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The Medical Assumption at the Foundation of Roe v. Wade & Its Implication for Women's Health

Clarke Forsythe

Improving the Accuracy of Maternal Mortality and Pregnancy Related Death

Burk Schaible

Medical Experiments on Persons with Special Needs, A Comparative Study of Islamic Jurisprudence vs. Arab Laws: UAE Law as Case Study

Hamza Abed AL-Karim Hammad, M.A., Ph.D.

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Preface

This edition features an article by attorney and constitutional scholar Clarke Forsythe challenging the fundamental presumption and oft repeated claim that abortion is safer than childbirth. Too little attention has been paid over the past forty years to the complete lack of a factual record in the precedent setting cases of *Roe v. Wade* and *Doe v. Bolton*, and to the U.S. Supreme Court's fundamental assumption that drove the outcome. The decision and opinions were driven by the medical claim that "abortion was safer than childbirth," which was raised for the first time in the legal briefs in the U.S. Supreme Court, but surprisingly, without any factual record to support such a claim in the trial court below.

This medical premise directly and profoundly shaped virtually every major aspect of *Roe* and *Doe*, including the creation of the trimester system and the prohibition of health and safety regulations in the first trimester. Because of this medical assumption, the Justices extended the right to abortion throughout pregnancy. It was key to the Court's historical rationale for a "right" to abortion. Because of this notion, the Justices gave abortion providers complete discretion to manage any issues of health and safety, and they prohibited public health officials from regulating abortion in the first trimester. This medical assumption was the most consequential factual assumption of the abortion decisions of 1973 and it has been assumed to be true in subsequent abortion decisions by the Court.

The notion that "abortion is safer than childbirth" has become even less tenable for at least five reasons: (1) the dysfunctional abortion data reporting system in the United States that relies completely on voluntary reporting; (2) the incomparability of the published abortion mortality rate and the published maternal (childbirth) mortality rate; (3) medical data on the increasing rate of maternal mortality in the second trimester; (4) the growing body of international medical studies finding long-term risks to women from abortion; and (5) maternal mortality data from countries with superior abortion recordkeeping collection and reporting systems, which find a higher rate of abortion mortality than childbirth mortality.

These concerns and the growth in international medical data over the past two decades provides a basis for the courts to give greater deference to the states in their attempt to protect maternal health.

The second article in this edition, by medical student Burk Shaible, explains why abortion-related death and pregnancy-related death remains difficult due to the limitations within the Abortion Mortality Surveillance System and the International Statistical

Classification of Diseases and Related Health Problems (ICD). These methods lack a systematic and comprehensive method of collecting complete records regarding abortion outcomes in each state and fail to properly identify longitudinal cause of death related to induced abortion. This article analyzes the current method of comparing abortion-related death with pregnancy-related death and provides solutions to improve collection of data regarding these subjects

In the third article, Dr. Hamza Abed AL-Karim Hammad provides a comparative study of medical experiments on persons with special needs in Islamic jurisprudence and Arab laws, with the United Arab Emirates (UAE) law as case study. It adopts a comparative analytical and descriptive approach. The conclusion points out that the Convention on the Rights of Persons with Special Needs, ratified by a number of Arab States, including the UAE, approves conducting medical experiments on persons with special needs, subject to their free consent. As a result of ratifying this Convention, a number of special laws were enacted to be enforced in the United Arab Emirates. On the other hand, this issue is controversial from an Islamic jurisprudence point of view. One group of jurisprudents permits conducting these experimentations, if they are designed to treat the person involved, and prohibits such experimentations for scientific advancement. Other jurisprudents permit conducting medical experimentations on persons with special needs, whether the purpose of such experimentations is treatment of the disabled or achieving scientific advancement. The opinion of this group is consistent with the International Convention and the Arab laws in this respect. However, neither the Convention nor the Arab laws regulate this matter by specific and comprehensive conditions, as addressed by some contemporary scholars. Dr. Hammad recommends that the Convention and the Arab laws adopt these conditions. Additionally, the Convention does not state whether the experimentations may be conducted for the interest of the person with disability or for the purpose of scientific advancement. For this reason, Dr. Hammad concludes that the text of the Convention is unclear and therefore requires further illumination.

Barry A. Bostrom, J.D.
Editor-in-Chief

Articles

The Medical Assumption at the Foundation of Roe v. Wade & Its Implications for Women's Health

Clark Forsythe*

ABSTRACT: Too little attention has been paid over the past forty years to the complete lack of a factual record in *Roe v. Wade* and *Doe v. Bolton*, and to the Court's fundamental assumption that drove the outcome. The decision and opinions were driven by the medical claim that "abortion was safer than childbirth," which was raised for the first time in the briefs in the Supreme Court without any lower court record.

This medical premise directly and profoundly shaped virtually every major aspect of *Roe* and *Doe*, including the creation of the trimester system and the prohibition of health and safety regulations in the first trimester. Because of this medical assumption, the Justices extended the right to abortion throughout pregnancy. It was key to the Court's historical rationale

* Senior Counsel, Americans United for Life; Author, *Abuse of Discretion: The Inside Story of Roe v. Wade* (Encounter Books 2013). I am grateful to Courtney Thiele for her research assistance and for her independent review of the studies in the appendices. I am also grateful to the following for permission to reprint their list of studies, especially those published before 1990 which could not be independently accessed and verified: Brent Rooney, M.Sc., Priscilla Coleman, Ph.D., & WECARE EXPERTS, http://www.wecareexperts.org/sites/default/files/articles/bibliography%20of%20Peer%20Reviewed%20Studies%20on%20Psychology%20of%20Abortion.pdf (cataloging studies on abortion and adverse mental health outcomes); American Association of Pro-Life Obstetricians & Gynecologists (AAPLOG), www.aaplog.org; Dr. Angela Lanfranchi & Breast Cancer Prevention Institute (BCPI), http://bcpinstitute.org/FactSheets/BCPI-Fact-Sheet-Epidemiol-studies.pdf (listing studies on abortion and breast cancer). A partial list of studies can also be found in Calhoun, Shadigian & Rooney, *Cost Consequences of Induced Abortion as an Attributable Risk for Preterm Birth and Impact on Informed Consent*, 52 J. Repro. Med. 929 (2007) (listing 59 other studies going back to the 1960s) and John M. Thorp Jr., *Public Health Impact of Legal Termination of Pregnancy in the US: 40 Years Later,* Scientifica, Dec. 2012, at 5, available at http://dx.doi.org/10.6064/2012/980812. My thanks to Cara Regan, Thomas Short, Kyle Dolinsky, and the staff of the *Washington and Lee Law Review* for their meticulous and conscientious work on this article. Any mistakes that remain, of course, are mine. Reprinted with permission by the author and the *Washington and Lee Law Review*. Originally published as Clarke Forsythe, *The Medical Assumption at the Foundation of* Roe v. Wade *and It's Implication for Women's Health*, 71 Wash. & Lee L. Rev. 827 (2014).

for a "right" to abortion. Because of this notion, the Justices gave abortion providers complete discretion to manage any issues of health and safety, and they prohibited public health officials from regulating abortion in the first trimester. This medical assumption was the most consequential factual assumption of the abortion decisions of 1973 and it has been assumed to be true in subsequent abortion decisions by the Court.

The notion that "abortion is safer than childbirth" has become even less tenable for at least five reasons: (1) the dysfunctional abortion data reporting system in the United States that relies completely on *voluntary* reporting; (2) the incomparability of the published abortion mortality rate and the published maternal (childbirth) mortality rate; (3) medical data on the increasing rate of maternal mortality in the second trimester; (4) the growing body of international medical studies finding long-term risks to women from abortion; and (5) maternal mortality data from countries with superior abortion recordkeeping collection and reporting systems, which find a higher rate of abortion mortality than childbirth mortality.

