IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE HEALTH CENTER, ALLENTOWN WOMEN'S CENTER, BERGER & BENJAMIN LLP, DELAWARE COUNTY WOMEN'S CENTER, PHILADELPHIA WOMEN'S CENTER, PLANNED PARENTHOOD KEYSTONE, PLANNED PARENTHOOD SOUTHEASTERN PENNSYLVANIA, and PLANNED PARENTHOOD OF WESTERN PENNSYLVANIA,

Petitioners,

No. 26 MD 2019

PETITION FOR REVIEW IN THE

NATURE OF A

COMPLAINT SEEKING

DECLARATORY JUDGMENT

AND INJUNCTIVE RELIEF

PENNSYLVANIA DEPARTMENT OF
HUMAN SERVICES, TERESA
MILLER, in her official capacity as
Secretary of the Pennsylvania Department
of Human Services, LEESA ALLEN, in
her official capacity as Executive Deputy
Secretary for the Pennsylvania
Department of Human Service's Office of
Medical Assistance Programs, and
SALLY KOZAK, in her official capacity
as Deputy Secretary for the Pennsylvania
Department of Human Service's Office of
Medical Assistance Programs,

Service's Office of
Medical Assistance Programs,

Respondents.

NOTICE TO PLEAD

YOU ARE HEREBY NOTIFIED to file a written response to the enclosed Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief within twenty (20) days from service hereof, or a judgment may be entered against you.

By:

Date:

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE
HEALTH CENTER, ALLENTOWN
WOMEN'S CENTER, BERGER &
BENJAMIN LLP, DELAWARE
COUNTY WOMEN'S CENTER,
PHILADELPHIA WOMEN'S CENTER,
PLANNED PARENTHOOD
KEYSTONE, PLANNED
PARENTHOOD SOUTHEASTERN
PENNSYLVANIA, and PLANNED
PARENTHOOD OF WESTERN
PENNSYLVANIA.

No. _____

PETITION FOR REVIEW IN THE NATURE OF A COMPLAINT SEEKING DECLARATORY JUDGMENT AND INJUNCTIVE RELIEF

Petitioners,

v.

PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES, TERESA MILLER, in her official capacity as Secretary of the Pennsylvania Department of Human Services, LEESA ALLEN, in her official capacity as Executive Deputy Secretary for the Pennsylvania Department of Human Service's Office of Medical Assistance Programs, and SALLY KOZAK, in her official capacity as Deputy Secretary for the Pennsylvania Department of Human Service's Office of Medical Assistance Programs,

Respondents.

PETITION FOR REVIEW IN THE NATURE OF A COMPLAINT SEEKING DECLARATORY JUDGMENT AND INJUNCTIVE RELIEF

INTRODUCTION

A woman's ability to determine whether and when to have children is essential to her health, equal citizenship, and liberty. For more than three decades, low-income women in Pennsylvania who choose to terminate their pregnancy and who would otherwise have their medical care covered by Medical Assistance have been forced to choose: continue their pregnancy to term against their will or use money that they would have used for shelter, food, clothing, or childcare to pay for the procedure. This is exactly the choice — between health care and basic essentials — that Medicaid was created to avoid. Yet low-income women in Pennsylvania, and women alone, routinely face this choice.

Pennsylvania's Medicaid program, known as Medical Assistance, provides health care coverage for low-income Pennsylvanians. Medical Assistance covers medical procedures to preserve and protect the health of both male and female low-income Pennsylvanians, with one glaring exception: it does not cover abortions, unless the pregnancy is caused by rape or incest, or where the abortion is necessary to avert the death of the pregnant woman. The denial of Medical Assistance coverage for low-income women seeking to terminate a pregnancy contravenes fundamental guarantees of equality and poses a dire threat to their

health and well-being. This denial pursuant to 18 Pa. C.S. § 3215(c) & (j) (the "Pennsylvania coverage ban") violates the Pennsylvania Constitution's Equal Rights Amendment and equal protection guarantees.

The Pennsylvania coverage ban was upheld by the Pennsylvania Supreme Court in 1985 in *Fischer v. Dep't of Public Welfare*, 502 A.2d 114 (Pa. 1985). That case was incorrectly reasoned at the time, goes against recent developments in Pennsylvania law with respect to independent interpretations of our state constitution, and is contrary to a modern understanding of the ways in which the denial of women's reproductive autonomy is a form of sex discrimination that perpetuates invidious gender and racial stereotypes. Petitioners seek reconsideration of *Fischer* and ultimately a court order requiring the Department of Human Services to comply with the Constitution by covering abortion through Medical Assistance.

JURISDICTION

1. This Court has original jurisdiction over this action pursuant to 42 Pa. C.S. § 761(a), because this action is brought against the Commonwealth government and agents of the Commonwealth government acting in their official capacities.

PARTIES

PETITIONERS

Allegheny Reproductive Health Center

- 2. Petitioner Allegheny Reproductive Health Center ("Allegheny Reproductive") is a for-profit corporation incorporated in Pennsylvania. Its principal place of business is Pittsburgh, Pennsylvania.
- 3. Since 1975, Allegheny Reproductive has provided women in greater western Pennsylvania with a broad range of reproductive health care services, including: comprehensive gynecological care; screening and treatment for sexually transmitted infections; breast exams and mammogram referrals; and contraceptive counseling and medical services. Allegheny Reproductive performs surgical abortion through 23.6 weeks of pregnancy, measured from the first day of the woman's last menstrual period ("LMP"). Allegheny Reproductive provides medication abortion through 10 weeks LMP. Allegheny Reproductive is enrolled as a Medicaid provider.
- 4. Many of Allegheny Reproductive's patients are enrolled in or eligible for Medical Assistance benefits. These patients include women who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Allentown Women's Center

- 5. Petitioner Allentown Women's Center ("AWC") is a for-profit corporation incorporated in Pennsylvania. Its principal place of business is Bethlehem, Pennsylvania.
- 6. Since 1978, AWC has served patients from Berks, Bucks, Carbon, Lackawanna, Lehigh, Luzerne, Montgomery, Monroe, Northampton, and Schuylkill counties. AWC offers its patients comprehensive reproductive health care, including: comprehensive gynecological care; therapeutic and traumainformed counseling services, such as pregnancy loss counseling and miscarriage management; contraceptive counseling and medical services; and LGBTQ-affirming services.
- 7. AWC performs surgical abortion through 22.6 weeks LMP. AWC provides medication abortion services up to 10 weeks LMP.
- 8. Many of AWC's patients are enrolled in or eligible for Medical Assistance benefits. These patients include pregnant people who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Berger & Benjamin

- 9. Petitioner Berger & Benjamin is a for-profit corporation incorporated in Pennsylvania. Its principal place of business is Philadelphia, Pennsylvania.
- 10. Since 1974, Berger & Benjamin has provided women in greater southeastern Pennsylvania with a complete range of reproductive health services, ranging from routine women's reproductive health services to treatment for complex and high-risk reproductive health issues.
- 11. Berger & Benjamin performs surgical abortion up to 20.6 weeks LMP, and provides medication abortion through 10 weeks LMP.
- 12. Many of Berger & Benjamin's patients are enrolled in or eligible for Medical Assistance. These patients include women who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Delaware County Women's Center

- 13. Petitioner Delaware County Women's Center ("DCWC") is a for-profit corporation incorporated in Pennsylvania. Its principal place of business is Chester, Pennsylvania.
- 14. Since 2013, DCWC has provided women in the greater

 Delaware County area with essential reproductive health and family planning

services. DCWC previously operated as the Reproductive Health and Counseling Center, which commenced its operations in 1973.

- 15. DCWC provides medication abortion care through 10 weeks LMP.
- 16. Many of DCWC's patients are enrolled in or eligible for Medical Assistance benefits. These patients include women who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Philadelphia Women's Center

- 17. Petitioner Philadelphia Women's Center ("PWC") is a forprofit corporation incorporated in Pennsylvania. Its principal place of business is Philadelphia, Pennsylvania.
- 18. Since 1972, PWC has provided women in the greater Philadelphia area with quality reproductive health and family planning services, and today serves as a training site for many nationally recognized medical institutions.
- 19. PWC performs surgical abortion up to 24 weeks LMP, and provides medication abortion through 10 weeks LMP.
- 20. Many of PWC's patients are enrolled in or eligible for Medical Assistance benefits. These patients include women who seek abortions but who,

due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Planned Parenthood Keystone

- 21. Petitioner Planned Parenthood Keystone ("PPKeystone") is a non-profit corporation incorporated in Pennsylvania. PPKeystone maintains administrative offices in Harrisburg, the Lehigh Valley, Warminster, and York, and operates nine health centers in Allentown, Bensalem, Harrisburg, Lancaster, Quakertown, Reading, Warminster, Wilkes-Barre, and York. PPKeystone serves thirty-seven counties throughout the Commonwealth, home to over half of Pennsylvanians.
- 22. Since 1926, health centers affiliated with PPKeystone have provided and promoted access to essential reproductive health care and family planning services, including: comprehensive gynecological care; cancer screenings; testing and treatment of sexually transmitted diseases; pregnancy testing; and contraceptive counseling and medical services. PPKeystone serves over 35,000 patients annually.
- 23. PPKeystone offers abortion services at its health centers in Allentown, Harrisburg, Reading, Warminster, and York. Each of these centers provides medication abortion through 10 weeks LMP and, with the exception of the Harrisburg location, performs surgical abortion up to 14 weeks LMP.

24. Many of PPKeystone's patients are enrolled in or eligible for Medical Assistance benefits. These patients include women who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Planned Parenthood Southeastern Pennsylvania

- 25. Petitioner Planned Parenthood Southeastern Pennsylvania ("PPSP") is a non-profit corporation incorporated in Pennsylvania. PPSP's administrative office is located in Philadelphia, Pennsylvania, and it operates ten health centers throughout Philadelphia, Coatesville, Media, Pottstown, Norristown, Upper Darby, and West Chester.
- 26. Since 1929, health centers affiliated with PPSP have provided and promoted access to essential reproductive health care and family planning services. Its services include comprehensive gynecological care, cancer screenings, testing and treatment of sexually transmitted infections, vaccinations, pregnancy testing, childbirth classes, adoption referrals, and contraceptive counseling and medical services.
- 27. PPSP offers abortion services at its health centers in Center City Philadelphia, Norristown, Northeast Philadelphia, and West Chester. Each of these centers provides medication abortion through 10 weeks LMP and, with the

exception of the Norristown location, performs surgical abortion up to varying gestational ages.

28. Many of PPSP's patients are enrolled in or eligible for Medical Assistance benefits. These patients include women who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Planned Parenthood of Western Pennsylvania

- 29. Petitioner Planned Parenthood of Western Pennsylvania ("PPWP") is a non-profit corporation incorporated in Pennsylvania. PPWP's administrative office is located in Pittsburgh, Pennsylvania, and it operates health centers located in Bridgeville, Greensburg, Johnstown, Moon Township, Pittsburgh and Somerset.
- 30. Since 1930, health centers affiliated with PPWP have provided and promoted access to essential reproductive health care and family planning services, including quality comprehensive gynecological care, contraceptive counseling, pregnancy testing and counseling, colposcopies and cryotherapy, pelvic and breast exams, and testing and treatment of sexually transmitted infections. PPWP's health care, education, and advocacy efforts reach people in 27 northwestern and southwestern counties of Pennsylvania.

- 31. PPWP offers abortion services at its health center in Pittsburgh, performing surgical abortion up to 18 weeks LMP, and providing medication abortion through 10 weeks LMP.
- 32. Many of PPWP's patients are enrolled in or eligible for Medical Assistance benefits. These patients include women who seek abortions but who, due to the Pennsylvania coverage ban, cannot use their insurance to cover the procedure.

Petitioners' Standing

- 33. Collectively, Petitioners provide about 95% of all abortions performed in the Commonwealth of Pennsylvania.
 - 34. All Petitioners are enrolled Medical Assistance providers.
- 35. Due to the Pennsylvania coverage ban, the vast majority of Petitioners' Medical Assistance-eligible patients who need abortions cannot use their insurance to cover the procedure. As a result, Petitioners' low-income patients face substantial difficulty amassing the funds necessary to obtain the procedure.
- 36. Petitioners frequently offer these Medical Assistance-eligible women financial assistance, performing abortions at a financial loss to the organization. Petitioners also invest their own time and resources to identify and secure private funding sources to assist low-income women to pay for their abortion, resulting in a loss of time and productivity for Petitioners' staff.

- 37. In some cases, Medical Assistance-eligible women are forced to delay their abortion procedures while they attempt to gather funds. This results in women prolonging their pregnancies before getting an abortion, which for some women results in delay past the gestational age at which they can obtain a medical abortion, thus requiring a different type of procedure. For other women, the delay causes an increase in the risk and cost of the procedure.
- 38. For some low-income women, the coverage ban means that they ultimately must forgo obtaining an abortion altogether and are forced to carry the pregnancy to term, either having never secured the funds necessary to afford the procedure, or having faced such lengthy delays that they become ineligible for the procedure.
- 39. Petitioners sue on behalf of their patients who seek abortions and who are enrolled in or eligible for Medical Assistance, but whose abortions are not covered because of the Pennsylvania coverage ban.

RESPONDENTS

40. Respondent Pennsylvania Department of Human Services ("DHS"), located in Harrisburg, Pennsylvania, is sued as the Commonwealth agency responsible for administering Pennsylvania's Medical Assistance programs. See 62 P.S. § 403.

- 41. Respondent Teresa Miller ("Secretary Miller") is sued in her official capacity as the Secretary of DHS, located in Harrisburg, Pennsylvania. Secretary Miller is responsible for the control and supervision of the Office of Medical Assistance Programs, the medical insurance program for Pennsylvanians living in poverty, and is responsible for implementing Pennsylvania's Medical Assistance program in accordance with federal and state law. See 62 P.S. §§ 403, 403.1.
- 42. Respondent Leesa Allen ("Deputy Secretary Allen") is sued in her official capacity as the Executive Deputy Secretary for Medical Assistance Programs, located in Harrisburg, Pennsylvania. Deputy Secretary Allen plans, coordinates, and directs the provision of Medical Assistance benefits and services in Pennsylvania and is responsible for ensuring that the program is in compliance with federal and state law.
- 43. Respondent Sally Kozak ("Deputy Secretary Kozak") is sued in her official capacity as the Deputy Secretary for the Office of Medical Assistance Programs, located in Harrisburg, Pennsylvania. Deputy Secretary Kozak assists in planning, coordinating, and directing the provision of Medical Assistance benefits and services in Pennsylvania and is responsible for ensuring that the program is in compliance with federal and state law.

STATEMENT OF FACTS

STATUTORY AND REGULATORY FRAMEWORK

- 44. Medicaid is a joint federal-state program that provides medical assistance to the poor. 42 U.S.C. §§ 1396 to 1396w-5. Medical Assistance is Pennsylvania's Medicaid program. 62. P.S. §§ 431-437.
- 45. Medical Assistance is a public insurance system that provides eligible Pennsylvanians with medical insurance for covered medical services that fall within the scope of benefits as set forth at 55 Pa. C.S. § 1101.31.
- 46. Pennsylvania operates two different Medical Assistance programs -- Fee-for-service and HealthChoices. The Fee-for-service program reimburses providers directly for covered medical services provided to enrollees. HealthChoices is a managed care program, meaning DHS pays a per enrollee amount to managed care organizations that agree to reimburse health care providers that provide care for enrollees.
- 47. With some exceptions, Medical Assistance enrollees are required to enroll with a managed care organization participating in HealthChoices rather than the Fee-for-service program. As of July 1, 2018, 84.6% of Pennsylvania Medical Assistance enrollees were in a HealthChoices managed care plan, and 15.4% were in the Fee-for-service program.

- 48. Medical Assistance covers comprehensive medical care for its enrollees. Relevant to this Petition, Medical Assistance covers inpatient hospital services, outpatient hospital services, physicians' services, clinic services at independent medical clinics and ambulatory surgical centers, and family planning services, 55 Pa. C.S. §§ 1101.31(b)(1), (3), (8), (11), (16), as well as all pregnancy-related care except abortion, including prenatal care, obstetric, childbirth, neonatal, and post-partum care.
- 49. The Pennsylvania coverage ban prohibits the expenditure of state funds "for the performance of an abortion." 18 Pa. C.S. § 3215(c). The law contains three exceptions: 1) abortions that are necessary to avert the death of the pregnant woman, 2) when the pregnancy is caused by rape, and 3) when the pregnancy is caused by incest.
- Assistance regulations likewise prohibit coverage of abortion except in those same three circumstances -- threat to the woman's life, rape, and incest. 55 Pa. Code § 1141.57 (physicians' services); *id.* at § 1163.62 (inpatient hospital services); *id.* at § 1221.57 (clinic and emergency room services). Accordingly, Medical Assistance does not cover the cost of abortion procedures for covered individuals who seek abortions that do not fit within any of the three enumerated exceptions.

- 51. Health care providers, like Petitioners, are prohibited by DHS regulation from billing for services inconsistent with Medical Assistance regulations and are subject to sanctions for doing so. 55 Pa. Code §§ 1141.81, 1163.491, 1221.81. Health care providers who bill HealthChoices managed care organizations are also prohibited from billing for services inconsistent with Medical Assistance regulations and are subject to sanctions for doing so. *Id.* § 1229.81.
- 52. Thus, Petitioners are prohibited from billing or being reimbursed for abortions for both Fee-for-service and HealthChoices enrollees that do not fall within the Pennsylvania coverage ban's three enumerated exceptions.
- 53. Although federal law bars the use of federal Medicaid funds to cover the cost of abortion other than in cases of threat to the woman's life, rape, and incest, federal law does not prevent states from using state funds to provide coverage for a broader range of services. Sixteen states, including three of Pennsylvania's neighbors (New Jersey, New York, and Maryland) allow Medicaid to cover abortions under their state Medicaid programs beyond these three exceptions.
- 54. There is no parallel coverage ban for men. There is no medical condition specific to men for which Medical Assistance denies coverage. When a male recipient requires a covered service, including all services related to

reproductive health, Medical Assistance covers it. In contrast, when a woman requires an abortion, Medical Assistance covers it only if she would otherwise die or if the pregnancy results from rape or incest.

55. Medical Assistance covers medical care for pregnancy and childbirth for women who choose to continue their pregnancy to term. The medical costs to the Medical Assistance program associated with covering pregnancy and childbirth services far exceed the cost of an abortion, particularly for women with medically complicated pregnancies.

EFFECT OF THE PENNSYLVANIA COVERAGE BAN

- 56. In 2016, the latest year for which Pennsylvania Department of Health data are available, Pennsylvania providers performed 30,881 abortions. Petitioners account for fifteen of the seventeen freestanding abortion providers in the state and collectively provide approximately 95% of the abortions performed in Pennsylvania.
- 57. Many of Petitioners' patients are low income and either enrolled in or eligible for Medical Assistance. For example, an estimated 47% of PPSP's patients, 45% of AWC's patients, 50% of Allegheny Reproductive's patients, 60% of Benjamin & Berger's patients, and 46% of PPWP's patients are enrolled in or eligible for Medical Assistance.

- 58. Both women on Medical Assistance who seek abortions in Pennsylvania and Petitioners suffer significant harm from the Pennsylvania coverage ban and its implementing regulations.
- Pennsylvania to access the abortion care they need. The Pennsylvania coverage ban forces women on Medical Assistance who seek abortions in Pennsylvania to choose between continuing their pregnancy to term against their will and using money that they would have otherwise used for daily necessities, such as shelter, food, clothing, or childcare, to pay for the procedure. *See generally* Expert Declaration of Colleen M. Heflin, attached hereto as Exhibit A; Expert Declaration of Elicia Gonzales, attached hereto as Exhibit B. This is exactly the choice—between health care and basic essentials—that Medicaid was created to avoid.
- 60. Access to a provider of abortion care is a significant problem for many women in Pennsylvania, but the problem is far worse for poor women and women living in rural areas. *See* Ex. A, Heflin Dec. Most counties in Pennsylvania do not have an abortion provider. In fact, only 16% of Pennsylvania counties have a facility that performs abortions. This means that women from the rest of the state must travel significant distances to obtain an abortion. In 2017, AWC estimated that approximately 40% of its abortion patients had to travel between 50 to 99 miles one way to get their procedure, and about 10% traveled

between 100 miles to over 200 miles for abortion care. PPWP estimates that approximately 17.5% of its patients traveled more than 50 miles one way to get their procedure, and about 8% traveled more than 100 miles for abortion care. Allegheny Reproductive estimates that around 70% to 75% of its abortion patients travel more than 50 miles one way, and that 30% of its patients travel over 100 miles for abortion care. The need to travel long distances increases the costs associated with the procedure, as bus fare, gas, tolls, lodging, time lost from work, and child care expenses come into play. These added expenses -- some of which would be covered medical transportation expenses under Medicaid if abortion were covered -- make it even more difficult for low-income women in Pennsylvania to access abortion care, if they can make the trip at all. *Id*.

- 61. In many cases, women on Medical Assistance who seek abortions in Pennsylvania are forced to delay abortion care in order to raise funds for their procedure. *Id.*
- 62. All Petitioners work with low-income patients who need funding from private charitable sources to help pay for their procedure; however, not all patients are able to obtain private financial assistance. See Ex. B, Gonzales Dec. For example, half of all Allegheny Reproductive abortion patients are enrolled in or eligible for Medical Assistance; only 43% of those patients are able to access private funding for their procedure. Benjamin & Berger estimates that 60

to 70% of its low-income patients receive 20 to 40% of the cost of the procedure through third-party funding grants. Accordingly, even patients who are able to secure grants must raise part of the cost of the procedure, which causes these patients significant economic hardship. *Id.*

- 63. For many poor women, the obstacles caused by these coverage restrictions are not merely burdensome, but insurmountable. National studies show that roughly 25% of women on Medicaid who seek an abortion in a state with a coverage ban are forced to continue their pregnancies to term against their will because they are unable to acquire the funds to pay for the procedure. *See* Expert Declaration of Terri-Ann Thompson, attached hereto as Exhibit C.
- 64. As a result of the Pennsylvania coverage ban, there are Pennsylvania women who are forced to carry their pregnancies to term against their will. *Id.*

HARM TO WOMEN WHO ARE FORCED TO CARRY THEIR PREGNANCIES TO TERM

against their will because of the Pennsylvania coverage ban are harmed in many ways. They are denied the autonomy and dignity that come with being able to control their reproductive future. When women are denied control over whether or not to have children, their plans for the future, financial status, and ability to participate equally in society are placed at risk. *See* Ex. A, Heflin Dec. For low-

income women, trying to maintain a job, obtain an education, or adequately care for family members can become close to impossible. *Id*.

- 66. Women who are forced to carry a pregnancy to term against their will face an increased risk of psychosocial harm. Their education may be interrupted, their job and career prospects circumscribed. *Id.* A year after unsuccessfully seeking abortion, they are more likely to be impoverished, unemployed, and depressed than women in similar circumstances who were able to obtain abortion care. *Id.*
- 67. While both pregnancy and childbirth are a source of joy for many women and families, carrying a pregnancy to term carries medical risks for all women. Expert Declaration of Courtney Anne Schreiber, attached hereto as Exhibit D. Indeed, the maternal mortality risks associated with childbirth are approximately fourteen times greater than the risk associated with abortion care. The risk for African-American women of carrying a pregnancy to term is even higher, as the African-American maternal mortality rate is three times that of white women.
- 68. In Pennsylvania in particular, according to Pennsylvania's Department of Health, almost 13 women die within 42 days of the end of pregnancy for every 100,000 live births in the state, a rate that has doubled since 1994. In cities like Philadelphia, that rate is much higher.

- 69. Pregnancy can affect women's physical and mental health in serious ways, some of which can result in permanent disability and even ultimately lead to life-threatening conditions. For example, pregnancy taxes every organ of the body, including the brain, the heart, and the immune system. *Id.* During pregnancy, a woman's blood volume increases by 30-50%, and her heart rate also increases. *Id.* This forces a pregnant woman's heart to work much harder throughout her pregnancy, during labor and delivery, and after giving birth. *Id.* A woman's immune system is also weakened during pregnancy, making her more vulnerable to infections. *Id.*
- particularly acute for women with pre-existing conditions, such as heart disease, lupus, cancer, diabetes, obesity, hypertension, renal disease, liver disease, epilepsy, sickle cell disease and numerous other conditions. *Id.* Unable to cover the cost of terminating a pregnancy, a woman with a pre-existing condition may be forced to continue a pregnancy that can exacerbate these conditions, and pose serious threats to the woman's long-term health by causing seizures, diabetic coma, hemorrhage, heart damage, and loss of kidney function. *Id.* This health damage, though serious and potentially life-threatening, is usually not imminent enough to qualify the patient for abortion coverage under the statutory exception to the coverage ban,

which requires that the abortion be necessary to "avert the death" of the woman, rather than to avoid serious long-term health consequences.

- 71. Pregnancy can also force a woman to alter current treatment or medication plans for the safety of the fetus, but to the detriment of her own health. *Id.* Some treatment plans, such as mental health medication or cancer treatments, are incompatible with pregnancy. Accordingly, a woman undergoing these treatments will be forced to choose between halting or compromising critical medical care or placing the fetus at risk. This can result in devastating health outcomes.
- 72. In addition to exacerbating pre-existing conditions, pregnancy can also harm a woman's health in its own right; pregnancy and childbirth carry inherent health risks for all pregnant women. *Id.* Moreover, some women who were otherwise healthy at the beginning of their pregnancy may develop serious complications during the pregnancy such as gestational diabetes, hypertension, or hyperemesis gravidarum. *Id.*
- 73. The risks associated with pregnancy are not limited to physical health. Pregnancy and the postpartum period are times of increased vulnerability to mental health issues. Expert Declaration of Sarah C. Noble, attached hereto as Exhibit E. Mental health issues may present for the first time during pregnancy, and pregnancy also poses a significant risk of relapse or worsening of symptoms

across a broad range of psychiatric illnesses, including bipolar disorder, schizophrenia, and obsessive-compulsive disorder. *Id.* The weeks and months immediately following birth also pose a risk for postpartum depression, which can be severe for some women. *Id.*

- 74. Some women's mental health issues are directly related to not being able to terminate their pregnancy. Women may suffer severe psychological distress as a result of being forced to continue an unwanted pregnancy. *Id.* Other women who learn the fetus they are carrying has a severe anomaly or has a condition incompatible with life may also suffer severe distress from being unable to terminate the pregnancy.
- 75. Preventing access to abortion for low-income women can also increase their exposure to physical and mental abuse at the hands of their partners, as abuse can increase when a woman becomes pregnant, and the abuse may target the locus of the pregnancy. *See id.* Moreover, if forced to remain with a partner in order to support a new child, abused women and their children are likely to suffer serious physical and psychological harm, and even deadly consequences. *See id.*

HARM TO WOMEN WHO ARE ABLE TO OBTAIN AN ABORTION DESPITE THE COVERAGE BAN

76. Some women on Medical Assistance in Pennsylvania are able to obtain an abortion despite the Pennsylvania coverage ban. Nonetheless, those women are still likely to suffer because of it.

- 77. The cost of an abortion in Pennsylvania ranges from several hundred dollars to several thousand, depending on how far along in the pregnancy the woman is, the type of abortion she has, whether she has any underlying medical conditions, and what type of facility cares for her. Ex. B, Gonzales Dec.
- 78. For women on Medical Assistance, who are near or below the federal poverty line, this amount of money is often more than they have. When a woman is living paycheck to paycheck, denying coverage for an abortion can push her deeper into poverty.
- 79. As a result, to pay for their abortion, impoverished women on Medical Assistance are forced to make enormous financial sacrifices. Low-income women are forced to divert funds they need for basic subsistence, such as rent, utilities, food, diapers, children's clothing, and medical care. *Id.*; Ex. A, Heflin Dec. Others are forced to ask for money from relatives and friends, jeopardizing the confidentiality of their pregnancy and abortion decision. Ex. B, Gonzales Dec.
- 80. Raising the money through these means takes time, and the cost of an abortion procedure increases further in pregnancy. With increased price comes increased difficulty to raise funds, which results in additional delay. This is a vicious cycle that sometimes leads to women being forced into a surgical abortion even if she prefers a medication abortion or being delayed beyond the gestational limit at the closest abortion clinic or even beyond the legal limit to

obtain an abortion in Pennsylvania. And some women are not able to raise enough money at all.

- 81. Although abortion at all stages of pregnancy is safer than childbirth, as pregnancy advances, abortion presents additional risks. Thus, the delay that women on Medical Assistance face while trying to raise the funds to pay for their abortion causes them to face an increased risk of medical complications from their abortion. Ex. D, Schreiber Dec.
- 82. Delay can also cause some women to have a more invasive procedure than they would have otherwise sought. Delay can push women beyond the gestational limit for a medical abortion, requiring them to have a surgical procedure instead. Delay can also force women to have a two-day procedure when they would have otherwise been able to complete it in just one.
- 83. The harm imposed by the Pennsylvania coverage ban does not fall evenly upon all women. Restrictions on funding for abortion care particularly harm women of color. Ex. C, Thompson Dec. This is because women of color are more likely than white women to be poor. In Pennsylvania, 25.8% percent of Black women, 30.5% of Latinx women, and 15.5% of Asian women live in poverty, compared with 10.5% of white women. Additionally, low-income women of color are more likely to rely on Medical Assistance for health care and less likely to be

able to afford out-of-pocket costs for their abortion compared to their white counterparts.

HARM TO PETITIONERS

- 84. Because of the coverage ban, health care providers, like Petitioners, who provide abortions in Pennsylvania are also harmed. Petitioners' mission to provide comprehensive reproductive health care to women and to serve at-risk populations is frustrated by the coverage ban because it forces Petitioners to divert money and staff time from other mission-central work to help Pennsylvania women on Medical Assistance who do not have enough money to pay for their abortion.
- 85. Petitioners regularly subsidize (in part or in full) abortions for Pennsylvania women on Medical Assistance who are not able to pay the fee on their own. Petitioners lose money on the abortion procedures they subsidize.
- 86. Petitioners also expend valuable staff resources to assist patients in securing funding from private charitable organizations that fund abortion for women on Medical Assistance. These local, regional, and national organizations help some, but not all, low-income women pay for abortions. Petitioners devote anywhere from part of a full-time staff position to multiple full-time staff positions connecting patients with these organizations, managing the funding that comes from these organizations, and communicating with patients

about their financial situations once the funding from these organizations comes through.

87. The Pennsylvania coverage ban also interferes with Petitioners' counseling of patients. The coverage ban forces Petitioners to expend their counselors' time delving into personal matters that the patient may wish not to discuss, such as whether the sex that led to conception was non-consensual or with a family member, just to assess the patient's eligibility for Medical Assistance funding. At times, exploring these personal matters can be painful, intrusive and without any medical or therapeutic purpose, and may create difficulties in the patient-counselor relationship for patients who would otherwise not want to talk about these sensitive matters.

COUNT ONE

THE PENNSYLVANIA COVERAGE BAN VIOLATES PENNSYLVANIA'S EQUAL RIGHTS AMENDMENT

- 88. Petitioners reallege and incorporate herein by reference each and every allegation of paragraphs 1 to 87 inclusive.
- 89. Pennsylvania's Equal Rights Amendment, Article I, Section 28 of the Pennsylvania Constitution, states: "Equality of rights under the law shall not be denied or abridged in the Commonwealth of Pennsylvania because of the sex of the individual." The Equal Rights Amendment, which has no federal counterpart, prohibits all sex-based discrimination by government officials in Pennsylvania.

- 90. Any classification that disadvantages women based on pregnancy or reproductive capacity constitutes a sex-based distinction. The Pennsylvania coverage ban singles out and excludes abortions, a procedure sought singularly by women as a function of their sex, from Pennsylvania's Medical Assistance programs. In contrast, there is no statute or regulation that singles out or excludes any sex-based healthcare consultation or procedure for men under Medical Assistance. By singling out and excluding abortions from Medical Assistance, women throughout this Commonwealth are denied coverage for essential health care services solely on the basis of their sex.
- 91. The coverage ban also flows from and reinforces gender stereotypes about the primacy of women's reproductive function and maternal role, and thus offends the Pennsylvania Equal Rights Amendment's prohibition against sex discrimination.
- 92. Because the Pennsylvania coverage ban improperly discriminates against women based on their sex without sufficient justification, the ban, as enforced and administered by DHS, Secretary Miller, and Deputy Secretaries Allen and Kozak, violates women's constitutional right to equality of rights under the law, as guaranteed by Article I, Section 28 of the Pennsylvania Constitution.

COUNT TWO

THE PENNSYLVANIA COVERAGE BAN VIOLATES PENNSYLVANIA'S EQUAL PROTECTION PROVISIONS

- 93. Petitioners reallege and incorporate herein by reference each and every allegation of paragraphs 1 to 92 inclusive.
- 94. Pennsylvania's Constitution protects against denials of equal protection through Article I, Sections 1 and 26, and Article III, Section 32. In particular, Article I, Section 1 guarantees that all persons within the Commonwealth "have certain inherent and indefeasible rights, among which are those of enjoying and defending life and liberty . . . and of pursuing their own happiness," Article I, Section 26 states that "[n]either the Commonwealth nor any political subdivision thereof shall deny to any person the enjoyment of any civil right, nor discriminate against any person in the exercise of any civil right," and Article III, Section 32 provides that the "General Assembly shall pass no local or special law in any case which has been or can be provided by general law." These provisions together guarantee equal protection of the law and prohibit discrimination based on the exercise of a fundamental right.
- 95. The Pennsylvania coverage ban singles out and excludes women from exercising the fundamental right to choose to terminate a pregnancy, while covering procedures and health care related to pregnancy and childbirth. By singling out and excluding abortions from Medical Assistance, women throughout

this Commonwealth who seek abortion care are being discriminated against for exercising their fundamental right to choose to terminate a pregnancy.

96. Because the Pennsylvania coverage ban operates to discriminate singularly against those women who seek abortion-related health care services by denying them coverage under Pennsylvania's Medical Assistance programs, the Pennsylvania coverage ban, as enforced and administered by DHS, Secretary Miller, and Deputy Secretaries Allen and Kozak, discriminate based on the exercise of a fundamental right under the equal protection principles of Article I, Sections 1 and 26, and Article III, Section 32 of the Pennsylvania Constitution.

WHEREFORE, Petitioners respectfully request that the Court declare the Pennsylvania coverage ban, 18 Pa. C.S. § 3215(c) & (j) and its implementing regulations, 55 Pa. Code §§ 1147.57, 1163.62, 1221.57, unconstitutional under Article I, Section 28, and/or Article I, Sections 1 and 26, and Article III, Section 32, of the Pennsylvania Constitution; declare that abortion is a fundamental right under the Pennsylvania Constitution; enjoin enforcement of the Pennsylvania coverage ban, 18 Pa. C.S. § 3215(c) & (j), and its implementing regulations, 55 Pa. Code §§ 1147.57, 1163.62, 1221.57; and grant Petitioners such other, further, and different relief as the Court may deem just and proper.

Dated: January 16, 2019

Susan Frietsche (PA 65240)

Christine Castro (pro hac vice pending)

WOMEN'S LAW PROJECT

428 Forbes Avenue Suite 1710

Pittsburgh PA 15219

(412) 281-2892

sfrietsche@womenslawproject.org

Counsel for Petitioners

By: David S. Cohen (PA 88811)

3320 Market St., Suite 232

Philadelphia, PA 19104

Respectfully, Submitted,

(215) 571-4714

dsc39@drexel.edu

Counsel for Petitioners

Melissa Cohen (pro hac vice pending) PLANNED PARENTHOOD FEDERATION OF AMERICA 123 William Street, Floor 9

New York, NY 10038

(212) 261-4649

Melissa.cohen@ppfa.org

Jan P. Levine (PA 43869)

Benjamin J. Eichel (PA 307078)

Leah Greenberg Katz (PA 307413)

Michael S. DePrince (PA 322500)

PEPPER HAMILTON LLP

3000 Two Logan Square

18th and Arch Streets

Philadelphia, PA 19103-2799

(215) 981-4000

Counsel for Petitioners Planned Parenthood Keystone, Planned Parenthood Southeastern Pennsylvania,

Planned Parenthood of Western

Pennsylvania

Thomas B. Schmidt III (PA 19196)

(Special Counsel)

Donna L. Fisher (PA 39410)

PEPPER HAMILTON LLP

100 Market Street, Suite 200

P.O. Box 1181

Harrisburg, PA 17108-1181

(717) 255-1155

Counsel for Petitioners

CERTIFICATE OF COMPLIANCE

I certify that this filing complies with the provisions of the Case Records Public Access Policy of the Unified Judicial System of Pennsylvania that require filing confidential information and documents differently than non-confidential information and documents.

