursday, July 21, 2022, I received a call saying that I might not be able to have the procedure, depending on the length of the pregnancy. I decided right away to go to the emergency room to have an ultrasound and find out how far along I was.
6. The emergency room said I was five weeks and three days pregnant. I received another ultrasound at Feminist Women's Health Center on Saturday that confirmed that I could be cared for in Georgia. I was scheduled for an abortion that same day.
7. Learning I could still have an abortion gave me instant relief. This is the best decision for me in terms of my physical and mental health. Pregnancy and parenthood are some of the hardest things you can do. I was very worried about suffering serious postpartum complications again, and I worried that having another child so soon after my newborn

would prevent me from being an active and present parent to my newborn as well as my two older children.

8. The ban is upsetting to me because it takes away my right to my own body. It feels like my uterus belongs to someone else now. You should have the right to choose whether you are capable of raising a child.

Verification

I, [redacted], verify that the foregoing facts are true and accurate to the best of my knowledge, information, and belief.

[redacted]

Print: [redacted]

Subscribed, affirmed, and acknowledged before me by [redacted] this 23 day of July, 2022.

NOTARY PUBLIC

My commission expires: 2/13/2026

William Bishop
NOTARY PUBLIC
DeKalb County, GEORGIA
My Commission Expires 02/13/2026

EXHIBIT I

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients,

Plaintiffs,

v.

STATE OF GEORGIA,

Defendant.

Case No. _____

AFFIDAVIT OF PATIENT JANE DOE 4

I, [redacted], declare and state:

1. I am 33 years old and currently live in Clayton County, Georgia. I am a single mother to my seven-year-old son. I help support my sister, who is also a single mother. I work full time as a senior human resources recruiter and make about $6,000 monthly.
2. I found out that I was pregnant on Sunday, July 17, 2022, when I took an at-home pregnancy test that was immediately positive. I took another pregnancy test the following morning on Monday, July 18, 2022, that was also positive.
3. I decided I wanted an abortion as soon as I realized I was pregnant. I know what it is like to be a single mother and struggle through it. I knew I did not want to sign up another child for a lifestyle I cannot provide. I also have a responsibility to my family. In addition to my son, I take care of my sister and her newborn child.
4. I made an appointment for an abortion at carafem, but this morning, July 21, 2022, I received a text saying that my appointment was cancelled. I was hysterical and tried calling multiple other clinics trying to figure out what to do. I could not get out of my car to go into work today because I was so distraught. I was frantic believing I was 4-5 weeks along and would only have a few days to be able to receive abortion services. I was so distressed that I left my work's parking lot and drove straight to carafem, when I fortunately received a call at 9:57AM to come in for a 10:00AM appointment.
5. I felt instant relief that I could still get the care I was seeking. I had an ultrasound that showed I was exactly five weeks, and was given medications to induce an abortion.
6. Now, after my appointment, I no longer feel frantic but my adrenaline is rushing. It scares me to think that the State of Georgia almost dictated the next eighteen years of my life.

With this ban in effect, I fear that I am unable to make decisions for myself, and that is truly frightening.

7. I do not know how close the nearest out-of-state clinic is to me. If I had not been able to have an abortion today, I suspect I would have had to travel to Chicago, Illinois. This would have required me to take time off work, buy an expensive last-minute plane ticket, and pay for several days of lodging, food, and rideshares – either leaving my son without me during those days, for my sister (who has a newborn) to watch, or paying at huge expense for him to come with me.
8. Traveling out of state would have been difficult, but it is a sacrifice I would have been willing to make. It certainly would cost more to have a child than to end my pregnancy.
9. This experience has confirmed for me that the decision to have or not have a child is a decision to be respected, and is a personal choice to make.

Verification

I, [redacted], verify that the foregoing facts are true and accurate to the best of my knowledge, information, and belief.

[redacted]

Print [redacted]

Subscribed, sworn, and acknowledged before me by [redacted] this 21 day of July, 2022.