These concerns and the growth in international medical data over the past two decades should counsel the Supreme Court to give greater deference to the states in their attempt to protect maternal health.

I. Introduction

The Supreme Court's abortion decisions in *Roe v. Wade*[1] and *Doe v. Bolton*[2] have been subjected to extensive criticism over the past forty years.[3] Scholars have criticized

[1] 410 U.S. 113 (1973).

[2] 410 U.S. 179 (1973).

[3] *See generally* Clarke D. Forsythe & Stephen B. Presser, *Restoring Self-Government on Abortion: A Federalism Amendment*, 10 Tex. Rev. L. & Pol. 301, 306-20 (2006) (collecting sources); Dennis J. Horan et al., *Two Ships Passing in the Night: An Interpretavist Review of the White-Stevens Colloquy on* Roe v. Wade, 6 St. Louis U. Pub. L. Rev. 229, 230 n.8 (1987) (collecting sources).

the Court's mistreatment of: common law history,[4] American legal history,[5] the abortion statutes of the nineteenth century,[6] the use of sociological evidence that was not part of any record,[7] the Hippocratic Oath,[8] existing prenatal injury, wrongful death and fetal

[4] *See generally* Joseph W. Dellapenna, Dispelling The Myths Of Abortion History 135 (2006) ("The common law, in its early centuries, treated abortion as a crime in principle because it involved the killing of an unborn child—a tradition that continued with elaboration, but without interruption, until *Roe* changed it."); Gregory J. Roden, Roe v. Wade *and the Common Law: Denying the Blessings of Liberty to Our Posterity*, 35 UWLA L. Rev. 212, 220-39 (2003) ("The earliest compilations of English law reflect the fact that abortion was regarded as homicide."); Mark S. Scott, *Quickening in the Common Law: The Legal Precedent* Roe *Attempted and Failed to Use*, 1 Mich. L. & Pol. Rev. 199, 200 (1996) (tracing "the intellectual development which gave rise to the English common law view that quickening was the point in gestation at which the unborn child reached a legally-protectable stage," and following "the judicial and statutory use of quickening through its heyday and into the era of modern embryology"); Shelley Gavigan, *The Criminal Sanction as It Relates to Human Reproduction: The Genesis of the Statutory Prohibition of Abortion*, 5 J. Legal Hist. 20, 21-22 (1984) (discussing the position of the criminal law with respect to abortions procured before quickening); Robert A. Destro, *Abortion and the Constitution: The Need for a Life-Protective Amendment*, 63 Calif. L. Rev. 1250, 1267 (1975) (reviewing the common law history of criminal sanctions against abortion and "examining the conclusions the Court drew from its historical excursus"); Robert M. Byrn, *An American Tragedy: The Supreme Court on Abortion*, 41 Fordham L. Rev. 807, 813 (1973) (stating that the Court's "fundamental error" in *Roe*, "refusing to decide the basic factual issue of prenatal humanbeingness," "may have been caused by the Court's misapprehension of the common law of abortion and the motivation behind early American anti-abortion statutes").

[5] *See* Stephen Krason, Abortion: Politics, Mortality, and the Constitution 91 (1984) ("The Court tried to cut out any historical basis for its critics to object to its holding…. Believing it adequately demonstrated a liberty of abortion at common law, it now established the basis for that liberty within the unique confines of the written Constitution …."); John Keown, *Back to the Future of Abortion Law: Roe's Rejection of America's History and Traditions*, 22 Issues L. & Med. 3, 3 (2006) (questioning Justice Blackmun's conclusion "that a constitutional right to abortion was consistent with [the history of abortion in Anglo-American law]" and the historians' claim "that *Roe* was consistent with the nation's history and traditions").

[6] *See* Paul Benjamin Linton, Planned Parenthood v. Casey: *The Flight from Reason in the Supreme Court*, 13 St. Louis U. Pub. L. Rev. 15, 103 (1993) ("The Court's examination of the history of abortion regulation was seriously flawed and failed to take into account the state of medical technology in which the law of abortion evolved."); James S. Witherspoon, *Reexamining Roe: Nineteenth-Century Abortion Statutes and the Fourteenth Amendment*, 17 St. Mary's L.J. 29, 32-34 (1985) (providing a discussion of nineteenth century criminal abortion statutes and their displacement of the common law).

[7] *See* Henry J. Friendly, *The Courts and Social Policy: Substance and Procedure*, 33 U. Miami L. Rev. 21, 36-37 (1978) (providing that "no evidence was offered at the hearing before the three-judge court" in *Roe* and that the Court's conclusion in *Roe* "rested entirely on materials not of record in the trial court").

[8] *See* Martin Arbagi, Roe *and the Hippocratic Oath,* in Abortion and the Constitution: Reversing *Roe v. Wade* Through the Courts 159, 163 (1987) (discussing how Justice Blackmun did not "cite any primary sources" in the section of *Roe* "dealing specifically with the Hippocratic oath").

homicide law,[9] existing state and federal court decisions on a right to abortion,[10] precedent,[11] and the unborn child's status as a human being or person in the law.[12] Others have criticized the workability of the Court's doctrine[13] and its impact on women.[14]

[9] *See* Gregory J. Roden, *Prenatal Tort Law and the Personhood of the Unborn Child: A Separate Legal Existence*, 16 St. Thomas L. Rev. 207, 208 (2003) (examining "the state of prenatal tort and wrongful death law at the time the Supreme Court decided *Roe v. Wade*"); David Kader, *The Law of Tortious Prenatal Death Since* Roe v. Wade, 45 Mo. L. Rev. 639, 640 (1980) ("The ideological history of prenatal injury law, and the more recent development of prenatal death law has consistently moved toward the affirmation of the unborn as a 'person' in the law, with a parallel history evidenced in criminal abortion legislation."); William J. Maledon, Note, *The Law and the Unborn Child: The Legal and Logical Inconsistencies*, 46 Notre Dame L. Rev. 349, 358 (1971) ("Where the child is born alive and then subsequently dies as a result of injuries received prior to birth, the courts which have considered the question are almost unanimous in allowing the child's estate to bring an action for wrongful death."). "Although the cause of action for wrongful death is purely statutory, the child born alive has always been considered a 'person' regardless of how short a time he actually survives." *Id*. For the state of legal protection before *Roe* see Case Comment, *The Role of the Law of Homicide in Fetal Destruction*, 56 Iowa L. Rev. 658, 659 n.8 (1971) (citing ten states with statutes "defining feticide as a homicide").

[10] *See* Richard Gregory Morgan, Roe v. Wade *and the Lesson of Pre-*Roe *Case Law*, 77 Mich. L. Rev. 1724, 1727 (1979) (discussing various state and federal court decisions on a right to abortion).

[11] *See* Edward Lazarus, Closed Chambers: The First Eyewitness Account of the Epic Struggles Inside the Supreme Court 367 (1998) (discussing how the Court "failed in its responsibility to justify its ruling or even clarify the source of its authority")

> As a precedent-follower, *Roe* simply string cites a series of privacy cases involving marriage, procreation, contraception, bedroom reading, education, and other assorted topics, and then abruptly announces with no doctrinal analysis that this privacy right is "broad enough to encompass" abortion. *Ipse dixit*. But as the Court itself admits a few pages later, the existence of the living fetus makes the case at hand "inherently different"—the italics here are mine—from every single one of these earlier-invoked cases.

Akhil Reed Amar, *Intratextualism*, 112 Harv. L. Rev. 747, 778 (1999) (citations omitted)..