Name: Thomas B. Schmidt, III

Attorney ID Number: 19196

EXHIBIT A

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE HEALTH CENTER, et al.,

:

Petitioners,

:

v.

:

PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES, et al.,

.

Respondents.

DECLARATION OF COLLEEN M. HEFLIN

- I, Colleen M. Heflin, make this declaration:
- 1. I am currently a Professor of Public Administration and International Affairs, and a Senior Research Associate in the Center for Policy Research at the Maxwell School of Citizenship and Public Affairs at Syracuse University. For the past 20 years, my research has focused on the study of poverty and social policy, with a special emphasis on the inability to meet basic needs and evaluating the consequences of participation in social programs. I have also taught classes on poverty and social policy in addition to research methods and program evaluation. My resume is attached as Exhibit A.
- 2. Through my research, I am familiar with the trade-offs poor and low-income women make between essential needs (such as food, medical care,

housing, and utilities) when faced with unexpected medical expenses, such as an unwanted pregnancy, and the consequences of those choices for the woman as well as her family.

3. It is my understanding that Pennsylvania state law currently prohibits state funds from being used to cover abortions, and as a result women who are enrolled in or eligible for Medical Assistance are unable to use that coverage to pay for the costs of an abortion in all but a small number of situations. I offer the opinions in this affidavit to assist the Court in understanding the challenges faced by poor and low-income women in coping with an unexpected medical expense (such as an abortion) and the hardship the current law creates.

Poverty in Pennsylvania

4. A household is defined by the U.S. Census Bureau as being poor when the household income falls below the national needs standard for the household size. For example, a household with one adult and one child is defined as poor in 2017 if their annual household income falls below \$16,240\(^1\) or \$1,353 per month. In Pennsylvania, 12.5 percent of residents live in households where the income falls below the needs standard for their household size and are classified as

¹ U.S. Dep't of Health & Human Servs., 2017 Poverty Guidelines, http://aspe.hhs.gov/2017-poverty-guidelines#threshholds (last visited Dec. 26, 2019).

poor.² This means that 1,600,692 people across the state of Pennsylvania live below the poverty income threshold. The child poverty rate in Pennsylvania is even higher at 17.0 percent, meaning that 444,468 children aged 0-17 live in households with incomes below the poverty line.³

- 5. Poverty in Pennsylvania tends to be geographically clustered in the major cities of Philadelphia and Pittsburgh. These cities have levels of poverty that are nearly twice the state average at 25.8 percent and 22 percent, respectively.⁴ Additionally, the northern and western rural counties of Pennsylvania have levels of poverty that are above the state average as well. For example, Forest County, located in Northwestern Pennsylvania, had a poverty level of 22 percent in 2017.⁵
- 6. The risk of poverty is not spread evenly throughout society but is concentrated in particular demographic groups. For example, poverty in

² U.S. Census Bureau, Quick Facts: Pennsylvania, http://www.census.gov/quickfacts/pa (last visited Dec. 26, 2019).

³ Children's Defense Fund, Child Poverty in America 2017: State Analysis, http://www.childrensdefense.org/wp-content/uploads/2018/09/Child-Poverty-in-America-2017-State-Fact-Sheet.pdf (last visited Dec. 26, 2019).

⁴ U.S. Census Bureau, Quick Facts: Philadelphia, Pennsylvania; Pittsburgh, Pennsylvania, http://www.census.gov/quickfacts/fact/table/philadelphiacitypennsylvania,pittsburghcitypennsylvania/PST045217 (last visited Dec. 26, 2019).

⁵ U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), http://www.census.gov/data-tools/demo/saipe/saipe.html?s_appName=saipe&map_yearSelector=2017&map_geoSelector=aa_c&s_measures=aa_snc&s_state=42 (last visited December 26, 2018).

Pennsylvania is more common among women than men (13.7 versus 11.2 percent) and the poverty rate is higher among female-headed households (28 percent).

Poverty in Pennsylvania is more common among African-Americans (24.8 percent), Native Americans (24.6), and those of Hispanic ethnicity (28.7 percent) than it is among non-Hispanic whites (9.1 percent).⁶ These high levels of poverty in Pennsylvania are relevant to the current case because low-income women face a higher probability of having an unintended pregnancy, lacking health insurance, and facing an unexpected medical expense.⁷

7. It is widely acknowledged by researchers in the field of poverty that the official federal poverty line underestimates the number of households who struggle to make ends meet. The measure was originally designed in the 1960s by taking the average amount of money required to support a modest diet and multiplying that by three, since food consumption comprised one-third of a household's total expenses at that historical period. The federal needs standard has been adjusted for inflation but no other changes have been made since its creation.

⁶ U.S. Census Bureau, Selected Characteristics of People at Specified Levels of Poverty in the Past 12 Months, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF (last visited Dec. 26, 2018).

⁷ Lawrence B. Finer & Mia R. Zolna, *Declines in Unintended Pregnancy in the United States 2008-2011*, New England J. Med. 2016, 374:843-852; U.S. Census Bureau, Percentage of People by Type of Health Insurance Coverage by Household Income and Income-to-Poverty Ratio: 2016 and 2017, http://www2.census.gov/programs-surveys/demo/tables/p60/264/table4.pdf.

This creates an inaccurate measure because today, as opposed to in the 1960s, food purchases constitute only about one-eighth of total household consumption; other costs, such as utilities and transportation, have increased; and new categories of spending have emerged that did not exist in the 1960s, such as cell phones, internet coverage, and microwaves. Furthermore, the official federal poverty measure does not account for work-related expenses, child care, or medical expenses that are mandatory and not discretionary. Finally, the official poverty line ignores regional differences in the cost of living as well as the value of near-cash transfers, such as food stamps, housing assistance, and the Earned Income Tax Credit, in the calculation.⁸

8. Many families whose household income is more than twice the federal poverty line still experience difficulty avoiding trade-offs in basic needs and fully making ends meet. National data demonstrates that among low-income households in which one member is employed but not working full-time, year-round, 2 out of 5 households report housing insecurity and 2 out 5 households report food insecurity. In Pennsylvania, more than 725,000 families survived on incomes

⁸ John Iceland, Poverty in America 24-27 (3d ed. 2013).

⁹ Gregory Acs & Pamela Loprest, The Urban Institute, Who Are Low-Income Working Families? (Sept. 2015), http://www.urban.org/sites/default/files/publication/51726/311242-who-are-low-income-working-families-.pdf.

below 200 percent of the federal poverty line according to data from the American Community Survey 2013-2017.¹⁰

9. Food insecurity, a measure created by the U.S. Department of Agriculture and defined as households with "limited or uncertain availability of nutritionally adequate or safe foods or the inability to acquire personally-acceptable foods in socially-accepted ways," is an alternative measure of economic well-being to the official federal poverty line. 11 Over the 2015-2017 time period, on average 12.1 percent of households in Pennsylvania were food insecure according to the USDA. 12 Feeding America, the nation's largest hunger-relief organization, estimates that approximately 1,599,520 individuals in Pennsylvania were food insecure in 2016, 13 and 2 out of 5 of these people were living in

¹⁰ U.S. Census Bureau, Selected Characteristics of People at Specified Levels of Poverty in the Past 12 Months, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF (last visited Dec. 26, 2018).

¹¹ Sue Ann Andersen, Life Sciences Research Office, Core Indicators of Nutritional State for Difficult to Sample Populations, J. Nutrition 1990, 120:1557S.

¹² Alisha Coleman-Jensen, et al., United States Dep't of Agriculture, Household Food Security in the United States in 2017 (Sept. 2018), http://www.ers.usda.gov/webdocs/publications/90023/err-256.pdf?v=0.

¹³ Feeding America, Food Insecurity in Pennsylvania, http://map.feedingamerica.org/county/2016/overall/pennsylvania (last visited Dec. 26, 2018).

households with incomes above 160 percent of the official federal poverty line,¹⁴ demonstrating that individuals have difficulty meeting essential needs at income levels well above the official poverty threshold.

10. In fact, income eligibility for most federal social welfare programs extends above the federal poverty threshold. Federal eligibility for the Supplemental Nutritional Assistance Program (SNAP), also known as food stamps, is at 130 percent of the federal poverty line. ¹⁵ Income eligibility for school meal programs goes up to 185 percent of the federal poverty line, as does eligibility for the Women, Infants and Children Program (WIC). ¹⁶ Subsidized housing income eligibility is tied to the median income of the county or metropolitan area, which tends to be much higher than the federal poverty threshold. ¹⁷ States set their own income eligibility for the Low-Income Heating and Energy Assistance Program, but the federal government mandates that it fall between 110 and 150 percent of

¹⁴ Feeding America, Map the Meal Gap: Overall Food Insecurity in Pennsylvania by County in 2016, http://www.feedingamerica.org/sites/default/files/research/map-the-meal-gap/2016/overall/PA_AllCounties_CDs_MMG_2016.pdf.

¹⁵ U.S. Dep't of Agriculture, Supplemental Nutrition Assistance Program (SNAP): FY 2018 Income Eligibility Standards, http://fns-prod.azureedge.net/sites/default/files/snap/FY18-Income-Eligibility-Standards.pdf.

¹⁶ U.S. Dep't of Agriculture, Special Supplemental Nutrition Program for Women, Infants and Children (WIC): 2018/2019 Income Eligibility Guidelines, 83 Fed. Reg. 14,240 (Apr. 3, 2018).

¹⁷ U.S. Dep't of Housing, HUD's Public Housing Program, http://www.hud.gov/topics/rental_assistance/phprog (last visited Dec. 26, 2018).

the federal poverty line. ¹⁸ Finally, states have the option to extend public health insurance coverage via the federal Medicaid program up to 300 percent of the federal poverty line in some cases. ¹⁹ Thus, it is well-established through various state and federal programs that it is American social policy that households well-above the official federal poverty line may need assistance to cover basic expenses such as food, housing, utilities, and medical care.

11. If a woman in Pennsylvania is working full-time, year-round at the Pennsylvania minimum wage of \$7.25, her annual gross income is \$15,080 or \$1,256/month, which puts her below the federal poverty rate for a family of two. This family type, an unmarried woman and one child, is based on 2017 vital statistics data for Pennsylvania which indicate that 87.7 percent of women who obtain an abortion are unmarried²⁰ and 61.3 percent have had at least one live birth.²¹

¹⁸ U.S. Dep't of Health & Human Servs., LIHEAP Assistance Eligibility (Jan. 11, 2016), http://www.acf.hhs.gov/ocs/resource/liheap-eligibility-criteria.

¹⁹ Centers for Medicare & Medicaid Services, Medicaid, Children's Health Insurance Program, & Basic Health Program Eligibility Levels, http://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-eligibility-levels/index.html (last visited Dec. 26, 2018).

 ²⁰ Pa. Dep't of Health, 2017 Abortion Statistics (Dec. 2018) (Table 6),
 http://www.health.pa.gov/topics
 /HealthStatistics/VitalStatistics/Documents/Pennsylvania Annual Abortion Report 2017.pdf.

²¹ Pa. Dep't of Health, 2017 Abortion Statistics (Dec. 2018) (Table 13), http://www.health.pa.gov/topics/HealthStatistics/VitalStatistics/Documents/Pennsylvania_Annual_Abortion_Report_2017.pdf.

Low-wage jobs have several characteristics that make it particularly 12. difficult to deal with an unexpected medical expense separate from the low-wages earned themselves. First, while almost 3 out of 4 of all workers have access to sick leave, this ratio falls to 1 in 3 for those earning in the bottom 10 percent.²² Without sick leave, women in low-wage jobs are very likely to need to take uncompensated time off work to deal with medical issues, making it even harder to pay for the medical expense. Second, low-wage workers are likely to have unpredictable work schedules, with last minute changes to the posted schedule and the total hours worked.²³ This adds to household income instability and makes it difficult to plan ahead to schedule a doctor's appointment. Additionally, women may not feel like they have the ability to turn down work hours when offered by an employer without a loss of job security. Finally, 15 percent of all employed workers hold down more than one job at a time, making it even harder to plan ahead to get time off work for a doctor's appointment.²⁴ Thus, low-wage work itself creates barriers for women faced with an unexpected medical expense.

²² U.S. Dep't of Labor, Bureau of Labor Statistics, Table 6. Selected paid leave benefits: Access, https://www.bls.gov/news.release/ebs2.t06.htm (last modified Dec. 7, 2017).

 $^{^{23}}$ Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2016 (May 2017), http://www.federalreserve.gov/publications/files/2016-report-economic-well-being-us-households-201705.pdf.

²⁴ *Id*.

The Need to Travel is a Barrier to Abortion Services

- and cost for women seeking abortion services. Abortion clinics across America, as well as in Pennsylvania specifically, tend to be concentrated in urban areas. I understand from counsel that abortion providers in Pennsylvania are concentrated in the southeastern corner of the state and in Allegheny County in the West. In particular, moving from west to east across the state there are no abortion providers between Allegheny County and Dauphin County, a distance of approximately 200 miles. I further understand from counsel that abortion providers who offer second trimester abortion services are even more spread out geographically, with no providers of second trimester procedures between Allegheny County and Lehigh County, a distance of approximately 285 miles. Additionally, I understand there are no abortion clinics located in the northern half of the state.
- 14. As a consequence, the travel distance required to secure abortion services in Pennsylvania varies widely, and in particular is higher for women living in rural areas than those living in urban areas.²⁵ In some rural northwest counties in Pennsylvania, the distance to reach the nearest Pennsylvania abortion clinic is well over 100 miles; for example, from Warren County to the nearest provider in

²⁵ Jonathan M. Bearak et al., Disparities and Change Over Time in Distance Women Would Need to Travel To Have an Abortion in the USA: A Spatial Analysis (Oct. 3, 2017), http://dx.doi.org/10.1016/S2468-2667(17)30158-5.

Allegheny County is approximately 133 miles.²⁶ Additionally, transportation to secure health care was frequently cited as difficult in the northeastern Pennsylvania counties of Lackawanna and Luzerne.²⁷

- 15. As a consequence of the spatial distribution of abortion providers throughout the state, transportation barriers present yet another series of obstacles that women in areas far from an abortion provider must overcome in order to obtain abortion services. "With distance comes increased travel time, increased costs of transportation and child care, lost wages, the need to take time off of work or school, the need to disclose the abortion to more people than desired, and overall delays in care."²⁸
- 16. These travel-related obstacles fall particularly hard on women with low incomes. "Lower-income women who are unable to access a car or money for gas may have to travel by bus, train, or other forms of transportation, which also becomes more difficult the farther they have to travel. Delays in care due to

²⁶ Google Maps, http://maps.google.com. See generally Bearak et al., supra note 25 (finding median travel distances from some rural northwest Pennsylvania counties to the nearest abortion provider of 90-179 miles).

²⁷ Northeastern Pennsylvania Equitable Transit Study (Oct. 2017), http://www.philadelphiafed.org/-/media/community-development/publications/special-reports/northeastern-pennsylvania-equitable-transit-study/northeastern-pennsylvania-equitable-transit-study.pdf.

²⁸ Alice F. Cartwright et al., *Identifying National Availability of Abortion Care and Distance from Major U.S. Cities: Systematic Online Search*, J. Med. Internet Res. 2018, 20(5):e186, http://www.jmir.org/2018/5/e186/pdf.

distance or transportation can push women seeking abortion to later gestations and are likely to disproportionately affect low-income women, who may struggle to cover the cost of transport."²⁹ Thus, transportation creates its own hurdle for abortion services for low-income women due to both distance and cost in Pennsylvania.

Meeting Basic Needs is Difficult with Low-Income

17. It is well documented that low-income households are often unable to meet basic needs throughout the calendar month, sometimes referred to as "having more month than money." In my own work, I have documented the inability of low-income households to pay for essential items such as food, housing costs, utilities, and medical care. Using nationally representative data, I documented that during 2009, 7 percent of American families were unable to pay their rent or mortgage, 11 percent were food insecure, 12 percent were unable to see a doctor or dentist when needed, and 15 percent were unable to pay an essential expense. 30 More recent evidence from a nationally representative survey conducted in late 2017 suggests rates of material hardship that are even higher—with 10.2 percent of American families missing a rent or mortgage payment, 13 percent missing a

²⁹ *Id.* at 9.

³⁰ Colleen Heflin, Family Instability and Material Hardship: Results from the 2008 Survey of Income and Program Participation, J. Fam. & Economic Issues 2016, 37:359.

utility payment and 4.3 percent experiencing a utility shut-off, 18 percent reporting problems paying family medical bills, and 17.8 percent indicating that they had an unmet need for medical care due to cost.³¹ Furthermore, according to data from the 2014 Hunger in America Survey from Feeding America, among clients receiving informal food assistance, who are likely to be low-income, approximately 2 out of 3 reported having to choose between food and paying for medical care, food and utilities, or food and transportation, and 3 out of 5 reported making trade-offs between food and housing.³² Given the documented monthly instability among low-income households in both income (resources flowing in) and expenses (resources flowing out), it is widely acknowledged that many households come up short each month and, as a consequence, experience material hardship.

18. The difficulty low-income households face in making ends meet is relevant to the current case because it speaks to the likelihood that a woman faced with an unexpected medical expense may be forced to make trade-offs between food and medical care, known in the literature as the "eat or treat" trade-off. Using

³¹ Michael Karpman et al., The Urban Institute, *Material Hardship Among Nonelderly Adults and Their Families in 2017* (Aug. 2018), http://www.urban.org/sites/default/files/publication/98918/material_hardship_among_nonelderly_adults_and_their_families in 2017.pdf.

³² Feeding America, *Hunger in America 2014: National Report*, http://help.feedingamerica.org/HungerInAmerica/hunger-in-america-2014-full-report.pdf.

nationally representative data, it is established that 1 in 3 chronically ill individuals were unable to afford food, medication, or both and that having public health insurance, such as Medicaid, reduced levels of food insecurity and medication underuse.³³ In my own research using data from the state of Missouri, I have found that emergency rooms visits for a variety of health conditions sensitive to monthly fluctuations in nutrition, such as hypoglycemia, pregnancy-related conditions, child asthma, and hypertension were higher for individuals receiving lower food stamp benefits, despite the fact that those receiving higher food stamp benefits would be expected to have worse health given their higher level of need and fewer resources.³⁴ Furthermore, my research suggests that pregnant women on food stamps and Medicaid, who are low-income by definition, are less likely to go to the emergency room in the week after they receive their food stamps when they receive them in the second or third week of the month rather than the first week of

³³ Seth A. Berkowitz et al., *Treat or Eat: Food Insecurity, Cost-Related Medication Underuse, and Unmet Needs*, Am. J. Med. 2014, 127:303; Dena Herman et al., *Food Insecurity and Cost-Related Medication Underuse Among Nonelderly Adults in a Nationally Representative Sample*, Am. J. Pub. Health 2015, 105:e48.

Size and Timing and Hypertension-Related Emergency Department Claims Among Medicaid Enrollees, J. Am. Soc'y of Hypertension 2018, 12(11):e27; see also Irma Arteaga, Colleen Heflin & Leslie Hodges, SNAP Benefits and Pregnancy-Related Emergency Room Visits, Population Res. & Policy Rev. 2018, 37(6):1031; Colleen Heflin et al., SNAP Benefits and Childhood Asthma, Social Sci. & Med. 2019, 220:203; Colleen Heflin et al., Supplemental Nutrition Assistance Program Benefits and Emergency Room Visits for Hypoglycemia, Pub. Health Nutrition 2017, 20(7):1314.

the month, suggesting that these households face constraints on their ability to purchase food right before they receive their monthly food stamp benefit and that these monthly fluctuations in resources have observable health consequences.

Thus, there is evidence that public program participation in both food stamps and public health insurance programs reduces the trade-offs between food and health.

each month, there is no margin for these households to handle an unexpected expense, such as to cover abortion services for an unwanted pregnancy. According to national data from the Federal Reserve's Survey of Household Economics and Decision-making, about 1 in 5 households reported an unexpected medical expense for which they paid out of pocket in the last twelve months. The average cost was significant, \$2,800, and nearly half of households had not paid their bills or carried debt related to the medical issue. ³⁵ Other recent evidence based on bank transaction data documents that "consumers increase healthcare spending by 60 percent in the week after receiving a tax refund, and the majority of these payments are made in person--likely for care received on that day The findings suggest that many consumers make decisions about when to pay for and receive health care based on

³⁵ Jonathan Morduch & Rachel Schneider, The Financial Diaries: How American Families Cope in a World of Uncertainty 56 (2017).

whether they have the cash on hand."³⁶ In fact, the most common reasons that women delay seeking abortion services is the need to raise money to cover the costs of transportation and the procedure.³⁷ Furthermore, there is clear evidence that trade-offs in meeting basic needs are made around abortion services specifically. For example, one study of women in Arizona reported that "the majority of women seeking abortion services had to forgo or delay, food, rent, childcare, or another important cost to finance their abortion."³⁸

20. Women who lack sufficient financial resources to afford an abortion themselves are unlikely to be able to get financial help from family and friends. First, low-income households, particularly African-American low-income households, are likely to be embedded in family and friend networks that are also struggling economically.³⁹ What little empirical evidence there is around financial transfers between family members suggests that such transfers are uncommon and

³⁶ Farrell, D., Greig and Hamoudi. "Cash Flow Dynamics and Family Health Care Spending: Evidence From Banking Data." Health Affairs Health Policy Brief. December 13: 2018. DOI:10.1377/hpb20181105.26180.

³⁷ Ushma D. Upadhyay et al., *Denial of Abortion Because of Provider Gestational Age Limits in the United States*, Am. J. Pub. Health 2014, 104(9):1687...

³⁸ Deborah Karasek, Sarah C.M. Roberts & Tracey A. Weitz, *Abortion Patients'* Experience and Perception of Waiting Periods: Survey Evidence Before Arizona's Two-Visit 24-Hour Mandatory Waiting Period Law, Women's Health Issues 2016, 26:60, 64.

³⁹ Colleen Heflin & Mary Pattillo, *Poverty in the Family: Race, Siblings and Socioeconomic Heterogeneity*, Social Sci. Res. 2006, 35(4): 804.

tend to be of low monetary value.⁴⁰ Second, while some women may receive financial assistance, it is not of high enough value to ensure that women avoid making trade-offs in essential expenses. Surveys of women who have received abortion services suggest that despite receiving financial assistance, many report experiencing financial hardships.⁴¹

21. Given the difficulties low-income households face in meeting basic needs, a significant number of households would likely need to forgo other essential needs in order to afford abortion services. Forgoing essential needs, such as food, housing or utilities, can have catastrophic consequences in the lives of the women. Women who use their rent money to pay for abortion services can be evicted from their home, leaving them homeless. Eviction itself is a torturous experience, as Princeton sociology professor Matthew Desmond describes in his book on the topic: "The day Arleen and her boys had to be out was cold. But if she waited any longer, the landlord would summon the sheriff, who would arrive with a gun, a team of boot-footed movers, and a folded judge's order saying that her house was no longer hers. She would be given two options: truck or curb. 'Truck' would mean that her things would be loaded into an eighteen-footer and later

⁴⁰ Kathleen McGarry & Robert F. Schoeni, *Transfer Behavior in the Health and Retirement Study: Measurement and the Redistribution of Resources within the Family*, J. Human Res. 1995, 30:S184.

⁴¹ Karasek, Roberts & Weitz, supra note 38.

checked into bonded storage. She could get everything back after paying \$350. Arleen didn't have \$350, so she would opt for 'curb', which would mean watching the movers pile everything onto the sidewalk. Her mattresses. A floor-model television. Her copy of *Don't Be Afraid to Discipline*. Her nice glass dining table and the lace tablecloth that fits just-so. Silk plants. Bibles. The meat cuts in the freezer. The shower curtain. Jafaris's asthma machine."⁴²

22. Similarly, those who use money they had allocated for their phone, water, gas, or electricity bill to pay their medical expense risk having their utilities disconnected, forcing them to go without water, heat, or light until they can pay a reconnection fee on top of their original bill in order to re-establish services with the utility company. In my own research, I have documented how utility shutoffs impact the entire family. "They could interfere with children's ability to complete homework, and extended non-payment can mean legal consequences, involvement of a collection agency, and damage to an individual's credit rating. Telephone terminations, in contrast, occurred more frequently. For some women, telephone disconnection caused emotional distress because they were unable to maintain contact with their children while they were at work and they worried about being

⁴² Matthew Desmond, Evicted 1-2 (2016).

unable to telephone for help in the case of an emergency."⁴³ Other women will forgo transportation costs (gas, car insurance, car payment, or repairs) making it impossible for them to get to work and putting them at risk of losing their job. However, in the face of an unexpected medical expense such as an abortion, most low-income households will decide to forgo food in order to keep their cars running. "There was a time my car had broke down. I had to pay to get that fixed. It was around the 20th of the month, so no more food stamps, [and there was no money for food]."⁴⁴ For women who do not have a financial cushion and who are living on the edge already, the need to cover an unexpected medical expense like an abortion may push them over the edge and cause them to face a cascade of negative economic consequences from which is it difficult to return to financial equilibrium.⁴⁵

23. If the woman decides to pay for her abortion services by ignoring other basic expenses and she already has children, as more than half of all women

⁴³ Colleen Helfin, Andrew S. London & Ellen K. Scott, Mitigating Material Hardship: The Strategies Low-Income Families Employ To Reduce the Consequences of Poverty, Sociological Inquiry 2011, 81(2):232.

⁴⁴ Kathryn Edin et al., U.S. Dep't of Agriculture, SNAP Food Security In-Depth Interview Study: Final Report, 21-22 (2013).

⁴⁵ Heflin, *supra* note 30.

who seek abortion services in Pennsylvania do, ⁴⁶ there could be dire consequences for the children as well. Children who are exposed to food insecurity face a number of negative consequences ranging from poor cognitive outcomes, physical and mental health consequences, and behavioral consequences. ⁴⁷ Ultimately, the stress of living in conditions of material hardship has been shown to negatively alter the socio-emotional environment in the home and cause further harm to children. ⁴⁸ Recent evidence from the American Academy of Pediatrics suggests that negative consequences may extend into adulthood. "Many adult diseases should be viewed as developmental disorders that begin early in life and that persistent health disparities associated with poverty, discrimination, or maltreatment could be reduced by the alleviation of toxic stress in childhood." ⁴⁹ If the conditions of material hardship become severe enough, the mother could be

 ⁴⁶ Pa. Dep't of Health, 2017 Abortion Statistics (Dec. 2018) (Table 13),
 http://www.health.pa.gov/topics
 /HealthStatistics/VitalStatistics/Documents/Pennsylvania Annual Abortion Report 2017.pdf.

⁴⁷ Linda Weinreb et al., *Hunger: Its Impact on Children's Health and Mental Health*, Pediatrics 2002, 110(4):e41, http://pediatrics.aappublications.org/content/pediatrics/110/4/e41.full.pdf.

⁴⁸ Elizabeth T. Gershoff, et al., *Income Is Not Enough: Incorporating Material Hardship Into Models of Income Associations With Parenting and Child Development*, Child Development 2007, 78:70.

⁴⁹ Jack P. Shonkoff et al., *The Lifelong Effects of Early Childhood Adversity and Toxic Stress*, Pediatrics 2012, 129:e232.

accused of child neglect and the children could be removed from the care of the mother and placed in foster care.

- 24. If the woman instead chooses to provide all the essential needs for herself and her family and forgo the abortion, there is good evidence that she suffers many negative economic consequences anyway. According to one account: "I'm a person who's very responsible at work. I mean, I worked before I had her. But you see, I had to quit the job because I got pregnant. . . and I had vomiting and [was] nauseous, so I couldn't work. I was going to end up throwing up at the store or something. And I couldn't let that happen. . . . When I was working, we were doing all right. We weren't doing so bad because I was getting paid \$7.25 [an hour]. Everything was working out fine. But now that I don't work, we're stuck. We don't know what we can do."50
- 25. According to evidence from the Turnaway Study, a nationwide study conducted by researchers at the University of California San Francisco looking at women who were unable to access abortion services, women who were unable to obtain an abortion were less likely six months later to be employed full-time and more likely to be receiving public assistance benefits and to have lower household incomes and to be poor. Furthermore, the negative consequences to economic

⁵⁰ Edin et al., *supra* note 44, at 20-21.

well-being were shown to be long-lasting and to persist four years later compared to similar women who were able to obtain an abortion.⁵¹ Additional evidence suggests that self-reported physical health effects of having an unwanted pregnancy are higher than those of having an abortion, including longer periods of limitations on physical activity, which likely interferes with the ability to work.⁵²

- 26. Additionally, children of women who wanted an abortion but were unable to receive one due to gestational age have also been shown to have lower scores on measures of child development and economic well-being.⁵³ As a consequence, children are likely to be harmed whenever low-income women are forced to make a trade-off between being able to afford abortion services and other essential needs. That is, low-income mothers without the economic resources to cover the unexpected medical expense are faced with an impossible choice that harms their children either way.
- 27. The stress of weighing the trade-off of such a difficult financial decision alone can exacerbate existing health conditions, create difficult family

⁵¹ Diana Greene Foster et al., Socioeconomic Outcomes of Women Who Receive and Women Who Are Denied Wanted Abortions in the United States, Am. J. Pub. Health 2018, 108(3):407.

⁵² Caitlin Gerdts et al., Side Effects, Physical Health Consequences, and Mortality Associated with Abortion and Birth after an Unwanted Pregnancy, Women's Health Issues 2016, 26(1):55, http://doi.org/10.1016/j.whi.2015.10.001.

⁵³ Foster et al., *supra* note 51.

dynamics between romantic partners and make it difficult to use positive parenting practices. Medical research documents how exposure to negative stressors can change the physiological process and result in negative health outcomes. "Stressors can increase susceptibility to infectious agents, influence the severity of infectious agents, diminish the strength of immune response to vaccines, reactivate latent herpes viruses and slow wound healing. Moreover, stressful events and the distress that they evoke can also substantially increase the production of antiinflammatory cytokines that are associated with a spectrum of age-related diseases."54 Other research has demonstrated that financial strain experienced by a couple is associated with increases in depression in both partners, the withdrawal of social support and an increase in social undermining as well as negative effects on the satisfaction with the relationship.⁵⁵ Finally, there is a large body of literature that has studied the relationship among financial stress, parenting practices, and child development, which all suggest that parents coping with

⁵⁴ Ronald Glaser & Janice Kiecolt-Glaser, *Stress-Induced Immune Dysfunction: Implications for Health*, Nature Reviews Immunology 2005, 5:243.

⁵⁵ Amiram D. Vinokur, Richard H. Price & Robert D. Caplan, Hard Times and Hurtful Partners: How Financial Strain Affects Depression and Relationship Satisfaction of Unemployment Persons and their Partners, J. Personality & Social Psych. 1996, 71(1):166.

financial strain parent less optimally and in ways that are negatively associated with child developmental outcomes.⁵⁶

- 28. Additionally, the need to juggle financial resources in order to pay for abortion services is one of the most frequently cited reasons by women who would have preferred to have had their abortions earlier.⁵⁷ While abortion is a very safe procedure, the medical risk of complications is higher later in pregnancy.⁵⁸ Additionally, the financial cost of abortions increases as gestational age increases.⁵⁹
- 29. Allowing for Medical Assistance in Pennsylvania to cover abortion services would reduce the need for low-income households -- who lack the flexibility in their finances to cover the medical and transportation costs associated with an abortion -- to face the incredibly stressful decision to forgo essential expenses that make both women, and their existing children, vulnerable to food

⁵⁶ Rashmita S. Mistry et al., Expanding the Family Economic Stress Model: Insights from a Mixed-MethodsApproach, J. Marriage & Fam. 2008, 70:196; Chih-Yuan Steven Lee, Jaerim Lee & Gerald J. August, Financial Stress, Parental Depressive Symptoms, Parenting Practices, and Children's Externalizing Problem Behaviors: Underlying Processes, Fam. Relations Family Relations 2011, 60(4):476.

⁵⁷ Lawrence B. Finer et al., *Timing of Steps and Reasons for Delays in Obtaining Abortions in the United States*, Contraception 2006, 74(4):334.

⁵⁸ Linda A. Bartlett et al., *Risk Factors for Legal Induced Abortion-Related Mortality in the United States*, Obstetrics & Gynecology 2004, 103:729.

⁵⁹ Stanley K. Henshaw & Lawrence B. Finer, *The Accessibility of Abortion Services in the United States*, 2001, Perspectives on Sexual & Reproductive Health 2003, 35(1):16, http://www.guttmacher.org/sites/default/files/article_files/3501603.pdf.

insecurity, homelessness, utility shut-offs, and health care crises, potentially starting a cascade of negative life events from which national evidence shows it is difficult to return to equilibrium. If Medical Assistance in Pennsylvania covered abortion services, it would do a more complete job of what it was designed to do—support the health and well-being of low-income women and their families without forcing them to make impossible economic tradeoffs in other parts of their lives.

I make this declaration subject to the penalties of 18 Pa. C. S. sec. 4904 (unsworn falsification to authorities).

Dated this _____ of January, 2019.

