EXHIBIT 5

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF ARKANSAS
CENTRAL DIVISION

FREDERICK W. HOPKINS, M.D., M.P.H. *et al.*,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	
	)	
LARRY JEGLEY *et al.*,	)	
	)	Case No. 4:17-CV-00404-KGB
Defendants.	)	

DECLARATION OF LAUREN J. RALPH, PhD, MPH, IN SUPPORT OF PLAINTIFFS' MOTION FOR A SECOND PRELIMINARY INJUNCTION AND/OR TEMPORARY RESTRAINING ORDER

Lauren J. Ralph, PhD, MPH, declares and states the following:

1. I am an Associate Adjunct Professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences at the University of California, San Francisco, School of Medicine ("UCSF").

2. I submit this declaration in support of Plaintiffs' Motion for a Second Preliminary Injunction and/or Temporary Restraining Order to enjoin four Arkansas abortion laws enacted in 2017, and focus in particular on Act No. 1018 (H.B. 2024, or "the Local Disclosure Mandate"), which concerns 14- to 16-year old patients. Some of the information provided here also relates to Plaintiffs' challenge to Act No. 603 (H.B. 1566, or "the Tissue Disposal Mandate"), which affects minor patients differently than adult patients.

Background and Education

3. I received my bachelor of science degree from the University of California, Santa Barbara in 2003, and my Master of Public Health in maternal and child health from the

University of California, Berkeley in 2006. I received my Doctor of Philosophy in epidemiology from the University of California, Berkeley in 2014.

4. At UCSF, I am part of the faculty of ANSIRH, which stands for Advancing New Standards in Reproductive Health. I have been engaged in reproductive health-related research since 2005. I currently conduct research that examines the context in which women, and in particular adolescents, experience and make decisions around pregnancy and childbirth, and the consequences of early and unintended childbearing on women's health and well-being. A major focus of my research is on adolescents' pregnancy decision-making, including studying the effects of abortion restrictions on young women's experience seeking abortion care.

5. I have received numerous research awards to study, among other topics, the socioeconomic and physical health consequences of being denied a wanted abortion and to assess the impact of parental notification laws on minors seeking abortion. As a UCSF-Kaiser BIRCWH scholar, a program funded by the Office of Research on Women's Health at the National Institutes of Health, I conducted research to better understand adolescents' decision-making in the context of pregnancy and the effect of early childbearing on educational attainment.

6. I have disseminated my research findings in over 35 peer-reviewed publications, including in Annals of Internal Medicine, Journal of Adolescent Health, Contraception, and the American Journal of Public Health.

7. The attached *curriculum vitae*, Exhibit A, gives further information about my training, experience, publications, and research.

8. This expert declaration of facts and opinion is based on my education, training, research, practical experience, and review of the literature.

9. I have reviewed the statute and rules implementing the Local Disclosure Mandate. I am also familiar with the mandatory reporting of child abuse, including child sexual abuse. I understand that Plaintiffs challenge the Local Disclosure Mandate only for those 14- to 16-year-olds for whom there is no mandatory reporting required under Arkansas's Child Maltreatment Act ("CMA"), because there is no indication of sexual or other abuse (the "Non-CMA Teenage Patients").

10. I provide this declaration to put before the Court social science research that relates to the behavior and experiences of adolescent abortion patients. These studies and the conclusions that I draw from them may inform the Court's decision-making about the challenged laws.

Summary of Opinions

11. As explained below, the Local Disclosure Mandate will significantly add to the obstacles that the Non-CMA Teenager Patients face in accessing abortion care. It will delay care, add medical risks, impose new stigma and fears, and for some, prevent them from accessing the abortion that they want. The Local Disclosure Mandate breaches patient confidentiality and injects policing into health care in ways that will harm patients in both the near and long term.

Adolescent Sexual Behavior and Abortion Statistics

12. In the United States, it is fairly common for teenage girls to be sexually active. A nationally representative survey indicates that 21.8% of females aged 15 to 16 report having had intercourse, and 42.4% of females aged 15 to 19 report the same.[1]

[1] *Key Statistics from the National Survey of Family Growth*, Nat'l Ctr. for Health Stat., https://www.cdc.gov/nchs/nsfg/key_statistics/t.htm (last updated June 23, 2017). Calculation of percentage for females aged 15 to 16 from *National Survey of Family Growth* public-use data.

13. Most adolescent females have partners who are around their same age. For example, a nationally representative sample showed that among adolescent females with a romantic partner, more than eight in ten (84.5%) had romantic partners that are within three years of their own age. One-half (51.9%) had partners that were within a year of their own age.[2] Echoing these findings, analyses of another nationally representative dataset showed that approximately two-thirds (64.1%) of sexually active females aged 15 to 17 have a sexual partner within two years of their age.[3]

14. These age dynamics persist into adulthood and marriage, with women on average marrying men who are two years older than themselves.[4]

15. In the United States in 2014, adolescents aged 19 and younger made up 11.9% of abortion patients.[5] Those aged 18 to 19 accounted for 8.2% of all abortions, while those aged 15 to 17 accounted for 3.4%. Adolescents younger than 15 years old accounted for only 0.2% of all abortions.

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files. *National Survey of Family Growth 2015-2017*, Nat'l Ctr. for Health Stat., https://www.cdc.gov/nchs/nsfg/nsfg_2015_2017_puf.htm (last updated Aug. 24, 2020).

[2] Christine E. Kaestle, Donald E. Morisky & Dorothy J. Wiley, *Sexual Intercourse and the Age Difference Between Adolescent Females and Their Romantic Partners*, 34 Persps. on Sexual & Reprod. Health 304, 306 (2002), https://www.guttmacher.org/sites/default/files/article_files/3430402.pdf.

[3] Jacqueline E. Darroch, David J. Landry & Selene Oslak, *Age Differences Between Sexual Partners in the United States*, 31 Fam. Plan. Persps. 160, 163 (1999), https://www.guttmacher.org/sites/default/files/article_files/3116099.pdf.

[4] Jacob Ausubel, *Globally, Women Are Younger than Their Male Partners, More Likely to Age Alone*, Pew Rsch. Ctr. (Jan. 3, 2020), https://www.pewresearch.org/fact-tank/2020/01/03/globally-women-are-younger-than-their-male-partners-more-likely-to-age-alone/ (showing women in US are on average 2.2 years younger than their husbands).

[5] Jenna Jerman, Rachel K. Jones & Tsuyoshi Onda, *Characteristics of U.S. Abortion Patients in 2014 and Changes Since 2008*, at 6 (May 2016), https://www.guttmacher.org/sites/default/files/report_pdf/characteristics-us-abortion-patients-2014.pdf.