[12] *See* Michael Stokes Paulsen, *The Plausibility of Personhood*, 74 Ohio St. L.J. 13, 14 (2013) (considering "the constitutional question of the legal personhood status of living human fetuses *in utero*").

[13] *See, e.g.*, Clarke D. Forsythe, Abuse Of Discretion: The Inside Story of *Roe v. Wade* 150-52 (2013) [hereinafter Abuse of Discretion] (discussing the various problems with the *Doe* "health" definition, which expanded the abortion "right" beyond viability); Mary Ann Glendon, *From Culture Wars to Building a Culture of Life*, in The Cost Of "Choice": Women Evaluate The Impact Of Abortion 3, 5 (Erika Bachiochi ed., 2004) ("*Doe's* broad definition of 'health' spelled the doom of statutes designed to prevent the abortion late in pregnancy of children capable of surviving outside the mother's body unless the mother's health was in danger."); Clarke D. Forsythe & Bradley N. Kehr, *A Road Map Through the Supreme Court's Back Alley*, 57 Vill. L. Rev. 45, 46 (2012) ("The main obstacle to effective health and safety regulations is not a lack of majority support, but rather the Supreme Court's abortion doctrine, which was misguided in its inception and has been contradictory in its application."); James Bopp, Jr., & Richard E. Coleson, *The Right to Abortion: Anomalous, Absolute, and Ripe for Reversal*, 3 BYU J. Pub. L. 181, 183 (1989) ("The special treatment for the abortion right violates the principles underlying the rule of law, the foundation stone of our constitutional system."). *See generally* John T. Noonan, Jr., A Private Choice: Abortion in American in the Seventies (1979) (discussing twenty inquiries that explore the history and nature of the abortion right).

[14] *See* Clarke D. Forsythe & Stephen B. Presser, *The Tragic Failure of* Roe v. Wade: *Why Abortion Should Be Returned to the States*, 10 Tex. Rev. L. & Pol. 85, 109 (2005) ("The medical and sociological data now make plain that induced abortion has undermined the health of women in myriad ways: physically, psychologically, medically, and relationally."); Glendon, *supra* note 13, at 10 ("Where abortion is concerned, medical and psychological consequences abound."); Helen M. Alvare, Gonzales v. Carhart: *Bringing Abor-*

Recently, Professor Randy Beck has published several articles that focus on the arbitrary nature of the viability rule that the Court has never adequately justified,[15] a focus shared by others before him.[16] Professor Stephen Gilles has analyzed how the Court has never justified or explained its life-or-health exception after viability.[17] Others have criticized the search for a new rationale for the Court's abortion doctrine, whether it is found in the Equal Protection Clause[18] or the Nineteenth Amendment.[19]

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tion Law Back into the Family Law Fold, 69 Mont. L. Rev. 409, 412 (2008) (arguing that abortion law should be harmonized with the rest of family law).

[15] *See* Randy Beck, *The Essential Holding of Casey: Rethinking Viability,* 75 UMKC L. Rev. 713, 725 (2007) (considering and rejecting "three possible explanations for the viability standard"). Beck argues that "[t]he inadequacy of these three rationales shows that the Court has failed to present a principled defense of viability as the controlling line." *Id.; see also* Randy Beck, Gonzales, Casey, *and the Viability Rule*, 103 NW. U. L. Rev. 249, 252 (2009) ("Under the reasoning of *Casey*, if the Court cannot offer a principled constitutional rationale for requiring the ability to survive *ex utero* as a condition for state protection, then the Court should abandon the viability rule as an illegitimate and arbitrary line, inappropriate for judicial imposition."); Randy Beck, *Self-Conscious Dicta: The Origins of* Roe v. Wade's *Trimester Framework*, 51 Am. J. Legal Hist. 505, 520 (2011) (providing a discussion of the issue of the duration of abortion rights from a cover memorandum that accompanied Justice Blackmun's second draft of *Roe*); Memorandum from Justice Harry A. Blackmun to the Conference, Re: No. 70-18—*Roe v. Wade* (Nov. 21, 1972) (quoting Justice Blackmun as saying "[y]ou will observe that I have concluded that the end of the first trimester is critical. This is arbitrary, but perhaps any other selected point, such as quickening or viability, is equally arbitrary") (on file at the Library of Congress, in the Harry A. Blackmun Papers, Manuscript Division, Box 151, Folder 6); Randy Beck, *State Interests and the Duration of Abortion Rights*, 44 McGeorge L. Rev. 31, 38 (2013) ("While the Court alluded to 'logical and biological justifications' for 'State regulation protective of fetal life after viability,' it nowhere explained those justifications or why they took on added weight at the point when the fetus crossed the viability threshold.").

[16] *See* Mark Tushnet, *Two Notes on the Jurisprudence of Privacy,* 8 Const. Comment. 75, 80 (1991) (stating that the coherence of the distinction between viability and non-viability is rarely examined and that the concept of viability is problematic); John Hart Ely, *The Wages of Crying Wolf: A Comment on* Roe v. Wade, 82 Yale L.J. 920, 924-25 (1973) (discussing the inadequacy of the viability rule).

[17] *See* Stephen G. Gilles, Roe's *Life-or-Health Exception: Self-Defense or Relative-Safety?*, 85 Notre Dame L. Rev. 525, 527 (2010) ("As formulated in *Roe*, the exception turns out to be deeply ambiguous in rationale and scope.").

[18] *See* Erika Bachiochi, *Embodied Equality: Debunking Equal Protection Arguments for Abortion Rights*, 34 Harv. J.L. & Pub. Pol'y 889, 897 (2011) ("In applying equal protection reasoning to questions of abortion law, the Court could, in effect, take a step that Congress, by declining to pass the Freedom of Choice Act, has thus far refused: invalidate laws regulating abortion throughout the fifty states."); Mary Catherine Wilcox, *Why the Equal Protection Clause Cannot "Fix" Abortion Law*, 7 Ave Maria L. Rev. 307, 320-21 (2008) ("[C]lassification on the basis of pregnancy is not a classification on the basis of gender, and thus the Equal Protection Clause cannot be used to strike down abortion statutes on the basis that they discriminate against women as a class."); Kristina M. Mentone, *When Equal Protection Fails: How the Equal Protection Justification for Abortion Undercuts the Struggle for Equality in the Workplace*, 70 Fordham L. Rev. 2657, 2685 (2002) (arguing "that the equal protection argument for abortion perpetuates stereotypical views of women and makes true gender equality more difficult to achieve").

[19] *See* Michael Stokes Paulsen, *The Text, the Whole Text, and Nothing but the Text, So Help Me God: Un-Writing Amar's Unwritten Constitution*, 81 U. Chi. L. Rev. (forthcoming 2014) (reviewing Akhil Reed Amar's *America's Unwritten Constitution*).

II. The Medical Premise of *Roe v. Wade*

Too little attention, however, has been paid over the past forty years to the complete lack of a factual record in *Roe v. Wade* and *Doe v. Bolton*, and to the Court's fundamental medical assumption that drove the outcome.[20] The decision and opinions were driven by the medical claim that "abortion was safer than childbirth," which was raised for the first time in the briefs in the Supreme Court and without any lower court record.[21] That assumption was at the very heart of the deliberations and decisions in the abortions cases. The Court in *City of Akron v. Akron Center for Reproductive Health*[22] specifically referred to it as "*Roe's* factual assumption"[23] and said that "the State retains an interest in ensuring the validity" of the assumption.[24]

The medical premise directly and profoundly shaped virtually every major aspect of *Roe* and *Doe*, including the creation of the trimester system[25] and the prohibition of health and safety regulations in the first trimester.[26] Because of this medical assumption, the Justices extended the right to abortion throughout pregnancy.[27] It was key to the Court's historical rationale for a "right" to abortion.[28] Because of this notion, the Justices gave abortion providers complete discretion to manage any issues of health and

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[20] *But see* David C. Reardon et al., *Deaths Associated with Abortion Compared to Childbirth—A Review of New and Old Data and the Medical and Legal Implications*, 20 J. Contemp. Health L. & Pol'y 279, 281 (2004) ("Thirty years later, the best available evidence now contradicts the 'established medical fact' relied upon in *Roe*."); Robert A. Destro, *Abortion and the Constitution: The Need for a Life-Protective Amendment*, 63 Calif. L. Rev. 1250, 1296-1303 (1975) (criticizing medical data that the Court relied upon).