Colleen M. Heflin

EXHIBIT A

COLLEEN M. HEFLIN

Maxwell School of Citizenship and Public Affairs
Syracuse University
426 Eggers Hall
Syracuse, NY 13244
Phone: 315.443.9042
Email: cmheflin@syr.edu

RESEARCH AND TEACHING INTERESTS

Social policy, food and nutrition policy, social demography

EDUCATION

2002	Ph.D. in Sociology, University of Michigan
1995	Master of Public Policy, Gerald Ford School of Public Policy, University of Michigan
1992	Bachelor of Arts with Honors in Social Sciences, University of Michigan

EMPLOYMENT

2017-present	Professor, Public Administration and International Affairs, Maxwell School of Citizenship and Public Affairs, Syracuse University
2017-present	Senior Research Associate, Center for Policy Research, Syracuse University
2017 present	Research Affiliate, University of Kentucky Center for Poverty Research
2014—present	Member of External Review Board, Social Service Review
2016–2017	Professor, Harry S Truman School of Public Affairs, University of Missouri
2014–2017	Co-Director of Population, Education and Health Center
2014–2017	Co-Director of the University of Missouri Research Data Center
2008–2017	Research Affiliate, Institute for Public Policy, University of Missouri
2013–2016	Member of the External Review Board, Southern Rural Development Center
	RIDGE Program, Purdue University
2010-2016	Associate Professor, Harry S Truman School of Public Affairs, University of
	Missouri
2007-2010	Assistant Professor, Harry S Truman School of Public Affairs, University of
	Missouri
2005-2014	Research Affiliate, National Poverty Center, University of Michigan
2002-2007	Assistant Professor, Martin School of Public Policy, University of Kentucky
2002-2007	Executive Board Member, University of Kentucky Center for Poverty
	Research
-1997-2002	- Senior Research Associate, Michigan Poverty Research and Training-Center, -
	University of Michigan

PEER-REVIEWED PUBLICATIONS

Heflin, Colleen, Irma Arteaga, Leslie Hodges, Jean Felix Ndashiyme, and Matthew P Rabbitt. (In press). "SNAP Benefits and Childhood Asthma." *Social Science & Medicine*. https://doi.org/10.1016/j.socscimed.2018.11.001

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- Cronin, Jacob, Colleen Heflin and Ashley Price. 2014. "Teaching Teens about Sex: A Fidelity Assessment Model for Making Proud Choices." *Evaluation and Program Planning*, 46: 94-102.
- Heflin, Colleen, Jennifer Keller Jensen and Kathleen Miller. 2014. "Understanding the Economic Impacts of Disruptions in Water Service." *Evaluation and Program Planning*, 46: 80-86.
- Heflin, Colleen and Ngina Chiteji. 2014. "My Brother's Keeper?: The Association Between Having Siblings in Poor Health and Wealth Accumulation" *Journal of Family Issues*, 35(3): 358-383.
- Kwon, Seok-Woo, Colleen Heflin and Martin Reuf. 2013. "Community Social Capital and Entrepreneurship." *American Sociological Review*, 78(6): 980-1008. Winner of the 2014 W. Richard Scott Award for Distinguished Scholarship from the American Sociological Association.
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 Technology-Based Food Assistance Application System." *American Review of Public Administration*, 43(6): 658-674, first published on August 22, 2012. doi: 10.1177/0275074012455454
- Heflin, Colleen and JS Butler. 2013. "Why do Women Enter and Exit from Material Hardship?" *Journal of Family Issues*, 34(3): 631-660.
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- Heflin, Colleen, Andrew London and Ellen Scott. 2011. "Mitigating Material Hardship: The Strategies Low-income Mothers Employ to Reduce the Consequences of Poverty." Sociological Inquiry, 81(2): 1-24.
- Heflin, Colleen and Sharon Kukla-Acevedo. 2011. "Welfare Receipt and Early Childhood Cognitive Scores." *Children and Youth Services Review*, 33(5): 634-643.
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BOOK CHAPTERS AND CONFERENCE PROCEEDINGS

- Heflin, Colleen, and Peter Mueser. Forthcoming. "UI and SNAP Receipt in the Sun: The Great Recession and Its Aftermath in Florida." In David Stevens and Michael Wiseman (editors). Helping Together: Unemployment Insurance, Supplemental Nutrition Assistance, and the Great Recession. Upjohn Press: Kalamazoo, MI.
- Heflin, Colleen, and Peter Mueser. Forthcoming. "Program Participation in the Show Me State: Missouri Responds to the Great Recession." In David Stevens and Michael Wiseman (editors). Helping Together: Unemployment Insurance, Supplemental Nutrition Assistance, and the Great Recession. Upjohn Press: Kalamazoo, MI.
- Heflin, Colleen, Leslie Hodges and Andrew London. 2017. "TAPped Out: A Study of the Department of Defense's Transition Assistance Program (TAP)." In Louis Hicks, Eugenia L. Weiss, and Jose E. Coll (editors). *The Civilian Lives of U.S. Veterans: Issues and Identities*, Volume 1. ABC-Clio: New York, NY.
- Heflin, Colleen. 2015. "The Importance of Context to the Social Processes around Material Hardship." In Stephen Nathan Haymes, Maria Vidal de Haymes, and Reuben Jonathan Miller (editors). Routledge Handbook of Poverty in the United States. Routledge Press: New York, NY.
- Heflin, Colleen. 2009. "An Examination of Gender Differences in the Relationship between Reporting a Food Hardship and Physical Health." In Louis Amsel and Lena Hirsch-(editors). Food Science and Security. Nova Publishers: New York, NY.
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- Corcoran, Mary and Colleen Heflin. 1999. "Race, Ethnic and Skill-Based Inequalities in Women's Earnings" in Proceedings and Papers: Conference for the Institute for Women's Policy Research.
- Gramlich, Edward and Colleen Heflin. 1998. "The Spatial Dimension: Should Worker Assistance be Given to Poor People or Poor Places?" In Richard Freeman and Peter Gottschalk (editors.) *Demand-Side Strategies Affecting Low Wage Labor Markets*. Russell Sage Foundation: New York, NY.

WORKING PAPERS

- Meckstroth, Alicia, Andrew Burwick, Quinn Moore, Colleen Heflin, Jonathan McCay, and Michael Ponza. 2016. "The Effects of an Intensive Life Skills Education and Home Visiting Program on the Employment, Earnings, and Well-Being of At-Risk Families." Mathematica Policy Research Working Paper.
- Heflin, Colleen and Peter Mueser. 2013. "Aid to Jobless Workers in Florida in the Face of the Great Recession: The Interaction of Unemployment Insurance and the Supplemental Nutrition Assistance Program." IZA Discussion Paper No. 7772.
- Wilmoth, Janet, Andrew London and Colleen Heflin. 2013. "The Use of VA Disability Benefits and Social Security Disability Insurance among Working-Aged Veterans." Boston College Center for Retirement Research Working Paper No. 2013-5.
- Heflin, Colleen. 2004. "Who Exits the Food Stamp Program After Welfare Reform?" Institute for Research on Poverty Working Paper DP-1279-04, University of Wisconsin, Madison.
- Heflin, Colleen. "Exit Routes From Welfare: Examining Barriers to Employment, Demographic, Human Capital Factors." University of Kentucky Center for Poverty Discussion Paper 2003-03.

POLICY BRIEFS

- Heflin, Colleen. April 2017. "The Great Recession and the Rise in Material Hardship." Family Self-Sufficiency and Stability Research Consortium, 2013-2018. Office of Planning, Research & Evaluation, Office of the Administration for Children & Families.
- Heflin, Colleen, Peter Mueser, and Jacob Cronin. April 2017. "How Accurate is Online Information about SNAP?" Institute for Public Policy, University of Missouri. Report 04-2017.
- Heflin, Colleen, Jennifer Keller Jensen and Kathleen K. Miller. May 2013. "Community Resilience: Understanding the Economic Impacts of Disruptions in Water Service." Institute for Public Policy, University of Missouri. Policy Brief. Report 05-21013.
- Vancil, A, Sandy Rikoon, Matthew Foulkes, Joan Hermsen, Colleen Heflin, and Nicole Raedeke. April 2013. "Regional Profile of Missouri Food Pantry Clients and Households." Institute for Public Policy, University of Missouri. Policy Brief. Report 04-2013.

- Dabson, Brian, Colleen Heflin and Kathleen Miller. February 2012. "Regional Resilence: Research and Policy Brief." RUPRI Rural Futures Lab, University of Missouri.
- Heflin, Colleen and Kathleen Miller. June 2011. Geography of Need: Identifying Human Service Needs in Rural America." RUPRI White Paper.
- Rysavy, Matt and Heflin, Colleen. August 2009. "Food Insecurity, Food Stamp Participation and Poverty: The Paradox of Missouri." Institute of Public Policy, University of Missouri.
- Heflin, Colleen and James Ziliak. December 2008. "Food Insufficiency, Food Stamp Participation and Mental Health." Policy Brief. Institute of Public Policy, University of Missouri.

PAPERS SUBMITTED (UNDER REVIEW)

- Meckstroth, Alicia, Andrew Burwick, Quinn Moore, Colleen Heflin, Jonathan McCay, and Michael Ponza. "The Effects of an Intensive Life Skills Education and Home Visiting Program on the Employment, Earnings, and Well-Being of At-Risk Families."
- Altman, Claire, Colleen Heflin, Chaeyung Jun, and James Bachmeier. "The Material Hardships of Undocumented Immigrants in the United States: Evidence from SIPP 1996-2008"

RESEARCH GRANTS RECEIVED

- Principle Investigator. "SNAP Uptake and School Readiness in Virginia." Economic Research Service, United States Department of Agriculture. (8/14/18-9/14/20) (\$100,000) with Michah Rothbart, Co-Investigator.
- Principle Investigator. "Creating Evidenced-Based Strategies to Address Administrative Churn in SNAP." Economic Research Service, United States Department of Agriculture. 8/1/2018-7/30/2020. (\$120,101) with Len Lopoo, Co-Investigator.\
- Principle Investigator. "Does Child Support Increase Self-Sufficiency?: Evidence from Virginia". National Institute for Health through the Institute for Research on Poverty (IRP)'s Extramural Small Grants program for Research. 3/1/18-2/28/19. (\$24,847) with Len Lopoo, Co-Principal Investigator.
- Principal Investigator. "SNAP and Child Health: Evidence from Missouri Administrative Data." Economic Research Service, United States Department of Agriculture. 8/25/2016–8/1/2018 (\$99,997). With Peter Mueser and Irma Arteaga, Co-Investigators.
- Co-Principal Investigator. "Understanding SNAP and Food Security among Low-Income Households." University of Kentucky Center for Poverty Research; Economic Research Service, United States Department of Agriculture. 4/30/2015–6/30/2018 (\$400,000). With James P. Ziliak, Co-Principal Investigator.
- Principal Investigator. "Community Eligibility and Child Well-Being." Research Innovation and Development Grants in Economics (RIDGE) Center for Targeted Studies at the Southern Rural Development Center, Mississippi State University. 8/1/2015–12/31/2016 (\$34,987). With Daniel P. Miller, Co-Principal Investigator.

- Co-Principal Investigator. "Design Flaws: The Effect of the Coverage Gap in Food Assistance Programs on Child's Well-Being." University of Wisconsin–Madison, Institute for Research on Poverty, RIDGE Center for National Food and Nutrition Assistance Research. 7/1/2015–12/31/2016 (\$39,962). With Irma Arteaga, Co-Principal Investigator.
- Principal Investigator. "Family Self-Sufficiency and Stability and Material Hardship: The Role for Public Policy after the Great Recession." US Department of Health and Human Services, Administration for Children and Families. 9/30/13–9/29/18 (\$500,000).
- Co-Principal Investigator. "Census Research Data Center." National Science Foundation. 8/15/2014–7/31/2017 (\$0).
- Principal Investigator. "The Mediating Effects of SNAP on Health Outcomes for Low-Income Households." Cooperative Research Agreement. Economic Research Service, United States Department of Agriculture. 7/1/2014–6/30/2016 (in no-cost time extension; \$100,000).
- Principal Investigator. "Secondary Analyses of Strengthening Families Datasets: Economic Strain and Family Formation." US Department of Health and Human Services, Administration for Children and Families. 9/30/14–8/1/16 (\$99,343).
- Principal Investigator, "Understanding the Rates, Causes and Costs of Churning in SNAP." Urban Institute. 8/1/2013–7/15/2014 (\$32,561). With Peter Mueser, Co-Investigator.
- Principal Investigator, "Participation in the National School Lunch Program and Food Security: A Regression Discontinuity Design Analysis of Transitions into Kindergarten." Southern Rural Development Center RIDGE Program. 7/1/2012–12/31/2013 (\$34,934). With Irma Arteaga, Co-Investigator.
- Principal Investigator. "Joint Participation in SNAP and UI in Florida" USDA-FANRP Economic Research Service. 4/15/2010-5/14/2020 (\$242,830). With Peter Mueser, Co-Investigator.
- Co-Investigator. "The Intersection of Veteran's Benefits Programs and Disability Insurance among Veterans: A Synthetic Cohort Approach Using the Survey of Income and Program Participation (SIPP)." Boston College/Social Security Administration. 10/1/2011–9/30/2012 (\$85,817). With Janet Wilmoth and Andrew London, Co-Investigators.
- Principal Investigator. "Families with Hungry Children and the Transition from Preschool to Kindergarten." University of Kentucky Center for Poverty Research; Economic Research Service, United States Department of Agriculture. 7/1/2011–9/30/2012 (\$45,000). With Irma Arteaga and Sara Gable, Co-Investigators.
- Co-Investigator. "A Food Systems Approach to Addressing Obesity Among Food Pantry Clients in Missouri." USDA-AFRI Human Nutrition and Obesity Program. 1/01/2010-4/30/2013 (\$432,171).
- Principal Investigator. "Veteran Status, Disability, Poverty, and Material Hardship." National Center for Poverty Research at the University of Michigan/US Census Bureau. 2010 (\$20,000).
- Principal Investigator. "Localizing Estimates of Hunger: Creating County-level Estimates of Food Insecurity." Research Council Fellowship, University of Missouri. 2010 (\$7,000).

- Principal Investigator. "Assessing the Impact of On-Line Applications in Florida's Food Stamp Caseload." Regional Small Grant Program, University of Kentucky Center for Poverty Research. 2008-2009 (\$20,000)
- Principal Investigator. "Assessing the Impact of On-Line Applications in Florida's Food Stamp Caseload." 2008 RIDGE Program sponsored by the Southern Rural Development Center in partnership with the Economic Research Service, U.S. Department Agriculture. 2008-2009 (\$35,000).
- Principal Investigator, "The Impact of Improving Access to Benefits for Low-Income Families on Caseload Characteristics and Dynamics." Research Board Fellowship, University of Missouri. 2008-2009 (\$33,498).
- Principal Investigator, "Do Middle Class Members Take on Debt in Order to Help Their Poor Siblings Weather Shocks?" Summer Research Fellowship Competition, University of Missouri. 2008-2009 (\$7,000).
- Principal Investigator, "State-Level Variation in Material Hardship Among Households with Children." West Coast Poverty Center. 2007–2008 (\$15,000).
- Principal Investigator, "Does the Size of the Check Matter? New Results on the Effects of Welfare Receipt on Early Childhood Cognitive Scores." Spencer Foundation. 2006-2007 (\$39,840).
- Principal Investigator, "Social Capital and Race Inequality." Research Support Grant, University of Kentucky. 2005–2006 (\$19,204).
- Principal Investigator, "Does Variation in Transfer Program Participation and Generosity at the State Level Explain Variation in Mental Health?" University of Kentucky Center for Poverty Research. 2005 (\$19,124).
- Summer Faculty Research Fellowship, University of Kentucky, 2005 (\$6,000).
- Principal Investigator, "Determinants of Different Forms of Material Hardship in the Women's Employment Survey." Small Grant Program, Institute for Research on Poverty, University of Wisconsin-Madison. 2004–2005 (\$34,913).
- Principal Investigator, "Does Food Stamp Receipt Mediate the Relationship Between Food Insecurity and Mental Health?" The National Poverty Center. 2003–2004 (\$19,783). With James Ziliak, Co-Investigator.
- Principal Investigator, "Household Food Insecurity and the Physical and Mental Health of Lowlncome Men and Women." NSAF Small Research Grants Program, Association for Public Policy and Analysis and Management (funded by Annie E. Casey Foundation). 2003-2004 (\$20,000).
- Principal Investigator, "An Individual-Level Analysis of Food Stamp Dynamics." Small Grant Program, Institute for Research on Poverty, University of Wisconsin-Madison. 2002—2003 (\$31,922).
- Co-Principal Investigator, "Do Women's Wages Depreciate While on Welfare?" U.S. Census Bureau/Joint Center for Research on Poverty. 2002–2003 (\$29,966). With Mary Noonan, Principal Investigator.

- Co-Principal Investigator, "Barriers to Work Among Housing Assistance Recipients on Welfare." United States Department of Housing and Urban Development. 1999–2001 (\$49,870). With Mary Corcoran, Principal Investigator.
- Collaborator. "Causes and Consequences of Food Insufficiency and Material Hardships as Welfare Recipients Move from Welfare to Work." Economic Research Service, U.S. Department of Agriculture. 1999–2000 (\$200,354). With Kristine Siefert and Mary Corcoran, Principal Investigators.
- Collaborator. "Food Insecurity and Welfare Reform." Institute for Research on Poverty, University of Wisconsin-Madison. 1999–2000 (\$49,704). With Mary Corcoran and Kristine Siefert, Principal Investigators.

CONTRACTS

- Consultant. "Feeding America SNAP Program Evaluation Multi-Site Case Study." Feeding America. June 2013—November 2014.
- Consultant. "Evaluation of Missouri PREP Program." Missouri Department of Health and Senior Services. June 2011—May 2015.

INVITED PRESENTATIONS

- "The Value and Limits of Linking Administrative Data" Invited speaker at the National Academy of Sciences Committee on National Statistics Panel on Improving USDA's Consumer Data for Food and Nutrition Policy Research. September 21, 2018. Washington, DC.
- "Household Instability and Material Hardship." Invited speaker at the 2016 MU Extension Summit, University of Missouri. October 26, 2016. Columbia, MO.
- "The Mediating Effects of SNAP on Health Outcomes for Low Income Households." Invited speaker in Center for Research on Inequalities and the Life Course Seminar, Yale University. April 27, 2016. New Haven, CT.
- "Community and Systematic Approaches to Hunger: Social Protections." Invited speaker at the Hunger Summit hosted by Universities Fighting World Hunger (partnership of the United Nations World Food Program and Auburn University). February 26, 2016. Columbia, MO.
- "Reflecting on 20 years of Measuring Household Food Security," Invited speaker at the US Department of Agriculture Economic Research Service, October 21, 2015. Washington, DC.
- "The Mediating Effects of SNAP on Health Outcomes for Low Income Households." Invited speaker in the West Virginia University Public Health Dialogues. October 2, 2015. Morgantown, WV.
- "In Tandem: Pairing Public and Private Nonprofit Assistance to Make Ends Meet." Invited speaker at The School of Public Affairs at American University and Feeding America, July, 2015. Washington, DC.

- "Hot Topics for Program Evaluation." Invited speaker at Feeding America's 2014 Agency Capacity, Programs and Nutrition Annual Conference. October 30, 2014. Chicago, IL.
- "Using Program Evaluation to Drive Decision-Making." Invited speaker at Feeding America's 2014 Agency Capacity, Programs and Nutrition Annual Conference. October 30, 2014. Chicago, IL.
- "The War on Poverty: 50 Years Later and the Battle Continues" Invited speaker at a congressional briefing hosted by the Population Association of America and the Association of Population Centers in conjunction with Congressman Mike Honda. June 9, 2014. Washington, D.C.
- "Household Instability and Material Hardship." Invited speaker at Poverty, Policy and People: 25 Years of Research and Training at the University of Michigan. April 10, 2014. Ann Arbor, MI.
- "Material hardship and the case for measurement." Invited speaker at the Presidential Plenary: Poverty Measurement and Implications for Policy. Southern Sociological Society. April 3, 2014. Charleston, NC.
- "Individual and Family Coping Responses to Hunger." Invited speaker at the Workshop on Research Gaps and Opportunities in Child Hunger and Food Insecurity at the Committee on National Statistics. National Academy of Sciences, Food and Nutrition Board, Institute of Medicine. April, 2013.
- "Short-Term Dynamics of Food Insecurity and Obesity." Invited speaker at Institute of Medicine Workshop on Understanding the Relationship Between Food Insecurity and Obesity. November 16-19, 2010. Washington, D.C.

OTHER PRESENTATIONS AND CONFERENCES

- Sharon Kukla-Acevedo and Colleen Heflin. "Adolescent Food Insecurity and the Transition to Adulthood." Research on Food Security Using the Panel Study of Income Dynamics, September 20, 2018. Washington, DC.
- Colleen Heflin, Rajeev Darolia, and Sharon Kukla-Acevedo. "Exposure to Food Insecurity during Adolescence and the Educational Consequences." Fall Research Conference of the Association for Public Policy Analysis and Management. November 1-4, 2017. Chicago, IL.
- Claire Altman, Chaeyung Jun and Colleen Heflin. "Hardships of Undocumented Immigrants in the United States: Evidence from the 1996-2008 SIPP." Fall Research Conference of the Association for Public Policy Analysis and Management. November 1-4, 2017. Chicago, IL.
- Colleen Heflin, Sharon Kukla-Acevedo, and Rajeev Darolia. "Risky Adolescent Behaviors and the Role of Food Insecurity." Fall Research Conference of the Association for Public Policy Analysis and Management. November 1-4, 2017. Chicago, IL.
- Altman, Claire, Colleen Heflin, and Chaegyung Jun. "The Many Hardships of Undocumented Immigrants in the United States: Evidence from SIPP 1996-2008." 2017 American

- Sociological Association Annual Meeting. August 12-15, 2017. Montreal, Quebec, Canada.
- Altman, Claire, Colleen Heflin, and Chaegyung Jun. "The Many Hardships of Undocumented Immigrants in the United States: Evidence from SIPP 1996-2008" (poster presentation). 2017 Population Association of America Annual Meeting. April 27-29, 2017. Chicago, IL.
- Arteaga, Irma, Heflin, Colleen, Leslie Hodges and Peter Mueser. "Does the Timing Matter for SNAP Benefits and Pregnancy-Related Emergency Room Visits?" Fall Research Conference of the Association for Public Policy Analysis and Management. November 3-5, 2016. Washington, DC.
- Heflin, Colleen. "Social Program Participation and Material Hardship." Fall Research Conference of the Association for Public Policy Analysis and Management. November 3-5, 2016. Washington, DC.
- Arteaga, Irma, Colleen Heflin and Sarah Parsons. "The Coverage Gap." Annual meeting of the Population Association of America. March 31, 2016. Washington, DC.
- Mueser, Peter, Colleen Heflin and Leslie Hodges. "The Mediating Effects of SNAP on Health Outcomes for Low-Income Households." Annual meeting of the Association of Public Policy & Management. November 12-14, 2015. Miami, FL.
- Huang, Ying, Stephanie Potochnick and Colleen Heflin. "Household Food Insecurity and Young Immigrant Children's Health and Development Outcomes." Annual meeting of the Association of Public Policy & Management. November 12-14, 2015. Miami, FL.
- Mueser, Peter and Colleen Heflin. "Aid to Jobless Workers in the Face of the Great Recession: The Interaction of Unemployment Insurance and the Supplemental Nutritional Assistance Program." Annual meeting of the Association of Public Policy & Management. November 12-14, 2015. Miami, FL.
- Huang, Ying, Stephanie Potochnik and Colleen Heflin. "Household Food Insecurity and Young Immigrant Children's Health and Developmental Outcomes" (poster presentation).

 Annual meeting of the Population Association of America. April 30-May 2, 2015. San Diego, CA.
- Olson, Kate and Colleen Heflin. "The Changing Face of the United States and the Provision of Social Services." Annual meeting of the Association of Public Policy & Management. November 6-8, 2014. Albuquerque, NM.
- Hodges, Leslie Beasley, Colleen Heflin and Andrew London. "TAPped out: An Evaluation of the Department of Defense's Transition Assistance Program." Annual meeting of the Association of Public Policy & Management. November 6-8, 2014. Albuquerque, NM.
- Heflin, Colleen and Irma Arteaga. "Participation in the National School Lunch Program and Food Security: An Analysis of Transitions into Kindergarten." Annual meeting of the Association of Public Policy & Management. November 6-8, 2014. Albuquerque, NM.
- Heflin, Colleen and Irma Arteaga. "The Child and Adult Care Food Program and Food Insecurity." Annual meeting of the Population Association of America. May 1-3, 2014. Boston, MA.

- Mueser, Peter and Colleen Heflin. "Aid to Jobless Workers in Florida in the Face of the Great Recession: The Interaction of Unemployment Insurance and the Supplemental Nutritional Assistance Program." Annual meeting of the Population Association of America. May 1-3, 2014. Boston, MA.
- Kukla-Acavado, Sharon and Colleen Heflin. "Participation in the Unemployment Insurance Program and Childhood Achievement." Annual meeting of the Population Association of America. May 1-3, 2014. Boston, MA.
- Heflin, Colleen, Irma Arteaga and Sara Gable. "Families with Hungry Children and the Transition from Preschool to Kindergarten." Research Program on Childhood Hunger, Food and Nutrition Service. March 13, 2014. Washington, D.C.
- Heflin, Colleen and Irma Arteaga. "Participation in the National School Lunch Program and Food Security: An Analysis of Transitions into Kindergarten." National RIDGE Small Grants Conference, December 17, 2013. Washington, D.C.
- Potochnick, Stephanie, Irma Arteaga and Colleen Heflin. "An Examination of Household Food Insecurity among Low-Income Immigrant Children." Annual meeting of the Association of Policy Analysis & Management. November 7-9th, 2013. Washington. D.C.
- Heflin, Colleen and Ashley Price. "Emergency Food Assistance and the Great Recession."

 Annual Conference of the Association of Policy Analysis & Management. November 7-9th, 2013. Washington. D.C.
- Heflin, Colleen and Irma Arteaga. "Participation in the National School Lunch Program and Food Security: An Analysis of Transitions into Kindergarten." Southern Rural Development Center RIDGE Small Grants Conference. August 22, 2013. Denver, CO.
- Heflin, Colleen and Peter Mueser. "Aid to Jobless Workers in Florida in the Face of the Great Recession: The Interaction of Unemployment Insurance and the Supplemental Nutritional Assistance Program." Annual meeting of the National Association of Welfare Researchers and Statisticians. August 21, 2013. Chicago, IL.
- McKelvey, Bill, Jennifer Schnell, Nikki Raedeke, Sandy Rikoon, Matt Foulkes, Colleen Heflin, Joan Hermsen and Ashley Vancil. "A Food Systems Approach to Addressing Obesity Among Food Pantry Clients in Missouri" (poster presentation). Annual meeting of the Society for Nutrition Education and Behavior. August 11, 2013. Portland, OR. *The abstract was published in the Supplement to Journal of Nutrition Education and Behavior 45:4S (July/August), p. S89.
- Heflin, Colleen. "Child Poverty" Annual meeting of the American Sociological Association. August 10, 2013. New York, NY.
- Heflin, Colleen and Peter Mueser. "Aid to Jobless Workers in Florida in the Face of the Great Recession: The Interaction of Unemployment Insurance and the Supplemental Nutritional Assistance Program." IZA/OECD/World Bank Conference on Safety Nets and Benefit Dependence: Evidence and Policy Implications. May 21-22, 2013. Paris, France.
- Heflin, Colleen, Jacob Cronin and Ashley Price. "Best Practices for Implementing and Evaluating Evidenced-Based Teen Pregnancy Prevention Programs with Diverse Populations." Annual meeting of the Association of Policy Analysis & Management. November 4-6, 2012. Baltimore, MD.

- Kukla-Acevedo, Sharon and Colleen Heflin. "Unemployment Insurance Participation and Early Childhood Development." Annual meeting of the Association of Policy Analysis & Management. November 4-6, 2012. Baltimore, MD.
- Arteaga, Irma, Colleen Heflin and Sara Gable. "Hungry Children and the Transition from WIC." Annual Conference of the Association of Policy Analysis & Management. November 4-6, 2012, Baltimore, MD.
- McKelvey, Bill, Jennifer Schnell, Nikki Raedeke, Sandy Rikoon, Matt Foulkes, Colleen Heflin, and Joan Hermsen. "Food Systems Approach to Addressing Obesity among Food Client Households in Missouri" (poster presentation). 45th Annual Conference of the Society for Nutrition Education and Behavior. July 14-17. Washington, DC.
- Arteaga, Irma, Colleen Heflin, and Sara Gable. "Hungry Children and the Transition from WIC".

 Annual meeting of the Population Association of America. May 4, 2012. San Francisco,
 CA.
- Wilmoth, Janet M., Andrew S. London, and Colleen Heflin. "Economic Well-Being among Older Adult Households: Variation by Veteran and Disability Status." Annual meeting of the Gerontological Society of America. December, 2011. Boston, MA.
- Heflin, Colleen, and Peter Mueser. "Aid to Jobless Workers in Florida in the Face of the Great Recession: The Interaction of Unemployment Insurance and the Supplemental Nutritional Assistance Program." Annual meeting of the Association for Public Policy and Management. November 4-5, 2011. Washington, DC.
- London, Andrew S., Colleen Heflin and Janet M. Wilmoth. "Work-Related Disability, Veteran Status, and Poverty: Implications for Family Well-Being." Annual meeting of the American Sociological Association. August, 2011. Las Vegas, NV.
- Heflin, Colleen, and Ngina Chiteji. "My Brother's Keeper? The Association between Having Siblings in Poor Health and Wealth Accumulation." Western Economic Association Annual Meetings. June 30, 2011. San Diego, CA.
- Heflin, Colleen, Andrew London and Janet Wilmoth. "Veteran Status, Disability, Poverty, and Material Hardship." Annual meeting of the Association for Public Policy and Management. November 4-5, 2010. Boston, MA.
- Heflin, Colleen, Andrew London and Janet Wilmoth. "Veteran Status, Disability, Poverty and Material Hardship." SIPP Analytics Research Conference. October 14-15, 2009. Washington, DC.
- Keiser, Lael and Colleen Heflin. "Impact of TANF on the Material Well-Being of Low Income Families." Reducing Poverty Conference hosted by The Institute for Advanced Policy Solutions. November 19-20, 2009. Atlanta, GA.
- Heflin, Colleen and Peter Mueser. "Assessing the Impact of Modernization on Florida's Food Stamp Caseload." Annual meeting of the Association of Public Policy and Management. November 5-7, 2009. Washington, D.C.
- Keiser, Lael and Colleen Heflin. "Impact of TANF on the Material Well-Being of Low Income Families." Annual meeting of the Association of Public Policy and Management. November 5-7, 2009. Washington, D.C.

- Heflin, Colleen and Peter Mueser. "Assessing the Impact of On-line Application on Florida's Food Stamp Caseload." RIDGE Conference at the US Department of Agriculture, Economic Research Service. October 15-16, 2009. Washington, DC.
- Heflin, Colleen, Andrew London and Ellen Scott. "Mitigating Material Hardship: The Strategies Low-income Mothers Employ to Reduce the Consequences of Poverty." Annual meeting of the American Sociological Association. August 8-11, 2009. San Francisco, CA.
- Heflin, Colleen and Peter Mueser. "Assessing the Impact of On-line Application on Florida's Food Stamp Caseload." Southern Rural Development Center Mid-Year Grantees Conference. August 5-6, 2009. Atlanta, GA.
- Keiser, Lael and Colleen Heflin. "Explaining the Consequences of TANF Policy Choices Across and Within U.S. States" State Politics and Policy Conference (Hosted by the University of North Carolina-Chapel Hill and Duke University). May 22-23, 2009. Chapel Hill, NC.
- Heflin, Colleen and Peter Mueser. "Assessing the Impact of On-line Application on Florida's Food Stamp Caseload." University of Kentucky Center for Poverty Research Small Grants Conference. Mat 19, 2009. Lexington, KY.
- Heflin, Colleen and Peter Mueser. "Assessing the Impact of On-line Application on Florida's Food Stamp Caseload." Annual meeting of the Population Association of America. April 30, 2009. Detroit, MI.
- Heflin, Colleen. "Macroeconomic Performance and Material Hardship across Time, Space and Race." West Coast Poverty Center Speaker Series. March 9, 2009. Seattle, WA.
- Heflin, Colleen and Ngina Chiteji. "Do Middle Class Members Take on Debt in Order to Help Their Poor Siblings Weather Shocks?" Annual meeting of the Association of Public Policy and Management, November 6, 2008. Los Angeles, CA.
- Heflin, Colleen. "State-Level Variation in Material Hardship Among Households with Children." Annual meeting of the Population Association of America. April 16, 2008. New Orleans, LA.
- Heflin, Colleen and Sharon Kukla-Acavedo. "Welfare and Children's Cognitive Test Scores." Annual meeting of the Population Association of America. April 16, 2008. New Orleans, LA.
- Heflin, Colleen and Sharon Kukla-Acavedo. "Does the Size of the Welfare Check Matter? New Results on the Effects of Welfare on Children's Cognitive Test Scores." Annual meeting of the Association of Public Policy and Management. November 4, 2006. Madison, WI.
- Heflin, Colleen and John Iceland. "Poverty, Material Hardship and Mental Health." Annual meeting of the Association of Public Policy and Management. November 3, 2006. Madison, WI.
- Heflin, Colleen and Jim Ziliak. "Food Insufficiency, Food Stamp Participation and Mental Health." Institute for Research on Poverty Summer Workshop. June 22, 2006. Madison, WI.
- Heflin, Colleen and John Iceland. "Poverty, Material Hardship and Mental Health." Annual meeting of the Population Association of America. April 1, 2006. Los Angeles, CA.

- Heflin, Colleen and Seok-Woo Kwon. "Social Capital and Racial Wage Inequality." Annual meeting of the Population Association of America. April 1, 2006. Los Angeles, CA.
- Heflin, Colleen. "Dynamics of Different Forms of Material Hardship." February 1, 2006. McGill University,
- Heflin, Colleen. "Dynamics of Different Forms of Material Hardship in the Women's Employment Survey." Annual meeting of the Association of Public Policy and Management. November 3, 2005. Washington, DC:.
- Heflin, Colleen. "Dynamics of Different Forms of Material Hardship in the Women's Employment Survey." Food Assistance and Nutrition Research Small Grants Programs Conference, USDA Economic Research Service. October, 2005.
- Heflin, Colleen. "Determinants of Different Forms of Material Hardship in the Women's Employment Survey." Institute for Research On Poverty's Small Grant Conference. May 20, 2005. Madison, WI.
- Siefert, Kristine, Colleen Heflin and David R. Williams, David R. "Household Food Insufficiency in African American and White Women." Annual meeting of the Society for Social Work and Research. January 18, 2004. New Orleans, LA.
- Siefert, Kristine, Colleen Heflin, Mary Corcoran and David R. Williams, David R., "Food Insufficiency and Physical and Mental Health in a Longitudinal Survey of African American and White Women." Annual meeting of the American Public Health Association, November 17, 2003. San Francisco, CA.
- Heflin, Colleen. "Who Exits the Food Stamp Program after Welfare Reform?" Annual meeting of the Association of Public Policy and Management. November 7, 2003, Washington, DC.
- Swaroop, Sapna, Colleen Heflin and Reynolds Farely. "What About Arabs? White and Black American's Attitudes Toward Arab Americans in Detroit in 1992?" Annual meeting of the American Sociological Association. August 17, 2003. Atlanta, GA.
- Noonan, Mary and Colleen Heflin. "Do Women's Wages Depreciate While on Welfare?" Annual meeting of the American Sociological Association. August 19, 2003. Atlanta, GA.
- Swaroop, Sapna, Colleen Heflin and Reynolds Farely. "What About Arabs? White and Black American's Attitudes Toward Arab Americans in Detroit in 1992?" (poster presentation) Annual meeting of the Population Association of America. May 2, 2003. Minneapolis, MN.
- Siefert, Kristine, Colleen Heflin, and David R. Williams. "Household Food Insufficiency and Depression in African American and White Low-Income Women." Annual meeting of the American Journal of Public Health Association. November 9, 2002. Philadelphia, PA.
- Siefert, Kristine, Colleen Heflin, Mary Corcoran and David R. Williams. "Food Insecurity and Hunger: Implications of Recent Research for Maternal and Child Health Programs." 15th Annual U.S. Department of Health and Human Services Regions V and VII Maternal and Child Health Leadership Conference. April 22, 2002. Chicago, IL.

- Siefert, Kristine, Colleen Heflin, Mary Corcoran and David R. Williams. "Food Insufficiency and the Physical and Mental Health of Current and Former Welfare Recipients." Annual meeting of the Association of Public Policy and Management. Washington, DC.
- Heflin, Colleen and Mary Corcoran. "Barriers to Work among Housing Assistance Recipients." Annual meeting of the National Association of Welfare Researchers and Statisticians. Baltimore, MD.
- Heflin, Colleen, Sheldon Danziger and Nathaniel J. Anderson. "Poverty Dynamics after Welfare Reform." Annual meeting of the Association of Public Policy and Management.
- Siefert, Kristine, Colleen Heflin, Mary Corcoran and David R. Williams. "Food Insufficiency and Women's Health: Findings from a Longitudinal Survey of Welfare Recipients." Food Assistance and Nutrition Research Small Grants Programs Conference, USDA Economic Research Service. 2000.
- Heflin, Colleen, Sheldon Danziger and Nathaniel J. Anderson. "Income Dynamics after Welfare Reform". Annual meeting of the *National Association of Welfare Researchers and Statisticians*, Scottsdale, AZ.
- Heflin, Colleen and Mary Pattillo-McCoy. "Kin Effects on Black-White Account and Home Ownership." Annual meeting of the American Sociological Association. August, 2000. Washington, D.C.
- Danziger, Sheldon, Colleen Heflin and Mary Corcoran. "Does Work Pay for Single Mothers?" Annual meeting of the Population Association of America. 2000. Los Angeles, CA..
- Siefert, Kristine, Colleen Heflin, and Mary Corcoran. "Food Insecurity and the Physical and Mental Health of Low Income Single Mothers." Annual meeting of the American Public Health Association Annual Meeting, 1999. Chicago, IL.
- Pattillo McCoy, Mary and Colleen M. Heflin. "Poverty in the Family: Exploring the Kin Networks of the Black and White Middle Class." Annual meeting of the American Sociological Association. 1999. Chicago, IL..
- Corcoran, Mary E. and Colleen Heflin. "Changes in Women's Wages, 1979-1989 by Race and Ethnicity." Annual meeting of the Population Association of America. 1999. New York, NY.
- Goldberg, Heidi, Colleen Heflin and Kristin Seefeldt. "Welfare-to-Work Programs and Barriers to Employment." Annual meeting of the National Association of Welfare Research and Statistics. 1999. Chicago, IL.
- Corcoran, Mary and Colleen Heflin. "Race, Ethnic and Skill-Based Inequalities in Women's Employment and Wages." Presented at the Institute for Women's Policy Research Conference. 1998. Washington, D.C..
- Hall, Richard L. and Colleen Heflin. "The Importance of Color in Congress: Minority Members and the Representation of Race and Ethnicity in the U.S. House." Midwest Conference of Political Science Association. 1998. Chicago, IL.
- Hall, Richard L. and Colleen M. Heflin. "The Importance of Color in Congress: Minority Members and the Representation of Race and Ethnicity in the U.S. House." Presented at the Midwest Conference of Political Science Association. 1994. Chicago, IL.