16. Abortions have been declining significantly in all age groups in this country, and minors have seen the largest decline of any age group, with a 44% decline from 2008 to 2014.[6]

17. Abortion statistics among adolescents in Arkansas track those in the United States. In Arkansas in 2019, adolescents aged 19 and younger accounted for 10% of the 2,963 abortions in the state.[7] Those aged 18 to 19 accounted for nearly 7% of all abortions, while those aged 15 to 17 accounted for 3%. Adolescents younger than 15 years old accounted for 0.3% of all abortions. In 2019, 65 out of 2,963 abortions were provided to patients 16 and under (2.2%). (Because Arkansas's reporting, like most national and state-level presentations of abortion statistics, groups all patients under 15 together, the state's reporting does not allow one to break out the precise number of patients who were 14 to 16 at the time of their abortion.)

18. Adolescent abortion patients in Arkansas, like adult patients in the state and nationally, are disproportionately people of color. In 2019, for example, the Arkansas Center of Health Statistics reported that over 50% of Arkansas abortion patients aged 16 years and under were Black.[8] This reflects the effects of many layers of inequity in American health care and society. People of color, for example, experience higher rates of unintended pregnancies, in part because they face more barriers to accessing highly effective contraceptive methods, including barriers rooted in discrimination.[9]

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[6] *Id.* at 5.

[7] Ark. Ctr. of Health Stat., *Induced Abortion Report 2019*, at 2 (2020), https://www.healthy.arkansas.gov/images/uploads/pdf/Induced_Abortion_final_2019.pdf.

[8] *Id.* at 4.

[9] Theresa Y. Kim, Rada K. Dagher & Jie Chen, *Racial/Ethnic Differences in Unintended Pregnancy*, 50 Am. J. Preventive Med. 427 (2016); Christine Dehlendorf et al., *Racial/Ethnic Disparities in Contraceptive Use: Variation by Age and Women's Reproductive Experiences*, 210 Am. J. Obstetrics & Gynecology 526.e1 (2014); Karla Kossler et al., *Perceived Racial, Socioeconomic and Gender Discrimination and its Impact on Contraceptive Choice*, 84 Contraception 273 (2013).

19. Like adult abortion patients, adolescent patients disproportionately come from poor and low-income households. For example, 49.3% of 2014 abortion patients nationally lived at or below the federal poverty level, but just 19.7% of the total population of women of reproductive age did.[10] Smaller studies of adolescent abortion patients similarly show them living in households of very limited economic resources.[11]

20. The adolescents affected by the challenged laws live in a variety of familial and other settings. The National Survey of Family Growth data, *supra* note 1, shows that 51.8% of 15- to 16-year-olds, for example, live with both biological or adoptive parents, 10.9% live with a biological mother and step or adoptive parent, 31.6% live with a single parent (biological, adoptive, or stepparent), and 5.6% live in other situations.

The Current Timing of Adolescent Abortions and the Harmful Impact of Further Delays

21. In Arkansas today, adolescents already tend to have abortions later in pregnancy. In 2019, 20.7% of patients 19 and under had their abortion at 13 weeks LMP and later, for example, compared to 14.8% of patients aged 20 to 24. Over 10% of patients aged 19 and under in 2019 had their abortions at 16 weeks LMP or later, again a higher percentage than in other age groups.[12]

22. This is consistent with prior research on the national level, which points to a combination of factors pushing adolescent abortions later in pregnancy.[13]

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[10] Jerman, Jones & Onda, *supra* note 5, at 6.

[11] *See, e.g.,* Lee A. Hasselbacher et al., *Factors Influencing Parental Involvement Among Minors Seeking an Abortion: A Qualitative Study*, 104 Am. J. Pub. Health 2207, 2208 (2014) (in study of minors seeking abortion in Chicago, 60% reported that their household received some form of public assistance).

[12] Ark. Ctr. of Health Stat., *supra* note 7, at 5.

[13] *See* Eleanor A. Drey et al., *Risk Factors Associated with Presenting for Abortion in the Second Trimester*, 107 Obstetrics & Gynecology 128 (2006); Lawrence B. Finer et al., *Timing of*

23. Nationally, adolescents take an average of one week longer than older women to suspect and confirm that they are pregnant.[14]

24. The need for adolescents in Arkansas to involve at least one parent and obtain their consent or seek a judicial bypass also likely contributes to delay. Whether seeking a parent's consent or seeking judicial bypass, the adolescent patient must coordinate their care with others and navigate additional steps to obtain consent in ways that adult patients need not do, adding time and hurdles to their process of seeking abortion care.

25. In Arkansas in 2019, the vast majority of minor patients obtained parental consent, with only a handful obtaining a judicial bypass (13 of 101 minors).[15] A multi-year study in Arkansas indicates that, over time, approximately 10% of minor patients in the state used judicial bypass.[16]

26. Any additional delays for adolescents will push adolescents' abortion care even later (if they can access care at all), adding medical risks, higher costs for more complex procedures, and other accompanying challenges, including additional clinic visits and possible travel for greater distances from home or for lengthier periods to obtain that care.[17] Abortion is one of the safest outpatient procedures performed; however, the risks for morbidity and mortality increase as gestational age increases.[18]

Steps and Reasons for Delays in Obtaining Abortions in the United States, 74 Contraception 334 (2006).

[14] Finer et al., *supra* note 13, at 338.

[15] Ark. Ctr. of Health Stat., *supra* note 7, at 2.

[16] Onur Altindag & Ted Joyce, *Judicial Bypass for Minors Seeking Abortions in Arkansas Versus Other States*, 107 Am. J. Pub. Health 1266, 1268 (2017).

[17] *See* Nat'l Acads. of Sci., Med. & Eng'g, *The Safety and Quality of Abortion Care in the United States* (2018).

[18] *See, e.g.*, *id.* at 77-78.

Delays in and Avoidance of Care When Confidentiality Threatened or Breached

27. Adolescents value confidentiality in reproductive health care. They seek to maintain personal autonomy over whether and to whom they disclose their decision to seek an abortion.

28. There is a large body of literature demonstrating that young people are more likely to delay or forgo seeking health care services if confidentiality is not guaranteed.[19] If patients experience lack of confidentiality in health care, the research shows that they are more likely to avoid care or to fail to disclose all information relevant to it.[20]

29. When adolescents face an age-based legal requirement to involve a parent in their abortion care, for example, research shows that they may instead delay their care—if possible—to age out of the requirement, even though that adds medical risk, continued experience of pregnancy, and cost. Texas, for example, saw an approximately 50% increase in women within months of their eighteenth birthday (e.g., patients 17 years and 8-9 months) delaying their abortions until after turning 18 when the state passed a law requiring parental involvement for minors.[21]

30. Some women, who could not wait to age out of the Texas law, instead carried their pregnancies to term rather than involving a parent in abortion care (or obtaining a judicial

[19] *See, e.g.*, Liza Fuentes et al., *Adolescents' and Young Adults' Reports of Barriers to Confidential Health Care and Receipt of Contraceptive Services*, 62 J. Adolescent Health 36 (2018); Jeannie S. Thrall et al., *Confidentiality and Adolescents' Use of Providers for Health Information and for Pelvic Examinations*, 154 Archives Pediatrics & Adolescent Med. 885 (2000); Carol A. Ford, Peter S. Bearman & James Moody, *Foregone Healthcare Among Adolescents*, 282 J. Am. Med. Ass'n 2227 (1999).