[21] *See* Roe v. Wade, 410 U.S. 113, 149 (1973) ("Appellants and various amici refer to medical data indicating that abortion in early pregnancy, that is, prior to the end of the first trimester, although not without its risk, is now relatively safe.").

[22] 462 U.S. 416 (1983).

[23] *Id*. at 430 n.12.

[24] *Id*.

[25] See *Roe*, 410 U.S. at 163 (providing that the state's interest in regulating abortion becomes "compelling" "at approximately the end of the first trimester").

[26] *Id*.:

> With respect to the State's important and legitimate interest in the health of the mother, the 'compelling' point, in light of present medical knowledge, is at approximately the end of the first trimester. This is so because of the now-established medical fact, referred to above at 149, that until the end of the first trimester mortality in abortion may be less than mortality in normal childbirth.

[27] *See id*. at 163-64 ("If the State is interested in protecting fetal life after viability, it may go so far as to proscribe abortion during that period [after viability], except when it is necessary to preserve the life or health of the mother.").

[28] *See id.* at 148-49 & n.44 ("Mortality rates for women undergoing early [legal] abortions …appear to be as low as …rates for normal childbirth. Consequently, any interest of the State in protecting the woman from an inherently hazardous procedure, except when it would be equally dangerous for her to forgo it, has largely disappeared."); *Id*. at 151 ("Because medical advances have lessened this concern, at least with respect to abortion in early pregnancy, they argue that with respect to such abortions the laws can no longer be justified by any state interest. There is some scholarly support for this view of original purpose.").

safety,[29] and they prohibited public-health officials from regulating abortion in the first trimester.[30] This medical assumption was the most consequential factual assumption of the abortion decisions of 1973, and it has been assumed to be true in subsequent abortion decisions by the Court.[31]

A. The Impact of Roe *and* Doe

Of course, what the public knows as "Roe v. Wade" is really two cases, *Roe v. Wade* and *Doe v. Bolton*. The companion case of *Doe v. Bolton* has been regularly ignored over the past forty years, despite its significant impact on abortion policy in the United States. The Court held that *Roe* and *Doe* "are to be read together."[32] In *Roe*, the Court held that the states could prohibit abortion after fetal viability, "except where it is necessary… for the preservation of the life or health of the mother."[33] Then, in *Doe*, the Justices defined "health" as "all factors—physical, emotional, psychological, familial, and the woman's age—relevant to the well-being of the patient."[34] The "health exception" after viability swallowed the supposed prohibition after viability. For forty years, the "health exception" after viability has meant emotional well-being without limits.[35] Though some dispute that the "health" exception is a constitutional requirement,[36] federal courts have imposed it as a constitutional requirement to invalidate abortion laws, including post-viability regulations.[37] As Laurence Tribe wrote shortly after the decisions, "in [*Roe*

[29] *See id*. at 163:

> This means, on the other hand, that, for the period of pregnancy prior to this 'compelling' point, the attending physician, in consultation with his patient, is free to determine, without regulation by the State, that, in his medical judgment, the patient's pregnancy should be terminated. If that decision is reached, the judgment may be effectuated by an abortion free of interference by the State.

[30] *See id*. at 164 ("For the stage prior to approximately the end of the first trimester, the abortion decision and its effectuation must be left to the medical judgment of the pregnant woman's attending physician.").

[31] The medical assumption has influenced the Justices in several cases. *See, e.g.,* Planned Parenthood of Cent. Mo. v. Danforth, 428 U.S. 52, 76 (1976) ("[T]he mortality rate for normal childbirth exceeds that where saline amniocentesis is employed."); City of Akron v. Akron Ctr. for Reprod. Health, Inc., 462 U.S. 416, 429 n.11 (1983) ("The comparison between abortion and childbirth mortality rates may be relevant only where the State employs a health rationale as a justification for a complete prohibition on abortions in certain circumstances."); Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 929 (1992) (Blackmun, J., concurring in part) (citing comparative mortality rates); Stenberg v. Carhart, 530 U.S. 914, 923-24 (2000) (citing mortality rates).

[32] Roe v. Wade, 410 U.S. 113, 165 (1973).

[33] *Id*. at 164-65.

[34] Doe v. Bolton, 410 U.S. 179, 192 (1973).

[35] *See id*. ("[T]he medical judgment may be exercised in the light of all factors …relevant to the well-being of the patient.").

[36] *See* Women's Med. Prof'l Corp. v. Voinovich, 130 F.3d 187 (6th Cir. 1997), *cert. denied*, 523 U.S. 1036, 1037 (1998) (Thomas, J., dissenting) ("Our conclusion that the statutory phrase at issue in *Doe* was not vague because it included emotional and psychological considerations in no way supports the proposition that, after viability, a mental health exception *is required as a matter of federal constitutional law*.").

[37] *See* Am. Coll. of Obstetricians & Gynecologists v. Thornburgh, 737 F.2d 283, 299 (3d Cir. 1984) ("It is clear from the Supreme Court cases that 'health' is to be broadly defined. As the Court stated in *Doe*

and *Doe*]… [the Court] carried that doctrine [of substantive due process] to lengths few observers had expected, imposing limits on permissible abortion legislation so severe that no abortion law in the United States remained valid."[38]

B. The Mistake that Left the Justices with No Record

Roe and *Doe* actually began as a procedural mistake that left the Justices with no evidentiary record. The Court took the two cases in April 1971, when Justices Black and Harlan were still on the Court, not to decide the abortion issue but to decide the application of *Younger v. Harris*[39] and, to a lesser extent, *Dombrowski v. Pfister*[40] to the procedural aspects of *Roe* and *Doe*.[41]

Then, in September 1971, Justices Black and Harlan abruptly retired due to ill health.[42] That flipped the balance of the Court, and a temporary majority of four Justices—Douglas, Brennan, Stewart, and Marshall—resolved or disregarded the *Younger* issue and decided to use the two cases to declare a right to abortion before the Black and Harlan vacancies could be filled.[43] That is how the Justices ended up with two cases that had no trial or any evidentiary record on abortion or its implications, disregarding a long line of cases holding that the Court will not decide constitutional questions without an adequate record.[44]

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v. Bolton, the factors relating to health include those that are 'physical, emotional, psychological, familial, [as well as] the woman's age.'"), *aff'd*, Thornburgh v. Am. Coll. of Obstetricians & Gynecologists, 476 U.S. 747 (1986); *see also* Michael J. Tierney, *Post-Viability Abortion Bans and the Limits of the Health Exception*, 80 Notre Dame L. Rev. 465, 470 (2004) ("While there are many places to look for guidance, the Sixth Circuit was wrong to look to *Vuitch* and *Doe* to establish that a mental health exception was constitutionally mandated. Both of these decisions were statutory interpretations and not constitutional mandates."); Brian D. Wassom, Comment, *The Exception that Swallowed the Rule?* Women's Medical Professional Corporation v. Voinovich *and the Mental Health Exception to Post-Viability Abortion Bans*, 49 Case W. Res. L. Rev. 799, 800 (1999) ("Federal courts, however, have been wary to uphold such laws unless they contain an unambiguous health exception—one that, in the view of many courts, must allow doctors almost limitless discretion to determine what 'health' means in any given context.").