TEACHING EXPERIENCE

Public Program Evaluation Poverty and Social Policy Research Methods II (Applied Regression)

COMMUNITY SERVICE

Member, Data Advisory Team for the Boone Indicators Dashboard Project, a collaboration of the City of Columbia, County of Boone, and Heart of Missouri United Way, 2016–2017.

Member, Indicator Review Committee, Missouri Kids Count, Fall 2015.

PROFESSIONAL SERVICE

Program Committee, Annual Meeting of the Association for Public Policy and Management, 2013 and 2015.

Invited speaker at Minnesota Department of Labor Conference, "Sustaining Employment in the New Millennium," February 2000.

UNIVERSITY SERVICE

Syracuse University (Fall 2017 to present)

University Service

Promotion and Tenure Committee, 2018 to present
Maxwell Faculty Committee, 2018 to present
Facilities Committee, 2018 to present

SU representative to NYFSRDC, 2017 to present Policy Studies Program Advisory Committee, 2017 to present

Departmental Service

MPA Curriculum Committee, 2017- present (Chair, 2018 to present)

Executive Committee, 2018 to present

Economics of Aging Search Committee, 2018

APPAM Policy Camp Committee, 2018

University of Missouri Service (Fall 2007 to Spring 2017)

University Service

Tenure Committee, 2016 to 2017

Lecture Committee, 2012 to 2017

Population, Education and Health Seminar Organizer, 2013 to 2014

Population, Education and Health Center Co-Director, 2014 to 2017

Departmental Service

Truman School Ph.D. Program Coordinator, 2014 to 2017

Truman School Seminar Series Co-Organizer, 2014 to 2015

Truman School Doctoral Committee Member, Fall 2007 to 2009; 2013 to 2014 Truman School Personnel Committee, 2012 to 2017 Institute for Public Policy Advisory Committee, Spring 2008 to 2010 Truman School Policy Committee, Fall 2008 to 2009; 2013 to 2017 Chair, Policy Faculty Search 2012 Food Policy Faculty Search 2013

University of Kentucky Service (Fall 2002 to Summer 2007)

University Service

University of Kentucky Center for Poverty Research Advisory Board, 2002-2007

Departmental Service

Martin School of Public Policy MPA Admissions Committee, Fall 2002 – Summer 2007 Martin School of Public Policy MPA Curriculum Committee, Fall 2002 – Summer 2007 Martin School Director's Search Committee, Fall 2002 and Fall 2003 Martin School Faculty Search Committee, Spring 2003 Martin School Internal Brownbag Seminar Organizer, 2005-2006 Revising the Capstone Committee, Fall 2005 to Spring 2006

MEMBERSHIP AND AFFILIATIONS

American Sociological Association, Member Association for Public Policy and Management, Member Population Association of America, Member

EXHIBIT B

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE HEALTH CENTER, et al.,

Petitioners,

VS.

PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES, et al.,

Respondents.

DECLARATION OF ELICIA GONZALES, LSW, M.Ed.

I, Elicia Gonzales, LSW, M.Ed., make this declaration:

- 1. I am the Executive Director of the Women's Medical Fund (WMF), a unit of Resources for Human Development, a registered charitable organization. WMF provides counseling and emergency financial assistance to thousands of low-income women and teenagers who need access to abortion care each year.
- 2. Pennsylvania's Medicaid program, Medical Assistance, prohibits coverage for abortion procedures unless the pregnancy resulted from rape or incest, or the abortion is necessary to avert the death of the pregnant woman. This prohibition took effect in 1985 following the decision in *Fischer v. Dep't of Public Welfare*, 502 A.2d 114 (Pa. 1985). That same year, WMF was founded to

provide financial support to low-income women and teenagers in Southeastern Pennsylvania who need abortions and cannot afford to pay for their procedure. WMF also provides counseling, information, and referrals to pregnant women seeking abortion care.

3. Throughout this affidavit, I refer to women and teenagers who have received counseling and/or financial assistance from WMF. I have anonymized their names and do not use any personally identifying information. Their stories are used to provide representative examples of real-world accounts of hardships experienced by low-income women who seek abortion care but who, due to the Pennsylvania coverage ban, cannot use Medical Assistance to cover their procedure.

I. Background

- 4. I am a Licensed Social Worker and received dual master's degrees in Social Work and Education from Widener University. In addition, I earned a bachelor's degree in Psychology from the University of Colorado. I previously worked as the Executive Director at GALAEI, a LGBTQ Latino nonprofit, for six years.
- 5. I have served as the Executive Director of WMF since July 2017. In my role as Executive Director, I am responsible for supervising staff,

implementing the strategic plans and policies of the Board, and leading the fundraising, administration, and program oversight of the organization.

- 6. Since 1985, WMF has provided support to thousands of low-income women and teenagers in Southeastern Pennsylvania who need to terminate a pregnancy but cannot afford an abortion. Specifically, WMF provides emergency financial assistance to these women as well as counseling, information, and referrals. The vast majority of our clients are women of color—70% are Black women and 11% are Latinx women. Most of the women and teenagers that WMF serves are either enrolled in or eligible for Medical Assistance.
- abortion due to limited funding. WMF sets a daily limit on the amount it can use to fund callers, which usually runs out before the end of the day. In fiscal year 2018, 107 women and teenagers who we spoke to were not able to receive WMF funds because, at the time they spoke to a counselor, we had already hit our daily limit and they never got back through to us again. We also know that there are women and teenagers who call and never get through because the Help Line is too busy.
- 8. In general, women and teenagers who call WMF's Help Line have already scheduled an appointment for their abortion but do not have enough money to cover the procedure. During the counseling session, the counselor will ask the woman/teenager a series of questions to learn more about her financial

situation, including her average monthly expenses, her employment status, if she can borrow money from a supportive family member or friend, and if there are other safe ways for her to raise money like picking up shifts from work or doing odd jobs. The counselor also screens for circumstances that make it more difficult for someone to raise money for an abortion, including domestic violence and homelessness. Based on this information, WMF makes a pledge typically from \$100 to \$250 to go towards the procedure, and the woman/teenager must figure out how to raise the remaining funds.

- 9. Per year, only 82% of the pledges made by WMF are actually used. Eighteen percent of the pledges go unused for a variety of reasons (including, for example, because some women experience a miscarriage and others plans to obtain an abortion from a clinic with which WMF does not work); in some of these cases, women did not use WMF's pledge because they could not raise enough-of the remaining money for the procedure.
- seeking abortion services. Seventy-two percent of them were already mothers, and 3,307 of them received and used an average of one hundred and twenty-eight dollars from WMF to help cover out-of-pocket expenses associated with their abortion. The average yearly income for the 3,307 women and teenagers who used WMF in 2018 was \$7,980.

II. Hardships Associated with Affording Abortion Care Without Insurance Coverage

- 11. In the course of running its Help Line service, WMF routinely hears firsthand accounts of the harm caused to low-income women and teenagers whose abortions are not covered because of the Pennsylvania coverage ban. It forces them to make tradeoffs that threaten their health and financial stability, as well as that of their families. For some women living in poverty, the out-of-pocket costs of an abortion—roughly \$400 to \$3,600—can be an insurmountable barrier.
- teenagers, who, when faced with an unwanted pregnancy and the unexpected expense of paying for abortion services, are forced to choose between meeting basic needs—like paying for groceries, rent, and utility bills—and using that money for the procedure. The following stories of our clients are representative examples of the difficulties faced by low-income women trying to pay for their medical care. For each story in paragraphs 13 through 22, the women sought abortion care, did not have enough money on their own, and WMF helped pay for the remaining cost of the abortion.
- 13. Sixteen-year-old Teresa and her mother could not afford to pay for Teresa's abortion. The family's sole income came from the wages Teresa's father earned from picking mushrooms, approximately \$800 per month. Teresa's mother gradually took small amounts from the funds used for household groceries

to raise \$150 towards the abortion, but she still was unable to raise enough money to cover the procedure.

- 14. Sasha had one child and a part-time job at a health facility, earning \$1,200 per month. She raised \$140 by dipping into her last paycheck, but could not raise the rest of the money she needed for her abortion procedure.

 Ultimately, she was forced to push off paying her cell phone bill to come up with an additional \$100, but she still was unable to raise enough money.
- and lived with her 10-year-old daughter. To raise money for her abortion, she obtained an advance on her next paycheck, borrowed from her grandmother, and pushed off an upcoming bill, but she still was unable to raise enough money to cover the procedure.
- vage job, earning \$500 per month. Maria saved \$100 from her last paycheck and pushed off paying bills to raise funds toward her procedure, but she still was unable to raise enough money to cover it.
- 17. Larissa was unemployed and received \$497 per month from cash assistance and food stamps to support four children and herself. Larissa borrowed what she could from friends and family but still did not have enough to cover her abortion. As a result, she was forced to push off paying bills to raise

additional money she needed for the procedure, and still required the assistance of WMF in order to cover the full costs.

- and made trade-offs between household needs and medical care when faced with an unwanted pregnancy. With a high rent payment to cover, she struggled to raise enough money to pay for the abortion. She ultimately pushed off her water bill to raise \$150 towards the procedure and still required the assistance of WMF in order to cover the full costs.
- 19. Maya lived with her eight children and had a disability that kept her out of work. She received social security for her own disability and social security for one of her children who had special needs. Struggling to raise the necessary funds for her abortion, Maya diverted money she would have used to pay bills and buy diapers to pay for her procedure, but still was unable to cover the full costs.
- 20. Juliann was a full-time student studying criminal justice and mother to four children. She was not employed while in school, and her only income came from Social Security benefits she received to support her child with a disability. Juliann took \$50 from funds she allocated for diapers to put towards the cost of her procedure, but still was unable to cover the full costs.

- 21. Brianna did domestic work like babysitting and cleaning to provide for her one child while she looked for another job. Brianna sold several items in her house including a television to raise \$250 towards her abortion, but still she was unable to cover the full costs of her procedure.
- 22. Low-income women are often forced to delay abortion care in order to raise funds for their procedure. For example, Lorena missed a previous appointment she had scheduled to obtain an abortion because she could not afford the procedure. Lorena had moved in with a friend after recently escaping domestic violence. Unable to get financial help from her friends, she diverted money used for rent to obtain abortion care, but still was unable to raise enough money for the procedure.
- 23. Similarly, Ella had scheduled an appointment for an abortion, but had to postpone it because, when she presented at the clinic for the procedure, she was further along in pregnancy and could not afford to pay more for the more expensive procedure required at that stage. Ella was then forced to use money she would have used to buy her child clothes for kindergarten to put towards her abortion, but she was still unable to cover the full costs of her procedure.
- 24. For some low-income women, the Pennsylvania coverage ban means that they ultimately must forgo obtaining an abortion altogether and carry an unwanted pregnancy to term because they are never able to secure the funds

necessary to afford the procedure. For example, Henrietta, who had been hiding from an abusive former partner at her mother's home, needed WMF's assistance because she could not afford to pay for her abortion. During her counseling session, WMF learned that Henrietta had been pregnant before and was forced to carry the pregnancies to term because she could not afford abortion services, and later gave up the newborns for adoption.

25. In other cases, low-income women experience lengthy delays as they try to raise funds for their procedure and, by the time they present at the clinic, they are too far along in pregnancy to be eligible for the procedure. For example, Sam lived with her two children in an apartment she rented, and worked at a health care agency earning roughly \$1,200 per month. Sam faced an unwanted pregnancy and could not afford abortion care. Raising the money for the procedure took time, and when she finally presented at a clinic-based provider, she was twenty weeks pregnant and was referred to a hospital because she had health factors that could require surgical intervention. However, because obtaining abortion at a hospital is much more expensive than at a freestanding clinic, she could not afford the procedure, even with WMF's pledge of assistance, and was thus forced to continue her pregnancy to term. When asked if she would have gone through with the abortion had Medical Assistance covered the procedure, Sam gave an affirmative response.

abortion care would reduce the need for low-income women to choose between carrying an unwanted pregnancy to term and using money they need for essential expenses for themselves and their families to pay for the procedure. It would also reduce the number of women who are forced to carry their pregnancies to term solely because they cannot afford an abortion.

I make this declaration subject to the penalties of 18 Pa. C. S. sec. 4904 (unsworn falsification to authorities).

Dated this __11__ of January, 2019.



₹.

Elicia Gonzales, Executive Director of the Women's Medical Fund.

EXHIBIT C

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE HEALTH CENTER, et al.,

Petitioners,

V.

PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES, et al.,

Respondents.

DECLARATION OF TERRI-ANN THOMPSON

I, Terri-Ann Thompson, make this declaration:

- 1. For more than a decade, I have worked, researched, and published in the field of reproductive health and healthcare. My work has helped to identify and assess racial/ethnic, economic, and other social disparities in health in the United States.
- 2. There is extensive research documenting the financial and logistical challenges that low-income women face in accessing abortion care, including specific research on the harms caused by state policies prohibiting Medicaid coverage for abortion.
- 3. The ability to obtain an abortion is directly related to income and the ability to pay for the procedure. The evidence shows that federal and state

policies restricting Medicaid coverage of abortion make the procedure financially inaccessible for some women seeking an abortion, forcing some to carry an unwanted pregnancy to term. Women forced to carry their pregnancy to term are more likely to fall into poverty and their newborns and existing children are more likely to suffer from adverse health and well-being outcomes.

- 4. Low-income women and women of color are disproportionately covered by public health insurance programs. As a result, restrictions on Medicaid coverage of abortion disproportionately harms these groups and increases their socioeconomic disadvantage.
- 5. Finally, research confirms that Medicaid-eligible women who are ultimately able to obtain an abortion but are denied Medicaid coverage for an abortion are likely to suffer significant consequences. These include delays in accessing abortion care (which increases the costs and potential for rare complications with the procedure) as well as diminished well-being as women with few financial resources may be forced to sacrifice basic household necessities (like food and utilities) in order to raise money for the procedure.
- 6. Based on my close familiarity with this research and my own work with Ibis Reproductive Health, a nonprofit research organization, as well as demographic surveys of abortion seeking patients, it is my expert opinion that Pennsylvania's policy withholding Medicaid coverage for abortion except in cases

of rape, incest, or life endangerment makes it difficult, and in many instances impossible, for poor women who are otherwise eligible for state-subsidized medical care to obtain abortions.

I. Background and Qualifications

7. Since 2016, I have been an Associate with Ibis Reproductive Health (Ibis), a nonprofit organization that drives change through bold, rigorous research and principled partnerships that advance sexual and reproductive autonomy, choices, and health worldwide. The organization conducts research that focuses on increasing access to safe abortion, expanding contraceptive access and choices, and integrating HIV and comprehensive sexual and reproductive health services. In this role, I lead Ibis's research program focused on documenting the impact of the Hyde Amendment—a federal legislative provision with state counterparts that prohibits public funds from being used to cover abortions unless the life of the woman is endangered, or the pregnancy is a result of rape or incest on low-income women and abortion providers. Under this research portfolio, I oversee initiatives that examine and describe 1) Women's experiences seeking abortion care in the absence of public insurance, 2) The consequences of out-ofpocket costs for abortion care, 3) The impact of Medicaid reimbursement on abortion care provision, and 4) Changes in abortion access prior to and following the enactment of state policies related to public coverage of abortion.

- 8. Prior to coming to work for Ibis, I worked for the Yale
 University School of Medicine where I was the Interim Director of Operations for
 the Equity Research and Innovations Center and an Associate Research Scientist
 for the Eastern Caribbean Health Outcomes Research Network Coordinating
 Center. In these roles, I worked to address health disparities in the United States
 through research, training, and programming.
- 9. I have also conducted independent research for other organizations focused on issues related to reproductive health, including the World Health Organization, the Maryland Department of Health and Mental Hygiene, the International Center for Research on Women, the MacArthur Foundation, and Goldman Sachs. This work has focused on examining factors like health care access that contribute to reproductive health disparities.
- 10. I have published articles in peer-reviewed journals and book chapters in the area of reproductive health care and give presentations at meetings and conferences of social science and medical professionals on a variety of topics related to reproductive health care.
- 11. I have a doctorate in public health, with a focus on reproductive and women's health, from Johns Hopkins Bloomberg School of Public Health and a Bachelor of Arts degree in psychology from Macalester College.

12. I submit this declaration as an expert in the field of abortion. 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 A to this declaration. All of my opinions in this declaration are stated to a reasonable degree of professional certainty.

II. The Impact of Cost on Access to Abortion

- A. Financial and Logistical Obstacles to Obtaining an Abortion
- 13. Nearly half of all pregnancies each year in the United States are considered mistimed or unwanted. Mistimed and unwanted pregnancies, otherwise known as unintended pregnancy, are a public health concern because they are associated with poor maternal and child health outcomes. Women living in poverty experience higher rates of unintended pregnancy and account for a higher proportion of abortion patients. In 2014, the most recent year for which there is comprehensive national data, 49.4% of women having abortions in the United States had incomes below the federal poverty level (then, \$11,670 for a

¹ Lawrence B. Finer & Mia R. Zolna, "Declines in unintended pregnancy in the United States, 2008–2011," *New England Journal of Medicine*, 2016, 374(9):843-852

² Adam Sonfield, et al., "The Social and Economic Benefits of Women's Ability to Determine Whether and When to Have Children," New York: Guttmacher Institute, 2013; Lawrence III, H.C. Testimony before the Institute of Medicine Committee on Preventative Services for Women, Washington, DC: American Congress of Obstetricians and Gynecologists, 2011; Pamela Herd, et al., "The implications of unintended pregnancies for mental health in later life," American Journal of Public Health, 2016, 106(3):421–429.

single person, or \$23,850 for a family of four),³ and an additional 25.7% had incomes between 100% and 199% of the federal poverty level.⁴ Most women report multiple reasons for seeking abortion care. However, the most frequently reported include feeling financially unprepared for a child, pregnancy timing, reasons related to their partner, and a desire to focus on their existing family.⁵

14. Research shows that the cost of obtaining an abortion, including the cost and logistics of traveling to obtain an abortion, present significant barriers for women with limited means. For example, in a 2006 sample of 1,209 abortion patients in 11 clinics, among those who said that they would have preferred to have had their abortions earlier, 26% said they were delayed by the time needed to acquire the funds to pay for an abortion, and 7% were delayed because there was no nearby clinic and they had to arrange transportation. Over 39% of reproductive-age women in the US live in a county that lacks an abortion provider?

³ Office of the Assistant Secretary for Planning & Evaluation, U.S. Dep't of Health & Human Servs., 2013 Poverty Guidelines (Dec. 1, 2013), available at http://aspe.hhs.gov/poverty/14poverty.cfm#thresholds.

⁴ Calculation based on forthcoming data from the Guttmacher Institute drawn from a nationally representative survey of 8,380 abortion patients in 2014.

⁵ M. Antonia Biggs, Heather Gould & Diana Greene Foster, "Understanding why women seek abortions in the US," *BMC women's health*. 2013 Dec; 13(1):29.

⁶ Lawrence B. Finer, et al., "Timing of Steps and Reasons for Delays in Obtaining Abortions in the United States," 74 Contraception 334, 335 (2006).

⁷ Rachel K. Jones & Jenna Jerman, "Abortion incidence and service availability in the United States, 2014," *Perspectives on Sexual and Reproductive Health*. 2017 Mar; 49(1):17-27.

and 92% of women living in rural areas of the country have to travel up to 100 miles to access abortion care.8

15. The majority of women seeking an abortion have to cover the costs of care using their own funds. This unexpected and time-sensitive expense can mean forgoing food, rent, or paying bills in order to afford care. Over half of the women in one study of abortion patients said these costs amounted to more than one-third of their personal monthly income. Shifting limited financial resources to cover the cost of an abortion may push women into debt and contribute to financial instability. Financial instability makes it difficult to provide for a child. Women able to save enough for an abortion reported that they and family members who helped pay for the abortion struggled financially for months

⁸Jonathan M. Bearak, Kristein Lagasse Burke, & Rachel K. Jones, "Disparities and change over time in distance women would need to travel to have an abortion in the USA: a spatial analysis," *The Lancet Public Health*, 2017 Nov 1; 2(11):e493-500.

⁹ Jenna Jerman, Rachel K. Jones, & Tsuyoshi Onda, "Characteristics of US abortion patients in 2014 and changes since 2008," New York, NY: *Guttmacher Institute*; 2016.

¹⁰ Terri-Ann Thompson & Laura Fix, "All* Above All and Ibis Reproductive Health, Research brief: The impact of out-of-pocket costs on abortion care access," Cambridge, MA: *Ibis Reproductive Health*, September 2016, available at https://www.ibisreproductivehealth.org/publications/research-brief-impact-out-pocket-costs-abortion-care-access; Sarah C.M. Roberts, et al., "Out-of-pocket costs and insurance coverage for abortion in the United States," *Women's Health Issues*, 2014 Mar 1;24(2):e211-8.

¹¹ Amanda Dennis, Ruth Manski, & Kelly Blanchard, "Does Medicaid coverage matter? A qualitative multi-state study of abortion affordability for low-income women," *Journal of Health Care for the Poor and Underserved*, 2014; 25 (4): 1571-85.

after the procedure as a result of having to cut back on groceries and other basic necessities in order to pay back loans, unpaid bills, and credit card debts. 12

- 16. In 2008, a group of researchers at the University of California, San Francisco launched a five-year prospective longitudinal study examining health (mental and physical) and socioeconomic consequences of receiving an abortion compared to carrying an unwanted pregnancy to term. The researchers of this "Turnaway Study" recruited 1000 women who sought abortions from 30 abortion clinics across 21 states, collecting both survey and interview data. They found that the most common reason for delay was "travel and procedure costs," cited by 37% of first-trimester patients and 67% of abortion patients approaching the clinic's gestational age limit.¹³
 - B. The Impact of Public Funding Bans on Abortion Access
- 17. Research has demonstrated that restrictions on Medicaid coverage have detrimental financial and health implications for women and their families. Women struggling to afford an abortion are forced to make immediate financial sacrifices that may adversely affect the health and well-being of themselves and their families, in both the short- and long-term.

 $^{^{12}}$ Id.

¹³ Ushma D. Upadhyay et al., "Denial of Abortion Because of Provider Gestational Age Limits in the United States," 104 Am. J. Pub. Health 1687, 1689, 1691 (2014)

18. Of the "turned away" women who considered trying to get an abortion at another clinic but did not ultimately obtain one, the majority (85.4%) cited "procedure and travel costs" as the barrier to getting care. ¹⁴ The researchers observed:

[O]ne of the primary reasons for delay in seeking an abortion was time spent raising the funds to pay for the procedure and travel... Public financing and insurance coverage for abortion would have made procedures possible for many of the turnaways, and ability to pay while in the first trimester could have prevented some women from needing later abortions.

A 1984 qualitative study of abortion patients found that Medicaid eligible patients were delayed an average of 2-3 weeks as they searched for funds to pay for the abortion procedure. For some, this delay resulted in a need to obtain second trimester abortion care, a more costly abortion procedure. The burden of finding funds for some is exacerbated if the woman has to travel to receive care, pay multiple visits to the abortion clinic, arrange childcare, or take multiple days off work to receive care. The study of abortion patients found that Medicaid eligible patients were delayed an average of 2-3 weeks as they searched for funds to pay for the abortion procedure. The burden of finding funds for some is exacerbated if the woman has to travel to receive care, pay multiple visits to the abortion clinic, arrange childcare, or take multiple days off work to receive care.

¹⁴ *Id*.

¹⁵ Stanley K. Henshaw, et al., "Restrictions on Medicaid Funding for Abortions: A Literature Review," *Guttmacher Institute* (July 2009) available at https://www.guttmacher.org/report/restrictions-medicaid-funding-abortions-literature-review (last visited Jan. 3, 2019).

¹⁶ "Out-of-Pocket Costs and Insurance Coverage for Abortion in the United States," supra note 10.

19. A Guttmacher Institute study conducted in the state of Missouri following its cutoff of funding for abortion (unless the pregnancy was lifethreatening) found that 22% of Medicaid-eligible women who had secondtrimester abortions would have had earlier first-trimester abortions if Medicaid coverage had been available and if the women were not delayed by the need to raise money.¹⁷ Moreover, the study found that 58% of Medicaid-eligible women (as compared to 26% of other women) had to, among other things, let bills go unpaid or buy less food and clothing for children in order to pay for their abortions. 18 Research from Ibis Reproductive Health with low income women in seventeen states lends credence to these findings, highlighting that low-income women and their families endure financial hardships to afford care, including forgoing food or schooling, taking out loans, delaying bills or rent, putting large amounts on credit cards, and pawning belongings. 19 The Turnaway Study, which, as noted earlier, found that "[t]he most common reason for delay" among patients who were ultimately turned away from an abortion clinic because they exceeded

¹⁷ Stanley K. Henshaw & Lynn S. Wallisch, "The Medicaid Cutoff and Abortion Services for the Poor," 16 Fam. Plan. Persp. 170, 178 (1984).

¹⁸ *Id.* at 179.

¹⁹ "Does Medicaid coverage matter?: A qualitative multi-state study of abortion affordability for low-income women," *supra* note 11.

the clinic's gestational age limit was "having to raise money for travel and procedure costs," lends further support for this conclusion.²⁰

- 20. Delaying abortion care has consequences for a woman's health beyond those that may arise from the sacrifices (e.g., of food) made to secure funding. Although abortion is an extremely safe procedure, the risk of medical complications increases at higher gestations.²¹ States that withhold Medicaid coverage for abortion thus put women's health at risk by delaying their care.
- 21. Public assistance helps ensure women can receive safe abortion care in a timely manner. Research indicates that one in four women who would have had Medicaid-funded abortions instead gave birth when this funding was unavailable.²² These findings are consistent with those of Roberts et al., who found—in a study of women entering prenatal care who considered but did not obtain an abortion—that restrictions that create financial and logistical barriers ultimately limit women's abilities to obtain abortion care²³ and with findings from

²⁰ "Denial of Abortion Because of Provider Gestational Age Limits in the United States," *supra* note 13, at 1687, 1689.

²¹ Heather Boonstra, "The Heart of the Matter: Public Funding of Abortion for Poor Women in the United States," *Guttmacher Policy Review* 12, at 15-16 (Winter 2007), available at https://www.guttmacher.org/gpr/2007/03/heart-matter-public-funding-abortion-poor-women-united-states (last visited Jan. 3, 2019).

²² "Denial of Abortion Because of Provider Gestational Age Limits in the United States," *supra* note 13, at 1692.

²³ Sarah C.M. Roberts, et al., "Consideration of and Reasons for Not Obtaining Abortion Among Women Entering Prenatal Care in Southern Louisiana and Baltimore, Maryland," Sex

the Turnaway Study that showed that the majority of women (approximately 70%), who were unable to obtain an abortion from a clinic—85.4% of whom cited travel and procedure costs as a barrier—did not subsequently obtain an abortion elsewhere.²⁴

women's reproductive health outcomes comes from a study in North Carolina that examined the effect of short-term cutoffs in state funding for abortion for indigent women. Between 1977 and 1993, the state of North Carolina provided a fixed amount of funds that could be used to pay for abortions for poor women. During five of those years, the fund was depleted, on average, approximately four months before the end of the fiscal year. The authors of the study found that the annual cutoff when these funds were depleted—that is, the period when indigent women had to pay the cost of the procedure without state assistance—was associated with a statistically significant decline in abortions and a statistically significant increase in births. Overall, they found that "approximately 3 in every 10 pregnancies that would have ended in an abortion, had the funds been available, were instead

Res Soc Policy (2018) available at https://link.springer.com/content/pdf/10.1007%2Fs13178-018-0359-4.pdf.

²⁴ "Denial of Abortion Because of Provider Gestational Age Limits in the United States," *supra* note 13, at 1689.

carried to term."²⁵ As the authors note, it "is rather remarkable that the necessity of paying a couple-of-hundred-dollar fee for an abortion is sufficient to persuade (or compel) some women to incur the much larger financial and personal costs of bearing an unwanted child."²⁶

- 23. Another study, based mainly on data collected in Georgia,
 Ohio, and Michigan, found that 18-23% of Medicaid-eligible women who want an
 abortion nevertheless carry to term in states where abortion is not covered by
 Medicaid.²⁷ And according to a study conducted by researchers with the Centers
 for Disease Control & Prevention, the Texas Department of Human Resources, and
 others, as many as 35% of Medicaid-eligible women who would have had an
 abortion had Medicaid coverage been available ultimately carried to term.²⁸
- 24. Public assistance facilitates timely access to abortion care. A study conducted by Ibis Reproductive Health that collected qualitative data from women in multiple states where abortion is covered in all circumstances through

²⁵ Phillip J. Cook, Allan M. Parnell, Michael J. Moore, Deanna Pagnini, "The Effects of Short-Term Variation in Abortion Funding on Pregnancy Outcomes," 18 J. Health Econ. 241, 255 (1999).

²⁶ *Id*.

²⁷ James Trussell et al., "The Impact of Restricting Medicaid Financing for Abortion," 12 Fam. Plan. Persp. 120, 129 (1980).

²⁸ M. Chrissman et al., "Effects of Restricting Federal Funds for Abortion—Texas," 29 Morbidity & Mortality Wkly. Rep. 253 (1980).

Medicaid found that, with this public financial assistance, women reported that they were able to access abortion services in a timely manner and were able to find abortion clinics that accepted their insurance.²⁹ In a separate study, authors found that pregnant women in states that covered abortion care had lower (~16%) risk of maternal mortality on average, compared to pregnant women residing in states that did not cover abortion through Medicaid.³⁰

25. Because people insured by Medicaid all have low incomes, and because federal policies limiting coverage of abortion care applies only to people covered by Medicaid, these policies target poor families. Restrictions on Medicaid coverage of abortion are also discriminatory against women of color, and in particular Black and Latina women, as they are more likely than White women to be poor and qualify for Medicaid³¹ and are more likely to face financial barriers to abortion care.³² Additionally, because of broader social and economic disparities as

²⁹ "Does Medicaid coverage matter? A qualitative multi-state study of abortion affordability for low-income women," *supra* note 11, at 1571-85.

³⁰ Marian Jarlenski, et al. "State Medicaid Coverage of Medically Necessary Abortions and Severe Maternal Morbidity and Maternal Mortality," *Obstetrics & Gynecology* (2017) May; 129(5): 786–794.

³¹ Matt Broaddus & Lighton Ku, "Out of pocket medical expenses for Medicaid beneficiaries are substantial and growing," *Center on Budget and Policy Priorities*, 2005, available at http://bit.ly/1iXfb47; The Henry J Kaiser Health Foundation, "Women's issue brief: An update on women's health policy", 2012 available at http://bit.ly/1fLFE5R.

³² "Out-of-pocket costs and insurance coverage for abortion in the United States," *supra* note 10.

well as existing income, racial, and ethnic inequalities in the US, unintended pregnancy and the need for abortion are disproportionately experienced by poor women and women of color.

26. A review of funding provided from 2010-2014 by the National Network of Abortion Funds to 2,959 US women showed that women were generally unable to raise more than one-quarter of the cost of an average abortion on their own.³³ Although private charitable abortion funds exist in many places in the country to help fill the gap left by a lack of public insurance coverage for the procedure, these funds are unable to cover the full amount of funding needed by most of the people they assist.³⁴

III. Effect of Pennsylvania's Abortion Coverage Ban on Poor and Low-Income Women

27. Restrictions on abortion can severely impact the well-being of women and their families. Research shows that such restrictions can lead to emotional, financial, and physical harms including poor emotional well-being,

³³ Gretchen E. Ely, et al., "The Undue Burden of Paying for Abortion: An Examination of Abortion Funding Assistance Cases in the United States, Sexual Health," available at https://www.guttmacher.org/evidence-you-can-use/medicaid-funding-abortion (last visited Dec. 19, 2018).

³⁴ Guttmacher Institute, "Medicaid Funding of Abortion," (Feb. 2018) available at https://www.guttmacher.org/evidence-you-can-use/medicaid-funding-abortion (last visited Jan. 3, 2019).

intimate partner violence, and poverty.³⁵ Further, restrictions that impede access to abortion interfere with women's autonomy, which can have deleterious consequence for women's life plans and their economic well-being. These findings are consistent with my research with Ibis and strongly suggest that factors enabling women to escape poverty such as higher education, stable housing, employment, and consistent and comprehensive coverage of health care can lead to better health and quality of life outcomes.

28. I understand that, in Pennsylvania, abortions performed up to approximately 13.6 weeks of pregnancy, as measured from a woman's last menstrual period ("LMP"), cost \$435-\$580; abortions performed at 14.0-16.6 LMP cost \$815-\$855; and abortions performed from 17-18 weeks LMP cost \$915-\$955.36 Given that forty-two percent of women seeking an abortion have

Quality of Life Research," 2014; 23(9):2505-2513; Corinne H. Rocca, et al., "Women's emotions one week after receiving or being denied an abortion in the United States," Perspectives on Reproductive Health, 2013; 45(3):122-31; Melissa S. Kearney & Phillip B. Levine, "Why is the teen birth rate in the United States so high and why does it matter?" The Journal of Economic Perspectives, 2012; 26(2): 141-166; Sarah C. M. Roberts, et al., "Risk of violence from the man involved in the pregnancy after receiving or being denied an abortion," BMC Medicine, 2014; 12: 144; Laura F. Harris, et al., "Perceived stress and emotional social support among women who are denied or receive abortions in the United States: a prospective cohort study," BMC Women's Health, 2014; 14: 76; Diana Greene Foster, et al., "Socioeconomic outcomes of women who receive and women who are denied wanted abortions," American Journal of Public Health (2018) Mar; 108(3):407-413.

³⁶ Planned Parenthood of Pennsylvania, Fees for Services, available at https://www.plannedparenthood.org/planned-parenthood-western-pennsylvania/patients/feesservices (last visited December 13, 2018).

household incomes below the federal poverty level in the United States, these costs present a significant barrier to access to safe abortion care.³⁷

- 29. In order to afford an abortion, a poor or low-income woman in Pennsylvania will be required to make severe financial sacrifices, placing her family and herself in an economically vulnerable situation. Out of pocket health expenses that are significantly large in proportion to a household's ability to pay can be considered "catastrophic." Such expenses cause severe financial hardship, causing women to either not obtain a wanted abortion at all, or attempt to meet the cost of an abortion in ways that have harmful consequences in other aspects of their lives: not paying rent or utilities; skipping car payments; reducing food intake; and borrowing money using costly "payday" loans at high interest.
- 30. Data from the Guttmacher Institute shows that in 2014, approximately "85% of Pennsylvania counties had no abortion clinics and 48% of Pennsylvanians resided in these counties." This represents a large proportion of Pennsylvania women who will have to travel outside of their county to seek

³⁷ Rachel K. Jones, Lawrence B. Finer, Susheela Singh, "Characteristics of U.S. Abortion Patients, 2008," The Guttmacher Institute, available at https://www.guttmacher.org/report/characteristics-us-abortion-patients-2008 (last visited Jan. 3, 2019).

³⁸ Adam Wagstaff, et al., "Progress on catastrophic health spending in 133 countries: a retrospective observational study," Artic Lancet Glob Heal. 2018; 6:169-179.

³⁹ "Abortion incidence and service availability in the United States," *supra* note 7.

abortion care. Transportation and travel related costs such as lost wages, hotel stays, and child care, increase the cost of a clinic based abortion.

- 31. Because raising money takes time, many of these women will be delayed in accessing abortion care. Others will find themselves unable to raise the money they need before their time to get an abortion runs out. They will have no option but to continue with the pregnancy. In some cases, they may be unable to adequately support themselves, their newborn child, and other children they already have and, in most cases, will be far less likely to escape from poverty.
- 32. Pennsylvania Medical Assistance coverage for abortion would significantly alleviate the financial burden on poor and low-income women seeking abortion care, making it far less likely that these women will be delayed in or prevented from accessing care. Coverage will also mitigate the painful and dangerous sacrifices required to obtain this needed care and remove a major obstacle in the path of a woman attempting to avoid or overcome poverty.
- 33. Based on this information about Pennsylvania, my expertise in the relevant research literature, and my own research into these matters, I have no reason to believe that the decades of research consistently finding that the denial of Medicaid coverage for abortion impedes women's ability to access abortion do not hold true in Pennsylvania today.