[20] *See, e.g.*, *supra* note 19.

[21] Silvie Colman & Ted Joyce, *Minors' Behavioral Responses to Parental Involvement Laws: Delaying Abortion Until Age 18*, 41 Persps. on Sexual & Reprod. Health 119, 125 (2009).

bypass).[22] Other research at the national level confirms that some adolescents will carry their pregnancies to term rather than comply with a parental involvement or judicial bypass requirement for abortion. For example, a recent multi-state and -year analysis on the impact of parental involvement mandates indicates that adoption of those laws was associated with a 3% increase in birth rates to minors in recent decades, or approximately 500,000 additional unintended births to minors.[23]

31. Similarly, parental involvement laws have also pushed adolescent patients to try to travel to another state for care in order to avoid disclosing their pregnancy and abortion decision to a parent. When a neighboring state lacks a parental involvement law or is otherwise less onerous in its restrictions on abortion, some young women have managed to leave their home state to receive care outside it and to avoid the required disclosures or other hurdles, despite the added time and cost necessary to receive out-of-state care.[24]

32. There is also evidence that experiencing barriers to abortion care—in the form of state-level restrictions, cost, or long distance to a provider—are associated with more searches for information about, consideration of, and attempts at self-managed abortion (defined as abortion obtained outside the formal health care system), which in some circumstances may not

[22] Theodore Joyce, Robert Kaestner & Silvie Colman, *Changes in Abortions and Births and the Texas Parental Notification Law*, 354 New Eng. J. Med. 1031 (2006).

[23] Caitlin Myers & Daniel Ladd, *Did Parental Involvement Laws Grow Teeth? The Effects of State Restrictions on Minors' Access to Abortion*, 71 J. Health Econ. 102302 (2017).

[24] Stanley K. Henshaw, *The Impact of Requirements for Parental Consent on Minors' Abortions in Mississippi*, 27 Fam. Plan. Persps. 120 (1995); Charlotte Ellertson, *Mandatory Parental Involvement in Minors' Abortions: Effects of the Laws in Minnesota, Missouri, and Indiana*, 87 Am. J. Pub. Health 1367 (1997); Theodore Joyce & Robert Kaestner, *State Reproductive Policies and Adolescent Pregnancy Resolution: The Case of Parental Involvement Laws*, 15 J. Health Econ. 579 (1996). These older studies of parental involvement laws are most relevant to the present Arkansas situation, where one state imposes a restriction not found in neighboring ones.

be safe.[25] Adolescents, in particular, search for information about self-managed abortion online at much higher rates than older individuals.[26]

33. As noted above, the vast majority of adolescent patients in Arkansas, as elsewhere, do involve at least one parent in their abortion care.[27] Some patients may decide, however, not to involve *both* parents. In those circumstances, the adolescent and/or the involved parent may fear violence, loss of financial support, verbal abuse, or other punitive reactions by the second parent.[28]

34. Adolescent abortion patients fear involuntary exposure of their pregnancy and abortion to others.[29] On average, young people involve two people in their pregnancy decision. In addition to their parent, they may involve their romantic partner or a trusted adult, for example, as another confidant.[30]

35. Involuntary disclosure of their pregnancy and their decision to have an abortion can be especially problematic if the disclosure is to someone who the young person may not know well, or does not have an existing relationship with. Young people (similar to adults) voluntarily turn to those who they think will emotionally and logistically support them. When

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[25] *See* Lauren Ralph et al., *The Prevalence of Self-Managed Abortion Among U.S. Women of Reproductive Age*, JAMA Network Open, Dec. 18, 2020; Abigail R.A. Aiken et al., *Knowledge, Interest, and Motivations Surrounding Self-Managed Medication Abortion Among Patients at Three Texas Clinics*, 223 Am. J. Obstetrics & Gynecology 238 (2020).

[26] Jenna Jerman, Tsuyoshi Onda & Rachel K. Jones, *What Are People Looking for When They Google "Self-Abortion"?*, 97 Contraception 510, 512 (2018).

[27] Stanley K. Henshaw & Kathryn Kost, *Parental Involvement in Minors' Abortion Decisions*, 24 Fam. Plan. Persps. 196 (1992); Lauren Ralph et al., *The Role of Parents and Partners in Minors' Decisions to Have an Abortion and Anticipated Coping After Abortion*, 54 J. Adolescent Health 428 (2014); *see supra* at ¶ 25.

[28] Hasselbacher et al., *supra* note 11.

[29] *Id.*; Henshaw & Kost, *supra* note 27.

[30] Ralph et al., *supra* note 27.

adolescents must involve others who may be non-supportive, they are more likely to anticipate difficulty coping.[31]

36. Abortion stigma is one of a broader range of reproductive stigmas that affects pregnant people.[32] A national study of over 4,000 U.S. abortion patients indicated that nearly two-thirds reported that people would look down on them if they knew they had an abortion.[33] Stigma makes it difficult or impossible for some pregnant people to obtain abortions, because they equate doing so with societal condemnation.[34]

37. The Local Disclosure Law forces disclosure of sexual intercourse, pregnancy, and an abortion to a teenage patient's local police, even when no crime has been reported or is indicated to clinic staff, who are mandatory sexual abuse reporters. The law's characterization of the patient as a "victim," her sexual partner as a "suspect," and her products of conception as criminal evidence add additional stigmatization, beyond whatever the patient might feel regarding abortion and the disclosed sexual activity. The law adds policing to health care in a manner that will feel threatening and judgmental to many patients, engender fear in them, and magnify the stress and trauma they may have already experienced in interactions with law enforcement.

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[31] Brenda Major et al., *Perceived Social Support, Self-Efficacy, and Adjustment to Abortion*, 59 J. Personality & Soc. Psych. 452 (1990); Ralph et al., *supra* note 27.

[32] Aalap Bommaraju et al., *Situating Stigma in Stratified Reproduction: Abortion Stigma and Miscarriage Stigma as Barriers to Reproductive Healthcare*, 10 Sexual & Reprod. Healthcare 62 (2016); Anuradha Kumar, Leila Hessini & Ellen M.H. Mitchell, *Conceptualising Abortion Stigma*, 11 Culture, Health & Sexuality 625 (2009).

[33] Kristen M. Shellenberg & Amy O. Tsui, *Correlates of Perceived and Internalized Stigma Among Abortion Patients in the USA: An Exploration by Race and Hispanic Ethnicity*, 118 Int'l J. Gynecology & Obstetrics S152, S153 (2012).

[34] *See* Alison Norris et al., *Abortion Stigma: A Reconceptualization of Constituents, Causes, and Consequences*, 21 Women's Health Issues S49 (2011).