NOTARY PUBLIC

J GRANT
NOTARY PUBLIC
GWINNETT COUNTY, GEORGIA
MY COMMISSION EXPIRES FEBRUARY 28, 2023

My commission expires: February 28, 2023

Commission Number: N/A

EXHIBIT J

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients, Plaintiffs, v. STATE OF GEORGIA, Defendant.	Case No. _____

AFFIDAVIT OF PATIENT JANE DOE 5

I, [redacted], declare and state:

1. I am a 32-year-old Black woman living in Atlanta, Georgia.
2. Last week, I realized I was late on my period and decided to take an at-home pregnancy test on Thursday, July 21, 2022. The test was positive, and I estimated I was about five weeks from my last period. A friend who had heard about Georgia's six-week abortion ban told me that I would need to act quickly if I wanted to have an abortion.
3. I was able to make an appointment with Feminist Women's Health Center for Saturday, July 23, 2022. I had an ultrasound and learned I was five weeks and a couple of days pregnant.
4. Because I was close to the six weeks limit, I knew there wasn't much time left. I had to decide then whether to have a child or have an abortion because waiting would put me past six weeks and make the choice for me. The ban forces women to take immediate action to have an abortion even if they would have otherwise wanted more time to think through their choices – because taking that extra time will mean losing the choice.
5. I felt relief when I learned I wasn't too far along and still had the option to have my procedure, and I decided to do so today. I don't know where the nearest clinic outside of Georgia is; if I had been denied an abortion today, I would have been forced to travel to a nearby state and try to have an abortion there. On top of the costs of that travel, this would have caused me to miss work and lose out on income.
6. I think the six week ban is inhumane. The ban rips away people's rights and forces people to make decisions before they might be ready to make them. People have different situations and need time to make these kinds of decisions. Everyone should have more empathy and try to put themselves in the shoes of a woman who now only has a few

weeks after a missed period to realize that she might be pregnant in time and then make her decision in order to have an abortion in Georgia.

Verification

I, [redacted], verify that the foregoing facts are true and accurate to the best of my knowledge, information, and belief.

[redacted]

Print: [redacted]

Subscribed, sworn, and acknowledged before me by [redacted] this 23 day of July, 2022.

William Bishop

NOTARY PUBLIC

My commission expires: 2/13/2026

William Bishop
NOTARY PUBLIC
DeKalb County, GEORGIA
My Commission Expires 02/13/2026

EXHIBIT K

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

SISTERSONG WOMEN OF COLOR REPRODUCTIVE JUSTICE COLLECTIVE, on behalf of itself and its members; FEMINIST WOMEN'S HEALTH CENTER, PLANNED PARENTHOOD SOUTHEAST, INC., ATLANTA COMPREHENSIVE WELLNESS CLINIC, ATLANTA WOMEN'S MEDICAL CENTER, FEMHEALTH USA d/b/a CARAFEM, and SUMMIT MEDICAL ASSOCIATES, P.C., on behalf of themselves, their physicians and other staff, and their patients; CARRIE CWIAK, M.D., M.P.H., LISA HADDAD, M.D., M.S., M.P.H., and EVA LATHROP, M.D., M.P.H., on behalf of themselves and their patients; and MEDICAL STUDENTS FOR CHOICE, on behalf of itself, its members, and their patients, Plaintiffs, v. STATE OF GEORGIA, Defendant.	Case No. _____

Affidavit of Pamela Merritt

I, PAMELA MERRITT, hereby affirm under penalty of perjury that the following statements are true and correct:

1. I am the Executive Director of Medical Students for Choice ("MSFC"). MSFC is a 501(c)(3) non-profit organization whose mission is to create tomorrow's abortion providers and pro-choice physicians. Family planning, including abortion, is fundamental to public health and touches on every area of medicine. MSFC assists medical students and residents to maintain access to abortion and family planning education and training, including through curriculum reform, training in a clinic setting, abortion training institutes, and MSFC's two-day annual conference for family planning. MSFC is devoted to expanding access to health services that allow patients to lead safe, healthy lives consistent with their own personal and cultural values, with respect to all aspects of sexual and reproductive health.

2. As Executive Director, I am responsible for the management and organization of MSFC and therefore am familiar with our operations. I also have broad familiarity with the field of reproductive health and justice, in which I have worked for 14 years. I am the incoming Chair of the Board of Directors of the Guttmacher Institute, a leading research and policy organization committed to advancing sexual and reproductive health and rights. I have previously worked at Planned Parenthood Advocates in Missouri; co-founded and served as the co-

director of Reproaction; and served on Pro-Choice Missouri's Board of Directors. I provide the following testimony based on my personal knowledge.