[38] Abuse of Discretion, *supra* note 13, at 1.

[39] 401 U.S. 37 (1971).

[40] 380 U.S. 479 (1965).

[41] *See* Abuse of Discretion, *supra* note 13, at 19 ("*Younger* intersected with the abortion cases filed in federal court against state laws from 1969 to 1972 because a doctor who was prosecuted for abortion in state court might file a case in federal court to block the state prosecution--the kind of scenario with which *Younger* was concerned.").

[42] *See id.* at 37 ("One of the decisive moments came in September 1971, about three months before the first oral arguments, when Justices Black and Harlan abruptly retired, within a week of each other, due to poor health.").

[43] *See id.* at 43. ("The Black and Harlan vacancies gave the four Justices who favored striking down the abortion laws—Brennan, Douglas, Marshall, and Stewart—a great incentive to decide *Roe* and *Doe* without the votes of Powell and Rehnquist.").

[44] *See, e.g.*, Renne v. Geary, 501 U.S. 312, 321-22 (1991) ("We possess no factual record of an actual or imminent application of [the statute] sufficient to present the constitutional issues in 'clean-cut and concrete form.'" (citations omitted)); Kleppe v. New Mexico, 426 U.S. 529, 546 (1976) ("We have often declined to decide important questions regarding 'the scope and constitutionality of legislation' in the absence of 'an adequate and full-bodied record.'" (citations omitted)); Pub. Affairs Assocs. v. Rickover, 369

Justice Blackmun told this story to at least two people, and it is confirmed by the briefs, the Justices' papers, and the oral arguments. Justice Blackmun wrote to Chief Justice Rehnquist in 1987:

> I remember that the old Chief [Warren Burger] appointed a screening committee, chaired by Potter [Stewart], to select those cases that could (it was assumed) be adequately heard by a Court of seven. I was on that little committee. We did not do a good job. Potter pressed for *Roe v. Wade* and *Doe v. Bolton* to be heard and did so in the misapprehension that they involved nothing more than an application of *Younger v. Harris*. How wrong we were.[45]

With no evidentiary record in either *Roe* or *Doe*, the Justices were left with a large vacuum and the temptation to rely upon their personal experiences, prejudices, and hunches in deciding the abortion cases. And, in that evidentiary vacuum, the Justices were susceptible to *untested* theories of law, history, and medicine.[46]

C. The Source of the Medical Mantra

One of those untested theories was the medical notion that "abortion was safer than childbirth." Up through the 1950s, neither leading abortion advocates nor Planned Parenthood claimed that "abortion was safer than childbirth."[47]

The source of the claim is apparently an April 1961 report by Christopher Tietze in the *Journal of the American Medical Association* (JAMA).[48] Thereafter, attorneys for abortion advocates made the claim in numerous cases in the 1960s in an attempt to influence the courts to legalize abortion.[49] Eventually, Tietze's paper made its way into

U.S. 111, 113 (1962) (per curiam) ("Adjudication of such problems, certainly by way of resort to a discretionary declaratory judgment, should rest on an adequate and fullbodied record. The record before us is woefully lacking in these requirements."); Associated Press v. NLRB, 301 U.S. 103, 132 (1937) ("Courts deal with cases upon the basis of the facts disclosed, never with nonexistent and assumed circumstances."); City of Hammond v. Schappi Bus Line, 275 U.S. 164, 171-72 (1927) ("Before any of the questions suggested, which are both novel and of far reaching importance, are passed upon by this Court, the facts essential to their decision should be definitely found by the lower courts upon adequate evidence.").

[45] Letter from Justice Blackmun, U.S. Supreme Court, to Chief Justice Rehnquist (July 16, 1987) (on file at the Library of Congress, Harry A. Blackmun Papers, Box 151, Folder 3, and Box 1407, Folder 13); *see also* Abuse Of Discretion, *supra* note 13, at 18 (quoting Justice Blackmun's July 20 letter to Justice Rehnquist).

[46] Federal Judge Richard Posner recently suggested that he erred in *Crawford v. Marion County* when he upheld a state voter identification law despite the insufficiency of the record. Judge Posner said: "I think we did not have enough information. And of course it illustrates the basic problem that I emphasize in [my new] book. We judges and lawyers, we don't know enough about the subject matters that we regulate, right?" Josh Gerstein, *Judge: My Voter ID Ruling Was Wrong*, Josh Gerstein Blog (Oct. 11, 2013, 6:04 PM), http://politi.co/165Y0qQ (last visited Jan. 22, 2014) (on file with the *Washington and Lee Law Review*).

[47] *See* Abuse Of Discretion, *supra* note 13, at 159 (discussing where "the mantra" came from).

[48] *See* Christopher Tietze, *Legal Abortion in Eastern Europe*, 175 J. Am. Med. Ass'n 1149, 1149 (1961) ("These low [abortion] death rates compare favorably with mortality from all complications of pregnancy, childbirth, and the puerperium ….").

[49] *See, e.g.*, Poe v. Menghini, 339 F. Supp. 986, 994 n.24 (D. Kan. 1972) (stating that "Plaintiffs' evidence indicates that the abortion procedure is among the safest of surgical procedures," citing, without reference, "a survey" that revealed that abortion "is 2.7 times safer than childbirth"); Babbitz v. McCann, 310 F. Supp. 293, 301 (E.D. Wis. 1970) (citing the *Belous* decision, not any medical study); People v.

court decisions. The California Supreme Court's 1969 decision in *People v. Belous*,[50] the first state court decision to invalidate a state abortion law, was the first court to make the claim.[51] That decision actually cited three of the medical sources that the Supreme Court later cited in *Roe* and *Doe*.[52] By the time the Court considered *Roe* and *Doe*, the claim that "abortion is safer than childbirth" was so frequently repeated that it had become a mantra.

D. No Factual Record in the Abortion Cases

Both *Roe* and *Doe* were decided without trials or evidentiary records.[53] The factual records consisted merely of a complaint, an affidavit, and motions to dismiss that addressed legal, not factual, issues. In two hour-long hearings, the judges addressed procedural and jurisdictional issues more than they addressed substantive questions.[54] And then a direct appeal to the Supreme Court was made without any intermediate appellate review.[55]

Realizing that *Doe*'s lack of any evidentiary record was a problem,[56] Sarah Weddington's co-counsel in the Supreme Court, Roy Lucas, stressed the need to fill that vacuum at a strategy meeting of attorneys in Manhattan in July 1971, as historian David

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Belous, 458 P.2d 194, 200-01 n.7 (Cal. 1969) (stating "[i]t is now safer for a woman to have a hospital therapeutic abortion during the first trimester than to bear a child" (citing Tietze, *supra* note 48, at 1152)); Vera Kolblova, *Legal Abortion in Czechoslovakia*, 196 J. Am. Med. Ass'n 371 (1966); K. Mehland, *Combating Illegal Abortion in the Socialist Countries of Europe*, 13 World Med. J. 84 (1966).

[50] 458 P.2d 194 (Cal. 1969).

[51] *See id*. at 206 (invalidating section 274 of the California Penal Code, which made it a crime to perform an abortion unless it was necessary to preserve the woman's life); *Abortion*, 64 NW. J. Crim. L. & Criminology 393, 394 (1973) (providing that *People v. Belous* "was the first decision to declare a criminal abortion statute unconstitutional").