38. Confidence and trust in police are nationally at a record low.[35] Adolescents' confidence in law enforcement has declined more rapidly in recent years than their confidence in any other authority.[36] This is particularly marked for adolescents of color: Black youth report the lowest confidence, followed by Latinx youth, and finally White youth.[37] These marked negative views prevail for female as well as male adolescents of color.[38]

39. Female teenagers may themselves have been harassed by police in the past.[39] And adolescents as a whole have more negative attitudes toward the police than adults do.[40] Teenagers have increasingly come to view the police as harmful to their safety. Over the last few years, well-publicized police confrontations resulting in death or serious injury and national protests in response may have amplified this view for young people, while also highlighting within the medical community the need to treat over-policing as a public health issue.[41]

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[35] Aimee Ortiz, *Confidence in Police Is at Record Low, Gallup Survey Finds,* N.Y. Times (Aug. 12, 2020), https://www.nytimes.com/2020/08/12/us/gallup-poll-police.html?smid=em-share.

[36] Adam D. Fine, Emily Kan & Elizabeth Cauffman, *Adolescents' Confidence in Institutions: Do America's Youth Differentiate Between Legal and Social Institutions?*, 55 Developmental Psych. 1758, 1764 (2019).

[37] *Id*.

[38] Yolander G. Hurst & James Frank, *How Kids View Cops: The Nature of Juvenile Attitudes Toward the Police*, 28 J. Crim. Just. 189 (2000).

[39] Michelle Fine et al., *"Anything Can Happen with Police Around": Urban Youth Evaluate Strategies of Surveillance in Public Spaces*, 59 J. Soc. Issues 141, 151 (2003).

[40] Hurst & Frank, *supra* note 38; Yolander G. Hurst, *Juvenile Attitudes Toward the Police: An Examination of Rural Youth*, 32 Crim. Just. Rev. 121 (2007).

[41] *See, e.g., APHA Policy Statement 201811: Addressing Law Enforcement Violence as a Public Health Issue,* Am. Pub. Health Ass'n. (Nov. 18, 2018), https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2019/01/29/law-enforcement-violence; Sirry Alang et al., *Police Brutality and Black Health: Setting the Agenda for Public Health Scholars*, 107 Am. J. Pub. Health 662 (2017); Brendan Murphy, *Law Enforcement's Excessive Use of Force is a Public Health Issue*, Am. Med. Ass'n (Nov. 17, 2020), https://www.ama-assn.org/delivering-care/public-health/law-enforcement-s-excessive-use-force-public-health-issue (describing November 2020 AMA House of Delegates policy).

Harms from the Local Disclosure Mandate's Added Stigma, Police Involvement, and Invasions of Privacy

40. The Local Disclosure Mandate will cause Non-CMA Teenage Patients to feel fear and added stigma from the required involvement of their local police, exposure of their abortion and sexual activity to those police, and characterization of the tissue from an abortion as criminal evidence to be stored at the state crime laboratory. My experience studying adolescent abortion patients and all of the research summarized above leads me to conclude that, once adolescents learn of the Mandate's requirements, some of those patients will experience significant delays in completing their abortions and others may be dissuaded from doing so altogether.

41. Some older 16-year-olds will delay their care, including for weeks or months, to age out of the requirement. Other patients will attempt to travel out of state, which will impose delay because of the added travel, cost, and planning involved. Some may search for and/or unsuccessfully attempt self-managed abortion, or search in vain for some other "work around." Any of these results will delay the patients' time-sensitive abortion care and add medical risk for them.

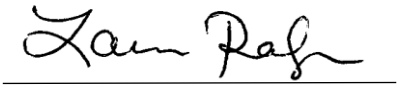
42. In addition, many, if not most, of the Non-CMA Teenage Patients who complete abortion care in Arkansas will suffer ongoing fear and anxiety, knowing that the local police department has been informed of their abortion care and that criminal evidence collection has occurred. They will be left with ongoing concern about the possibility of police harassment, further breaches of their confidentiality, and further law enforcement activity. The Mandate will cause fear and stigma even if the local police take no such actions. The forced exposure of these patients' private activity and confidential medical care to outsiders in their community, as a condition of their receiving abortions in Arkansas, also is likely to cause some to avoid health

care or conceal information from health care providers in the future, further jeopardizing their health in that way.

43. Thus, the Non-CMA Teenage Patients will suffer an array of serious harms if Arkansas is allowed to apply the Local Disclosure Mandate in their care.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 16th day of December, 2020.



Lauren J. Ralph, PhD, MPH

EXHIBIT A

Prepared: December 15, 2020

University of California, San Francisco

CURRICULUM VITAE

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EDUCATION

2010 - 2014	University of California Berkeley	PhD	Epidemiology
2004 - 2006	University of California Berkeley	MPH	Maternal and Child Health
1999 - 2003	University of California Santa Barbara	BS	Microbiology

PRINCIPAL POSITIONS HELD

2020 – present	University of California, San Francisco	Associate Adjunct Professor	Obstetrics, Gynecology, & Reproductive Sciences
2018 - 2020	University of California, San Francisco	Assistant Adjunct Professor	Obstetrics, Gynecology, & Reproductive Sciences
2017 - 2018	University of California, San Francisco	Associate Professional Researcher	Obstetrics, Gynecology, & Reproductive Sciences
2015 - 2017	University of California, San Francisco	Assistant Professional Researcher & Social Science Fellow in Reproductive Health	Obstetrics, Gynecology, & Reproductive Sciences
2014 -	University of California, Berkeley	Co-Investigator	School of Public Health, Division of Epidemiology
2010 - 2013	University of California, Berkeley	Graduate Student Researcher and Project Coordinator	Division of Epidemiology
2012 -	World Bank	Consultant	
2011 - 2012	InterAmerican Development Bank	Consultant	
2011 - 2012	Research Triangle International	Research Consultant	

2005 - 2010	University of California, San Francisco, Bixby Center for Global Reproductive Health	Senior Research Associate	Obstetrics, Gynecology & Reproductive Sciences and Pediatrics

OTHER POSITIONS HELD CONCURRENTLY

2018 - 2020	UCSF, Department of Obstetrics Gynecology and Reproductive Sciences & Kaiser	National Institutes of Health, Office of Research on Women's Health, Building Interdisciplinary Research Careers in Women's Health (BIRCWH) K12 Scholar
2015 - 2017	UCSF, Department of Obstetrics Gynecology and Reproductive Sciences, Bixby Center for Global Reproductive Health	Social Science Fellow in Reproductive Health

HONORS AND AWARDS

2016	Outstanding Young Professional Award	American Public Health Association; Population, Sexual and Reproductive Health Section
2017, 2020	Daniel R. Mishell Outstanding Article Award in the journal Contraception	Society of Family Planning
2019	Top Poster Award, 2nd place	Society of Family Planning

KEYWORDS/AREAS OF INTEREST

Reproductive health, abortion, unintended pregnancy, hormonal contraception, adolescent health, teen pregnancy, decision certainty, HIV, socioeconomic opportunities, health inequities.