I. MSFC's Abortion Training and Practice

3. MSFC was founded in 1993 after the murder of abortion provider Dr. David Gunn, and subsequent statements from an anti-choice organization threatening thousands of medical students with death for providing abortion care. The threat, designed to deter students from pursuing or receiving abortion education, had the opposite effect: students saw a need to organize to obtain abortion training and education.

4. We believe abortion and family planning training are essential foundations for future physicians. Patients deserve and depend on trusted medical providers who offer medically accurate information, regardless of specialty.

5. Pregnancy fundamentally affects a person's health and impacts every area of medicine. Virtually every care routine and treatment plan needs to take a patient's current pregnancy status or potential for pregnancy into account. Further, a patient's overall well-being is contingent on their ability to time a pregnancy to maximize their mental and physical health. And abortion is extremely common: nearly one in four women decide to have an abortion during the course of their

childbearing years.[1] For all of these reasons, it is crucial for every healthcare provider to be able to discuss family planning options and reproductive healthcare, including abortion, in a medically accurate way.

6. MSFC has 185 chapters in 46 U.S. states, as well as in the District of Columbia and Puerto Rico, and another 81 chapters outside the U.S. As our website details, we are a "network of medical students and residents around the United States and internationally." We currently have over 13,000 members.

7. In Georgia, we have chapters at: Emory School of Medicine, Medical College of Georgia at Augusta University, Morehouse School of Medicine, and Mercer University School of Medicine. Medical student and resident members of MSFC enrolled in these Georgia medical schools and residency programs include those who train in the provision of abortion care, those who perform and assist in abortion care in the state, and those who plan to do so in the foreseeable future but for laws like H.B. 481.

8. In the United States, we have three different abortion training programs that provide our members with financial and logistical support to receive abortion and family planning training. First, the Reproductive Health Externship Funding Program provides members with financial support to receive clinical

[1] *Abortion Is a Common Experience for U.S. Women, Despite Dramatic Declines in Rates*, Guttmacher Institute (accessed July 21, 2022), available at https://www.guttmacher.org/news-release/2017/abortion-common-experience-us-women-despite-dramatic-declines-rates.

training in abortion care outside of their institution's standard curriculum by spending two to four weeks in a clinic of their choice. Second, the Clinical Abortion Observation program offers members the opportunity to spend anywhere from three to nine days in a clinical setting receiving training in abortion care. Third, MSFC's Abortion Training Institute is an intensive two-day educational opportunity for members to learn about abortion and family planning in a small-group conference setting. We also support residents through the Training to Competence Externship funding program, which provides residents with financial and logistical support for receiving clinical abortion training outside of their program's standard curriculum.

9. MSFC members perform or assist in a range of tasks, including learning about patient counseling, the provision of medication abortion, and aspiration or procedural abortion procedures.

10. Because the medications and procedures used for abortion are identical to those used for miscarriage management, MSFC's members' training opportunities in abortion care also enhance their ability to provide high-quality miscarriage management.

11. Additionally, MSFC members in Georgia are trained to treat patients, especially those from underserved communities, with compassion, care, and cultural literacy. This is particularly relevant in Georgia, where marginalized

groups are more likely to seek abortion care. For instance, 64.9% of Georgians who obtained abortions in 2019 were Black,[2] even though Black people only accounted for 31.5% of Georgia's population.[3] Moreover, many of the patients our MSFC members care for are Medicaid recipients, work for hourly wages and/or multiple jobs, and/or are non-English speaking. When our students speak to pregnant patients about their options and refer them for abortion care, our students learn to center their patients' experiences and to view their role as a healthcare provider in a larger context. For example, our students learn to take into account a patient's underlying health conditions, barriers they face in accessing obstetric and gynecologic ("ob/gyn") care, their goals for themselves and their family, and myriad other relevant factors in providing options counseling and care to pregnant patients.