[52] *Compare Belous*, 458 P.2d at 201 n.7 (citing Tietze, *supra* note 48, at 1152; Kolblova, *supra* note 49; Mehland, *supra* note 49), *with* Roe v. Wade, 410 U.S. 113, 149 n.44 (1973) (citing Tietze, *supra* note 48, at 1152), *and* Doe v. Bolton, 410 U.S. 179, 216 n.5 (1973) (citing Tietze, *supra* note 48, at 1152; Kolblova, *supra* note 49; Mehland, *supra* note 49).

[53] *See* Roe v. Wade, 314 F. Supp. 1217, 1224 (N.D. Tex. 1970) (holding "that the motions for summary judgment of the plaintiff Roe and plaintiffintervenor Hallford should be granted as to their request for declaratory judgment" and finding "the Texas Abortion Laws unconstitutional for vagueness and overbreadth"); Doe v. Bolton, 319 F. Supp. 1048, 1051 (N.D. Ga. 1970) (providing that "Plaintiffs seek an order declaring Georgia's Abortion Statute unconstitutional and enjoining its enforcement on various grounds").

[54] *See* Abuse Of Discretion, *supra* note 13, at 160 (discussing the lack of a factual record in *Roe* and *Doe*).

[55] *See* Roe v. Wade, 410 U.S. 113, 113 (1973) ("Appellants directly appealed to this Court on the injunctive rulings, and appellee cross-appealed from the District Court's grant of declaratory relief to *Roe* and *Hallford*."); *see also* Doe v. Bolton, 410 U.S. 179, 179 (1973) ("The appellants, claiming entitlement to broader relief, directly appealed to this Court.").

[56] *See* David J. Garrow, Liberty And Sexuality: The Right To Privacy And The Making Of *Roe v. Wade* 493 (1994) (providing that Lucas "emphasized how regrettable it was that *Doe's* crucial but as yet unsuccessful challenge to the Georgia statute's hospitalization requirement was going forward without any extensive trial court evidentiary record having been developed").

Garrow recounts.[57] Lucas sought to rectify the lack of a factual medical record by filing "a supplementary appendix of more than four dozen prior court rulings and medical journal papers that all-told came to an imposing 477 pages, far larger than the brief itself," as Garrow has described it.[58] He filled the "supplemental appendix" with sixty articles, fifteen of which dealt with "medical" and "sociological" issues.[59] Nine articles addressed medicine. But none of these nine articles claimed that abortion was safer than childbirth.[60] And none of these was among those that the Court eventually cited.[61] Many of the articles were not peer-reviewed;[62] some were not even published;[63] and none was part of the record.[64] So, the mantra was first presented in the briefs filed in the Supreme Court in the summer of 1971 before the first oral arguments on December 13, 1971. The truth of the claim that "abortion was safer than childbirth" was directly disputed at oral argument, and it was repeatedly pointed out that neither *Roe* nor *Doe* had any record.[65]

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[57] *See id.* ("Data on New York's now almost one-year-old experience with nonhospital procedures might be a potentially persuasive substitute if it was featured prominently enough in the *Doe* briefs, Lucas advised.").

[58] *Id*. at 500.

[59] *See id*. at 500-01 ("Lucas included former Justice Tom Clark's law review essay as well as medical studies by supportive doctors such as Bob Hall and Christopher Tietze ….").

[60] *See* Abuse Of Discretion, *supra* note 13, at 160 (discussing medical articles and essays that Roy Lucas included in the supplemental appendix in *Doe*).

[61] The nine medical articles were: Robert E. Hall, *Abortion in American Hospitals*, 57 Am. J. Pub. Health 1933 (1967); Robert E. Hall, *Therapeutic Abortion, Sterilization, and Contraception*, 91 Am. J. Obstetrics & Gynecology 531 (1965); Alan Margolis et al., *Therapeutic Abortion Follow-Up Study*, 110 Am. J. Obstetrics & Gynecology 243 (1971); George Walter, *Psychologic and Emotional Consequences of Elective Abortion*, 36 Obstetrics & Gynecology 482 (1970); Christopher Tietze, *Mortality with Contraception and Induced Abortion*, 45 Stud. Fam. Plan. 6 (1969); Alan Margolis & Edmund Overstreet, *Legal Abortion Without Hospitalization*, 36 Obstetrics & Gynecology 479 (1970); H. Harvey & B. Pyle, On the Healthiness of Four Thousand Abortions in a Free-Standing Clinic (unpublished manuscript); Sadja Goldsmith & Alan Margolis, *Aspiration Abortion Without Cervical Dilation*, 9 J. Reprod. Med. 237 (1972); A. Jefferson Penfield, *Abortion Under Paracervical Block*, 71 N.Y. St. J. Med. 1185 (1971). None of these were among the seven cited by the Court, which were: *Abortion Mortality*, 20 Morbidity & Mortality Wkly. Rep. 208 (1971); Christopher Tietze, *Mortality with Contraception and Induced Abortion*, 45 Stud. Fam. Plan. 6 (1969); Christopher Tietze, *Legal Abortion in Eastern Europe,* 175 J. Am. Med. Ass'n 1149 (1961); Vera Kolblova, *Legal Abortion in Czechoslovakia,* 196 J. Am. Med. Ass'n 371 (1966); K. Mehland, *Combating Illegal Abortion in the Socialist Countries of Europe*, 13 World Med. J. 84 (1966); Malcom Potts, *Postconceptive Control of Fertility,* 8 Int'l J. of G. & O. 957 (1970); Christopher Tietze, *United States: Therapeutic Abortions,* 1963 to 1968, 59 Stud. Fam. Plan. 5 (1970).

[62] Tietze, *supra* note 48; *See* Forsythe & Kehr, *supra* note 13, at 52 ("It is not an analysis of data, must less a peer-reviewed study, but a report on conference papers addressing statistics from the 1940s and 1950s from Eastern European countries.").

[63] Harvey & Pyle, *supra* note 61.

[64] *See* Abuse of Discretion, *supra* note 13, at 160 (discussing the lack of record).

[65] *Id.; see also id*. at 161 ("The Justices never questioned the truthfulness of the mantra or of the proffered medical data, though it was disputed by the attorneys for Texas and Georgia.").

The mantra was based on abortion mortality numbers from Soviet Bloc countries.[66] But there were no reliable data from these countries, and no reliable data that these rates were comparable or that they showed that "abortion was safer than childbirth." No existing text book on obstetrics and gynecology claimed that "abortion was safer than childbirth."[67] Nevertheless, Justices Blackmun and Douglas ended up citing seven medical references between them to support the mantra in *Roe* and *Doe*.[68] All except one of the seven sources relied on 1950s statistics from Soviet Bloc countries; but even those were not peer-reviewed studies, just raw numbers.[69] They cited, for example, Tietze's 1961 JAMA article, but this was merely a report of an international conference on abortion from May 1960 and conversations by the author, Christopher Tietze, with a "Dr. Herschler" about Hungarian data.[70] Another is merely a letter to the editor.[71] Several of the articles do not even claim to compare childbirth mortality and abortion mortality.[72] Finally, there were data from New York City, derived from ten months of New York State's legalization of abortion after July 1970.[73] But this was hotly disputed for one key reason: 55.5% of the abortions in those months were performed on out-of-state residents who were lost to follow-up, making it impossible to monitor their condition.[74] A one-page clerk's memo in Justice Blackmun's papers acknowledged this criticism, concluding that it was "devastating."[75] But Justice Blackmun merely corrected the clerk's grammar, as he was known to do,[76] and proceeded to cite the New York numbers in his final *Roe*

[66] *See* Roe v. Wade, 410 U.S. 113, 149 n.44 (1973) (citing Tietze, *supra* note 61 (Japan, Czechoslovakia, Hungary) and Tietze, *supra* note 48, at 1152 (Eastern Europe)); Doe v. Bolton, 410 U.S. 179, 216 n.5 (1973) (citing Kolblova, *supra* note 49; Mehland, *supra* note 49). See Abuse of Discretion, *supra* note 13, at 163-70, for a critical analysis of these articles.