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

2005 - 2011; 2015 to present	American Public Health Association
2010 – 2014	Society for Epidemiologic Research
2012 - 2017; 2019 to present	Population Association of America
2015 – present	Society of Family Planning

SERVICE TO PROFESSIONAL ORGANIZATIONS

2017 -	American Public Health Association; Population, Sexual and Reproductive Health Section	Reviewer for scientific sessions at annual meeting
2019 -	Society of Family Planning	Reviewer for scientific sessions at annual meeting

SERVICE TO PROFESSIONAL PUBLICATIONS

2005 - 2015 Peer review for the Journal of Adolescent Health, The Lancet, Women's Health Issues, Contraception, and JAMA

2016 -	Peer review for the Journal of Adolescent Health, BMC Women's Health, Culture, Health & Sexuality, Journal of Children and Poverty, Journal of Psychiatric Research
2017 -	Peer review for the Journal of Adolescent Health, BMC Women's Health
2018 -	Peer review for the Journal of Adolescent Health, Global Health: Science and Practice, Social Science and Medicine - Population Health, BMC Women's Health
2019 -	Peer review for Plos ONE, Women's Health Issues, Pediatrics
2020 -	Peer review for Contraception, Journal of Health Care for Poor and Underserved, Population Studies, Perspectives on Sexual and Reproductive Health, Journal of Adolescent Health

INVITED PRESENTATIONS - NATIONAL

2018	Ralph L. Gathering Data and Proving Our Points: Working with Social Scientists. Presented at If When How's National Judicial Bypass Convening; April 2018. Austin, TX.	Invited Presenter
2020	Ralph L. Preliminary Results from the Gestational Dating Study. Presented at Gynuity Health's Annual Mifepristone Meeting. August 2020. Virtual.	Invited Presenter

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

2007	Ralph L & Brindis C. Defeating parental notification for minors' abortion initiatives in California (twice). Presented at the California Wellness Foundation Conference on Women's Health; September, 2007. San Francisco, California.	Invited Presenter
2014	Ralph L, McCoy SI, Padian NS. An overview of observational studies on hormonal contraception and women's risk of HIV acquisition. Presented at "Best practices in analytic approaches to assess the effect of hormonal contraception on HIV acquisition in observational data meeting; January 2013. The Bill and Melinda Gates Foundation. Seattle, Washington.	Invited Presenter and Participant
2017	Ralph L. Methodological challenges in evaluating parental involvement requirements (and other restrictions). Presented at the Abortion Research Incubator; June 2017. Advancing New Standards in Reproductive Health. Oakland, California.	Invited Presenter
2017	Ralph L. Presented at: "Research That Gets Results: A Symposium on Science-Driven Policy Change: meeting; March 2017. San Francisco, California.	Invited Panelist
2017	Ralph L. Decision Certainty Among Women Seeking Abortion. Presented at the North American Forum on Family Planning; October 2017. Atlanta, Georgia.	Invited Presenter
2017	Ralph L. Decision Certainty and Abortion Restrictions. Presented at UCSF Department of Obstetrics, Gynecology, and Reproductive Science's Grand Rounds; October 2017; San Francisco, California.	Invited Presenter

2018	Ralph L. Recent research on decision certainty, parental involvement requirements, and judicial bypass. Presented at the Abortion Research Incubator; May 2018. Advancing New Standards in Reproductive Health. Oakland, CA.	Invited Presenter
2019	Ralph L. Conducting Research on Self-Managed Abortion. Presented at the Abortion Research Incubator; June 2019. Advancing New Standards in Reproductive Health. Oakland, CA.	Invited Presenter

UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

My University service to date includes participation on several ANSIRH, Bixby Center, and Department committees related to strategic planning, our overall mission, and on strategies for valuing diversity, equity and inclusion in our hiring and retention practices. In my personal life, I regularly volunteer at my children's schools in various capacities.

DEPARTMENTAL SERVICE

2017 - present	Advancing New Standards in Reproductive Health	Member of Policy Working Group Committee
2018	Advancing New Standards in Reproductive Health	Core Funding Task Force
2018	Advancing New Standards in Reproductive Health	Diversity, Equity and Inclusion Task Force
2019	Bixby Center for Global Reproductive Health	Reproductive Justice Values Work Group
2020	Department of Obstetrics, Gynecology and Reproductive Sciences	Compensation Task Force

TEACHING AND MENTORING

TEACHING SUMMARY

Teaching activities have focused on guest lectureship in the Schools of Medicine and Nursing at UCSF, as well as formal instruction at UC Berkeley's School of Public Health.

FORMAL TEACHING

Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
2011	Public Health 250B: Epidemiologic Methods II	Graduate Student Instructor. Lectured on advanced epidemiologic methods to 40 graduate students in weekly discussion sections, designed problem sets, held weekly office hours, wrote and graded written exams.	University of California Berkeley	40
2005	Molecular and Cellular Biology 41: Genetics and Society	Graduate Student Instructor. Lectured on basics of genetics to 25 undergraduate students in weekly discussion sections, held weekly office hours, and graded written exams.	University of California Berkeley	125

Prepared: December 15, 2020

Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
2002 - 2003	Chemistry 196: Medical Ethics	Student Instructor. Designed course content and reading list for undergraduate seminar, facilitated weekly discussion, and assigned course grades.	University of California Santa Barbara	15

INFORMAL TEACHING

2008 - Guest Lecturer in UCSF School of Medicine, Department of Obstetrics, Gynecology and Reproductive Sciences. Lectured on "Parental Involvement in Adolescents' Reproductive Healthcare: History, Research and Policy Options."

2009 - Guest Lecturer in UCSF School of Medicine, PRIME Medical Student Seminar. Lectured on "A Question of Hope: Addressing Latina Teen Childbearing in California."

2010 - Guest Lecturer in UCSF School of Nursing, Reproductive Choices Elective. Lectured on "Evaluating Efforts to Improve the Reproductive Health of California's Adolescents."

2018 - Guest Lecturer at Dominican University, Undergraduate Public Health Core Seminar. Lectured on "Emerging (and persistent) issues in women's reproductive health."

2019 - Guest Lecturer in University of California, Berkeley, School of Public Health. Lectured in PH 213A: Family Planning, Population Change and Health on "Abortion in the United States."

2019 Guest Lecturer in UCSF School of Nursing, Family Planning and Reproductive Choices Elective. Lectured on "Under-researched areas in abortion."

2020 - Guest Lecturer at Dominican University, Undergraduate Public Health Core Seminar. Lectured on "Physical health effects of being denied a wanted abortion: How to design longitudinal studies."

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

Research Program

My research examines the context in which individuals, particularly young people, experience and make decisions around pregnancy and childbirth, and the consequences of early and unintended childbearing on health and well-being. My approach is heavily informed by my training in epidemiology, biostatistics, and maternal, child and adolescent health, and focuses on addressing the methodological challenges associated with studying complex, reproductive health behaviors through improved measurement, study design, and analytic approaches.

A major focus of my research is on adolescent pregnancy decision-making. With funding from the National Center of Excellence in Women's Health, I led studies documenting the impact of Illinois' parental notification requirement on minors' abortion access to and decision-making. Using detailed medical record and administrative data and a rigorous econometric design to disentangle changes occurring as a result of the law versus other trends influencing access to abortion, I documented not only changes in the frequency and timing of abortion seeking among minors after the law went into effect, but also changes in decision certainty and perceived ability to make an autonomous decision. A second phase of this work focused on minors who sought judicial bypass found that having to attend a Court hearing delays youth by one week and requires traveling an average of 50 miles.