I make this declaration subject to the penalties of 18 Pa. C. S. § 4904 (unsworn falsification to authorities).

Dated this _____ of January, 2019.

Terri-Ann Thompson, PhD.

EXHIBIT A

TERRI-ANN THOMPSON, PHD

59 SUNNYSIDE AVENUE• WINTHROP, MA 02152 • (508) 410-6951 • <u>THOMPSON.TERRIANNM@GMAIL.COM</u>

SUMMARY OF QUALIFICATIONS

- A process-oriented health disparities researcher with 10 years of experience in public health research with a focus on women's health, health disparities, and non-communicable diseases. Versed in multiple research methodologies: quantitative, qualitative, mixed methods, and monitoring & evaluation
- An accomplished administrator with experience in research proposal review, fiscal management & administration, and project implementation in domestic and international settings.
- A strong leader with experience building long-term relationships with stakeholders, collaborating and identifying opportunities that drive efficiency and continuous project improvement
- An effective communicator with experience sharing research findings, methodologies, and ideas to scientific and lay audiences through presentations at national scientific conferences, journal articles, grant proposals, and workshops

EDUCATION AND TRAINING

DOCTORATE IN PUBLIC HEALTH REPRODUCTIVE AND WOMEN'S HEALTH

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

2011 Baltimore, MD

BACHELOR OF ARTS IN PSYCHOLOGY

MACALESTER COLLEGE

2002 St. Paul, MN

Professional Development

Maternal Child Health Certificate, March 2009

This certificate indicates advanced knowledge in the health and welfare of women and children through competencies which examine the biological, social, and behavioral basis for maternal and child health programs; patterns of human growth and development; and an understanding of the design, implementation, and evaluation of MCH programs domestically and internationally

PROFESSIONAL EXPERIENCE

Associate Ibis Reproductive Health

07/16-Present Cambridge, MA

Ibis Reproductive Health is an international nonprofit organization with a mission to improve women's reproductive autonomy, choices, and health worldwide. The organization conducts research that focuses on increasing access to safe abortion, expanding contraceptive access and choices, and integrating HIV and comprehensive sexual and reproductive health services.

- Lead research and project activities under the Hyde Amendment portfolio
- Lead research and project activities for a multi-site evaluation of a telemedicine model for medication abortion
- Lead research that assesses contraceptive access in independent abortion clinics
- Provide technical assistance on a variety of research efforts in collaboration with other reproductive health and reproductive justice organizations such as SisterReach and SisterSong
- Coordinate dissemination efforts such as manuscript preparation, research briefs, and presentations

Interim Director of Operations Equity Research and Innovation Center (ERIC)

07/14-06/16 New Haven, CT

Yale University School of Medicine

ERIC fosters cross-discipline collaboration and training to develop novel solutions and strategies for domestic and global health inequities. The center coordinates a portfolio of research and other scholarly activities related to health and healthcare equity.

- Manage all aspects of the center related to operations. This includes meeting with directors in the education, research, community engagement, and consultation arms of the center to develop goals, policies, and procedures. Establishing partnerships with other centers and organizations across academic institutions and within the community. Providing oversight for the center budget and executing financial forecasts, leading grant preparation and submission efforts, and developing annual reports & other materials for funders and other stakeholders.
- Provide higher level supervision for all staff and undergraduate students working within the center. Responsible for coordinating the performance review process and other human resource related tasks.
- Represent the organization at internal and external meetings on healthcare inequity and health issues affecting historically vulnerable populations.

Associate Research Scientist
Director, Eastern Caribbean Health Outcomes
Research Network (ECHORN) Coordinating Center
Yale University School of Medicine

12/11-06/16 New Haven, CT

ECHORN is a research collaborative across five academic institutions, University of the West Indies-St.

Augustine, University of the West Indies-Cave Hill, University of Virgin Islands, University of Puerto Rico, and Yale University.

- Lead Administrative and Capacity Building Efforts
 - Coordinate a multi-million and multi-year, National Institute of Minority Health and Health Disparities (NIMHD), research infrastructure. This involves initiating appropriate actions such as sub-awards, budget development & management, relative to other sites within the network. I manage and adjust research and adjust priorities for research and capacity strengthening in response to changes in funding as well as site performance. Lead grant preparation and submissions; responsible for acquiring three administrative supplements totaling \$600,000, and submitting four grants under the NIH R13, U54, and R21 mechanisms.
 - Coordinate capacity strengthening activities, including symposia and workshops in the United States and Caribbean. Develop and lead evaluative efforts for capacity strengthening activities; information from evaluations used to improve educational activities and to develop research training modules for a virtual learning platform.
 - Collaborate across different stakeholder groups, including community members, public health agencies, civil society, and government agencies to ensure information and resource exchange around noncommunicable disease research, practice, and policy efforts. Developed guidelines for community advisory board engagement in partnership with technical experts in community engagement. Serve on planning committee for Global Health Leadership Institute, Forum for Change, which convened policymakers and researchers from the Caribbean to foster problem solving and debate critical issues in global health
- Lead and Monitor Activities related to ECHORN's Primary and Ancillary Research Projects
 - Coordinate a multi-site noncommunicable chronic disease (NCD) prospective Cohort Study, which aims to identify risk/protective factors associated with diabetes, cancer, and cardiovascular disease. Worked across academic institutions, ethics boards, and ministries of health in five middle to high income countries to acquire study approval. Provide oversight for data collection, storage, and study implementation across the four sites in the eastern Caribbean. Conduct site visits to ensure accurate and effective implementation of activities, evaluate site efforts, and identify (with site teams) solutions to challenges.
 - Use existing evidence and practices in chronic disease to develop research protocols for baseline and follow-up assessments in collaboration with medical director and relevant project staff. Use skills in qualitative research to adapt and refine survey measures.

- Analyze the technical and scientific merit of ancillary research proposals through participation on the ECHORN Data Access and Scientific Review Committee. This includes assessing investigator qualifications, mission alignment & advancement, scientific approach & feasibility, and project integrity, significance, and innovation.
- Lead analytic and dissemination efforts. Prepare annual reports, shared at meetings with federal and internal agencies as well as papers and posters shared at national conferences.
- Supervise a staff with diverse technical skills: data manager, biostatistician, project manager, research assistant and graphic design coordinator. Plan work assignments for undergraduate students and provide mentorship for graduate student led projects to facilitate career & research development as well as project completion.

Data Manager/Technical Assistant

07/11-12/11

International Center for Research on Women (ICRW)

Washington, DC

Provided technical assistance to a project examining the impact of fertility decline on women's economic empowerment in South Africa. Worked with two large South African survey datasets to create key variables for analyses including a community wealth index and to perform preliminary analyses using STATA. Contributed to manuscript preparation by conducting an extensive literature review on fertility decline and associated factors.

Principal Investigator

Adolescent/Caregiver Study

02/10-04/11 Portland, JM

- Dissertation Grant: The Influence of Sex Education on the Sexual Behaviors of Jamaican Adolescents. Bill and Melinda Gates Institute for Population and Reproductive Health, Johns Hopkins Bloomberg School of Public Health.
- Conducted a mixed methods research study with a peri-urban adolescent population in Jamaica. This involved acquiring ethics approvals from multiple academic institutions and the ministry of education and worked with stakeholders from local high schools to ensure engagement in study activities.
- Research comprised of secondary data analysis, using STATA, of the Jamaica Reproductive Health Surveyto examine association between receipt of sex education from caregivers or school on timing of first sex. Focus group and individual in-depth interviews with adolescents aged 15-17 years to explore messages received and decision-making process around first sex and Individual in-depth interviews with caregivers and guidance counselors to explore training and messages transmitted to adolescents about sex. Qualitative data was analyzed using Atlas.ti software. Research Identified gaps in existing knowledge around sex education within this cultural context.

Minority Global Health Disparities Research Training Scholar

Johns Hopkins University School of Nursing & University of Cape Town

06/09-08/09 Cape Town, SA

- Performed a scoping review of published literature on the sexual development of South African adolescents; with a special focus on development within the context of violence. This review was augmented with key informant interviews with leaders of South African based organizations targeting adolescents to discuss 1) efforts to educate adolescents about sex & sexual health; 2) current challenges to sex education and 3) gaps in sex education efforts.
- Prepared a report for the South African based Gender, Health, Justice and Research Unit (GHJRU) that outlined evidence for sexual development and provided recommendations for implementing evidence-based interventions.

Johnson and Johnson Community Health Care Scholar

Johns Hopkins School of Public Health & Coastal Family Health Center

08/08-05/10 Biloxi, MS

- Trained community health workers, at a family health center, in monitoring and evaluation (M&E) techniques. M&E tools were used with a school-based child obesity program. Community health workers were taught how to a) assess program needs, b) develop objectives and indicators, c) perform basic analyses using Epi-Info, and d) operationalize the evaluation plan.
- Assisted community health workers in using the data collected to increase awareness about childhood obesity among staff at the health center, school leadership, teachers, and with potential funders.

Gender Intern

Center for Communication Programs (CCP)

11/09-01/10 Baltimore, MD

- Developed a compendium of gender-based programs. Assessed level of alignment between CCP's gender-based programming efforts and established guidelines for integrating gender across projects and activities.
- Developed a report that outlined findings and offered recommendations for program adjustments; shared with project leaders within the organization.

Research Fellow, Maternal Child Health/Epidemiology

Maryland Department of Health and Mental Hygiene

08/08-08/09 Baltimore, MD

- Analyzed Center for Disease Control and Prevention (CDC) Pregnancy Risk and Monitoring System (PRAMS) data to assess perinatal health factors associated with teeth cleaning behaviors among women in Maryland
- Results from this work was disseminated in 1) a brief policy brief to raise awareness among clinicians and policy-makers about Maryland women's oral health practices, access, and needs, 2) at an annual PRAMS meeting and national conference, and 3) in the maternal and child health journal

CONSULTING

Consultant, Data Access and Scientific Review Committee

09/16-12/17

Eastern Caribbean Health Outcomes Research Network (ECHORN)

- Coordinated submissions to the data access and scientific review committee
- Coordinated analytic requests for ECHORN data

Consultant, World Health Organization (WHO)

03/16-07/16

Conducted a systematic review of the impact of comprehensive sexuality education (CSE) on health
outcomes, with a specific focus on childhood sexual abuse. This project aligned with efforts to address
linkages between interventions for adolescents and other health outcomes to better inform policies and
programs. A report was produced that outlined the mechanisms by which sexuality education could reduce
childhood sexual abuse and proposed potential strategies for the incorporation and evaluation of CSE as an
intervention for childhood sexual abuse.

Consultant, MacArthur Foundation

Johns Hopkins Bloomberg School of Public Health

01/13-06/13 Baltimore, MD

Served as a content/outcomes expert on adolescent reproductive and sexual health in the Caribbean.
 Collected, reviewed and synthesized information from published and grey literature for inclusion into a report that examined the quality of interventions and evaluations targeting young people (ages 10-24) in four key areas: early marriage, early pregnancy, repeat pregnancy and sexually transmitted infections. This work was later published in 2016 in the Journal of Adolescent Health.

Consultant, Goldman Sachs

10/11-12/11

International Center for Research on Women (ICRW)

Washington, DC

 Provided technical assistance in the form of quantitative analyses and qualitative study support for an impact evaluation of Goldman Sachs' 10,000 Women initiative. Developed semi-structured interview guides and analyzed collected data to establish selection criteria for women participating in the follow-up qualitative study.

HONORS AND AWARDS

Ann Bolger Vision Award	2001
Presidential Award	2002
Maternal and Child Health Applied Epidemiology Fellowship (HRSA MCHB)	2008-2009
Endowed Fellowship in Family Planning and Reproductive Health	2008-2010
Johnson and Johnson Scholar	2008-2010

PUBLICATIONS AND PRESENTATIONS

Peer-reviewed Publications;

Wang, K.H., Thompson, T.A, Galusha, D., et.al. Non-communicable chronic diseases and timely breast cancer screening among women of the Eastern Caribbean Health Outcomes Research Network (ECHORN) Cohort Study. Cancer Causes Control, 2018; 29:315

Oladele, C., Thompson, TA., Zhang, E.R., Nunez-Smith, M. Population-Based Surveillance for Cardiovascular Disease in the Caribbean: Challenges and Opportunities for Regional Approaches. Current Cardiovascular Risk Reports, 2017:11:4

Hindin, MJ, Kalamar, AM, Thompson, TA, Upadhyay UD. Interventions to prevent unintended and repeat pregnancy among young people in low and middle-income countries: A systematic review of the published and grey literature. Journal of Adolescent Health, 2016; 59(3 Suppl):S8-S15

Maharaj RG, Nunez-Smith M, King RK, Adams OP, Nunes PN, Braithwaite R, Thompson T. Independence and interdependence: opportunities for growth, research and societal change. West Indian Med J 2012; 61(4):472

Maharaj RG, Thompson T, Nunez MA, Adams OP, Nazario-Delgado C, Nunes PN, Nunez-Smith M. The Eastern Caribbean Health Outcomes Research Network (ECHORN). Caribbean Med J 2012; 74(2):36-37

Thompson, TA, Cheng, D, and Strobino, D. Dental cleaning before and during pregnancy among Maryland mothers. Maternal and Child Health 2013; 17(1):110-118

Centorrino F, Fogarty KV, Cimbolli P, Salvatore P, Thompson TA, Sani G, Cincotta SL, Baldessarini RJ. Aripiprazole: initial clinical experience with 142 hospitalized psychiatric patients. Journal of Psychiatric Practice 2005 Jul; 11(4): 241-7

Book Chapters:

Glass, N., Campbell, J., Njie-Carr, V., and Thompson, TA (2010). Ending violence against women: essential to global health and human rights. In Parker, R. & Sommer, M. (Eds.) International Handbook on Global Public Health. UK: Routledge

White, R.F., Krengel, MH, and Thompson, TA (2009). Common Neurological Disorders Associated with Psychological-Behavioral Problems. In Kleespies, P.M. (Ed.), Behavioral Emergencies: An Evidence Base Resource for Evaluating and Managing Risk of Suicide, Violence and Victimization (pp 289-310). Washington, D.C: American Psychological Association

Reports and Research briefs

Thompson, TA and Young, YY. Medicaid reimbursement for abortion care: The case of Washington. Cambridge, MA: Ibis Reproductive Health. November 2018

Thompson, TA, Seymour J. Evaluating priorities: Measuring women's and children's health and wellbeing against abortion restrictions in the states. Research Report. Ibis Reproductive Health; June 2017

Thompson, TA and Fix, L. The impact of out-of-pocket costs on abortion care access. Cambridge, MA: Ibis Reproductive Health. September 2016

Presentations and Workshops:

Thompson TA, Jorawar S, Theogene, E, Hopkins, M. Inspiring proactive strategies; a listening session with researchers and advocates working to address disparities in abortion access and care. Let's Talk About Sex Policy Workshop, October 2017

Collins, S., Coplon, L., Grossman, D., Northcraft, D., Snow, J., Thompson, TA, VanDerhei, D., Wall, K. Building bridges, not walls: using telemedicine to expand sexual & reproductive healthcare. North American Forum on Family Planning, October 2017

Crear-Perry, J., Linkin, F., Lipscomb, B., Thompson, TA., Wallace, M. Making connections: public health indicators and policy priorities. North American Forum on Family Planning, October 2017

Thompson, TA., Galusha D., Nunez-Smith, M. Reproductive health as an indicator for health in later life. Oral Presentation at the American Public Health Association Conference, Denver, CO, US, October 2016

Thompson, TA. Course Director: Health Disparities Series, Yale University School of Medicine, New Haven, CT. NIH Postbaccalaureate Research Education Program (PREP) (R25). April 2015 & April 2016

Thompson, TA. Lecturer, Epidemiology: Analysis of Risk and Benefit. Yale University School of Medicine, New Haven, CT. November 2015

Thompson, TA., Schulze, WA., and Nunez-Smith, M. Virtual Reality: Research Capacity and Noncommunicable Disease. Poster Presentation at the Minority Health and Health Disparities Grantees Conference, National Harbor, MD, U.S., December 2014

Oladele, CR., Thompson, TA., Adams, OP., Nunez, M., and Nunez-Smith, M. Examining health social networks in an emerging Caribbean cohort. Poster Presentation at the Minority Health and Health Disparities Grantees Conference Meeting, National Harbor, MD, U.S., December 2014

SERVICE

- Board Member, Abortion Care Network (ACN)
- Committee member, Global Health Fellowship Program
 - o Reviews student applications for infield research experience and global health studies
- Manuscript Reviewer
 - o Journal of Maternal and Child Health
 - o Journal of Adolescent Health
 - BMJ Sexual and Reproductive Health

EXHIBIT D

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE HEALTH CENTER, et al.,

Petitioners,

v.

PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES, et al.,

Respondents.

DECLARATION OF COURTNEY ANNE SCHREIBER

I, Courtney Anne Schreiber, MD, MPH, make this declaration:

- 1. I am a board-certified obstetrician/gynecologist (OB/GYN) with subspecialty training in family planning. As Division Chief and Medical Director, my career is focused on both direct patient care and programmatic oversight of the family planning programs at the Perelman School of Medicine, University of Pennsylvania.
- 2. It is medically necessary that all pregnant women receive medical care. If a woman is continuing her pregnancy, she needs care during the pre-natal period, care during delivery, and post-partum care. If the pregnancy ends in a fetal demise or miscarriage, a woman may need medical care to help complete the miscarriage in a timely and safe fashion. Similarly, if a woman decides she

needs to end the pregnancy, she needs medical care to complete an abortion. In my professional opinion, there is no medical or clinical reason to treat abortion as distinct from any other form of pregnancy-related care. Indeed, an abortion entails exactly the same surgical and medical procedures used to treat a miscarriage—there is no medical difference. Modern obstetrics has produced some of the most critical, life-saving interventions in all of medicine. About one-third of all pregnancies in the United States end as a miscarriage or abortion, and the safety of women who need care for an unwanted or abnormal pregnancy hinges primarily on timely access to care.¹

The ability to control one's reproduction—including the ability to terminate a pregnancy rather than continue to term—is essential to a woman's overall health, her ability to contribute to society, and the health of her family. Pregnancy and childbirth have a profound effect on every woman's body, mind, and well-being for the nine months she is pregnant and beyond. Pregnancy is risky. Pregnancy alone can make a healthy woman sick. I know this based on my professional training and experience, but also based on my personal experience with being pregnant. This truth can be magnified for women who have chronic medical problems or are in less-than-optimal health at baseline. However, given

¹ National Academies of Sciences, Engineering, and Medicine, *The Safety and Quality of Abortion Care in the United States* (2018), *available at* https://doi.org/10.17226/24950.

the impact that even an uncomplicated pregnancy can have on even the healthiest woman, a woman who decides to have an abortion is making a decision that protects her health and well-being.

4. Based on my education, scholarship, 19 years of clinical experience, and familiarity with the literature on the impact of pregnancy on a woman's health, and the safety of abortion and the important roles it plays in health maintenance, it is my professional opinion that abortion must be available as a necessary component of medical care during pregnancy. By excluding abortion from Pennsylvania Medical Assistance (except in extremely limited circumstances), the Commonwealth of Pennsylvania harms low-income women by preventing or delaying them from obtaining medically necessary health care, to the detriment of their health and safety.

I. BACKGROUND AND QUALIFICATIONS

5. In addition to being a board certified Obstetrician/Gynecologist, I am also an Associate Professor of Obstetrics and Gynecology at the Perelman School of Medicine, University of Pennsylvania. I am currently an Attending Physician in Obstetrics and Gynecology at the Hospital of the University of Pennsylvania, where I see patients as an obstetrician/gynecologist and family planning specialist in both inpatient and outpatient settings. I serve as Division Chief and Fellowship Program Director. I supervise fellows, residents, and

students in patient care. Over the past thirteen years, I have trained hundreds of medical students, residents, and fellows to be obstetrician/gynecologists and family planning specialists.

- 6. I received my medical degree in 1999 from New York
 University School of Medicine, completed my Obstetrician and Gynecologist
 residency at the Hospital of the University of Pennsylvania in 2003, and completed
 a fellowship in contraceptive research and family planning at the University of
 Pittsburgh in 2005. In addition, I received my Masters in Public Health, with a
 focus on epidemiology, from the University of Pittsburgh in 2005.
- 7. In 2008, I founded the Penn Family Planning and Pregnancy Loss Center, which changed its name to PEACE, the Pregnancy Early Access Center, in 2017 to better align its name with its mission of providing access to compassionate care for women and couples seeking family planning care and management of early pregnancy complications. I have served as the chief of this center since 2008.
- 8. I submit this declaration as an expert in obstetrics and gynecology, family planning and abortion care, and public health. As a clinical researcher, I have expertise in how science promotes health and the critical importance of following the tenets of evidence-based medicine in the clinical setting. As a Senior Fellow of the Leonard Davis Institute of Health Economics, I

have expertise in the medical, economic, and social issues that influence how health care is organized, financed, and delivered across the United States. My curriculum vitae, which sets forth my experience and credentials in greater detail and contains a full list of my publications and lectures, is attached as Exhibit A to this declaration. All of my opinions in this declaration are stated to a reasonable degree of professional and medical certainty.

II. PHYSIOLOGICAL EFFECTS OF PREGNANCY

- 9. Even for the healthiest women, pregnancy is a time of profound physiological changes. These changes can have a lasting effect on a woman's health and well-being, including her ability to have, and to parent, children in the future.
- Almost all pregnant women experience conditions such as fatigue, headaches, backaches, difficulty sleeping, and difficulty with mobility. Their bladders must be emptied frequently. The hormonal changes in pregnancy induce changes in their bowels, causing gassiness, heartburn, chronic constipation, and hemorrhoids, and varicose veins may develop on their legs, vulvas, and vaginas. Even these "minor" conditions can cause discomfort, pain, and stress for the women involved, and can make work, child care, and other daily tasks extremely difficult. Some women are unable to perform usual tasks during pregnancy. If pregnancy renders

a woman unable to work, or work as often as she did prior to becoming pregnant, she may not be able to support her family.

- pregnancy the heart rate increases in order to pump 30-50 percent more blood. By the second trimester, the heart is already doing 50 percent more work than usual, and that heightened rate continues throughout the rest of the pregnancy. This increased blood flow results in the enlarged kidneys and increased production of clotting factors by the liver to prevent the woman from bleeding to death. The increase in clotting factors poses health risks to pregnant women in that it increases the risks of blood clots or thrombosis.
- 12. Pregnancy also weakens the immune system and as a result makes pregnant women more vulnerable to infections, such as urinary tract infections. These infections can be more severe among pregnant women than among non-pregnant women, and lead to life-threatening complications such as sepsis much more frequently among pregnant women.
- 13. During pregnancy, a woman's lungs must also work harder to clear both the carbon dioxide produced by her own body and the carbon dioxide produced by the fetus. Yet her very ability to breathe in the first place is hampered by the fetus growing in the woman's abdomen, leaving most pregnant women feeling chronically short of breath. Every organ in the abdomen— e.g., intestines,

liver, spleen—is increasingly compressed throughout pregnancy by her expanding uterus.

- 14. Sometimes the nausea and vomiting commonly associated with "morning sickness" develops into a syndrome known as hyperemesis gravidarum (HG). HG is accompanied by vomiting so severe that it may result in dangerous weight loss, dehydration, acidosis from starvation, or hypokalemia, a potentially dangerous condition caused by a lack of potassium that can trigger psychosis, delirium, hallucinations, and abnormal heart rhythms, among other things. Women with this condition may require multiple hospital admissions throughout pregnancy.
- 15. Moreover, there is a 15 to 20 percent risk of miscarriage present associated with every pregnancy. Complications from miscarriage can lead to infection, hemorrhage, surgery, and even death.
- during labor and delivery, when 20 percent of the woman's blood flow is diverted to the uterus. This increased blood flow places a woman at risk of hemorrhage and, in turn, death; indeed, hemorrhage is the leading cause of maternal mortality worldwide. To try to protect against hemorrhage, the body again produces more clotting factors, which increases the risk of blood clots or thromboembolism. This

heightened risk extends past delivery into the post-partum period, and is another dominant cause of maternal mortality.

- 17. Pregnant women can develop preeclampsia, a disease unique to pregnancy characterized by high blood pressure and a high level of protein in the urine, which can develop suddenly and with little warning and can cause significant damage to a woman's vision, kidneys, and liver, and cause a stroke. Preeclampsia can progress to eclampsia, where a woman has seizures or goes into a coma. Preeclampsia/eclampsia and their complications are associated with an increase in maternal mortality in the United States and are one of the leading causes of maternal mortality worldwide; they are responsible for approximately twenty percent of perinatal (fetal and newborn) deaths.²
- section delivery.³ A caesarian section delivery involves a significant abdominal surgery that carries risks of hemorrhage, infection and injury to internal organs. Vaginal delivery can also cause physical injury, such as injury to the pelvic floor. This can have long-term consequences, including fecal or urinary incontinence (inability to control the bowels or the bladder).

² Lelia Duley, *The Global Impact of Pre-eclampsia and Eclampsia*, 33 Seminars in Perinatology 130 (2009).

³ Centers for Disease Control and Prevention, *Births - Method of Delivery*, available at https://www.cdc.gov/nchs/fastats/delivery.htm.

- 19. In Pennsylvania in particular, according to Pennsylvania's Department of Health, almost 13 women die within 42 days of the end of pregnancy for every 100,000 live births in the state, a rate that has doubled since 1994. In cities like Philadelphia, that rate is much higher.⁴
- 20. Abortion, in contrast, is almost always safer for a woman than carrying a pregnancy to term. This is especially true for first trimester procedures, but this margin of safety extends even into the second trimester.⁵ While the risks associated with abortion increase as the pregnancy progresses,⁶ overall legal induced abortion is markedly safer than childbirth. The risk of death associated with childbirth is approximately 14 times higher than that with abortion, and the overall morbidity associated with childbirth exceeds that with abortion.⁷
- 21. In short, a policy that forces even healthy women to carry a pregnancy to term—and thereby risk these serious complications—rather than having a desired abortion puts women's health and life at risk above and beyond

⁴ Sean D. Hamill, Why Has Pennsylvania's Maternal Death Rate Doubled in 20 Years? A New Committee Will Look at Past Cases, Pitts. Post-Gazette, Jun. 18, 2018.

⁵ Elizabeth G. Raymond & David A. Grimes, The Comparative Safety of Legal Induced Abortion and Childbirth in the United States, *Obstet Gynecol*, 2012 Feb;119(2 Pt 1):215-9.

⁶ Suzanne Zane, et al., Abortion-related mortality in the United States, 1998–2010, Obstetrics & Gynecology, 2015, 126(2):258–265.

⁷ Elizabeth G. Raymond & David A. Grimes, The Comparative Safety of Legal Induced Abortion and Childbirth in the United States, *Obstet Gynecol*, 2012 Feb;119(2 Pt 1):215-9.

the relatively minimal risk that having an abortion presents and is antagonistic to the promotion of health and well-bring.

III. Conditions That Are Exacerbated By Pregnancy and Delivery

baseline medical condition, or multiple co-existing conditions or diseases (known as comorbidities). Because pregnancy may exacerbate these conditions, it is important that a woman has the option to terminate the pregnancy before her health worsens, as the disease progression is often irreversible. These pre-existing conditions include: heart disease, lupus, cancer, diabetes, obesity, hypertension, renal disease, liver disease, epilepsy, sickle cell disease and numerous other conditions. Based on my training in the field of obstetrics and gynecology as well as my general knowledge of the research literature, below I have described the following more common conditions that are frequently exacerbated by pregnancy in greater detail below:

Diabetes

23. Diabetes is a complex disease that can be difficult to manage even at the best of times. It is more prevalent among women of lower socio-economic status, and poses particular challenges for poor and low-income women who lack easy or regular access to health care.

- 24. Pregnancy compounds the challenges of managing diabetes. For instance, vomiting caused by morning sickness can easily disrupt a careful regimen of insulin control and result in difficulties managing blood sugars. Some diabetic patients need to test their blood sugar levels 6 to 8 times per day during pregnancy, and make appropriate changes to the dosage on a weekly basis in order to maintain good control over the diabetes. In addition, some women become increasingly resistant to insulin as the pregnancy progresses, making it more difficult to properly regulate the diabetes.
- one end of the spectrum, the patient becoming *hypoglycemic* (caused by low blood sugar), which can lead to hypoglycemic shock, and, at the other end, the patient becoming *hyperglycemic* (caused by excessive blood sugar). If left untreated, a hyperglycemic patient may develop diabetic ketoacidosis (DKA), a life-threatening complication of diabetes that can lead to coma, cerebral edema, and death. Diabetes also affects many major organ systems including the heart, blood vessels, nerves, eyes, and kidneys, and can lead to irreversible damage to a major organ, such as coronary heart disease (a major cause of death for patients with diabetes), neuropathy (nerve damage, which can lead to toe, foot, or leg amputation), retinopathy (loss of vision or blindness), or nephropathy (kidney failure).

- 26. For some diabetics, often referred to as "brittle" patients, the disease can be especially difficult to manage; these patients might experience blood sugar levels that range from extremely low to extremely high in the course of a single day. Such wide swings are very difficult to control during pregnancy, when patients are already more prone to experiencing greater variation in their blood sugar levels. Women who suffer from Type I diabetes may become even more brittle in the first trimester, and therefore more prone to hypoglycemic and hyperglycemic episodes.
- 27. For diabetic women experiencing multiple co-morbidities, managing the diabetes is already difficult, and it becomes even more so during pregnancy. For instance, a diabetic patient with comorbid lupus or asthma may have been prescribed glucocorticoids—steroid medications with anti-inflammatory effects that help control these diseases. However, glucocorticoids can make it more difficult to control diabetes by increasing insulin resistance. Likewise, studies have shown that depression is more common in people suffering from diabetes than among the general population. If pregnancy causes a diabetic woman to go off her anti-depressants or change her prescription or dosage, she may stop eating, stop taking her diabetes medications, or other problems that can interfere with the management and control of her diabetes.

- Diabetes also poses risks to the developing fetus, including neural tube defects such as spina bifida, cardiac anomalies, restricted fetal growth, respiratory distress syndrome, low birth weight (for Type 1 diabetes), high birth weight (macrosomia), and a higher risk of developing diabetes later in life (for Type 2 and gestational diabetes).
- 29. In fact, healthy women can actually *acquire* diabetes during pregnancy, called gestational diabetes, because pregnancy is accompanied by insulin resistance. Gestational diabetes mellitus (GDM) develops during pregnancy in women whose pancreatic function is insufficient to overcome the insulin resistance associated with the pregnant state. Women with gestational diabetes are at increased risk of preeclampsia and eclampsia, stillbirth, and excessively large fetuses (macrosomia) which can result in delivery complications and need for cesarean delivery. Risks associated with gestational diabetes extend beyond the pregnancy and neonatal period. Gestational diabetes may affect a child's risk of developing obesity, impaired glucose tolerance, or metabolic syndrome. GDM is also a strong marker for maternal development of type 2 diabetes, including diabetes-related vascular disease.⁸

⁸ Marshall W. Carpenter, Gestational Diabetes, Pregnancy Hypertension, and Late Vascular Disease, 30 (Supp. 2) Diabetes Care S246 (2007).

Hypertension

- exacerbation of their condition during pregnancy, which can in turn lead to stroke, cerebral hemorrhage, hypertensive encephalopathy (a condition where dangerously high blood pressure causes brain swelling), congestive heart failure, renal failure, and death. For the fetus, the risks include premature birth, placental abruptions (a condition where the placenta prematurely separates from the uterine wall), restricted fetal growth, low birth weight, and death. Even mild hypertension in pregnancy is associated with an elevated risk of adverse maternal, fetal and neonatal outcomes.
- developing preeclampsia, a unique condition characterized by high blood pressure and a high level of protein in the urine, referenced above, which can develop suddenly and with little warning and can cause significant damage to a woman's vision, kidneys, and liver, and lead to seizures and/or stroke. Women with hypertensive conditions also have an increased incidence of premature separation of the placenta (placental abruption), which can cause disseminated intravascular coagulopathy (and can result in uncontrolled bleeding of the uterus often requiring a hysterectomy), fetal hemorrhage and anemia requiring a blood transfusion, and fetal death.

- 32. In addition, several types of drugs most commonly prescribed to control hypertension— ARBs, ACE inhibitors, and some beta-blockers—have been linked to adverse fetal and neonatal outcomes, especially when used in the latter part of pregnancy. Thus, pregnant women with hypertension are faced with the difficult choice between utilizing a less appropriate medication and risking harm to themselves, or utilizing a teratogenic medication and risking injury to their fetus.
- 33. Healthy women are in fact at risk of acquiring hypertension in pregnancy, called gestational hypertension. Gestational hypertension and preeclampsia/eclampsia are hypertensive disorders *induced* by pregnancy. Gestational hypertension is the most common cause of hypertension in pregnant women, and is defined by the new onset of hypertension (defined as systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg) at ≥20 weeks of gestation in the absence of proteinuria or new signs of end-organ dysfunction. Once a woman develops proteinuria or organ damage, she is classified as having preeclampsia, a disease unique to pregnancy.

⁹ American College of Obstetricians and Gynecologists, *ACOG Practice Bulletin No. 202 Summary: Gestational Hypertension and Preeclampsia*, 133 Obstetrics & Gynecology 211 (2019).

Asthma

- 34. Pregnancy can exacerbate pre-existing asthma, or asthma may develop for the first time during pregnancy. Like diabetes, asthma is more prevalent among women of lower socio-economic status.
- According to the American College of Obstetricians and Gynecologists

 ("ACOG"), asthma "complicates approximately 4-8% of pregnancies" and "the prevalence of and morbidity from asthma are increasing, although asthma mortality rates have decreased in recent years."

 Poorly controlled asthma during pregnancy is associated with both maternal and fetal complications, including preeclampsia, restricted fetal growth, complicated labor, preterm birth, and low birth weight.

Heart Disease

36. Heart disease is the most common non-obstetrical cause of maternal mortality. Because pregnancy puts an added strain on the heart muscle due to the dramatic increase in blood volume over the course of pregnancy, most women with preexisting heart conditions will experience an exacerbation of symptoms during pregnancy.

¹⁰ ACOG Practice Bulletin No. 90: Asthma in Pregnancy, February 2008.

- 37. Women with heart valve abnormalities or deformities and other forms of heart disease (also known as cardiomyopathy) face an increased risk of complications during pregnancy. In addition, they are more susceptible to developing endocarditis during pregnancy, a potentially life-threatening infection of the lining of the heart and heart valves. Indeed, with certain heart conditions, the risk of maternal mortality can run as high as approximately 10 percent and the risk of fetal mortality as high as 30-40 percent.
- 38. Women with congenital heart defects are also more likely to give birth to a baby with a heart defect, and are at higher risk for preterm birth.

 Moreover, medications that treat heart conditions often pose a risk to the fetus, thus presenting the pregnant woman with the same complicated, and often emotionally distressing, choice I have previously mentioned.

Autoimmune disorders

- 39. Autoimmune disorders, such as lupus, Grave's disease, and rheumatoid arthritis, are more common among women. For women with these and other autoimmune disorders, pregnancy can cause complications such as kidney damage, hypertension, or preeclampsia, as well as complications for the fetus, including restricted fetal growth, preterm birth, and low birth weight.
- 40. Many of the drugs used to treat these autoimmune disorders are contraindicated in pregnancy. If a woman taking one of these drugs continues her

pregnancy, she will be advised to alter her treatment regimen by, for example, taking a smaller dose or less effective medication, which makes it more likely that her health will deteriorate.

Renal disease

41. Pregnancy exposes women with renal disease to additional complications. Pregnant women with this kidney condition risk hypertension, which can lead to preeclampsia and eclampsia. In some cases, the pregnancy will exacerbate preexisting renal disease, forcing a woman into dialysis—a time-consuming and psychologically difficult treatment that involves filtering the patient's blood through a dialysis machine. In even more extreme cases, the pregnancy exacerbates the woman's condition to the point where she may require a kidney transplant.