[67] *See* Abuse of Discretion, *supra* note 13, at 170 n.60. ("But no textbooks are cited in *Roe* to support the mantra because the existing obstetrical textbooks published before 1972 never made the claim ….").

[68] *See Roe*, 410 U.S. at 149 n.44 (citing medical articles in majority opinion of Justice Blackmun); *Doe*, 410 U.S. at 216 n.5 (citing medical articles in concurring opinion of Justice Douglas).

[69] That article was Malcom Potts, *Postconceptive Control of Fertility*, 8 Int'l J. of Gynecology & Obstetrics 957 (1970). This article "contains no data and no supporting studies," and "[v]irtually all assertions on data are undocumented and have no citations whatsoever." Forsythe & Kehr, *supra* note 13, at 53.

[70] Tietze, *supra* note 48.

[71] Kolblova, *supra* note 49. Vera Kolblova's "'article' is really a *six-paragraph letter to the editor*" in which she "comments on Czech abortion law since 1957." Forsythe & Kehr, *supra* note 13, at 53.

[72] *See* Roe v. Wade, 410 U.S. 113, 149 n.44 (1973) (citing Potts, *supra* note 69, at 967; Christopher Tietze, *United States: Therapeutic Abortions, 1963 to 1968*, 59 Stud. Fam. Plan. 5, 7 (1970)); Doe v. Bolton, 410 U.S. 179, 216 n.5 (1973) (citing Kloblova, *supra* note 66; Mehland, *supra* note 66).

[73] *Abortion Mortality*, 20 Morbility & Mortality Wkly. Rep. 208, 208 (1971).

[74] *See* Forsythe & Kehr, *supra* note 13, at 53 (discussing the arguments that critics made regarding "a June 1971 report on data from New York City supposedly documenting the city's experience since New York legalized abortion on July 1, 1970").

[75] Memorandum from Law Clerk to Justice Blackmun (on file with the *Washington and Lee Law Review*).

[76] *See* Linda Greenhouse, Becoming Justice Blackman: Harry Blackmun's Supreme Court Journey 107 (2005) ("And he himself reviewed his clerks' work, not only correcting their spelling and punctuation but also checking the accuracy of the citations in the opinions they drafted for him. No other justice engaged in this level of detailed review.").

opinion.[77] The mantra—and the data from the Soviet Bloc countries—were challenged as unreliable by the attorneys for Texas and Georgia in their briefs and at the oral arguments in December 1971, and the reargruments in October 1972.[78]

E. Impact of the Medical Mantra

Unfortunately, the adoption of the medical mantra by the Court in *Roe* that "abortion was safer than childbirth" has had at least four negative results.

1. The public health vacuum

From the 1960s to the 1980s, Henry J. Friendly was considered one of the greatest federal judges to *never* sit on the U.S. Supreme Court.[79] Friendly served on the U.S. Court of Appeals in Manhattan from 1959 until his death in March 1986.[80] Judge Richard Posner has written that "Friendly's opinions and academic writings, in field after field, proposed revisions and clarifications of doctrines that time after time the Supreme Court gratefully adopted."[81] Both Justices William Brennan and John Paul Stevens considered Friendly one of the greatest federal judges.[82] So, it was significant that Friendly was assigned in 1969 to hear a federal court challenge to the New York State abortion law,[83] one of twenty plus cases filed in the federal courts between 1969 and 1972 to challenge state abortion laws.[84] Friendly, who favored the legalization of abortion by the state legislature, drafted an opinion in April and May 1970, which rejected the extension of *Griswold v. Connecticut*[85] to abortion.[86] He would have upheld the constitutionality of the New York State abortion law.[87]

[77] *See* Roe v. Wade, 410 U.S. 113, 149 n.44 (1973) (citing *Abortion Mortality*, 20 Morbidity & Mortality Wkly. Rep. 208, 209 (1971)).

[78] *See* Abuse of Discretion, *supra* note 13, at 170-71 (discussing how the contrary data was ignored by the Court).

[79] *See* David M. Dorsen, Henry Friendly: Greatest Judge Of His Era 356 (2012) ("Many, including Justices John Paul Stevens and Antonin Scalia, have coupled Friendly with Hand as the two greatest lower-court federal judges who never sat on the Supreme Court.").

[80] *See* A. Raymond Randolph, *Administrative Law and the Legacy of Henry J. Friendly,* 74 N.Y.U. L. Rev. 1, 2 (1999) (providing a timeline of Henry Friendly's education and career).

[81] Judge Richard A. Posner, *Foreword* to David M. Dorsen, Henry Friendly: Greatest Judge of His Era, at xii (2012).

[82] *See* Dorsen, *supra* note 79, at 356 (discussing "the many extravagant, but warranted, compliments paid to Friendly").

[83] *See* Hall v. Lefkowitz, 305 F. Supp. 1030, 1031 (1969) (challenging "New York State's abortion laws on various grounds of constitutional infirmity").

[84] *See* A. Raymond Randolph, Circuit Judge, United States Court of Appeals for the District of Columbia Circuit, Address at the Barbara K. Olson Memorial Lecture: Before *Roe v. Wade*: Judge Friendly's Draft Abortion Opinion (Nov. 11, 2005), *in* 29 Harv. J.L. & Pub. Pol'y 1035, 1036 (2006) (discussing how Judge Friendly was one of the judges assigned to a three-judge district court to hear the case brought by Roy Lucas in *Hall v. Lefkowitz*).

[85] 381 U.S. 479 (1965).

[86] *See* Randolph, *supra* note 84, at 1038 ("Judge Friendly viewed abortion as another matter entirely, having nothing to do with privacy of the *Griswold* variety.").

[87] *See id*. at 1040 ("'For we cannot say the New York legislature lacked a rational basis for considering that abortion causes such harm.'").

But Friendly's draft opinion never saw the light of day.[88] When New York State legalized abortion in May 1970, the case was dismissed as moot, and Friendly's opinion was left in his personal papers for thirty-six years, apparently open to the public but little noticed until 2006.[89] Friendly's draft opinion stated:

> [T]he decision what to do about abortion is for the elected representatives of the people, not for three, or even nine, appointed judges …. The legislature can make choices among [various abortion policies], observe the results, and act again as observation may dictate. Experience in one state may benefit others …. In contrast a court can only strike down a law, leaving a vacuum in its place.[90]

That's exactly what *Roe v. Wade* did.

The Justices' medical assumption was directly responsible for the Justices' prohibition of health and safety regulations in the first trimester, when ninety percent of abortions are done.[91] After *Roe* and *Doe*, the Justices proceeded between 1974 and 1980 to affirm invalidation or deny certiorari in three cases with clinic regulations.[92] The implications have been serious, as recent incidents demonstrate:

- Investigative officials in February 2010 found "deplorable and unsanitary" conditions and numerous health and safety violations in the Philadelphia abortion clinic of Dr. Kermit Gosnell. The Philadelphia District Attorney charged Gosnell with murder in the death of an abortion patient. He was tried in March 2013, and convicted on May 13, 2013.[93]

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[88] *See id*. at 1035 (noting that no one knows "Judge Friendly wrote an opinion in the first abortion-rights case ever filed in federal court" because that opinion was never published).

[89] *See id*. at 1037 (stating that the *Hall v. Lefkowitz* case was dismissed and no opinion was issued, after the New York legislature amended the statute to allow abortion on demand during the first twenty-four weeks of pregnancy).

[90] *Id*. at 1040-41.

[91] Forsythe & Kehr, *supra* note 13, at 51.