A second area of research has focused on decision certainty. I established the reliability and validity of two scales for measuring decision certainty among women seeking abortion and served as senior author on an

analysis examining the effect of a 72-hour waiting period and mandated counseling requirement on decision certainty. At the intersection of these two focus areas, I am conducting formative work validating measurement strategies for two decision-making constructs - certainty and competency - among adolescents seeking prenatal and abortion care. As a result of underrepresentation or exclusion of adolescents in much of existing research on pregnancy decision-making, there are gaps in our understanding of adolescent women's access to and experience with pregnancy related care. One especially understudied area is the extent to which adolescent women experience conflict or uncertainty about the decision to terminate a pregnancy, whether these levels differ from those experienced about the decision to carry a pregnancy to term, and how much of the variation in certainty and competency can be explained by age versus other contextual factors.

Finally, a third area is focused on understanding the socioeconomic and health consequences of unintended childbearing, drawing on data from two studies designed to overcome some of the methodological challenges of previous research. For the Turnaway Study, a 5-year prospective cohort study of women seeking abortion, some of whom were denied care because they presented just past the clinic's gestational age limit, I examined the educational and physical health consequences of being denied a wanted abortion. As a Co-Investigator on the Attitudes and Decision-making after Pregnancy Testing (ADAPT) Study, a new 3 year prospective cohort study of women at high risk of pregnancy, I will lead adolescent-focused on analyses on decision-making, ability to access desired prenatal or abortion care, and the nature of the relationship between unintended childbearing and educational attainment.

In addition to these three core areas of research, I remain engaged in efforts to understand the context in which women living in high HIV prevalence settings make decisions around contraceptive use. Reviewing over three decades of literature on the relationship between women's use of various forms of hormonal contraception (HC) and risk of HIV acquisition, I published a quantitative meta-analysis that synthesized effect estimates across studies of comparable methodology and quality. I have also led or coauthored publications on the methodological limitations of a randomized trial of HC and HIV, whether the association observed in studies to date could be explained by misreporting of condom use by women using injectable contraceptive methods, and how new Medical Eligibility Criteria guidance on certain forms of injectable contraception might have the unintended consequence of restricting access to contraception for people living in high HIV prevalence settings.

PEER REVIEWED PUBLICATIONS

1. **Ralph L**, Brindis C, Shields WC. Mandating parental involvement in adolescents' abortion: implications of a short-sighted policy. Contraception. 2006 Feb; 73(2):211-3. PMID: 16413852
2. Foster DG, **Ralph LJ**, Arons A, Brindis CD, Harper CC. Trends in knowledge of emergency contraception among women in California, 1999-2004. Womens Health Issues. 2007 Jan-Feb; 17(1):22-8. PMID: 17321944
3. Foster DG, Biggs MA, **Ralph LJ**, Arons A, Brindis CD. Family planning and life planning reproductive intentions among individuals seeking reproductive health care. Womens Health Issues. 2008 Sep-Oct; 18(5):351-9. PMID: 18485738
4. Biggs MA, **Ralph L**, Minnis A, Marchi K, Lehrer J, Braveman P, Brindis CD. Factors associated with delayed childbearing: from the voices of expectant Latina adults and teens in California. Hispanic Journal of Behavioral Sciences 2010; (32)1: 77-103.
5. **Ralph LJ**, Brindis CD. Access to reproductive healthcare for adolescents: establishing healthy behaviors at a critical juncture in the lifecourse. Curr Opin Obstet Gynecol. 2010 Oct; 22(5):369-74. PMID: 20733485
6. **Ralph L**, Berglas N, Schwartz S, Brindis CD. Finding teens in TheirSpace: Using social networking sites to connect youth to sexual health services. Sexuality Research and Social Policy 2011; 8:38-49.

7. Schwartz SL, Brindis CD, **Ralph LJ**, Biggs MA. Latina adolescents' perceptions of their male partners' influences on childbearing: findings from a qualitative study in California. Cult Health Sex. 2011 Sep; 13(8):873-86. PMID: 21707264

8. Brindis CD, **Ralph LJ**. Critical junctures: assuring healthy outcomes for adolescents in the new millennium. Adolesc Med State Art Rev. 2011 Dec; 22(3):341-66, ix. PMID: 22423455

9. McCoy SI, **Ralph LJ**, Wilson W, Padian NS. Alcohol production as an adaptive livelihood strategy for women farmers in Tanzania and its potential for unintended consequences on women's reproductive health. PLoS One. 2013; 8(3):e59343. PMID: 23527167. PMCID: PMC3601967

10. Minnis AM, Marchi K, **Ralph L**, Biggs MA, Combellick S, Arons A, Brindis CD, Braveman P. Limited socioeconomic opportunities and Latina teen childbearing: a qualitative study of family and structural factors affecting future expectations. J Immigr Minor Health. 2013 Apr; 15(2):334-40. PMID: 22678305. PMCID: PMC3479330

11. **Ralph LJ**, McCoy SI, Hallett T, Padian N. Next steps for research on hormonal contraception and HIV. Lancet. 2013 Nov 2; 382(9903):1467-9. PMID: 23810224

12. **Ralph LJ**, McCoy SI, Hallett T, Padian N. Next steps for research on hormonal contraception and HIV-Authors' reply. Lancet 2014; 383(9914):305-6.

13. **Ralph L**, Gould H, Baker A, Foster DG. The role of parents and partners in minors' decisions to have an abortion and anticipated coping after abortion. J Adolesc Health. 2014 Apr; 54(4):428-34. PMID: 24332398

14. **Ralph L**, McCoy S, Hallett T, Padian N. Research on hormonal contraception and HIV - Authors' reply. Lancet. 2014 Jan 25; 383(9914):305-6. PMID: 24461119

15. McCoy SI, **Ralph LJ**, Njau PF, Msolla MM, Padian NS. Food insecurity, socioeconomic status, and HIV-related risk behavior among women in farming households in Tanzania. AIDS Behav. 2014 Jul; 18(7):1224-36. PMID: 24097335. PMCID: PMC3977025

16. McCoy SI, Buzdugan R, **Ralph LJ**, Mushavi A, Mahomva A, Hakobyan A, Watadzaushe C, Dirawo J, Cowan FM, Padian NS. Unmet need for family planning, contraceptive failure, and unintended pregnancy among HIV-infected and HIV-uninfected women in Zimbabwe. PLoS One. 2014; 9(8):e105320. PMID: 25144229. PMCID: PMC4140753

17. McCoy SI, **Ralph LJ**, Padian NS, Minnis AM. Are hormonal contraceptive users more likely to misreport unprotected sex? Evidence from a biomarker validation study in Zimbabwe. AIDS Behav. 2014 Dec; 18(12):2259-64. PMID: 24619603. PMCID: PMC4162861