IV. Indications for Abortion and Impact of Abortion on Health; Reasons for and Consequences of Care Delays

42. One out of four American women will have an abortion in her reproductive lifetime.¹¹ The main reasons women cite for seeking abortion care are interference with education, work or ability to care for their dependents, or the

¹¹ Rachel K. Jones & Jenna Jerman, *Population Group Abortion Rates and Lifetime Incidence of Abortion: United States, 2008-2014*, 107 AJPH 1904 (2017).

inability to afford a baby at the time.¹² Interviews with women indicate that they rarely feel as though they have "a choice."

More than half of all abortion patients in the United States in 43. 2014 were in their 20s: patients aged 20-24 obtained 34% of all abortions, and patients aged 25-29 obtained 27%. Twelve percent of abortion patients in 2014 were adolescents: Those aged 18–19 accounted for 8% of all abortions, 15–17year-olds for 3% and those younger than 15 for 0.2%. White patients accounted for 39% of abortion procedures in 2014, blacks for 28%, Hispanics for 25% and patients of other races and ethnicities for 9%. Seventeen percent of abortion patients in 2014 identified as mainline Protestant, 13% as evangelical Protestant and 24% as Catholic; 38% reported no religious affiliation and the remaining 8% reported some other affiliation. In 2014, some 46% of all abortion patients had never married and were not cohabiting. However, nearly half were living with a male partner in the month they became pregnant, including 14% who were married and 31% who were cohabiting. Fifty-nine percent of abortions in 2014 were obtained by patients who had had at least one prior birth. Clearly, the need for an abortion does not discriminate based upon race, parenthood status, or creed. What's more, fifty-one percent of abortion patients in 2014 were using a

¹² Lawrence R. Finer et al., Reasons U.S. women have abortions: quantitative and qualitative perspectives, 37 Persps. Sex. & Repro. Health 110 (2005).

contraceptive method in the month they became pregnant, most commonly condoms (24%) or a hormonal method (13%).¹³

- 44. Women who learn that their fetus has been diagnosed with a severe or lethal anomaly, such as anencephaly (a severe neural tube defect associated with lack of brain development), may experience significant stress, anguish and anxiety over the thought of carrying the pregnancy to term. For some women, the idea of continuing a pregnancy only to give birth to a fetus that will suffer and die is too much to bear. Women and couples who learn that their pregnancy is abnormal may decide that termination of the pregnancy is the most humane option in a terrible situation.
- 45. The Turnaway Study shows that many of the common claims about the detrimental effects on women's health of having an abortion are not supported by evidence. For example, women who have an abortion are not more likely than those denied the procedure to have depression, anxiety, or suicidal ideation. These data show that that 95% of women report that having the abortion was the right decision for them over five years after the procedure.¹⁴

¹³ Jenna Jerman et al., Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008, Guttmacher Institute (2016), available at https://www.guttmacher.org/report/characteristicsus-abortion-patients-2014.

¹⁴ Corinne H. Rocca, et al., Decision rightness and emotional responses to abortion in the United States: a longitudinal study, PLOS ONE (2015) Jul; 10(7):e0128832, available at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0128832.

- denied a wanted abortion on women's health and wellbeing. Women denied a wanted abortion who have to carry an unwanted pregnancy to term have four times greater odds of living below the Federal Poverty Level (FPL). ¹⁵ In addition, women denied abortion are: 1) more likely to experience serious complications from the end of pregnancy including eclampsia and death; 2) more likely to stay tethered to abusive partners; 3) more likely to suffer anxiety and loss of self-esteem in the short term after being denied abortion; and 4) less likely to have aspirational life plans for the coming year. ¹⁶
- 47. The study also finds that being denied abortion has serious implications for the children born of unwanted pregnancy, as well as for the existing children in the family. Denying women a wanted abortion may have negative developmental and socioeconomic consequences for their existing children.¹⁷

¹⁵ Diana Greene Foster, et al., Socioeconomic outcomes of women who receive and women who are denied wanted abortions, 108 Am. J. Pub. Health 407 (2018).

¹⁶ See generally ANSIRH, Introduction to the Turnaway Study, available at https://www.ansirh.org/sites/default/files/publications/files/turnaway-intro_1-3-2019.pdf.

¹⁷ Diana Greene Foster, et al., *Effects of Carrying an Unwanted Pregnancy to Term on Women's Existing Children*, J. Pediatrics (2018), *available at* https://doi.org/10.1016/j.jpeds.2018.09.026.

48. A recent report by the National Academies of Science and Engineering showed that abortions that are provided in the United States are safe and effective. About 90 percent of all abortions happen in the first 12 weeks of pregnancy, which is good, because abortion is safer when it is performed earlier in gestation. Delays in care are what decrease safety. Complications for all abortions are rare, but abortion-specific regulations in many states create barriers to safe and effective care. "Delays put the patient at greater risk of an adverse event," the report says.¹⁸

V. Effect of Medicaid Ban on Women

49. As part of my practice caring for women with many medical issues, I care for women and couples who need to end their pregnancies for all the reasons mentioned above. There are a huge range of indications, and some are tragic circumstances: many of these patients must terminate a wanted pregnancy because the fetus has been diagnosed with an abnormality, or because a baseline medical condition has worsened and makes carrying the pregnancy unsafe, or because her partner has left her or is abusive and carrying this pregnancy to term would connect the woman to her abuser for the rest of her life. I have patients request an abortion so that they can finish their nursing degree, or so that they can

¹⁸ National Academies, *supra* note 1, at 12.

continue to work two jobs to put food on the table for their children at home, or care for an ailing parent. I have had patients seek abortion care while their young child is hospitalized with a chronic illness just so that they can be more available to care for that ill child. All of these women are making hard decisions for good reasons, and they all need care. In my experience working as a provider in Pennsylvania, I have personal experience with Pennsylvania Medical Assistance eligible patients and their struggles to pay for the care they need, the delays this creates, and, in some cases, a resultant forced parenthood. Somewhat ironically, the same woman who may seek an abortion because she cannot afford another child may have difficulty paying for the abortion because her insurance does not cover the procedure. I have listened to my patient care coordinator ask women the dehumanizing question "What can you sell?" so that they can raise the money for the reproductive healthcare they need. This process affects women uniquely.

50. Abortion is one of the safest procedures in modern medicine, and safer than carrying a pregnancy to term. Indeed, abortion is about 14 times safer than continuing a pregnancy to term. However, despite abortion being safer than childbirth, both the risks from and cost of the procedure increase as pregnancy advances. Women may need to delay procedures to raise the money to cover the costs – this delay puts them at risk of abortion complications, and also increases the fees associated with the procedure. A second trimester procedure may require

more appointments, and as a result will cause the patient to need more time off of work and/or will require the patient to obtain more childcare for existing children than a first trimester procedure.

- 51. Furthermore, the very limited exception to Pennsylvania

 Medical Assistance for abortions in the event of rape, incest or to save the life of
 the pregnant woman is completely inadequate to protect the health and well-being
 of the women of our State.
- of women who are not facing a condition that imminently threatens their life, but for whom continuing a pregnancy is seriously detrimental to their health. In addition, a woman's medical condition may not be life-threatening at the time that she presents to her doctor for abortion care, but could become so in the future. As a physician, I believe it is dangerous and unethical to force a woman to wait until her health deteriorates to the point that her life is in danger in order to be able to pay for the health care that she needs abortion is preventive care. This also requires that physicians balance payment issues and regulations with their health care decision-making in a unique and unethical manner. A physician's role is to improve health and well-being, not to determine if a woman is sick enough and close enough to death to warrant the state to pay for the abortion to "save her life"—especially when, as started previously, all women are uniquely at risk of

death due to pregnancy and delivery. This is a health burden that women uniquely have to bear in the context of reproductive healthcare.

53. Second, these exceptions do nothing for those patients who make the often difficult decision to terminate a wanted pregnancy after learning that the fetus has been diagnosed with an abnormality. Many of these anomalies are lethal and cannot be detected—let alone diagnosed—until later in pregnancy when abortion is even more expensive or even prohibited by law because the pregnancy has progressed beyond Pennsylvania's gestational limit for abortion.

VI. CONCLUSION

54. I have dedicated my career to improving the health of women. There is no clinical justification for forcing any woman to undergo a prolonged, physically taxing and, indeed, dangerous experience such as pregnancy against her will. For those pregnant women who need to end their pregnancies, abortion is medically necessary and appropriate care that protects their life and health, including their ability to have children some day in the future if they decide to do so.

I make this declaration subject to the penalties of 18 Pa. C. S. § 4904 (unsworn falsification to authorities).

Dated this 11 of January, 2019.

Courtney Anne Schreiber, MD, MPH.

EXHIBIT A

UNIVERSITY OF PENNSYLVANIA - PERELMAN SCHOOL OF MEDICINE $\underline{Curriculum\ Vitae}$

Date: 01/04/2019

Courtney Anne Schreiber, MD, MPH

Address:

Department of Obstetrics and Gynecology

3400 Spruce Street, 1000 Courtyard Philadelphia, PA 19104 United States

If you are not a U.S. citizen or holder of a permanent visa, please indicate the type of visa you have: none (U.S. citizen)

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Helitootion	٠
Education	٠

1993	B.A.	Columbia College, Columbia University, New York NY
1995	ОТН	(Religion) University of Pennsylvania, Philadelphia, PA
		(Postbaccalaurate Premedical Program)
1999	M.D.	New York University School of Medicine, New York, NY
2005	M.P.H.	University of Pittsburgh, Graduate School of Public Health,
		Epidemiology Track, Pittsburgh, PA (Public Health)

Postgraduate Training and Fellowship Appointments:

TAILLY GILL TOUCH	<u>mp reponitinents.</u>
1999-2003	Resident, Obstetrics and Gynecology, Hospital of the
	University of Pennsylvania, Philadelphia, PA
2003-2005	Fellow, Contraceptive Research and Family Planning,
	University of Pittsburgh, Dept of Obstetrics, Gynecology and
	Reproductive Sciences, Pittsburgh, PA

Faculty Appointments:

2006-2014 Assistant Professor of Obstetrics and Gynecology at the Hospital of the University of Pennsylvania, University of

Pennsylvania School of Medicine

2014-present Associate Professor of Obstetrics and Gynecology at the

Hospital of the University of Pennsylvania, University of

Pennsylvania School of Medicine

Hospital and/or Administrative Appointments:

2005-Present	Attending in Obstetrics and Gynecology, Hospital of the
	University of Pennsylvania, Department of Obstetrics and
	Gynecology, Philadelphia, PA
2008-2017	Founder and Director, Penn Family Planning and Pregnancy
	Loss Center
2009-present	Program Director, Fellowship in Family Planning, Hospital of
	the University of Pennsylvania
2017-present	Director, PEACE

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40 I	/-DIESCH	ı

Division Chief, Family Planning, Department of Obstetrics

and Gynecology, Penn Medicine

Other Appointments:

2018-present

Research Director, Building Interdisciplinary Research

Careers in Women's Health K-12 Program, Perelman School

of Medicine, University of Pennsylvania

2018-present

Senior Fellow, Leonard Davis Institute of Health Economics

Specialty Certification:

2007

American Board of Obstetrics and Gynecology

Licensure:

2003-Present

Pennsylvania Medical Licensure

Awards, Honors and Membership in Honorary Societies:

riveres, from the intermediatip in from any societies.		
1996	Reproductive Health Fellowship, Medical Students for Choice,	
	San Francisco, CA	
1998	National Abortion Federation Early Achievement Award	
1999	Dr. Martin Gold Visionary Provider Award, Diana	
	Foundation, NY, NY	
1999	James E Constantine Award in Obstetrics and Gynecology,	
	NYU School of Medicine	
2001	Resident Teaching Award, Hospital of the University of	
	Pennsylvania	
2004	Wyeth New Leader's Award Fellowship, Association of	
	Reproductive Health Professionals	
2005	Philip F. Williams Prize Award, American College of	
	OB/GYN	
2005	Wyeth New Leader's Award Fellowship, Association of	
	Reproductive Health Professionals	
2005	Donald F. Richardson Memorial Prize Paper Award Nominee,	
	American College of Obstetricians and Gynecologists	
2010	Women's Way Unsung Heroine Award: Turning Talk into	
	Action	
2011	The Penn Medicine "Penn Pearls" Award for Excellence in	
	Teaching	
2011	Emily B. Hartshorne Mudd Award for Contributions to the	
	Field of Family Health	
2015	Penn Center for Innovation Accelerator Award Phase I	
2016	Penn Center for Innovation Accelerator Award Phase II	

Memberships in Professional and Scientific Societies and Other Professional Activities:

International:

2017-present

Fellowship in Family Planning (Advisory Board (Chair, 2018-present))

<u>National:</u> 1995-1999	Medical Students for Choice (Board of Directors)
1997-2002	American Medical Women's Association
1997-present	Physicians for Reproductive Choice and Health (Board of Directors 1997-1999)
1999-Present	American College of Obstetricians and Gynecologists (Physician Member, Committee on Health Care for Underserved Women (2012-2013) Fellow (2002-present) Junior Fellow (1999-2008))
2001-2006	American Society for Reproductive Medicine
2003-present	Association of Reproductive Health Professionals
2003-present	National Abortion Federation
2004-2012	American Public Health Association
2008-Present	Peer Health Exchange (Curriculum Advisory Board)
2012-present	Center for Disease Control Teen Pregnacy Prevention Project, Family Planning Council of Pennsylvania (Consultant)
2014	NIH (Study Section Reviewer: Female Contraceptive Development Program (U01))
<u>Local:</u> 2008-2016	Family Planning Council (Board Member of the Medical Committee)
2008-2016	Women's Medical Fund Medical Advisory Committee
2010-2016	American Civil Liberties Union of Pennsylvania, Clara Bell Duvall Reproductive Freedom Project (Advisory Council Member)
2011-2017	Women's Way (Board Member. Vice Chair of the Board 2014-2016)
Editorial Positions	

Editorial Positions:

2005-Present	Reviewer, Contraception
2007-Present	Reviewer, American Journal Obstetrics and Gynecology
2008-2010	Reviewer, Pharmacoepidemiology
2011-Present	Associate Editor, Contraception
2017-present	Section Editor, Contraception, UpToDate
2018-present	Deputy Editor, Contraception

2018-present Se

Section Editor, Ectopic Pregnancy, UpToDate

Academic a	nd Institutiona	l Committees:

2002-2003	House Officer Committee, Hospital of the University of
	Pennsylvania
2005-2010	Resident Curriculum Development Committee
2009-Present	Operating Room Committee
2010-2012	Grant Reviewer Penn CFAR Pilot Grants Program
2011-2014	Chair, Management of Early Pregnancy Failure Working Group
2012-2018	Center for AIDS Research Committee on Women and HIV
2013-Present	Core Member, Women's Health Scholar Certificate
2014-2015	Member, Department of Obstetrics and Gynecology Executive
	Committee
2014-present	Medical School Admissions Interview Committee, Perelman School
	of Medicine of the University of Pennsylvania.
2018-Present	Member, Review Committee for the Department of Biostatistics,
	Epidemiology, and Informatics
2018-present	Department of Obstetrics and Gynecology Executive Committee
	

Major Academic and Clinical Teaching Responsibilities: 2002-2003 Organizer, Ob/Gyn res

and Chinear reaching Responsionnes.		
	2002-2003	Organizer, Ob/Gyn resident journal club, Hospital of the University
		of Pennsylvania
	2005-2015	Lecture on Family Planning, Core Clinical Clerkship in Ob/Gyn
		(OG200), (8x/yr)
	2005-2017	Faculty preceptor, Core Clinical Clerkship in Ob/Gyn (OG200),
		(1-2x/yr)
	2006-2017	Lecturer "Contraception", Reproduction module (1 lecture/yr)
	2006-2016	"Bridging the Gaps" Academic Mentor for one student each summer
	2006-2017	Director, Family Planning Rotation for Ob/Gyn residents
	2006-2017	Course Director, Family Planning and Abortion Care Elective
		(OG300)
	2006-2017	Small group discussion leader on abortion and contraception,
		Reproduction module (2 sessions/yr)
	2006-Present	Attending Physician, Family Planning, supervise and teach medical
		students, residents, and fellows
	2006-2016	Attending physician, Resident Gynecology service (4 weeks/yr)
	2006-Present	Research mentor for resident research projects
	2006-2017	Lecture "Abortion," Reproduction Module (1 lecture/yr)
	2006-2007	Mentor, Sabrina Sukhan, MD, Resident in Obstetrics and
		Gynecology "Is exposure to prenatal care associated with improved
		pregnancy outcomes and post partum contraception continuation in a
		teenage population?"
	2006	0 1 1
	2000	Hospital of The University of Pennsylvania Department of
		Obstetrics and Gynecology Grand Rounds: "The Characterization
		100

and Treatment of Early Pregnancy Failure"

2007	Division of Cardiology, University of Pennsylvania Medical Center, "Contraception in Women with Congenital Heart Disease",
2008-2010	Mentor, Monika Goyal, MD, Pediatric Emergency Fellow "Prevalence of Trichomonas vaginalis in a symptomatic adolescent
2009-Present	ED population Director, Family Planning Fellowship Program
2010-2012	Fellowship Mentor: Sara Pentlicky, MD
2010-2013	Mentor, Holly Langmuir, MD, Resident in Obstetrics and
	Gynecology "Immediate postpartum IUD placement: a decision analysis"
2010-2013	Mentor, Peter Vasquez, MD, Resident in Obstetrics and Gynecology
	"Factors that decrease morbidity among women undergoing second
	trimester uterine evacuation at an urban academic medical center"
2010-2013	Mentor, Ericka Gibson, MD, Resident in Obstetrics and Gynecology
	"Risk Factors for pregnancy during contraceptive clinical trials"
2010-2012	Mentor, Sara Pentlicky, MD, Fellow in Family Planning "Weight
	Loss in the postpartum: impact of different contraceptive methods"
2010-2013	Mentor, Corina Tennant, MD, Resident in Obstetrics and
	Gynecology
	"Uptake, acceptability, and continuation of the Implanon
	contraceptive implant immediately postpartum in an urban medical center"
2011-2013	Mentor, Lily Pemberton, MD, Resident in Obstetrics and
	Gynecology "establishment of an academic family planning
	outpatient facility increases uptake of LARC among inner-city women"
2011-2017	Public Health Perspectives in Family Planning Instructor and course
0011 0010	co-director (offered through the MPH program)
2011-2012	Doris Duke Clinical Research Fellowship Mentor (Mentee - Kelly
	Quinley - Awarded Society of Academic Emergency Medicine
2011-2013	Medical Student Excellence Award) Fellowship Mentor: Stephanie Sober, MD
2011-2013	Mentor, Valerie Colleselli, medical student, University of Innsbruck,
2011	Austria "Medical management of early pregnancy failure (EPF): a
	retrospective analysis of a combined protocol of mifepristone and
	misoprostol used in clinical practice"
2012-2014	Fellowship Mentor, Susan Wilson, M.D.
2012-2015	Mentor, Andrea Roe, MD, Resident in Obstetrics and Gynecology
	"Cystic Fibrosis and Fertility"
2012-2015	Mentor, Joni Price, MD, Resident in Obstetrics and Gynecology
	"Risk of unplanned pregnancy by cycle day among contracepting
	women"
2012-2016	Clinician Trainings for the Family Planning Council's CDC Teen
	Pregnancy Prevention Project

2014-2015	Mentor, Pooja Mehta, MD, ACOG Industry-Funded Research Fellowship in Contraceptive Access within Low-Resource Populations
2014-2016	Mentor, Elizabeth Gurney, MD, Fellow in Family Planning "Six-month Retention Rates of Copper IUDs Placed Immediately Post-placentally"
2014-2016	Mentor, Alyssa Colwill, MD, Resident in Obstetrics and Gynecology "Immediate Post-placental IUD Expulsion - a Retrospective Cohort Study"
2015	"Prevention and Management of Early Pregnancy Complications," Department of Obstetrics and Gynecology of Pennsylvainia
2015-2017	Hospital, Philadelphia PA Mentor, Elizabeth Greenstein, MD, Resident in Obstetrics and Gynecology "Doctor-Patient Communication at the Time of
2015-2018	Miscarriage Management" Mentor, Maryl Sackheim, MD, Resident in Obstetrics and Gynecology: "Rapid Repeat Pregnancy at Penn Medicine:
2015-2017	Prevalence and Risk Factors" Mentor, Alhambra Frarey, MD, Fellow in Family Planning "Referral and Delay in Abortion Care: a Cross-sectional Study"
2015	"Contraception for women with rheumatologic disease," Division of Rheumatology of Penn Medicine, Philadelphia Pa.
2016-2018	Mentor, Sarah Horvath, MD, Fellow in Family Planning "Quantifying Feto-Maternal Hemorrhage in the First Trimester of Pregnancy"
	Winner, Society of Family Planning Young Investigator Award, 2018
2016	"History of Contraception in the US," Master of Public Health Program, University of Pennsylvania, Philadelphia PA
2016	"Academic Medicine as an Instrument of Change," Master of Science of Health Policy, University of Pennsylvania, Philadelphia PA
2017	"The role of public health practice and research in reproductive health" Master of Public Health Program, University of Pennsylvania Perelman School of Medicine. Philadelphia, PA
2017-2019	Mentor, Divyah Nagendra, MD, Fellow in Family Planning "Pain Control for Uterine Evacuation: a Non-Inferiority Trial"
2017	"Academic Medicine as an Instrument of Change," University or Pennsylvania MSHP Program
2018	Pediatric Grand Rounds: Children's Hospital of Philadelphia, "Progress and Opportunities in Adolescent Reproductive Health"
2018-2020	Mentor, Jade Shorter, MD, Fellow in Family Planning "Disparities in Reproductive Health: The Patient Experience with Miscarriage Management"

Lectures by Invitation:

<u>ritation:</u>	
Mar, 2004	Instructor, Early pregnancy ultrasound course, Planned Parenthood, Philadelphia, PA: "Introduction to Ultrasound"
Jun, 2004	Invited discussant for the trial development to evaluate the use of ultrasound in medical abortion care. Gynuity, New York, NY: "Medical Abortion Protocol Development"
Jul, 2004	Speaker, Pennsylvania Pharmacist Association, Harrisburg, PA: "Emergency Contraception"
Sep, 2004	Grand Rounds Presenter, University of Buffalo Department of Gynecology-Obstetrics, Buffalo, NY: "Medical Abortion" and "Emergency Contraception"
Feb, 2005	HIV Prevention Trials Network Annual Meeting Plenary Session, Washington DC: "The significance of subclinical pregnancy for clinical trails"
Mar, 2005	Medical Students for Choice Annual Meeting Philadelphia, PA: "Practitioners' Perspectives"
Nov, 2005	Medical Students for Choice Regional Meeting Philadelphia, PA: "Practitioners' Perspectives"
Mar, 2006	HIV Prevention Trial Network Microbicides Safety Meeting, Washington DC: "Pregnancy concerns in microbicide trials"
May, 2006	Temple University Hospital Department of Obstetrics and Gynecology Grand Rounds Presenter: "Preventing and Managing the Complications of Second Trimester Abortion"
Jun, 2006	Penn State University School of Medicine Grand Rounds Presentation: "Second Trimester Abortion"
Oct, 2008	ASRM Postgraduate Course: Contraceptive Use in Reproductive Endocrinology. Lecture Title: "Contraceptive Use in the Treatment of PMS; Emergency Contraception"
Mar, 2009	"Uterine Evacuation: Medical Management of Early Abortion and Early Pregnancy Failure" Drexel University Department of Obstetrics and Gynecology
Mar, 2010	"Challenges in Family Planning." Duke University School of Medicine Department of Obstetrics and Gynecology, Durham, North Carolina
Mar, 2010	"Uterine Evacuation: Medical Management" Duke University School of Medicine Department of Obstetrics and Gynecology. Durham, North Carolina
May, 2010	"Contraception for Medically Complicated Patients." American College of Obstetricians and Gynecologists Annual Meeting, Ryan Program Annual Meeting, San Francisco, CA
Jun, 2011	"Second Trimester Abortion: Management of Complications," Department of Obstetrics and Gynecology, Jefferson College of Medicine, Philadelphia PA
Jun, 2011	"Medical Management of Uterine Evacuation," Department of Obstetrics and Gynecology Brown University, Providence, RI

Apr, 2012	"Birth Control," Department of Obstetrics and Gynecology, Crozer-Chester Medical Center, Upland, PA
Apr, 2012	"Contraception for Women with Complex Heart Disease," 2012 Heart Disease in Pregnancy Symposium Philadelphia, PA
May, 2012	"Legislative Updates in Pennsylvania," Fellowship in Family
141dy, 2012	Planning Annual Meeting, San Diego, CA
May, 2012	"Establishing and Sustaining Second Trimester Procedure Services,"
1viay, 2012	Ryan Program Meeting, San Diego, CA (Moderator)
May, 2012	"Controversies in Family Planning," Fellowship in Family Planning
Way, 2012	Annual Meeting, San Diego, CA
Sep, 2012	Invited discussant: "A Critical Look at Lowest Dose Oral
5cp, 2012	Contraception: Experts Consensus Roundtable," Medtelligence,
	Chicago, IL
Nov, 2012	"Lessons Learned from Medical Abortion: Larger Implications for
1107, 2012	Women's Health," Medical Students for Choice Conference on
	Family Planning, St. Louis, MO
May, 2013	"Controversies in Family Planning," Fellowship in Family Planning
Way, 2013	Annual Meeting, New Orleans, LA
Jul, 2013	"Office Based Management of Early Pregnancy Failure," two hour
Jul, 2013	training, Department of Obstetrics and Gynecology Residency
	Program, Mayo Clinic, Rochester, MN
Oct, 2013	"Early Pregnancy Failure: a specialty for the Family Planning
001, 2013	Specialist" Plenary Session, North American Forum on Family
•	Planning, Seattle, WA
Oct, 2013	"Contraception after Medical Abortion" North American Forum on
001, 2013	Family Planning, Concurrent Session, Seattle, WA
Oct, 2013	"Immediate Post-Partum LARC: Limited Access to Reliable
000, 2013	Contraception," Concurrent Session, North American Forum on
	Family Planning, Seattle, WA
Mar, 2014	"The management of early pregnancy complications," University of
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Innsbruck, Innsbruck, Austria
Apr, 2014	Controversies in Family Planning, Fellowship in Family Planning
	Annual Meeting. Chicago, IL.
May, 2014	Miscarriage Management in the Emergency Department, Grove
,	Foundation Advancing Miscarriage Management Symposium. San
	Francisco, CA.
Oct, 2014	Demystifying hCG: What hCG is and patterns in normal and
,	abnormal pregnancy. North American Forum on Family Planning,
	Miami FL.
Nov. 2014	"Individulaized Care of Early Pregnacy Loss" Washington
ŕ	University Department of Obstetrics and Gynecology, St Louis, Mo.
Nov, 2014	The Patient's Voice in the Management of Early Pregnancy Loss. V.
•	Chavez, A. Agha, E. Easley, C.A. Schreiber, Association of Early
	Pregnancy Units (AEPU), Winchester, UK

Apr, 2015	"Prevention and Management of Early Pregnancy Complications," Department of Obstetrics and Gynecology of Jefferson Hospital,
Jul, 2015	Philadelphia PA "Immediate Postpartum Long Acting Reversible Contraception." Philadelphia Board of Health, Department of Health
Mar, 2016	"Increasing Access to Long-Acting Reversible Contraception for Philadelphia Women." Public Health and Preventive Medicine Section at the College of Physicians of Philadelphia, PA
Apr, 2016	"Immediate Postpartum LARC: Evidence and Implementation." Department of Obstetrics & Gynecology Grand Rounds. WellSpan / York Hospital, York PA
Apr, 2016	Liletta: Challenges and Advantages of a New LNG IUD. Moderated a webinar for the Fellowship in Family Planning and Ryan Program Nationally
Oct, 2016	"Unpacking Complex Contraception," University of British Columbia Interdisciplinary Grand Rounds, Vancouver, BC
Dec, 2016	"LARC for the medically complex patient," ACOG LARC Program, CME accredited webinar
Oct, 2017	"Climbing the career ladder and lifting others as you climb." Society for Family Planning Career Development Seminar, Atlanta, GA.
Nov, 2017	"Personalized Approaches to Early Pregnancy Loss Care" Early Pregnancy Symposium. Philadelphia, PA
Nov, 2017	"Pregnancy of Unknown Location" Early Pregnancy Symposium. Philadelphia, PA
Jan, 2018	"Patient-Centered Early Pregnancy Loss Care," UC San Diego Obstetrics and Gynecology Grand Rounds, San Diego, CA.
Apr, 2018	"Hormonal Contraception and the Risk of Mood Symptoms," North American Society for Psychosocial Obstetrics and Gynecology, Philadelphia, PA.
Oct, 2018	"Advances in the Care of Patients with Early Pregnancy Loss," Magee-Women's Hospital Alumni Day, Pittsburgh, PA
Nov, 2018	"Advances is Early Pregnancy Loss Care" Einstein Healthcare Network, Obstetrics and Gynecology Departmental Grand Rounds
Nov, 2018	"Healthy Child-Spacing, Healthy Families: Best Practices in Postpartum Contraception" Plenary session, Chilean Society of Obstetrics and Gynecology (SOCHOG) and the Chilean Section of ACOG, Santiago, Chile
Nov, 2018	"Miscarriage Management: Updates and Innovations" Plenary session, Chilean Society of Obstetrics and Gynecology (SOCHOG) and the Chilean Section of ACOG, Santiago, Chile
Jan, 2019	"Patient-Centered Early Pregnancy Loss Care," Ob/Gyn Grand Rounds at MedStar Washington Hospital Center, Washington, D.C

Apr, 20	10 Chair, National Abortion Federation 2010 Postgraduate course: "Team Work and Patient Safety"
	Philadelphia, PA
2011	Co-Chair HIV and Women subgroup of the Penn Center For Aids
	Research
	Philadelphia, PA
Apr, 20	Facilitator: Controversies in Family Planning. Fellowship in Family
-	Planning Annual Meeting
	Chicago, IL
May, 20	13 Facilitator: Controversies in Family Planning. Fellowship in Family
•	Planning Annual Meeting
	Denver, CO
May, 20	13 Co-Chair, Penn CFAR Women and HIV Symposium:
•	"Biobehavioral approaches to HIV prevention and management in
	adolescent women"
	Perelman School of Medicine, Philadelphia PA
May, 20	14 Facilitator: Controversies in Family Planning. Fellowship in Family
	Planning Annual Meeting
	New Orleans, LA
Apr, 20	Moderator, second year family planning fellows' research
	presentations on contraception
	San Francisco, California
Apr, 20	Organizer and Panel Moderator, "Moving Forward: Protecting and
	Promoting Reproductive Health"
	University of Pennsylvania

Grants:

Current:

The RhIMAB Study: A Prospective Trial to Evaluate the Value of Rh Immune Globulin in Medication Abortion Service Provision, Society of Family Planning, 10/2018-9/2021 (Schreiber, PI), \$506,477/annual direct costs, 20% effort (Role in grant: PI)

Population Health Research Support (Barnhart), NIH, NIH-NICHD-DIPHR-2018-12, 9/2018-9/2023 (Schreiber, PI), \$110,888/annual direct costs, 15% effort (Role in grant: PI, To establish geographically diverse research sites capable of implementing sophisticated initiatives, from preconception through adulthood, using scientifically valid and rigorous methodologies, to assist in the conduct of population health research initiatives. It is anticipated that initially new research (observational cohorts and/or intervention trials) initiatives could be implemented each year)

Building Interdisciplinary Research Careers In Women's Health (BIRCWH K-12), NIH, 9/2018-8/2019 (Maria Oquendo, PI), \$350,000/annual direct costs, 10% effort (Role in grant: Research Director)

Fellowship in Family Planning (FPF.09), Anonymous Foundation, 7/2018-6/2019 (Schreiber, PI), \$389,000/annual direct costs, 11% effort (Role in grant: PI, The main goal of this project is to train experts in family planning and clinical research.)

A Feasibility, Open-Label, Postcoital, Safety, Release, Fit, and Acceptability Study of Ovaprene, Dare Bioscience Inc, DR-OVP-001, 6/2018-6/2020 (Schreiber, PI), \$125,412/annual direct costs, 2.5% effort (Role in grant: PI)

A Pilot Randomized Non-inferiority Trial of Ibuprofen versus Oxycodone for Overnight Pain Control During Second-Trimester Abortion Care (Nagendra), Society of Family Planning, SFPRF18-19, 5/2018-6/2019 (Nagendra, PI: Schreiber, Co-Investigator), \$96,827/annual direct costs (Role in grant: Mentor, Fellowship Research Award, No Salary, Mentor)

Mid-Career Mentoring Grant, Society of Family Planning, 7/2017-6/2019 (Schreiber, PI), \$66,667/annual direct costs, 10% effort (Role in grant: PI)

Multi-center, open-label, uncontrolled study to assess contraceptive efficacy and safety of Mirena during extended use beyond 5 years in women 18 to 35 years of age including a subgroup evaluation of treatment effect on heavy menstrual bleeding (BAY 86-5028), Bayer Healthcare Pharmaceuticals Inc., BAY 86-5028/18649, 2/2017-2/2021 (Schreiber, PI), \$60,000/annual direct costs, 2.5% effort (Role in grant: PI, The major goal of this project is to assess the contraceptive efficacy of Mirena beyond 5 years up to 8 years of use.)

Evaluation of the Effectiveness, Safety and Tolerability of LevoCept (Levonorgestrel-Releasing Intrauterine System) for Long-Acting Reversible Contraception (CMDOC-0022), CONTRAMED INC., CMDOC-0022 (LevoCept), 1/2017-1/2021 (SCHREIBER, COURTNEY, PI), \$64,815/annual direct costs, 2.5% effort (Role in grant: PI)

Family Planning Service Delivery Integration for HIV Positive and At-Risk Women in Botswana: A Hybrid Type 2 Clinical Intervention and Implementation Strategy, NIH/NIAID & Penn Center for AIDS Research (CFAR) Pilot, P30-AI-45008-18, 9/2016-8/2019 (COLLMAN, R., PI: Doreen Ramogola-Masire, Co-Investigator), \$40,000/annual direct costs, 1% effort (Role in grant: Pilot Study PI, The major goal of this project is to implement and evaluate the feasibility and acceptability of an approach to contraceptive care within the context of a cervical cancer prevention program.)

A multi-center, single-blind, randomized clinical trial to compare two copper IUDs: Mona Lisa NT Cu380 Mini and ParaGard, NICHD/FHI 360, 11/2015-7/2021 (Schreiber, PI), \$160,551/annual direct costs, 20% effort (Role in grant: PI, The major goal of this project is to obtain valid and reliable data to determine the contraceptive effectiveness, bleeding patterns, side effects and safety of novel LARC methods that can provide safe and effective contraception for women.)

Evaluation of the Effectiveness, Feasibility, Safety and Tolerability of the ContraMed Intrauterine Copper Contraceptive for Long Acting Reversible Contraception (CMDOC-0008), CONTRAMED INC., CMDOC-0008 (Veracept), 7/2015-6/2019 (Schreiber, PI), \$80,580/annual direct costs, 2.5% effort (Role in grant: PI, The major goal of this project is to assess the effectiveness, feasibility, safety, and tolerability of an investigational copper intrauterine device over a three year period.)

Contraceptive Clinical Trials Network-Task Order 3 (CCTN), NIH/NICHD, HHSN275201300020I, 9/2014-9/2019 (Barnhart, PI: Schreiber, Co-Investigator), \$159,050/annual direct costs, 1% effort (Role in grant: Co-Investigator, The major goals of this project is to determine the contraceptive effectiveness, pharmacokinetics, bleeding patterns, side effects and safety of novel products that can provide safe and effective contraception for women.)

Comparative Effectiveness of Pregnancy Failure Management Regimens (Pre-Fai-R), NIH/NICHD (R01), R01-HD-071920-05 (N.C.E.), 8/2013-4/2019 (Schreiber, PI: Barnhart, Sammel, Co-Investigator), \$335,751/annual direct costs, 20% effort (Role in grant: Principal Investigator, Early Pregnancy Failure (EPF) is the most common complication in pregnancy, but safe and effective management options are limited. Up to 60% of women who choose medical management of EPF with prostaglandins ultimately require multiple does or surgery. Our goal is to improve upon the effectiveness of medical management of EPF by adding a progesterone receptor modulator, and to study the biological and clinical predictors of success among women who choose medical management.)