12. By taking this holistic view of medicine, MSFC members become trained in treating the whole patient. MSFC members in Georgia coordinate with local organizations on the ground that offer logistical and financial support to

[2] Katherine Kortsmit et al., *Abortion Surveillance—United States, 2019*, Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report (Nov. 26, 2021), available at https://www.cdc.gov/mmwr/volumes/70/ss/ss7009a1.htm#T3_down.

[3] *American Community Survey B03002*, Unites States Census Bureau (accessed July 21, 2022), available at https://data.census.gov/cedsci/table?q=B03002&g=0400000US13&tid=ACSDT1Y2019.B03002&hidePreview=true (last visited July 23, 2022).

pregnant people seeking abortion, and with organizations that advocate for policy changes to improve the reproductive health of Georgians.

II. Impact of Six-Week Ban on Medical Students

13. I understand that H.B. 481 ("the Ban") bans abortion after detection of embryonic or fetal cardiac activity. If the Ban is not enjoined, it will upend MSFC's members' ability to obtain the training needed to become providers of comprehensive, high-quality reproductive healthcare. It also profoundly harms hospitals, medical schools, and other healthcare providers in Georgia, with grave consequences for Georgia's public health and economy.

a. The Six-Week Ban Will Adversely Impact Members' Ability to Provide Comprehensive Quality Care

14. The Ban prohibits abortion providers in Georgia from providing abortion care after approximately six weeks of pregnancy as dated from a patient's last menstrual period ("LMP")—just two weeks after a patient's first missed period (if they have regular menstrual cycles). A physician who violates the Ban faces imprisonment and other severe penalties.

15. Even if abortion clinics in the state are able to remain open despite this vast reduction in the services they can offer, they are overwhelmed with the logistical challenges of attempting to provide abortion care to as many pregnant people as possible before they are timed out by the Ban. In fact, MSFC has already seen this play out in Texas after S.B. 8—which also bans abortion after

approximately six weeks LMP—took effect last September. The chaos caused by S.B. 8 made it impossible for MSFC to place residents and student-externs at abortion clinics in Texas; their staff members were stretched too thin triaging desperate patients to continue providing abortion training, which takes time and resources. The influx of Texas patients to abortion clinics in neighboring states like Oklahoma—and as far away as Illinois—also increased burdens on those clinics, making it virtually impossible for MSFC members to find placements across the South and Midwest. Accordingly, MSFC members currently training (or intending to train) in Georgia fear—with good reason—that they will not be able to obtain training in abortion care and miscarriage management.

16. Even if some MSFC members are able to find placements for training in abortion care up to six weeks LMP, this would be inadequate for future physicians to learn the techniques necessary to provide comprehensive, life-saving reproductive healthcare. For instance, a physician who has not been trained in performing a dilation and evacuation procedure cannot perform an abortion to save the life of a pregnant person who has experienced pre-viable, premature rupture of membranes at 18 weeks LMP and is at risk of life-threatening hemorrhage. Nor would a physician be able to stabilize pregnant patients experiencing acute medical crises such as a stroke or a heart attack—which are more common later in pregnancy—without appropriate training past the first trimester.

17. While some MSFC members may be able to obtain such training in the context of miscarriage care, the volume of training opportunities will be severely diminished if the Ban remains in effect. That is not only because the Ban criminalizes abortions after six weeks of pregnancy, but because it *also* bans treatment to evacuate a patient's uterus in the case of inevitable pregnancy loss after six weeks.

18. Additionally, MSFC members fear that they will be criminalized for providing medically appropriate abortion care and miscarriage management because the Ban's exceptions for a "medical emergency" and "medically futile" pregnancy are exceedingly narrow and unclear, and the Ban prohibits physicians from evacuating a pregnancy so long as embryonic or fetal cardiac activity persists. Withholding or delaying medically indicated healthcare until a patient's condition has deteriorated to the point prescribed by the Ban places patients' health and future fertility at unnecessary risk and violates the principles of medical ethics.