18. **Ralph LJ**, McCoy SI, Shiu K, Padian NS. Hormonal contraceptive use and women's risk of HIV acquisition: a meta-analysis of observational studies. Lancet Infect Dis. 2015 Feb; 15(2):181-9. PMID: 25578825. PMCID: PMC4526270

19. **Ralph LJ**, Gollub EL, Jones HE. Hormonal contraceptive use and women's risk of HIV acquisition: priorities emerging from recent data. Curr Opin Obstet Gynecol. 2015 Dec; 27(6):487-95. PMID: 26536211

20. Roberts S, **Ralph LJ**, Wilsnack SC, Foster DG. Which women are missed by primary health-care based interventions for alcohol and drug use? Addict Behav. 2016 Apr; 55:32-7. PMID: 26774493. PMCID: PMC4721246

21. **Ralph LJ**, Foster DG, Kimport K, Turok D, Roberts SC. Measuring decisional certainty among women seeking abortion. Contraception. 2017 Oct 10. PMID: 27745910

22. Sisson G, **Ralph L**, Gould H, Foster DG. Adoption Decision Making among Women Seeking Abortion. Womens Health Issues. 2017 Mar - Apr; 27(2):136-144. PMID: 28153742

23. Roberts SCM, Belusa E, Turok DK, Combellick S, **Ralph L**. Do 72-Hour Waiting Periods and Two-Visit Requirements for Abortion Affect Women's Certainty? A Prospective Cohort Study. Womens Health Issues. 2017 Jul - Aug; 27(4):400-406. PMID: 28391971

24. **Ralph LJ**, King E, Belusa E, Foster DG, Brindis CD, Biggs MA. The Impact of a Parental Notification Requirement on Illinois Minors' Access to and Decision-Making Around Abortion. J Adolesc Health. 2018 Mar; 62(3):281-287. PMID: 29248391

25. Biggs MA, **Ralph L**, Raifman S, Foster DG, Grossman D. Support for and interest in alternative models of medication abortion provision among a national probability sample of U.S. women. Contraception. 2018 Nov 09. PMID: 30448203

26. Foster DG, Biggs MA, **Ralph L**, Gerdts C, Roberts S, Glymour MM. Socioeconomic Outcomes of Women Who Receive and Women Who Are Denied Wanted Abortions in the United States. Am J Public Health. 2018 Mar; 108(3):407-413. PMID: 29345993. PMCID: PMC5803812

27. Nance N, **Ralph L**, Padian N, Cowan F, Buzdugan R, Mushavi A, Mahomva A, McCoy SI. Unintended pregnancy and subsequent postpartum long-acting reversible contraceptive use in Zimbabwe. BMC Womens Health. 2018 Nov 26; 18(1):193. PMID: 30477497. PMCID: PMC6258256

28. Rocca CH, **Ralph LJ**, Wilson M, Gould H, Foster DG. Psychometric Evaluation of an Instrument to Measure Prospective Pregnancy Preferences: The Desire to Avoid Pregnancy Scale. Med Care. 2018 Dec 13. PMID: 30550399

29. Gollub EL, Jones HE, **Ralph LJ**, van de Wijgert JHHM, Padian N, Stein Z. The Need for Policy Change Regarding Progestin-Only Injectable Contraceptives. J Womens Health (Larchmt). 2018 Dec 21. PMID: 30576259

30. McCarthy KJ, Gollub EL, **Ralph L**, van de Wijgert J, Jones HE. Hormonal contraceptives and the acquisition of sexually transmitted infections: an updated systematic review. Sex Transm Dis. 2019 Jan 08. PMID: 30628946

31. **Ralph LJ**, Schwarz EB, Grossman D, Foster DG. Self-reported Physical Health of Women Who Did and Did Not Terminate Pregnancy After Seeking Abortion Services: A Cohort Study. Ann Intern Med. 2019 Jun 11. PMID: 31181576.

32. **Ralph LJ**, Mauldon J, Biggs MA, Foster DG. A prospective cohort study of the effect of receiving versus being denied an abortion on educational attainment. Wom Health Iss. 2019; 29 (6): 455-464. PMID: 31708341.

33. Samari G, Foster DG, **Ralph L**, Rocca C. Pregnancy Preferences and Contraceptive Use among US Women. Contraception, 2020; 101(2): 79-85.

34. Jewell BL, Smith JA, Padian NS, van de Wijgert JHHM, Gollub EL, Jones HE, **Ralph LJ**, Hallett TB. ECHO: Context and limitations. Lancet 2020; Eub ahead of print. PID: 32035561.

35. McCarthy MA, Upadhyay U, **Ralph L**. Biggs MA, Foster D. The effect of receiving versus being denied an abortion on making and achieving aspirational 5-year life plans. BMJ Sex Reprod Health 2020; 46(3): 177-183.

36. **Ralph LJ,** Foster DG, Rocca C. Comparing prospective versus retrospective reports of pregnancy intention in a longitudinal cohort of U.S. women. Perspect Sex Repro Health 2020; 52(1): 39-48.

37. **Ralph LJ**, Chaiten L, Werth E, Daniel S, Brindis C, Biggs MA. Reasons for and Logistical Burdens of Judicial Bypass for Abortion in Illinois. J Adolesc Health 2020. Online ahead of print (October 8, 2020).

38. Rowland BR, Rocca CH, **Ralph LJ**. Certainty and intention in pregnancy decision-making: An exploratory study. Contraception 2020. Online ahead of print (November 13, 2020).

39. Biggs MA, Neilands TB, Kaller S, Wingo E, **Ralph LJ**. Developing and validating the Psychosocial Burden among People Seeking Abortion Scale (PB-SAS). PLOS One 2020; 15 (12) e0242463.

40. **Ralph L**, Foster DG, Raifman S, Biggs MA, Samari G, Upadhyay U, Gerdts C, Grossman D. Prevalence of self-managed abortion among women of reproductive age in the United States. JAMA Network Open 2020. Online ahead of print (December 18, 2020).

BOOKS AND CHAPTERS

1. Biggs MA, Brindis CD, **Ralph L**, Lehrer J, Santelli J. The sexual and reproductive health of young Latino men living in the US. Chapter in: Health issues in Latino males: A social and structural approach (Eds: M. Aguirre-Molina, L. Borrell, and W. Vega). Rutgers University Press; May 2010.

SIGNIFICANT PUBLICATIONS

1. Ralph LJ, McCoy SI, Shiu K, Padian NS. Does hormonal contraceptive use increase women's risk of HIV acquisition? A meta-analysis of observational studies. Lancet Infectious Diseases 2015; 15(2): 181-9.

   I coauthored several papers that directly inform ongoing debate about whether use of hormonal contraceptive (HC) methods, particularly the injectable depo medroxyprogesterone acetate (DMPA), increase women's risk of HIV acquisition. I led a quantitative meta-analysis of observational studies which was published in *Lancet Infectious Diseases* in early 2015. This analysis has been cited nearly 100 times in peer-reviewed journals and covered by the New York Times and other media outlets.

2. Ralph LJ, Gould H, Baker A, Foster DG. The role of parents and partners in minors' decisions to have an abortion and anticipated coping after abortion. Journal of Adolescent Health 2014; 54(4): 428-34.