Contraceptive Clinical Trials Network-Female Sites (CCTN013C), NIH/NICHD, HHSN275201300020I, 7/2013-12/2018 (Schreiber, PI), \$48,064/annual direct costs, 15% effort (Role in grant: PI, A multi-center, randomized study to evaluate the pharmacokinetic and pharmacodynamics profile, contraceptive efficacy and safety of daily oral low dose ulipristal acetate)

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 (M360-L102), Medicines360 (L102), M360-L102, 5/2010-12/2021 (Schreiber, PI), \$37,190/annual direct costs, 1% effort (Role in grant: Principal Investigator, The major goal of this project is to test the safety and efficacy of a new levonorgestrel intrauterine system)

Past:

Fellowship in Family Planning (FPF.08), Buffett Susan Thompson Foundation, 7/2017-6/2018 (Schreiber, PI), \$380,694/annual direct costs, 11.65% effort (Role in grant: PI)

Flow Cytometry Quantification of Feto-Maternal Hemorrhage Following Uterine Aspiration in the First Trimester (Horvath), Society of Family Planning, SFPRF17-6, 2/2017-6/2018 (Schreiber, PI: Sarah Horvath (fellow), Co-Investigator), \$100,000/annual direct costs, 1% effort (Role in grant: Mentor)

Fellowship in Family Planning (Yr. 07), Anonymous Foundation, 923.07, 7/2016-6/2017 (Schreiber, PI), \$356,970/annual direct costs, 15% effort (Role in grant: PI, The main goal of this project is to train experts in family planning and clinical research.)

Pregnancy Early Assessment CEnter (PEACE), University of Pennsylvania/Penn Center for Health Care Innovation, 4/2016-12/2017 (Schreiber, PI), \$107,700/annual direct costs, 2% effort (Role in grant: PI, The major goal of this project is to optimize the care offered to women with early pregnancy loss within the University of Pennsylvania Health System.)

Referral and delay in abortion care: A cross-sectional study (Frarey), Society of Family Planning, SFPRF16-16, 2/2016-6/2017 (Schreiber, PI: Frarey (fellow), Co-Investigator), \$94,921/annual direct costs, 1% effort (Role in grant: Mentor)

Family Planning Service Delivery Integration for HIV Positive and At-Risk Women in Botswana: A Hybrid Type 2 Clinical Intervention and Implementation Strategy, University of Pennsylvania Center for AIDS Research, 7/2015-6/2016 (Schreiber, PI), \$40,000/annual direct costs, 1% effort (Role in grant: PI)

Fellowship in Family Planning (Yr. 06), Anonymous Foundation, 923.06, 7/2015-6/2016 (Schreiber, PI), \$340,044/annual direct costs, 15% effort (Role in grant: Principal Investigator, The main goal of this project is to train experts in family planning and clinical research)

Expulsion of Immediate Postplacental Copper Intrauterine Devices at Six Months: A Prospective Cohort Study (Gurney), Society of Family Planning, SFPRF15-15, 4/2015-2/2017 (Schreiber, PI: (Gurney, mentee), Co-Investigator), \$100,000/annual direct costs, 1% effort (Role in grant: Mentor)

Contraception in Women with Cystic Fibrosis: Satisfaction and Effects on Disease (Traxler), Society of Family Planning, SFPRF14-13, 4/2014-6/2015 (Schreiber, PI: Sarah Traxler, Co-Investigator), \$35,000/annual direct costs, 1% effort (Role in grant: Mentor, Role: Mentor (no salary))

The Impact of Doulas in the Surgical Management of Early Pregnancy Failure and Abortion care (Wilson), Society of Family Planning, SFPRF14-3, 3/2014-12/2014 (Schreiber, PI), \$29,761/annual direct costs, 1% effort (Role in grant: Mentor, Role: Mentor (no salary))

A Phase 1, Multi-Center Study to Assess the Performance of a LNG20 Intrauterine System Inserter, Medicines 360 (L104), L104, 12/2013-12/2014 (Schreiber, PI), \$94,000/annual direct costs, 3% effort (Role in grant: Principal Investigator)

Fellowship in Family Planning (Yr. 04), Anonymous Foundation, 923.04, 7/2013-6/2014 (Schreiber, PI), \$366,800/annual direct costs, 15% effort (Role in grant: Principal Investigator, The main goal of this project is to train experts in family planning and clinical research)

Core Function Activities Task Order #1 (Barnhart), NIH/NICHD (CCTN), HHSN275201300020I, 6/2013-6/2015 (Barnhart, PI), \$88,683/annual direct costs, 5% effort (Role in grant: Co-Investigator, To assist in the protocol review, protocol development and activities associated with past, present and future CCTN activities.)

Fertility After Contraceptive Termination (FACT Pilot), WASHINGTON UNIVERSITY IN ST. LOUIS/BAYER, Pilot Study, 3/2013-6/2016 (Creinin, PI), \$12,500/annual direct costs, 1% effort (Role in grant: Subcontract PI)

Impact Of Peer Counseling On Long Acting Reversible Contraception Uptake Among Adolescents And Duration Of Contraceptive Use (Wilson), Society of Family Planning, SFP - Wilson, 1/2013-7/2014 (Schreiber, PI), \$69,931/annual direct costs, 1% effort (Role in grant: Principal Investigator, Role: Mentor (no salary))

Study Of Uptake, Continuation And Removal Of Intra-Uterine Contraception (Iuc), University Of California - San Francisco, 7272sc, 8/2012-6/2013 (COURTNEY SCHREIBER, PI), \$8,182/annual direct costs, 1% effort (Role in grant: PI)

Fellowship in Family Planning (Yr. 03), Anonymous Foundation, 923.03, 7/2012-6/2013 (Schreiber, PI), \$366,800/annual direct costs, 15% effort (Role in grant: Principal Investigator, The main goal of this project is to train experts in family planning and clinical research)

Evaluation of a Brief Standardized Postpartum Counseling Intervention's Effect on Repeat Pregnancy Rates and Contraceptive Choice/Use/Continuation/Satisfaction in Adolescents (Sober), Society of Family Planning, SFP, 2/2012-3/2014 (Sober, PI), \$49,144/annual direct costs, 1% effort (Role in grant: Principal Investigator, Role: Mentor (no salary))

A Phase 1, Multi-Center Study to Assess the Safety and Performance of an Novel LNG20 Intrauterine System Inserter, Medicines360 (L103), M360-L103, 11/2011-12/2012 ((Schreiber), PI), \$38,170/annual direct costs, 1% effort (Role in grant: Principal Investigator, The major goal of this project is to ...)

Fellowship in Family Planning (Yr. 02), Anonymous Foundation, 923.02, 7/2011-6/2012 (Schreiber, PI), \$323,520/annual direct costs, 16% effort (Role in grant: Principal Investigator, The main goal of this project is to train experts in family planning and clinical research)

The Impact of Contraception on Post Partum Weight Loss: A Prospective Study (Pentlicky), Anonymous Foundation, 3643, 7/2011-6/2012 ((Pentlicky), PI), \$46,548/annual direct costs (Role in grant: Principal Investigator)

Pharmacokinetic And Pharmacodynamic Study Of Tenofovir 1% Gel Using The Bat 24 Regimen Versus Daily And Pericoital Dosing, CONRAD/Eastern Virginia Medical School, PPA-11-115, 6/2011-12/2013 (Schreiber, PI), \$127,508/annual direct costs, 2% effort (Role in grant: PI, The main goal is to evaluate the effectiveness of different Tenofovir 1% Gel dosing regimens)

AMP001 - A Multicenter, Open-Label, Randomized Study of the Contraceptive Efficacy and Safety of Amphora Gel Compared to Conceptrol Vaginal Gel (Barnhart), EvoFem Inc., AMP001, 5/2011-8/2013 (Barnhart, PI), \$56,891/annual direct costs, 1% effort (Role in grant: Co-Investigator, The major goal of this project is to study the Contraceptive Efficacy and Safety of Amphora Gel Compared to Conceptrol Vaginal Gel)

Clinical Evaluation of Nestoronel Estradiol-Releasing Vaginal Ring for Female Contraception - Task 6 (Barnhart), NIH/NICHD contract, HHSN275201100041U-Task6, 3/2011-1/2014 (Barnhart, PI), \$705,379/annual direct costs, 5% effort (Role in grant: Co-Investigator, The proposed study will be conducted in women of reproductive age in order to evaluate contraceptive efficacy, pharmacokinetics, bleeding patterns and the safety and side effects of this new contraceptive product.)

Core Function Activities Task Order 8 (Barnhart), NIH/NICHD contract, HHSN275201100068U Task 8, 3/2011-7/2013 (Barnhart, PI), \$114,253/annual direct costs, 5% effort (Role in grant: Co-Investigator, To assist in the development of new contraceptive products by providing services related to protocol review, protocol development and activities associated with past, present and future CCTN activities)

Clinical Evaluation of Levonorgestrel Butaoate for Female Contraception - Task 7 (Barnhart), NIH/NICHD contract, HHSN275201100071U-Task7, 3/2011-8/2012 (Barnhart, PI), \$64,704/annual direct costs, 5% effort (Role in grant: Co-Investigator, There is a demand for estrogen-free contraception in order to reduce the risk of venous thromboembolism (VTE) particularly for obese women)

Contraceptive Efficacy and Safety of Two Progestin Patches - Task 5 (Barnhart), NIH/NICHD contract, HSN275201000022U-Task5, 1/2010-7/2012 (Barnhart, PI), \$183,073/annual direct costs, 2% effort (Role in grant: Co-Investigator, To evaluate in obese and non-obese women the pharmacokinetics, effects, cycle control, and safety of progestin-only patches containing defined doses of levonorgestrel.)

Uptake And Acceptability Of Home Use Of Mifepristone, Gynuity Health Projects, GYNUITY, 12/2009-11/2010 (COURTNEY SCHREIBER, PI), \$34,808/annual direct costs, 4% effort (Role in grant: PI, The major goal of this project is to test the safety and acceptability of home administration of mifepristone)

Penn Family Planning And Pregnancy Loss Center Database Proposal, Society of Family Planning, SFP3-18, 10/2009-3/2011 (COURTNEY SCHREIBER, PI), \$15,000/annual direct costs, 2% effort (Role in grant: PI, The main goal of this project is to develop a family planning database and pilot its use as a model for nation-wide registry.)

Contraceptive Efficacy Evaluation Of The Path Female Condom, National Institutes Of Health, HHSN275200900083U, 9/2009-12/2012 (Kurt T. Barnhart, PI), \$0/annual direct costs, 18% effort (Role in grant: Co-PI, To compare the safety and contraceptive efficacy of a new female condom in women of reproductive age. The PATH condom is a new version of the female condom that appeared to have greater acceptability in a small comparative study)

Women In Steady Exercise Research (WISER) Sister Substudy - Contraceptive use in Women at Increased Risk for Breast Cancer, Teva Women's Health Research, Teva CT, 8/2009-5/2013 (Schreiber, PI), \$10,000/annual direct costs, 1% effort (Role in grant: Principal Investigator, The main goal of this project is to evaluate contraceptive decision making and the uptake, safety and acceptability of the TCu380A IUD in this clinical trial population at increased risk for breast cancer)

A Plan B 1.5 Emergency Contraception Actual Use Study - Dr-Lev-302, Duramed Research, 4/2009-7/2011 (COURTNEY SCHREIBER, PI), \$20,476/annual direct costs, 12% effort (Role in grant: PI, The main goal of this project is to assess use of an emergency contraceptive pill under simulated over-the-counter conditions)

A Pilot Study To Evaluate Precision And Accuracy Of Smart Applicator For Microbicide Clinical Trials, International Partnership For Microbicides, IPM 022, 8/2008-7/2009 (COURTNEY SCHREIBER, PI), \$0/annual direct costs, 10% effort (Role in grant: PI)

Kenneth J. Ryan Residency Training Program In Abortion and Family Planning, Anonymous Foundation, 296.03, 1/2008-10/2011 ((Schreiber), PI), \$499,996/annual direct costs, 20% effort (Role in grant: Principal Investigator, The main goal of this project is to institute resident training in family planning)

How to avoid pregnancies in HIV prevention trials: A case control study and point-of-care questionnaire, Penn Center for AIDS Research (CFAR), 7/2007-6/2008 (Courtney Schreiber, MD, MPH, PI), \$40,000/annual direct costs, 5% effort (Role in grant: PI)

Clinical Trials Unit: Microbicide Trials Network, NIH/NIAID, U01-AI-069534, 2/2007-6/2009 ((Metzger, D.), PI), \$1/annual direct costs, 10% effort (Role in grant: Co-Investigator)

Contraceptive Clinical Trials Network (Female Contraceptive Trials Topic Area) Task Order 3: A Multi-Center, Open-Label Trial on the Efficacy, Cycle Control, and Safety of a Contraceptive Vaginal Ring Delivering a Daily Dose Nestoron and Ethinyl Estradiol, NIH/NICHD, RFTOP#:003, 8/2006-1/2010 (Kurt Barnhart, M.D., PI), \$170,518/annual direct costs, 5% effort (Role in grant: co-investigator, The main goal of this project is to evaluate the efficacy and safety of a new contraceptive vaginal ring.)

Contraceptive Effectiveness Diaphragm and Safety Study of the SILCS with Nonoxynol-9: The Pivotal Study, Eastern Virginia Medical School (CONRAD), CSA-06-430, 7/2006-12/2009 (Kurt Barnhart, M.D., PI), \$243,820/annual direct costs, 5% effort (Role in grant: Co-investigator, CONRAD is a research organization funded by USAID and Foundation. The main goal of this project is to Estimate the safety and effectiveness among users of the SILCS diaphragm used with contraceptive gel over 6 months of typical use.)

A Pilot Randomized Controlled Trial of Advanced Supply of Levonorgestrel Emergency Contraception vs. Routine Postpartum Contraceptive Care in the Teenage Population, University Research Foundation, 7/2006-1/2008 (CA Schreiber, PI), \$0/annual direct costs (Role in grant: PI)

A Study of Mucosal and Inflammatory Effects of Vaginal Gels on Reproductive Tract, Magee Women's Health Corp. VIA NIH, 6/2006-5/2007 (Kurt Barnhart, M.D., PI), \$0/annual direct costs, 1% effort (Role in grant: co-investigator)

Mifepristone and Misoprostol for the Treatment of Early Pregnancy Failure: a Pilot Clinical Trial, Anonymous, 9/2004-10/2005 (Courtney A. Schreiber, MD, MPH, PI), \$0/annual direct costs, 20% effort (Role in grant: PI, no salary support)

University Of Pennsylvania Center For Aids Research:, National Institutes Of Health, 5-P30-AI-045008-10, 7/2004-9/2009 (JAMES A HOXIE, PI), \$1,822,128/annual direct costs, 5% effort (Role in grant: Co-PI)

A multicenter, randomized, double masked, comparator study of the safetyand contraceptive efficacy of C31G vaginal gel compared to 15% Conceptrol® vaginal gel, NICHD, N01-HD-4-3372, 7/2004-10/2005 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

An Evaluation of NuvaRing® for the Treatment of Abnormal Patterns Bleeding in the Perimenopause, Organon, 7/2004-6/2005 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator, no salary support)

Contraceptive Clinical Trials Network (Female Contraceptive Trials Topic Area): Task Order 2- Female Contraceptive Clinical Trial: A Randomized Controlled Study of the Efficacy, Safety and Acceptability of C31G, NIH, 4/2004-3/2011 (Kurt Barnhart, M.D., PI), \$1/annual direct costs, 5% effort (Role in grant: co-investigator)

An Open Label Study of the Contraceptive Efficacy and Safety of Tripahsic Norethindrone Acetate 1 mg/Ethinyl Estradiol 0.005, 0.030, and 0.035 mg Oral Tablets Administered for 24 Days of a 28 Day Cycle, Galen, 2/2004-6/2004 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

A Multicenter, Randomized Comparison of Mifepristone and Misoprostol Simultaneously Versus 24 Hours Apart for Abortion Through 63 Days Gestation, Anonymous, 1/2004-6/2005 (Courtney A. Schreiber, MD, MPH, PI), \$0/annual direct costs, 20% effort (Role in grant: PI, no salary support)

A Survey of Contraception Knowledge and Attitudes among Graduating Residents in Pittsburgh, Anonymous, 1/2004-6/2005 (Courtney A. Schreiber, MD, MPH, PI), \$0/annual direct costs, 20% effort (Role in grant: PI, no salary support)

An Evaluation of the Return to Ovulation After Treatment with Mifepristone and Misoprostol For Undesired Pregnancy., Anonymous, 1/2004-6/2005 (Courtney A. Schreiber, MD, MPH, PI), \$0/annual direct costs, 20% effort (Role in grant: PI, no salary support)

Phase I Post Coital Testing and Safety Study of the SILCS Diaphragm, Prototype VI, CONRAD, A02-081, 9/2003-8/2004 ((Creinin, Mitchell D.), PI), \$120,000/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

Phase III Multicenter Open Label Study to Evaluate the Safety and Efficacy of Levonorgestrel 90 micrograms and Ethinyl Estradiol 20 micrograms in a Continuous Daily Regimen for Oral Contraception, Wyeth Pharmamaceuticals, 9/2003-5/2004 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

A Randomized Controlled Study of the Efficacy, Safety and Acceptability of Buffer Gel., NICHD-N01-HD, HD-1-3319, 7/2003-6/2005 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

Randomized Clinical Trial on Management of Early Pregnancy Failure, NICHD, N01-HD-1-3322, 7/2003-7/2004 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

Same Day Initiation of the Combined Hormonal Transdermal Delivery System Traditional Initiation Method, Anonymous, 6/2003-12/2004 (Amita S. Murthy, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator, no salary support)

Mifepristone and Misoprostol Administered at the Same Time for Medical Abortion Up to 49 Days' Gestation, Anonymous, 6/2003-6/2004 (Amita S. Murthy, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator, no salary support)

Mifepristone and Misoprostol Administered at the Same Time for Medical Abortion from 50-63 Days' Gestation, Anonymous, 6/2003-5/2004 (Courtney Schreiber, MD, MPH, PI), \$0/annual direct costs, 20% effort (Role in grant: PI, no salary support)

Safety Analysis of the Diaphragm in Combination with Vaginal MicrobicideGels, CDC, 6/2003-5/2004 (Mitchell D. Creinin, PI), \$0/annual direct costs, 5% effort (Role in grant: Co-Investigator at study site, no salary support)

Career Development In Women's Health Research, National Institutes Of Health, 5-K12-HD-043459-05, 9/2002-7/2008 (ELLEN W FREEMAN, PI), \$462,965/annual direct costs, 75% effort (Role in grant: Co-PI)

BUILDING INTERDISCIPLINARY RESEARCH CAREERS IN WOMEN'S HEALTH (BIRCWH), National Institutes of Health (NICHD), 5K12HD043459-05, 9/2002-12/2007 (Ellen W. Freeman, PI), \$0/annual direct costs, 75% effort (Role in grant: BIRCWH Scholar)

Bibliography:

Research Publications, peer reviewed (print or other media):

- 1. Schreiber CA, Wan L, Sun Y, Krey L, Lee-Huang S: The antiviral agents MAP30 and GAP31 are not toxic to human spermatozoa and may be useful in preventing the sexual transmission of HIV-I. <u>Fertil Steril</u> 72:686-690, 1999.
- 2. Murthy AS, Creinin MD, Harwood BJ, Schreiber CA: A pilot study of mifepristone and misoprostol administered at the same time for abortion up to 49 days gestation. <u>Contraception</u> 71(5):333-336, 2005.
- 3. Murthy AS, Creinin MD, Harwood BJ, Schreiber CA: Same day initiation of the transdermal hormonal delivery system (contraceptive patch) versus traditional initiation methods. Contraception 72(5):333-36, 2005.
- 4. Schreiber CA, Creinin MD, Harwood BJ, Murthy AS: A pilot study of mifepristone and misoprostol administered at the same time for abortion from 50-63 days gestation. Contraception 71(6):447-50, 2005.
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- 14. Patel PR, Schreiber CA: Controversies in family planning: contraceptive counseling in the solid organ transplant recipient. <u>Contraception</u> 138-142, 2013.
- 15. Wilson S, Tan G, Baylson M, Schreiber CA: Controversies in family planning: how to manage a fractured IUD. <u>Contraception</u> 599-603, 2013.
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Abstracts:

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- 13. Gracia CR, Lin H, Charlesworth S, Schreiber CA, Barnhart KT, Creinin MD: Sexual function in first-time NuvaRing and OrthoEvra users. Poster presented at the ASRM meeting, Washington, DC, _ October, 2007.
- 14. Sukhan S, Sammel M, Schreiber CA: Is exposure to prenatal care associated with improved pregnancy outcomes and post partum contraception continuation in a teenage population? Poster Presentation Reproductive Health, Washington, DC, _ September, 2008.
- 15. Schreiber CA, Su I, Fay C, Barnhart KT: The Inflammatory Effects of Two Vaginal Gels on the Reproductive Tract. poster presentation at Reproductive Health, October 2009; Los Angeles, CA. <u>Contraception</u> supplement, August 2009.
- 16. Fay C, Su HI, Martino L, Shaunik A, Schreiber CA, Barnhart KT: Inflammatory marker profiles differ between the vagina and endometrium <u>Oral Presentation</u> <u>American Society Reproductive Medicine Atlanta, GA</u> October 2009.
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- 25. Wright C, Schreiber CA: Contraceptive discontinuation and pregnancy rates among oral contraceptive, vaginal ring and transdermal patch users at Philadelphia family planning clinics. Poster, 138th American Public Health Association Annual Meeting, Denver, CO. _ Nov 2010.
- 26. Quinley KE, Kinariwala M, Rowh M, Datner EM, Schreiber CA: Manual Vacuum Aspiration in the Emergency Room Can Reduce Use of Hospital Resources. Oral presentation, Society of Academic Emergency Medicine Mid-Atlantic Regional Meeting, Philadelphia, PA, _ Feb 2012.
- 27. Langmuir H, Asch D, Schreiber CA: Postplacental versus delayed postpartum intrauterine device insertion: a decision analysis. Poster, Annual Clinical Meeting, ACOG, San Diego, CA, Obstet Gynecol May 2012.
- 28. Pentlicky S, Bennett I, Schreiber CA: The Effect of Parity on Weight Gain Over Time. Poster, Annual Clinical Meeting, ACOG, San Diego, CA, _ May 2012.
- 29. Quinley KA, Ratcliffe S, Schreiber CA: Biomarkers help predict successful early pregnancy failure management with single-dose misoprostol. Oral presentation as a paper on Current Clinical and Basic Investigation at the 60th Annual Clinical Meeting (ACM) of the American College of Obstetricians and Gynecologists, San Diego, CA, Obstet Gynecol May 2012.
- 30. Quinley KE, Kinariwala M, Schreiber CA: Manual Vacuum Aspiration Treatment of Incomplete Abortion and Retained Products in the Emergency Room Setting. Poster, Reproductive Health Annual Clinical Meeting (A40), New Orleans, LA. _ Sep 2012.
- 31. Quinley KE, Ratcliffe SJ, Schreiber CA: Correlations between Physical and Psychological Well-being in the Immediate Post-Abortion Period. Poster, Reproductive Health Annual Clinical Meeting, New Orleans, LA. _ Sep 2012.

- 32. Pentlicky S, Ratcliffe SJ, Schreiber, CA: The Impact of Progestin-Only Contraceptives on Postpartum Weight Changes: A Randomized Prospective Study. Poster, North American Forum on Family Planning, Denver, CO, _ Oct 2012.
- 33. Quinley KE, Ratcliffe S, Schreiber CA: Predictors of Psychological Well-Being in the Immediate Post-Abortion Period. Poster, North American Forum on Family Planning Denver, CO. _ Oct 2012.
- 34. Tennant C; Sammel M, Schreiber CA: Immediate Postpartum Implanon Insertion: Effective Long-Term Contraception. Oral Presentation, North American Forum on Family Planning. Denver, CO, _ Oct 2012.
- 35. Pentlicky S, Ratcliffe S, Schreiber CA: The Impact of Progestin-only Contraceptives on Postpartum Weight Loss (POPP): A Randomized Control Trial. Top 4 Oral Abstract Presentation at the North American Forum on Family Planning. _ October 2013 Notes: Seattle, WA.
- 36. Schwartz JL, Weiner D, Kashuba A, Archer D, Brache V, Schreiber CA, Chen BA, Poindexter A, Thurman A, Lai J, Yang KH, Sykes C, Mauck C, Herold B, Dezzutti C, Doncel GF: Multicompartmental Pharmacokinetics of Tenofovir 1% Gel Using the BAT 24 Regimen Versus Daily and Single Pericoital Dosing Oral presentation at the HIV Research for Prevention 2014; AIDS Vaccine, Microbicide and ARV-based Prevention Science (HIVR4P), Capetown, South Africa October 2014.
- 37. Wilson S, SRatcliffe S, Schreiber C: Impact of Peer Adolescent Contraceptive Counseling in Teens (ImPACCT) North American Forum on Family Planning October 2014.
- 38. Gurney EP, Sonalkar S, Schreiber CA: Expulsion of immediate postplacental copper IUDs at six months: A prospective cohort study. Fellowship in Family Planning Annual Meeting, San Francisco, CA May 2015.
- 39. Chavez V, Radcliffe S, Easley E, Barg F, Schreiber C: Facilitators and barriers to satisfaction with treatment choice for early pregnancy loss. Online poster at the Society for Family Planning North American Forum for Family Planning, Chicago, Illinois November 2015.
- 40. Chavez V, Radcliffe S, Easley E, Barg F, Schreiber C: Patient level characteristics and considerations for early pregnancy loss management choice. <u>Poster Presentation at the Society for Family Planning North American Forum for Family Planning, Chicago, Illinois.</u> November 2015.

- 41. Miller CA, Ratcliffe SJ, Agha A, Schreiber CA.: The many roads traveled to obtain treatment for early pregnancy loss. <u>Poster presentation at: The North American Forum on Family Planning</u>, 5th Annual Meeting, Chicago, IL. November 2015.
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- 43. Gurney E, Sonalkar S, McAllister A, McClusky J, Frarey A, Schreiber C: Expulsion of Immediate Postplacental Copper IUDs at Six Weeks: A Prospective Cohort Study. Poster presentation, ACOG Annual Clinical and Scientific Meeting, San Diego, CA May 2017.
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- 45. Chen BA, Kimble TD, Ginde SY, Jensen JT, Schreiber CA, Creinin MD: Bleeding patterns do not differ between obese and non-obese women using a levonorgestrel 52-mg intrauterine system. <u>Poster Presentation</u>, North American Forum on Family Planning, Atlanta, GA October 2017.
- 46. Clement EG, Horvath SK, Koelper N, Sammel MD, Schreiber CA: The language of pregnancy demise: patient-reported clarity and preferences. <u>North American Forum on Family Planning, Atlanta, GA</u> October 2017.
- 47. Hunter T, Gurney EP, Schreiber C, McAllister A; Sonalkar S: Probability of Pregnancy after Intended Postplacental versus Interval Intrauterine Device Placement. <u>ACOG Annual Clinical and Scientific Meeting; Austin, TX</u> April 2018.
- 48. Eisenberg D, Schreiber C, Carr B, Turok D, Chen B, Creinin M: Change in Bleeding Patterns After Liletta Insertion for Women with Subjective Baseline Heavy Menstrual Bleeding. <u>Poster Presentation</u>, Forum on Family Planning, New Orleans, LA October 2018 Notes: Winner, Translational Poster Award.
- 49. Flynn A, Sonalkar S, Schreiber C: Unintended Pregnancy and Contraception among Women with Resolved Pregnancy of Unknown Location. <u>Poster presentation</u>, <u>Forum on Family Planning</u>, New Orleans, LA October 2018.
- 50. Horvath S, Luning Prak E, Schreiber C: Flow Cytometric Quantification of Feto-Maternal Maternal Hemorrhage Following Uterine Aspiration.

 Presentation, Forum on Family Planning, New Orleans, LA October 2018.

51. Lang B, McAllister A, Epperson CN, Schreiber C: Comparing Mood and Sexual Side Effects among Users of Hormonal and Non-hormonal Contraceptives. <u>Poster Presentation</u>, Forum on Family Planning, New Orleans, LA October 2018.

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- 1. Schreiber CA, Creinin MD: The health benefits of hormonal contraception. <u>The Female Patient</u> 10-12, Jan, 2006 (RA Suppl).
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- 7. Barnhart K, Schreiber CA, Shaunik A: Contraception, www.endotext.org 2006.
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- 9. Schreiber CA: Introduction to Controversies in Family Planning. <u>Contraception</u> 82:25, August 2010.
- 10. Tennant C, Schreiber CA: Time to trim the loose ends of the tailstring debate.

 <u>Contraception</u> 84(1): 108; author reply 108-9, Jul 2011.
- 11. Schreiber CA, Ratcliffe S, Barnhart KT: Finding the right face for advanced supply of emergency contraception. <u>Contraception</u> 2011.
- 12. Sober S, Schreiber CA: Pregnancy Options Counseling. <u>Contraception for Adolescent</u> and Young Adult Women. Whittaker A, Gilliam M (eds.). Springer, May 2013.

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- 14. Pentlicky S, Schreiber C: Pelvic Pain. <u>Schwartz's Clinical Handbook of Pediatrics 5th edition</u>. Zorc JJ, Alpern ER, Brown L, Clark BJ, Marino BS, Mollen CM, Eds (eds.). Lippincott Williams and Wilkins, Page: 624-632, 2013.
- 15. Pentlicky S, Schreiber C: Vaginal Discharge. Schwartz's Clinical Handbook of Pediatrics 5th edition. Zorc JJ, Alpern ER, Brown L, Clark BJ, Marino BS, Mollen CM, Eds. (eds.). Lippincott Williams and Wilkins, Page: 841-848, 2013.
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EXHIBIT E

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

ALLEGHENY REPRODUCTIVE HEALTH CENTER, et al.,

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Petitioners,

Affidavit of

v.

Sarah C. Noble, D.O.

PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES, et al.,

:

Respondents.

DECLARATION OF SARAH C. NOBLE

I, Sarah C. Noble, make this declaration:

- 1. I am a board-certified psychiatrist in Pennsylvania specializing in women's mental and behavioral health. My particular expertise is in the intersection of psychiatry and obstetrics.
- 2. I am aware that Pennsylvania's Medicaid program, Medical
 Assistance, provides health care coverage for low-income Pennsylvanians. I am
 also aware that Medical Assistance does not cover abortion procedures unless the
 pregnancy is caused by rape or incest, or where the abortion is necessary to avert
 the death of the pregnant woman.
- 3. For many women, the perinatal period (the period during pregnancy and for one year following delivery) is a time of vulnerability to mental illness.

Indeed, pregnancy can destabilize a woman's mental health in several ways, by (1) exacerbating the symptoms or prompting a recurrence of a pre-existing mental health disorder; (2) sparking a new mental illness; (3) presenting a barrier to effective treatment for a mental health or substance use disorder; or (4) causing emotional distress that compromises a woman's ability to cope with life. Low socioeconomic status has repeatedly been identified as a risk factor for certain mental illnesses during pregnancy. There is no clinical justification for denying Medical Assistance coverage to women who seek an abortion in order to protect their mental health and well-being.

4. In addition, by limiting poor women's options to address unwanted pregnancy Medical Assistance is in turn putting the lives of both these women and their fetuses at risk. Unwanted and unintended pregnancy has been associated with an increased risk of interpersonal violence.² This is particularly true for women who are on Medicaid; according to one study they were 2.5 times more likely to experience abuse before and during pregnancy.³ It is hypothesized that pregnancy

¹ See Alessandra Biaggi et al. "Identifying the Women At Risk of Antenatal Anxiety and Depression: A Systematic Review." J. Affective Disorders 62,64, (2016): 191 (citing C.A. Lancaster et al. "Risk Factors for Depressive Symptoms During Pregnancy: A Systematic Review." Am. J. Obset. & Gynecol. 5, 14 (2010): 202).

² Gibson J, et al. "The Effects of Unintended Pregnancy on Infant, Child, and Parental Health: A Review of the Literature." *Stud Family Planning* 39, 2 (2008): 28.

³ Goodwin M, et al. "Pregnancy Intendedness and Physical Abuse Around the Time of Pregnancy: Findings from the Pregnancy Risk Assessment Monitoring System, 1996-1997." *Maternal & Child Health J.* 4, 2 (2000): 89.

coercion and/or birth control sabotage are critical mechanisms underlying unintended pregnancy, and are either precursors to physical abuse or part of the overall control the abuser has on the woman.⁴

5. Based on my clinical experience and familiarity with the literature on mental health and pregnancy, I believe that the Medical Assistance abortion exclusion, which denies coverage to countless women, harms the mental health of pregnant, low-income Pennsylvanians.

I. BACKGROUND AND QUALIFICATIONS

- A. Education and Training
- 6. I received my Doctor of Osteopathic Medicine degree from the Philadelphia College of Osteopathic Medicine in 2007. In 2011, I completed the Albert Einstein Medical Center Psychiatry Residency Training Program, during which time I served as the Chief of Medical Student Education.
- 7. Since 2011, I have worked as an attending psychiatrist at Albert Einstein Medical Center, and I currently serve on the Medical Staff Board and am Medical Director of the Outpatient Clinic. I have served on several academic committees at Albert Einstein Medical Center, including its Psychiatric Education Committee, its Medical Education Committee, and its Curriculum Committee. I

⁴ Miller E, et al. "Pregnancy Coercion, Intimate Partner Violence and Unintended Pregnancy." *Contraception* 8, 14 (2010): 321.

also helped to develop Albert Einstein Medical Center's Women's Behavioral Health Program.

- 8. I have served on several professional committees related to women's mental health, including the Association of Gay and Lesbian Psychiatrists'

 Women's Committee and Program Committee, and the Pennsylvania Psychiatric Association's State Hospital Committee. I am also a frequent lecturer on perinatal mental health screening and treatment and have conducted research and published on numerous issues relating to mental health during pregnancy.
- 9. Throughout this affidavit, I refer to patients I have treated. I have changed their names and do not use any personally identifying information. These patient examples are used to provide real-world illustrations of the information contained within this affidavit and each is representative of other patients I have treated.

B. Clinical Practice

10. The overwhelming majority of my patients—several hundred each year—are in the perinatal period. I see patients during and after their pregnancies at the request of the obstetrics and pediatric departments. I will often follow my patients for months or years as they work through the developmental milestone of motherhood. Together, we make difficult decisions about whether to start medications during pregnancy that might affect their fetus. Sometimes we are also

struggling to determine the right path for a woman to take around the topic of an abortion. At other times we are processing grief around the loss of a wanted child. This is difficult and rewarding work because I get to walk with women through an amazing and challenging time in their lives and see the different ways in which they handle unforeseen and unexpected events in life.

- 11. For example, one woman, Samantha, who was 18 when I met her, had just given birth to her son. Since then, I've seen her get her GED, start working, have a second unintended pregnancy, and then lose her mom to an overdose. She continues to move forward and parent with grace despite all of her challenges.
- 12. On the other hand, Stephani is illustrative of many of the women I have treated. She came to me 6 months after the birth of her son because she was tearful and isolating herself. She reported that initially the father of the baby had been excited about her pregnancy, but around the second trimester he had told her he didn't think he could support a baby. She felt trapped at that point knowing that it was too late to get an abortion. She felt alone because her own mother was in active addiction so was no help in this new role as a parent. She was struggling to connect to the baby because of her severe postpartum depression.
- 13. A majority of the women I treat in the perinatal period are low-income and receive medical assistance.

14. I submit this declaration as an expert in the interaction between pregnancy and mental health. This expertise extends to the circumstances in which a woman may seek an abortion in order to protect her mental health and the well-being of her family. My curriculum vitae, which sets forth my experience and credentials in greater detail and contains a full list of my qualifications, is attached as Exhibit A to this declaration. All of my opinions in this declaration are stated to a reasonable degree of professional certainty.