19. Finally, the Ban creates confusion for medical schools and contributes to challenges MSFC members face in accessing abortion education. In other states where abortion bans have taken effect, we have already seen medical schools question whether they can continue to provide education about abortion, as well as various treatment options that can cause pregnancy loss as a side effect. Further, abortion education often entails observational and experiential learning, which the

Ban may push out of reach. For instance, when Ohio's ban on abortion after six weeks LMP took effect, Wright State University's Boonshoft School of Medicine canceled a family planning elective because the abortion clinic where the hands-on portion of the class took place was forced to cease operating.

b. The Ban Will Adversely Impact the Overall Quality of Care in Georgia

20. If the Ban remains in effect, ob/gyn programs in Georgia will struggle to recruit and retain residents and physicians. There is no doubt that some medical students in Georgia will opt to leave Georgia for their residency training because they can no longer receive training in the full spectrum of family planning; it is equally certain that medical students in other states will be less inclined to apply for residency training in Georgia. I frequently hear from MSFC members that their decision about which residency programs to pursue are informed by whether strong training opportunities in family planning services are available. For instance, an MSFC member who would otherwise have ranked a Georgia ob/gyn residency program as her top choice last year is instead pursuing her residency training in a state where abortion is unlikely to be criminalized. Despite her desire to live and practice in Georgia, this MSFC member was concerned that the Ban would preclude her from developing the skills needed to provide comprehensive reproductive healthcare, including abortion care, and that Georgia hospitals would not be a safe or ethical learning environment under the Ban's threat of liability.

21. The Ban will have a long-term impact on the physician and hospital landscape in Georgia: Most physicians (57.1%) end up practicing in the state where they complete their residency.[4] Furthermore, hospitals—especially teaching hospitals—rely heavily on residents, and a decrease in the number of residents will adversely affect hospitals' ability to provide quality healthcare, thus harming the overall community health.

22. The Ban also makes residency programs in Georgia less attractive to medical students because of the personal threat that they or a loved one will become pregnant and then be unable to receive medically appropriate care. Especially because medical students and future residents are intimately aware of the risks of pregnancy and childbearing, many are unwilling to live in a state where they would not be able to access abortion care and other essential reproductive healthcare during their childbearing years. Indeed, I have already seen highly desirable graduates of prestigious medical schools eliminate states from their ranking process for residency due to uncertainty about what the status of abortion access will be in a given state. Even world-renowned programs like the ob/gyn program at Emory, where MSFC currently has a chapter, will be at risk.

[4] *America's medical residents, by the numbers*, AAMC (Dec. 1, 2021), available at https://www.aamc.org/news-insights/america-s-medical-residents-numbers-0.

23. There are competing medical schools in other states that will stand to profit off Georgia's hospitals' losses. The governors of California, Illinois, and Colorado have already indicated an intention to become hubs of public health, including comprehensive reproductive healthcare, which will bring enormous prosperity to those states. The economic impact will be enormous if Georgia medical schools lose their competitive edge, as in many cities in Georgia, hospitals support a multi-level, thriving economy.

24. Georgia is already in the throes of a maternal mortality and morbidity crisis that disproportionately impacts Black communities. Because structural racism and implicit bias contribute to the disproportionately high rates of Black maternal and infant mortality, training and retaining Black physicians—particularly Black ob/gyns—is crucial to addressing this public health crisis and improving outcomes. Georgia hospitals have been critical to this effort. In fact, Georgia is home to Morehouse College, one of the top-ranked Historically Black Colleges and Universities. But if the Ban precludes medical students and residents from receiving appropriate training in the full spectrum of family planning, including abortion care, it will deter the most promising physicians from training and practicing in Georgia, exacerbating the physician shortage and further undermining the availability of high-quality reproductive healthcare in the state. This will have devastating public health impacts, all on top of the direct public

health impacts of the Ban (and the continuing impact of the COVID-19 pandemic). The harm would disproportionately fall on Black Georgians and other marginalized communities.

25. For all of these reasons, allowing the Ban to remain in effect would have dire impacts on the health of Georgians who are capable of becoming pregnant, and resounding economic consequences.

I declare under penalty of perjury that the foregoing is true and correct to the best of my personal knowledge.

Pamela Merritt

Sworn to and subscribed before me
this 24 day of July, 2022.

NOTARY PUBLIC

My commission expires: 16 Dec 2023

TIMOTHY C SLATER II
Official Seal
Notary Public - State of Illinois
My Commission Expires Dec 16, 2023