   This paper explored minors' patterns of consultation with parents and male partners prior to seeking abortion care, contributing to a paucity of research on minors' decision-making on abortion and offering insight into potential implications of mandated parental involvement.

3. Ralph LJ**,** Schwarz EB, Grossman D, Foster DG. Self-reported Physical Health of Women Who Did and Did Not Terminate Pregnancy After Seeking Abortion Services: A Cohort Study. Ann Intern Med. 2019 Jun 11. PMID: 31181576

   Using data from the Turnaway Study, this analysis compared women's physical health, including overall self-rated health, chronic pain, chronic conditions, and mortality, five years after receiving or being denied a wanted abortion. Study findings offered no evidence that having an abortion was detrimental to women's physical health. Instead, across several measures of chronic pain and self-rated health, women denied a wanted abortion fared worse than women who received a wanted abortion. Two women died in the post-partum period after being denied a wanted abortion due to maternal, or pregnancy-related causes. Its current Altmetric score (478) places it in the top 5% of all research articles in terms of public attention to the article.

4. Ralph LJ, Foster DG, Kimport K, Turok D, Roberts SC. Measuring decisional certainty among women seeking abortion. Contraception. 2016 Oct 10. PMID: 27745910

   This analysis validated the use of two scales designed to measure decisional certainty in the context of health care decisions among women seeking abortion care. Using a validated scale also permitted comparisons between decisional certainty in this population of women seeking abortion to individuals making other health care decisions, and found that women are as certain, if not more certain, about the decision to have an abortion as they are about other health care decisions. This study was awarded the Daniel R. Mishell Outstanding Article Award for the journal Contraception.

5. Ralph LJ, King E, Belusa E, Foster DG, Brindis CD, Biggs MA. The Impact of a Parental Notification Requirement on Illinois Minors' Access to and Decision-Making Around Abortion. J Adolesc Health. 2018 Mar; 62(3):281-287. PMID: 29248391

   Although parental involvement requirements are common in the U.S., currently enforced in 37 states, there is minimal evidence on how they impact minors' decision-making around abortion. This analysis examined the impact of a parental notification requirement for minors' abortion on not only the frequency and timing of obtaining care, but also levels of parental involvement and support for the decision, certainty about the decision and autonomy in decision-making, and out-of-state travel. Using a rigorous difference-in-difference design that compares outcomes among minors to young adults over time, this study offers contemporary insight on the effect of this common restriction on adolescents.

CONFERENCE ABSTRACTS (SELECTED)

1. **Ralph L**, Brindis C, Pies C, Lahiff M. Do adolescents and young adults who delay first intercourse until older ages use more effective contraception: Results from the 2002 National Survey of Family Growth? Presented at the National Survey of Family Growth Research Conference; October, 2006. Hyattsville, MD.
2. **Ralph L,** Biggs MA , Brindis CD, Navarro S, Amaral G. Meeting the reproductive health needs of males through the Family PACT Program. Presented at the Annual Public Health Association Conference; November, 2006. Boston, MA.
3. **Ralph L**, Arons A, Berglas N, Biggs MA, Brindis CD. Bringing teens into the family planning clinic: The importance of diverse outreach strategies. Poster presented at the Annual Public Health Association Conference; November, 2007. Washington DC.
4. **Ralph L**, Biggs MA, Schwartz S, Arons A, Minnis A, Marchi K, Brindis C, Braveman P. The protective role of parents and parental support in preventing Latina teen pregnancy. Presented at the Annual Public Health Association Conference; October, 2008. San Diego, CA.
5. **Ralph L**, Schwartz S, Biggs MA, Brindis C. Pregnancy intendedness and decision-making among young Latinas: Findings from a qualitative study. Presented at the Annual Public Health Association Conference; October, 2008. San Diego, CA.
6. **Ralph L,** Berglas N, Schwartz S, Brindis C. Finding youth in TheirSpace: Using social networking sites to connect youth to sexual health services. Presented at Virtual Sex Ed: Youth, Race, Sex and New Media Conference; June 2009. Chicago, IL.
7. **Ralph L**, Schwartz S, Biggs MA, & Brindis C. Unplanned pregnancies among young adult Latinas: the influence of partners, fertility concerns, and individual aspirations. Presented at the Annual Public Health Association Conference; November 2009. Philadelphia, PA.
8. **Ralph L** & Brindis C. Translating research to impact public policy: California's experience with parental involvement legislation for minor's abortion in the 2005, 2006, and 2008 elections. Presented at the Annual Public Health Association Conference; November 2009. Philadelphia, PA.
9. **Ralph L.** Evaluating the effects of an agricultural intervention on reproductive health: Evidence from the NAIVS program in Tanzania. Presented at the Psychosocial Workshop; April, 2012. San Francisco, CA.
10. **Ralph L**, Foster DG, Turok D, Roberts S. Evaluating the psychometric properties of two decision scales among women seeking abortion in Utah. Presented at the North American Forum on Family Planning; November, 2015. Chicago, IL.
11. **Ralph L**, Grossman D, Foster DG. Women's physical health over five years after receiving or being denied a wanted abortion. Presented at the American Public Health Association Conference; November, 2016. Denver, CO.

12. **Ralph L**, Mauldon J, Foster DG. Effect of receiving versus being denied a wanted abortion on women's educational achievement. Presented at the American Public Health Association Conference; November, 2016. Denver, CO.
13. **Ralph L**, King E, Belusa E, Foster DG, Brindis CD, Biggs MA. The impact of a parental notification requirement on minors' experience with abortion in Illinois. Presented at the National Abortion Federation Annual Meeting; April, 2017. Montreal, Quebec.
14. **Ralph L**, Foster DG, Rocca C. Comparing prospective versus retrospective pregnancy intention reporting on incident pregnancies in a longitudinal study of U.S. women. Population Association of America; April, 2018. Denver, CO
15. Grossman D, **Ralph L**, Raifman S, Gerdts C, Upadhyay U, Biggs MA, Foster DG. Lifetime prevalence of self-induced abortion among a nationally representative sample of U.S. women. National Abortion Federation Annual Meeting; April, 2018. Seattle, WA.
16. **Ralph L**, Foster DG, Barar R, Rocca C. Timing and pathways of pregnancy suspicion and confirmation. Society of Family Planning Annual Meeting; October 2019. Los Angeles, CA.
17. **Ralph L**, Chaiten L, Werth E, Daniel S, Brindis CD, Biggs MA. Minors reasons for and experience with obtaining judicial bypass for abortion in Illinois. Society of Family Planning Annual Meeting; October 2019. Los Angeles, CA.
18. **Ralph L**, Wingo E, Kaller S, Biggs MA. Consideration of self-managed abortion among people seeking facility-based care in three haven states. Society of Family Planning Annual Meeting; October 2020. Virtual.
19. **Ralph L**, Roberts S, Kimport K, Wingo E, Kaller S, Biggs MA. Decision certainty among people seeking abortion care. American Public Health Association Annual Meeting; October 2020. Virtual.