II. Pregnancy and Mental Health

- A. The Impact of Pregnancy on Mental Health
- 15. A significant number of women will experience a mood disorder (such as depression or bipolar disorder), an anxiety disorder (such as generalized anxiety disorder or panic disorder), obsessive-compulsive disorder (OCD), or a trauma-related disorder (such as post-traumatic stress disorder (PTSD)) during the perinatal period. For example, the data suggest that up to 14.5 percent of pregnant women experience a new episode of major or minor depression during pregnancy.⁵
- 16. Indeed, statistics on the prevalence of mental health disorders among pregnant women are likely under-representative, as many women will never seek treatment either because they assume their symptoms are normal, because of the

⁵ Gaynes Bradley N, et al. "Perinatal Depression: Prevalence, Screening Accuracy, and Screening Outcomes." *Agency for Healthcare Res. and Quality: Evid. Rep./Tech. Assessment* 1, 4 (2005): 119.

stigma surrounding mental illness, or because of time or financial limitations.⁶ The data for our hospital suggest that the numbers are more likely around one in four women who meet the qualifications for depression or anxiety at some point during their perinatal period.

- 17. Pregnancy can destabilize a woman's mental health in several ways. First, for a woman with a pre-existing mental health disorder, pregnancy can exacerbate existing symptoms or cause a recurrence (that is, a relapse) in a woman who had been successfully regulating her condition prior to pregnancy. These types of changes may be due to the hormonal fluctuation associated with pregnancy, stress and lifestyle changes, a modification of an established medication regimen as a result of the pregnancy, or a combination of any of the above. For example, Tiffany was a young woman who came to me after the birth of her second child. She had stopped her antidepressants when she found out she was pregnant, and at the same time had to stop therapy because of insurance changes. Relationship problems as well as past trauma complicated Tiffany's perinatal depression creating a relapse of symptoms.
- 18. Recurrence during pregnancy is particularly common among women with bipolar disorder. Approximately 60 to 70 percent of women with bipolar

⁶ *Id.* at 1 ("Perinatal depression . . . often goes unrecognized because many of the discomforts of pregnancy and the puerperium are similar to symptoms of depression.").

disorder will experience an episode during pregnancy and/or the postpartum period.⁷ For example, Misty is a young woman who had completed college and was doing well in her career when she became pregnant. She had a difficult delivery and was in the ICU with pregnancy complications. Subsequent to that she began to see me for severe anxiety and mood swings. It took a year for her bipolar disorder to get controlled during which time her career fell apart as well as her relationship with her child's father.

- 19. It is difficult to predict how long it will take a woman to recover from a recurrence of any mental health disorder as her prognosis will depend in part on whether she is receiving appropriate treatment. Most medications take four to six weeks to reach maximum efficacy, and if a woman does not immediately seek treatment, or if she is initially not treated appropriately, it may take many months beyond that. Therapy and lifestyle changes, which are often also necessary for a full recovery, may take even longer to implement effectively. Often recovery is complicated by the normal challenges of the postpartum period such as sleep deprivation and social isolation.
- 20. Moreover, for many women, the ramifications of a relapse extend well beyond the episode itself. People who can maintain stability have better overall

⁷ Mittal L, et al. "Bipolar Disorder in Pregnancy and Breast Feeding: a Practical Guide for the General Psychiatrist." *Psychiatric Annals* 45, 8 (2015): 411, 412.

prognoses than people who relapse and remit, as each episode of a psychotic or mood disorder increases the likelihood of a subsequent episode.

- 21. Second, pregnancy can destabilize a woman's mental health with a new-onset mental illness during pregnancy. Charlene came to me during her second pregnancy with extreme panic attacks, which were new for her. She was finding herself unable to care for her 10-year-old son, manage the household or get to work or school. We acknowledged the many balls she was juggling in addition to the pregnancy and agreed to start sertraline, an anxiety medication, and psychotherapy.
- 22. Third, I have treated many women suffering from postpartum mental illness. Indeed, postpartum depression occurs in nearly 15 percent of women within the first three months after pregnancy, and a woman who experiences postpartum depression is at greater risk of experiencing it again after a subsequent pregnancy. One of my first patients was Rachel. She brought her infant son to our appointment, but to my dismay she had his car seat turned away from her and didn't pick him up at all during the session. One of the most common symptoms of postpartum depression is a mother's inability to bond with her infant. One of the most striking studies to explain this is one in which depressed and non-depressed mothers were exposed to their own infant's cry, another infant's cry, and

⁸ Gaynes et al., *supra* note 5, at 4.

a control sound while being monitored in an fMRI (fMRI is a powerful study tool to see which parts of the brain are active at any given time). Non-depressed mothers showed significantly greater activation towards their own infant's cry than other infant or control sound. Depressed mothers showed no difference in their brain scans for all three sounds. Thus for depressed mothers their infant's cry is essentially registering the same as a simple tone and has lost the evolutionary pull to grab the mother's emotional heart strings.

23. Postpartum psychosis, while rare, is a subset of postpartum illness that is considered a psychiatric emergency.¹⁰ Women experiencing postpartum psychosis may lose touch with reality, becoming delusional and sometimes homicidal, and recovery is often slow. While it is unclear precisely what causes postpartum psychosis, hormonal fluctuation has been shown to be a factor,¹¹ and psychosocial changes, such as sleep deprivation, likely also play a role.¹² Women

⁹ Laurent H, et al. "A Cry in the Dark: Depressed Mothers Show Reduced Neural Activation to Their Own Infant's Cry." *Social Cognitive Affective Neuroscience* 7, 2 (2012): 130.

¹⁰ See, e.g., Mittal et al., supra note 7, at 412.

¹¹ Payne JL, et al. "Reproductive cycle-associated mood symptoms in women with major depression and bipolar disorder." *J. Affective Disorders* 99 (2007): 221, 222.

¹² Id. at 227; see also Payne JL, et al. "A Reproductive Subtype of Depression: Conceptualizing Models and Moving Toward Etiology." Harv. Rev. Psychiatry 17 (2009): 72, 72 (citing Sharma V & Mazmanian D. "Sleep Loss and Postpartum Psychosis." Bipolar Disorders 5 (Apr. 2003): 98, 98-105).

with bipolar disorder are at particular risk for postpartum psychosis.¹³ And women who have previously experienced an episode of postpartum psychosis are at an extremely high risk of recurrence—between 30 and 50 percent with each subsequent delivery.¹⁴

- 24. Fourth, pregnancy can cause sadness, anxiety, and/or compulsions during the perinatal period that can compromise a woman's mental health and well-being, impair her functioning, and require treatment, even if her symptoms do not meet the criteria for a formal diagnosis. This is particularly likely where there are other psychosocial risk factors at play, such as poverty or abuse, where the woman does not have a romantic partner or family support, and/or where the pregnancy is medically high-risk. Robin is a mom who I often reference as an example of having the disabling "scary thoughts" that can occur during the postpartum period. She refused to bathe her son and instead had her mother do so after having visions that she was drowning her infant. Robin had minimal support from the baby's father.
- 25. Numerous studies have identified having a "low income" as a risk factor for mental illness.¹⁵ Women of low socioeconomic status are at even greater

¹³ Mittal et al., *supra* note 7, at 412.

¹⁴ *Id.*; see also Jones I, et al. "Bipolar Disorder, Affective Psychosis, and Schizophrenia in Pregnancy and the Post-Partum Period." *Lancet* 384 (2014): 1789, 1791.

¹⁵ Biaggi et al., *supra* note 1, at 71.

risk of mental illness due to increased stressors such as financial stress, lack of education, and a lack of support from a partner, family, and friends. 16 There are also more complicated factors related to the fact that women of low socioeconomic status are more likely to have experienced increased exposure to adverse events when they were children. We know that early exposure to adverse events like abuse, drug using or incarcerated parents, or parents with severe mental illness can lead to increased risk of both physical and mental health problems during adulthood.¹⁷ Subsequent studies have shown the unfortunate link between adverse child events and low socioeconomic status that can create a never ending cycle of poor mental and physical health for our patients. 18 Research shows that these stressors can lead to adverse health outcomes both directly (by producing physiologic disruptions or biological memories that undermine the development of the body's stress response systems and affect the developing brain) and indirectly (by contributing to the adoption of risky behaviors, such as smoking);¹⁹ clinical

¹⁶ Goyal D, et al. "How much does low socioeconomic status increase the risk of prenatal and postpartum depressive symptoms in first-time mothers?" *Women's Health Issues* 20, 2 (2010): 100.

¹⁷ Felitti V, et al. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults." *Am. J. Prev. Med.* 14, 4 (1998): 245.

¹⁸ Halfon N, et al. "Income Inequality and the Differential Effect of Adverse Childhood Experiences in US Children." *Academic Pediatrics* 17, 7S (2017): S72.

¹⁹ See, e.g., Shonkoff JP, et al. "Technical Report: The Lifelong Effects of Early Childhood Adversity and Toxic Stress," Am. Acad. of Pediatrics, 129(1) (Jan. 2012): e232, e235,

experience bears this out. In addition, these stressors can make it difficult for women to engage in critical health care and self-care, which in turn exacerbates their mental health symptoms.

Many of my patients come to me saying that they want to be better 26. mothers than their own mothers were. Many have been exposed to sexual trauma at the hands of a family member or close family friend. Many have been left to raise themselves or even their siblings by parents who were using drugs or were struggling with mental illness. But these young women have limited financial and emotional resources to change their trajectory. Natalie is a young woman who I have treated for many years since the birth of her second daughter. She is now pregnant with her fourth child. Natalie's goal has always been to parent differently than her own mother who left her six children to be raised by a grandmother. But Natalie struggles with severe depression and often cannot get out of bed for days. She is on social security disability and her electricity and gas get turned off a couple of times a year due to budget constraints. The father of her children helps at times, but he can be emotionally violent towards her, so she is ambivalent about having him in the home. Like many women of low socioeconomic status, Natalie experienced early childhood trauma that put her at risk for depression. She also

e237–38, e243; Smith MV, et al. "Early Childhood Adversity and Pregnancy Outcomes." *Maternal & Child Health J.* 20 (2016): 790, 790–91, 793–95.

has financial stress, minimal education, and lacks support from a partner, family, and friends which have increased her risk of depression. Like many women on medical assistance, Natalie was exposed to adverse childhood events and also has current risk factors that that put her at risk for perinatal mental health problems.

B. Medications and Pregnancy

27. Pregnant women who regulate a mental health disorder with medication often face a difficult and complicated choice. On the one hand, psychiatric illness itself is associated with negative outcomes for both the woman and the embryo or fetus she is carrying, 20 and there may be only one type of medication that effectively manages a woman's condition, allowing her to function to her fullest potential and avoid the dangerous behaviors associated with some mental illnesses. On the other hand, some medications pose a significant teratogenic risk (i.e., they may interfere with the development of an embryo or fetus) and are therefore contraindicated for pregnant women. In other words, a pregnant woman taking certain medications must choose among three options: (1) continue the medication and risk harm to the embryo or fetus; (2) discontinue the

²⁰ See, e.g., Mittal et al., supra note 7, at 412 ("Women with bipolar disorder who do not receive treatment are at higher risk of delivering infants who are small for gestational age or microcephalic. Women with bipolar disorder, whether treated or not, are more likely to smoke, be overweight, and abuse substances. Additionally, they are more likely to have cesarean delivery, instrumental delivery, and preterm delivery when compared to those without bipolar disorder." (citation omitted)).

medication and risk harm to herself, and thus also to the embryo or fetus she is carrying; or (3) terminate the pregnancy.

- 28. The classic example of a teratogenic medication is valproate, an anticonvulsant used to treat bipolar disorder. Gestational exposure to valproate carries
 a risk of neural tube defects, craniofacial and cardiac defects, lower IQ, and autism
 spectrum disorder, among other outcomes.²¹ Ironically, valproate also decreases
 the efficacy of contraception, and thus increases the likelihood of an unintended
 pregnancy. For all of these reasons, I avoid recommending valproate to women of
 reproductive age, pregnant or not. Nevertheless, because it is a very effective
 mood stabilizer—and because there are varying levels of awareness, even among
 psychiatrists, about its teratogenic risks—some women of childbearing age do still
 rely on it.
- 29. There are significant gaps in our collective knowledge of the teratogenic risks of medications used to regulate mental health disorders, which further complicates the issue. This is unavoidable in light of the ethical limitations on studying pregnant women: while the gold standard of research is a randomized, controlled, double-blind study comparing outcomes between a group given a treatment and a group given a placebo, pregnant women cannot ethically be

²¹ See, e.g., Mittal et al., supra note 7, at 413.

included in such studies. Observational and retrospective studies, two alternative research models, are simply not as reliable.

30. The paucity of clear data on the risks that many of these medications pose to fetal development, as well as on the relative risks that untreated or undertreated mental illness poses to fetal development, makes the decision of whether to take a particular medication during pregnancy all the more complicated and personal. For instance, a recent study that was widely reported on in the mainstream media found that second- or third-trimester maternal use of selective serotonin reuptake inhibitors (SSRI's) used to treat depression was associated with a diagnosis of autism spectrum disorder (ASD) in children.²² However, there is no consensus on the mechanism underlying this association: do antidepressants increase the risk of ASD, or is the underlying depression the key factor and antidepressant use merely a proxy for severity of illness? Because of these confounding elements, researchers generally agree that leaving maternal depression untreated or undertreated is not necessarily the safer option.²³ Given

²² Boukhris T, et al. "Antidepressant Use During Pregnancy and the Risk of Autism Spectrum Disorder in Children." *JAMA Pediatrics* 170 (2016): 117.

²³ See Clements CC, et al. "Prenatal Antidepressant Exposure is Associated with Risk for Attention-Deficit Hyperactivity Disorder But Not Autism Spectrum Disorder in a Large Health System." *Molecular Psychiatry* 20 (2015): 727, 731–35; Rai D, et al. "Parental Depression, Maternal Antidepressant Use During Pregnancy, and Risk of Autism Spectrum Disorders: Population Based Case-Control Study." *BMJ* 346 (2013): 1, 5.

that there are few easy answers in this area of medicine, every woman should have the opportunity to make the decision she feels is right for her circumstances.

31. Even among medications that have been relatively closely studied. such as the mood stabilizers I described above, a woman cannot avoid risk by simply switching to a different medication. This is so for several reasons. First, if the new medication is less effective, or if there is a period of under-treatment during the transition, the woman may experience a recurrence of the illness which itself poses a serious risk to the fetus. In the case of a woman with bipolar disorder, this could manifest itself in behaviors like reckless driving, prolonged lack of sleep, drug and alcohol usage, and risky sexual practices—all of which carry unique risks to the fetus. Second, the alternative medication may carry its own teratogenic risks. For instance, a woman with bipolar disorder who switches from valproate to lithium during pregnancy will reduce the risk of fetal neural tube defects associated with valproate, but increase the risk of fetal cardiac defects associated with lithium. In the case of a woman with severe depression. transitioning from one antidepressant to another simply because the latter might have more safety data means that the fetus has now been exposed to two different medications, and the mother has a period of being under-treated and is now at risk for relapse of her depression.

- 32. To make matters even more difficult, many health care providers are ill-informed about the existing data regarding the risks of these medications, as well as the relative risks of discontinuing or switching medications abruptly during pregnancy. I have had a number of patients referred to me by their obstetrician because their usual psychiatrist either told them to stop their psychiatric medication during pregnancy or told them they did not feel comfortable prescribing it until the woman delivered. This is particularly concerning in the case of women with schizophrenia or bipolar illness which, as explained above, are likely to recur during or after pregnancy. This can potentially lead to situations like that of Tammy, a woman who had just delivered and only a few hours later began to see things in her room that were not there. She had stopped her haloperidol during her pregnancy, and her psychosis returned immediately following delivery. Sadly, she had to be hospitalized on the psychiatric unit before she could go home with her baby. Had she continued her medication through the pregnancy that might have been avoided.
- 33. Lastly, although we have complicated and often contradictory data on the risk of medications during pregnancy, we have very clear information on the effects of postpartum depression on the developing child. Multiple studies have shown that maternal postpartum depression causes an increased risk of behavioral problems in their offspring. This can manifest in internalizing or externalizing

behaviors in adolescents, negative mood states and behavioral inhibition or behavioral disinhibition, respectively.²⁴ Maternal depression has also been linked to decreased growth of preschool and school-aged children. It is unclear whether this poor growth is due to malnutrition or increased cortisol levels (an indicator of stress) in the children.²⁵

C. Substance Use Disorders and Pregnancy

34. According to the 2013 National Survey on Drug Use and Health, 5.4 percent of pregnant women ages 15 to 44 years report current (past 30 days) use of illicit drugs. 26 9.4 percent of pregnant women report current alcohol use, and 15.4 percent report current cigarette use. 27 "Substance use disorders [SUDs] remain some of the most commonly missed and undertreated diagnoses among pregnant women, and those with SUDs are less likely to receive prenatal care than their pregnant peers who do not use substances, often due to fear of legal repercussions." 28

²⁴ Gjerde L, et al. "Maternal Perinatal and Concurrent Depressive Symptoms and Child Behavior Problems: A Sibling Comparison Study." *J Child Psychiatry and Psychology*, 58, 7 (2017): 283.

²⁵ Surkan P, et al. "Impact of Maternal Depressive Symptoms on Growth of Preschool and School-Age Children." *Pediatrics* 130, 4 (2012): 853.

²⁶ Substance Abuse & Mental Health Servs. Admin., "Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings," at 26-27 (Sept. 2014).

²⁷ Id. at 40, 51.

²⁸ McLafferty L, et al. "Guidelines for the Management of Pregnant Women with Substance Use Disorders." *Psychosomatics* 1, 3 (2016); *see also* Schempf AH. "Drug Use and

35. Substance use disorders pose serious health risks to both a pregnant woman and the embryo or fetus she is carrying.²⁹ These risks are often heightened where a woman struggles with multiple forms of substance abuse—for example, an addiction to both cigarettes and cocaine³⁰—as is often the case. In addition to the direct harms that SUDs pose for embryonic and fetal development,³¹ women with SUDs are often less likely to meet other basic needs, such as nutrition, that are important for their own health and for a healthy pregnancy.³² A recent report from the Pennsylvania Health Care Cost Containment Council reports that substance use was present in one of 25 maternity stays in 2016-2017 and that 82% of the maternal stays involving opioid use were Medicaid participants.³³ Pregnant women often struggle to find treatment for their SUD because they are usually

Limited Prenatal Care: An Examination of Responsible Barriers." Am. J. Obstetrics & Gynecology (Apr. 2009): 412.e1, 412.e3.

²⁹ McLafferty et al., *supra* note 28, at 4-5.

³⁰ See id. at 6, 12.

³¹ *Id.*

³² *Id.* at 10.

^{33 &}quot;Maternal Hospital Stays Involving Substance Use and Opioids," PA Healthcare Cost Containment Council, at 1, 2 (Dec. 2018), http://www.phc4.org/reports/researchbriefs/opioids/121118/docs/researchbrief_opioids121118.pdf.

required to attend specialty programs that might not be easy to access or fit around childcare or work responsibilities.³⁴

36. There are high rates of co-morbidity of SUDs and mood disorders. In other words, a woman who suffers from a mood disorder is more likely to also have an SUD, and vice versa. The pregnancy was unwanted but she felt morally obligated to carry it to term. Unfortunately, the father of the fetus had no interest in participating. The combination of ambivalence about the pregnancy as well as depression led Krystal to relapse, and she began to smoke Wet (a combination of marijuana and PCP). Claire is another woman who was referred to me for severe anxiety during pregnancy. She had several significant traumas in her history as well as many current stressors in her life. Soon after the delivery of her son she relapsed on drugs and was in and out of rehabs for about a year.

III. Abortion Care May Be Necessary for a Woman's Mental Health and Well-Being

37. There is no clinical justification for denying Medical Assistance coverage to a woman who decides to have an abortion in order to protect her

³⁴ Von Nostrand E, et al. "Changing the Culture: Pregnant Women Impacted by the Opioid Crisis." Univ. of Pittsburgh (2017), http://cphp.pitt.edu/images/HPM_2133_White _Paper-final.pdf.

³⁵ E.g., McLafferty et al., *supra* note 28, at 6; Substance Abuse & Mental Health Servs. Admin., "Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health," at 32-35 (Sept. 2015).

mental health and well-being. Moreover, a woman who is delayed in or prevented from obtaining a desired abortion (because of cost or otherwise) will likely experience psychological and emotional distress as a result, regardless of whether she has a history of mental illness. This is particularly so for a woman who decides to end her pregnancy after learning that the fetus has a developmental malformation or is at high risk of developing a debilitating condition, but the woman is delayed in or prevented from obtaining the abortion she seeks. In this situation the woman is usually struggling with the grief of losing a child that she wanted but now is not able to carry to term. I remember very clearly meeting with Anna who had just had her 3D ultrasound. She told me that she could not get the look on the doctor's face out of her mind because as soon as she saw it she knew something was wrong with her baby. Her child's craniofacial bones were not developing appropriately and he would not be able to breathe once he was born, so she would have to terminate. Thankfully, she had significant family support to get her through the grieving process.

38. Having an unplanned or unwanted pregnancy is widely recognized as a risk factor for the development of a mood disorder or symptoms of a mood disorder.³⁶ For some women who are feeling extreme distress around an unplanned pregnancy, having an abortion can alleviate those symptoms.

 $^{^{36}}$ See Biaggi et al., supra note 1, at 68.

- 39. Lauren was one such woman. She was working full time, attending school, and raising her two children when she found out she was pregnant. The father of her children had just gone to jail for a marijuana charge, and it was unclear when he would return. She and I spent a considerable amount of time weighing the risk of her recurrent postpartum anxiety as well as the financial and emotional burden a third child would place on her small family. She eventually decided that having a third child would prevent her from moving forward in her career and providing the kind of life she wanted for her children, such as music lessons and extracurricular sports. Thankfully, she was able to mobilize the funds to obtain her abortion and we averted a potential mental health crisis.
- obtaining an abortion she would choose to have if she could afford to. Robin was a young mom who was emblematic of the women on Medical Assistance who are at risk because they are unable to obtain elective abortions. She already had three children and was living paycheck to paycheck. The father of her first two children had been murdered. The father of her youngest child and her current pregnancy was "in and out." She had hoped to get an abortion as she knew that she would be unable to take care of another child, but she was not able to afford the cost.

 Instead, she was referred to me in the last trimester of her pregnancy with severe depression. I treated her through her postpartum period as she struggled to care for

her four children as well as her ill mother with limited funds. Her depression did not resolve due to these ongoing external stressors.

- 41. Whether to continue a pregnancy is a profoundly personal decision, particularly for women grappling with the complicated challenges and choices I've described above. Indeed, women with identical diagnoses but different life circumstances may make entirely different decisions about whether and how to move forward with their pregnancy and with their mental health treatment. For instance, a patient who has severe bipolar disorder, but a trusted psychiatrist and OB-GYN, a supportive family, and/or financial security, may feel comfortable pursuing and continuing a pregnancy as long as she is fully informed about the various risks and plans her treatment carefully. But another patient with equally serious bipolar disorder may conclude that the risk of destabilizing her mental health is too high, particularly if, like a significant percentage of my patients, she is unexpectedly pregnant, financially insecure, without a supportive partner, and/or experiencing violence in the home.
- 42. Having the ability to end a pregnancy for mental health reasons significantly impacts women's lives, not only psychologically but also economically. Mental health and substance abuse symptoms are often expensive—both expensive to treat and expensive in terms of lost earning potential—and each episode heightens the cost of the illness and makes it more and more difficult for a

woman to function in society. In my experience, a woman cannot maximize her potential for economic independence and personal development unless she has information about, and access to, a range of options for negotiating her mental health and wellness during pregnancy, including abortion.

43. Not only does this difficult decision affect the woman making it, but it can also affect any children she might have. The existing children of a woman who is denied an abortion for an unwanted pregnancy will be affected through what has been termed the "resource dilution model." This exemplifies what I have seen in my patients: that a parent's time, money, and energy are finite, and adding another child at the wrong time will dilute those resources for the other children.³⁷ When studied, the children of women who are denied an abortion were found to be 4 percentage points lower on milestones achieved, three times more likely to live in a household receiving WIC or TANF, and more likely to live in a household in which the mother reported not having enough money to pay for food, housing, and transportation.³⁸ Simone came to me after the birth of her third child. She worked full-time but, due to childcare constraints, she worked nights. This meant that she would only sleep about 2-3 hours a day when her infant would sleep and her two older boys were at school. She made sure her children were fed and clothed, but

³⁷ Greene Foster D, et al. "Effects of Carrying an Unwanted Pregnancy to Term on Women's Existing Children." *J. Pediatrics* 5 (2018): 5.

³⁸ *Id.* at 3.

due to lack of sleep, severe depression, and limited social supports, she had little else to provide for her children. She was particularly resentful of her oldest child who was intelligent and inquisitive and required more emotional energy from her than she could spare.

44. In sum, it is critical that a pregnant woman, whether she is a risk for a new-onset mental health condition, has a pre-existing condition, is struggling with a SUD, or is simply trying to manage the well-being of herself and her family be given all of the information about the risks of her illness, the risks of potential treatments, and the balance between the two. She then must be allowed to make and effectuate an informed decision about how best to manage her mental health, including whether to continue or end the pregnancy. It is my expert opinion that the Medical Assistance abortion exclusion denies women coverage for abortion procedures with no clinical justification and at the expense of women's mental health and well-being as well as that of her children.

I make this declaration subject to the penalties of 18 Pa. C. S. § 4904 (unsworn falsification to authorities).

Dated this 10 of January, 2019.

Sarah C. Noble, D.O.

EXHIBIT A

SARAH C. NOBLE, DO 1845 Christian Street

1845 Christian Street Philadelphia, PA 19146 mobile: (267) 975-7125 nobles@einstein.edu

Office Address: 5501 Old York Rd Philadelphia, PA 19141 (215) 456-9426

Education	
Sarah Lawrence College, Bronxville, NY Bachelor of Liberal Arts	1993-1997
City University of New York, New York, NY Pre-medical courses	1998-2003
Cranial Academy, Philadelphia, PA Basic Course	2005
Philadelphia College of Osteopathic Medicine, Philadelphia, PA Doctor of Osteopathic Medicine GPA: 91.33, top quintile	2003-2007
Post-Graduate Training Albert Einstein Medical Center, Philadelphia, PA Osteopathic Internship Psychiatry Residency Chief of Medical Student Education	2007-2008 2007-2011 2009-2011
Work Experience	
Christopher Calipai, DO, New York, NY Co-authored medical information pamphlets for patient education	Summer 2000
Soundview Preparatory School, Mt. Kisco, NY Department Head Biology and Chemistry teacher	1998-2003
Philadelphia College of Osteopathic Medicine, Philadelphia, PA Instructed Biochemistry remediation course for medical students	Summer 2004
Chief of Medical Student Education, AEMC, Philadelphia, PA Organize psychiatry rotation, orient medical students and teach classes	2009-2011

Hospital Appointments Albert Einstein Medical Center, Philadelphia, PA Attending Psychiatrist	2011- present
Girard Medical Center, Philadelphia, PA Moonlighting Psychiatrist	2010-2011
Specialty Certification American Board of Psychiatry and Neurology	September 2011
Licensure Pennsylvania Unrestricted License/OS 014668	Expires 10/31/20
Awards Awarded merit-based scholarships throughout medical school including the Lincow, POMA/ Feinstein, and Goldman grants Outstanding New Resident Award	2003-2007
Dr. Henry and Page Laughlin Award Professional Achievement, dedication, and scholarship Sidney Wenger, MD Humanitarian Award	2008 2011 2011
Professional Memberships American Osteopathic Association Pennsylvania Osteopathic Association American Psychiatric Association Pennsylvania Psychiatric Association Pennsylvania Psychiatric Association American Academy of Psychoanalysis and Dynamic Psychiatry AGLP: LGBTQ Psychiatrists	2003- present 2003- present 2007-present 2007-present 2010-present 2010-present
Professional Committees Pennsylvania Psychiatric Association: State Hospital/ VA Sub-committee Participate in discussions about state and VA psychiatric hospitals	2009-2011
Association of Gay and Lesbian Psychiatrists Chair, Women's Committee	2011- present
Secretary Association of Gay and Lesbian Psychiatrists	2014- present May 2012
Chair, Program Committee, Philadelphia Meeting American Academy of Psychoanalysis and Dynamic Psychiatry	May 2012
ECP Representative to Council Meeting	

Editorial Positions American Academy of Psychoanalysis and Dynamic Psychiatry Journal Editor Forum Film and Review Editor	2016-present 2011-present
Elected Positions American Academy of Psychoanalysis and Dynamic Psychiatry Trustee	2017-2018
Academic Committees at Albert Einstein Medical Center Medical Staff Board	2017-present
Psychiatry Residency Admissions Committee Participate in decisions regarding potential candidates for program	2008-2011 m
Psychiatric Education Committee Resident representative for psychiatry residency committee	2009-2011
Medical Education Committee Resident Representative	2010-2011
Curriculum Committee	2012-present
Lectures by Invitation "Standards of Transgender Mental Health Care" American Psychiatric Association IPS	Chicago, Il 2018
"217 Boxes of D.r Henry Anoymous" American Psychiatric Association	NY, NY May, 2018
"Standards of Transgender Mental Health Care" American Psychiatric Association	NY, NY May, 2018
"Standards of Transgender Mental Health Care" Lehigh Valley Health Network Grand Rounds	Bethlehem, PA August 2016
"Standards of Transgender Mental Health Care" Philadelphia LGBTQI Health Care Symposium Friends Hospital	Philadelphia, PA June 2016
"Integrating LGBT Cultural Competence into Psychiatry Residency Training: What Residents Need to Know" With Marshall Forstein and David Beckert AADPRT	Austin, TX, March 2016

"Perinatal Mental Health: Screening and Treatment" Mindsprings Health	Grand Junction, CO, Oct 2015	
"Standards of Care for Gender Nonconforming Individuals" PA DOC Medical Staff Training	Harrisburg, August, 2015	
"The B in LGBT" American Psychiatric Association	New York, May 2014	
"Peripartum Psychiatry and the Law" Philadelphia Mental Health Court Training	Philadelphia, May 2014	
"Peripartum Depression in the NICU" Delaware Valley Neonatal Nursing Association	Philadelphia, February 2014	
"Psychotropic Medication During Pregnancy" Healthy Start Perinatal Depression Conference	Philadelphia, May 2013	
"Sexual Orientation" Drexel Resident Lecture Series	Philadelphia, November 2012	
"Psychotropic Medication During Pregnancy" Abington Hospital Perinatal Grand Rounds	Abington, October 2012	
"Psychotropic Medication During Pregnancy" Philadelphia Community Behavioral Health Course, "Perinatal Depres	Philadelphia, June 2012 ssion"	
"Patient Oriented Therapy: Understanding and Implementing the APA Philadelphia, May 2012 Task Force Paper on Appropriate Therapeutic Responses to Sexual Orientation." Presented with: Chris Kraft, PhD Ralph Blair, D.ED. John R. Peteet, M.D.		
"Peripartum Depression" AEMC Obstetrics/ Gynecology Grand Rounds	Philadelphia, February, 2012	
Research	•	
Posters "Everything was great when I was pregnant" With Tanuja Gandhi, MD	AAPL 2014	
"Maternal Psychosis and the Law: Helping Psychiatrists Naviga Balancing Act of Caring for Mother and Fetus in the Seriously with Samidha Tripathi, MD and Tanuja Gandhi, MD		

"Midrange Edinburgh Postpartum Depression Screens: Creating Practice Guidelines for a Large Urban Community Hospital" APA 2011

Advisor: Marc Zisselman, MD

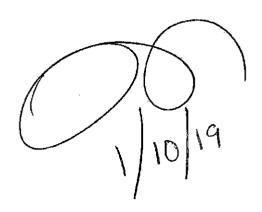
"Delusion Becomes a Folie a Trois: A Case Study"	PPS 2009
Published	
Review of "Tokens of Affection" by Karen Kleiman Published AAPDP Forum	2015
"Motherhood, Mental Illness, and Recovery", Benders-Hadi, Nikole, Barber, Mary E. (Eds.) Springer Publishing	2014
Unpublished "Maternal Psychosis and the Law: Helping Psychiatrists Navigate the Balancing Act of Caring for Mother and Fetus in the Seriously Mentally Ill Population" with Tanuja Gandhi, MD and Samidha Tripathi, MD	2014
"Does a psychiatry rotation at AEMC affect medical students' perceptions of psychiatry as a branch of medicine?"	2009- present
"Monophasic or Triphasic: Are there significant differences in the minor side effects of these two types of hormonal birth control?" Advisors: Saul Jeck, DO OB/Gyn, and Fred Goldstein, PhD	2005
Industry Studies Robin Study Investigate the effectiveness of Brexenalone, a pregnanalone anaglog on postpartum depression	2018
Major Teaching and Clinical Responsibilities at Albert Einstein Medical Center Development and Teaching of Psychopharmacology Curriculum 1st year Residents	
Supervision of Psychiatric Resident biweekly/ year	
Morning Report for residents and students 4 months/ year	
Supervision of "Mind Games" Team	

Other Hospital Committees

LGBTQ Staff Group
Supporting both staff and patients in improving education and equality at the hospital

2014-present

Community Service Project Pride, Yonkers, NY Inner city tutoring program	1993-1995
Institute for Sustainable Development, Bronxville, NY Student liaison to introduce methods for integration of environmental studies into junior high curriculum.	1994-1995
New York Presbyterian / Weill Cornell Center, New York, NY Assisted patients navigating the emergency room	1998-1999
Memorial Sloan Kettering Cancer Hospital, New York, NY Music therapist on inpatient units	1999-2003
Move On, Philadelphia, PA Canvassed for Get-Out-the-Vote campaign	2004
Mary Manning Walsh Nursing Home, New York, NY Cello performance for resident/ family dinners	2005-2009
Albert Einstein Medical Center, Philadelphia, PA Psycheducation regarding postpartum depression For Centering Program	2013-present



I, Medical Director, hereby state that I am a corporate representative of Plaintiff Allegheny Reproductive Health Center; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Allegheny Reproductive Health Center; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Allegheny Reproductive Health Center, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Medical Director
Name

I, Executive Director, hereby state that I am a corporate representative of Plaintiff Allentown Women's Center; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Allentown Women's Center; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Allentown Women's Center, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Execution Director

I, Medical Director, hereby state that I am a corporate representative of Plaintiff Berger & Benjamin LLP; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Berger & Benjamin LLP; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Berger & Benjamin LLP, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Medical Director
Name

Mesident, hereby state that I am a corporate representative of Plaintiff Delaware County Women's Center; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Delaware County Women's Center; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Delaware County Women's Center, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

President

I, Listellet, hereby state that I am a corporate representative of Plaintiff Philadelphia Women's Center; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Philadelphia Women's Center; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Philadelphia Women's Center, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

President

Name

Ι,	President/CEO	, hereby state that I am a
corporate representative o	f Plaintiff Planned Pa	renthood Keystone; that I have
personal knowledge of the	e statements made in t	he foregoing Petition for Review in
the Nature of a Complaint	Seeking Declaratory	Judgment and Injunctive Relief
that pertain to Plaintiff Pla	nned Parenthood Key	stone; and that these statements are
true and correct. For all o	ther statements in the	Petition that do not specifically
pertain to Plaintiff Planned	d Parenthood Keyston	e, I hereby state that they are true
and correct to the best of n	ny knowledge, inform	ation, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Name / CEO

I, President and CED, hereby state that I am a corporate representative of Plaintiff Planned Parenthood Southeastern Pennsylvania; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Planned Parenthood Southeastern Pennsylvania; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Planned Parenthood Southeastern Pennsylvania, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

President and CEV, Planned Faverethood SEPA-

I, <u>President and CEO</u>, hereby state that I am a corporate representative of Plaintiff Planned Parenthood of Western Pennsylvania; that I have personal knowledge of the statements made in the foregoing Petition for Review in the Nature of a Complaint Seeking Declaratory Judgment and Injunctive Relief that pertain to Plaintiff Planned Parenthood of Western Pennsylvania; and that these statements are true and correct. For all other statements in the Petition that do not specifically pertain to Plaintiff Planned Parenthood of Western Pennsylvania, I hereby state that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements in this Verification are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

President and CEO

Name