[92] *See* Friendship Med. Ctr., Ltd. v. Chi. Bd. of Health, 505 F.2d 1141, 1143 (7th Cir. 1974) (invalidating "regulations which describe in substantial detail conditions, equipment, and procedures that medical facilities offering abortions must comply with, without regard to the trimester of pregnancy involved"), *cert. denied*, 420 U.S. 997 (1975); Sendak v. Arnold, 429 U.S. 968 (1976), *aff'd* 416 F. Supp. 22, 22-23 (S.D. Ind.) (declaring unconstitutional the part of the Indiana abortion statute that requires all abortions, including those in the first trimester of pregnancy, to be performed "in a hospital or a licensed health facility"); Coe v. Gerstein, 376 F. Supp. 695, 696 (S.D. Fla. 1973) (holding that Florida's "approved facility" requirements "are constitutionally invalid because they make no distinction between the first trimester of pregnancy …and the latter trimesters where the State may impose regulations reasonably related to the preservation and protection of maternal health"), *appeal dismissed*, 417 U.S. 279 (1974), *and affirming denial of injunction sub nom.* Poe v. Gerstein, 417 U.S. 281 (1974).

[93] Jon Hurdle, *Doctor Starts His Life Term in Grisly Abortion Clinic Case*, N.Y. Times (May 16, 2013), http://www.nytimes.com/2013/05/16/us/kermit-gosnell-abortion-doctor-gets-life-term.html?_r=0 (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*). *See also* Forsythe & Kehr, *supra* note 13, at 59, for an analysis of what created the context for Kermit Gosnell's practices.

- After Alexandra Nunez died in January 2010 from a botched abortion by Dr. Robert Hosty at his A-1 Women's Center in Queens, New York, the State of New York finally revoked his license two years later.[94]
- In July 2011, a jury in Orlando, Florida awarded $36.7 million in damages against abortion provider Dr. James Pendergraft for profound injuries to a child who survived a late-term abortion.[95]
- In the summer of 2011, the *Chicago Tribune* found six deaths and 4,000 injuries in Illinois abortion clinics that were never reported to the Illinois Department of Health.[96]
- Healthy twenty-four-year-old Tonya Reaves died in July 2012, at Northwestern Memorial Hospital after an elective abortion at a clinic on South Michigan Avenue in Chicago. A wrongful death suit was filed and settled by Planned Parenthood.[97]
- A healthy twenty-nine-year-old woman, Jennifer Morbelli, died in January 2013, after an abortion at thirty-three weeks of pregnancy at an abortion clinic in Germantown, Maryland.[98]
- Twenty-two-year-old Lakisha Wilson died on March 28, 2014, after complications from an abortion on March 21, 2014, at the Preterm Clinic on Shaker Boulevard in Cleveland, Ohio.[99]

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[94] Michael J. Feeney et al., *Queens Clinic A1 Medicine Probed After Alexandra Nunez is Fatally Injured While Undergoing Abortion*, NYDailyNews.com (Jan. 27, 2010), http://www.nydailynews.com/news/queens-clinic-a1-medicine-probed-alexandra-nunez-fatally-injured-undergoing-abortion-article-1.460728 (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*).

[95] Anthony Colarossi, *Judge Denies Orlando-Area Abortion Doctor New Trial in $36 Million Malpractice Case*, Orlando Sentinel (Aug. 15, 2011), http://articles.orlandosentinel.com/2011-08-15/news/os-abortion-doctor-ruling-20110815_1_abortion-doctor-orlando-women-s-center-malpractice-case (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*).

[96] Megan Twohey, *State Abortion Records Full of Gaps*, Chi. Trib. (June 16, 2011), http://articles.chicagotribune.com/2011-06-16/news/ct-met-abortion-reporting-20110615_1_abortion-providers-fewer-abortions-national-abortion-federation (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*).

[97] Alexis Shaw, *Chicago Woman's Family Lawyers Up After Abortion-Related Death*, ABC News (July 24, 2012), http://abcnews.go.com/US/chicago-womans-family-lawyers-abortion-related-death/story?id=16845276 (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*).

[98] Dan Morse, *Maryland Officials Probe Possible Abortion Link in Woman's Death*, Wash. Post (Feb. 9, 2013), http://www.washingtonpost.com/local/maryland-officials-probe-possible-abortion-link-in-womans-death/2013/02/09/f6bd74c2-7312-11e2-a050-b83a7b35c4b5_story.html (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*); Dan Morse, *Antiabortion Activists Blame Germantown Clinic for Woman's Death*, Wash. Post (Feb. 11, 2013), http://articles.washingtonpost.com/2013-02-11/local/37040544_1_abortion-clinic-leroy-carhart-late-term (last visited Feb. 7, 2014) (on file with the *Washington and Lee Law Review*).

[99] Scott Taylor, *Woman Dies After Being Rushed to Hospital Following An Abortion*, 19 Action News (Apr. 1, 2014), http://www.19actionnews.com/story/25133698/woman-dies-after-being-rushed-to-hospital-following-an-abortion (last visited Apr.. 9, 2014) (on file with the *Washington and Lee Law Review*); Brandon Blackwell, *Anti-abortion Group Accuses Cleveland Abortion Clinic of Fatally Botching Procedure on Columbus*

Though the U.S. Courts of Appeals for the Fourth Circuit and the Fifth Circuit have allowed health and safety regulations to go into effect,[100] in forty years, the Supreme Court has yet to approve health and safety regulations in the first trimester.

2. The expansion to viability (and beyond) and the risks of late-term abortions

After *Roe* and *Doe* were reargued on October 11, 1972, Justice Blackmun distributed his second draft opinion on November 21, 1972, which emphasized the end of the first trimester (twelve weeks) as the "decisive" limit to the right to abortion.[101] The Justices then began to negotiate over the scope of the abortion right they were creating. By early December, Justices Powell and Marshall had persuaded Justice Blackmun to expand the right by sixteen weeks—four whole months—from twelve weeks to twenty-eight weeks of pregnancy.[102] There was never any briefing, or argument, on viability or its medical implications. *The word viability was not mentioned even once during the four hours of argument in December 1971 and October 1972*.[103]

Blackmun's third draft of December 21, 1972, only four weeks before the decisions were publicly released, expanded the right to viability.[104] The scope of the abortion right that the Justices created in *Roe* and *Doe* isolates the United States as one of only four nations out of 195 in the world that allows abortion for any reason after fetal viability. Those four are China, North Korea, Canada, and the United States.[105] Although Justice Powell played a pivotal role in influencing Justice Blackmun to expand the abortion

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Woman, 22, Cleveland.com (Apr. 1, 2014), http://www.cleveland.com/metro/index.ssf/2014/04/pro-life_group_accuses_clevela.html (last visited Apr. 9, 2014) (on file with the *Washington and Lee Law Review*).

[100] *See* Greenville Women's Clinic v. Bryant, 222 F.3d 157, 159 (4th Cir. 2000) (finding that South Carolina's regulation establishing standards for licensing abortion clinics "serves a valid state interest"), *cert. denied*, 531 U.S. 1191 (2001); Greenville Women's Clinic v. Comm'r, S.C. Dep't of Health & Envtl. Control, 317 F.3d 357, 371 (4th Cir. 2002) (finding constitutional South Carolina's reporting and licensing requirements for abortion clinics); Women's Med. Ctr. of Nw. Hous. v. Bell, 248 F.3d 411, 423 (5th Cir. 2001) (concluding that the annual 300 abortion threshold set by Texas "for subjecting abortion facilities to licensing bears some rational relationship to the state interest in protecting the health and welfare of Texas abortion patients").

[101] Abuse of Discretion, *supra* note 13, at 134; *see also id*. at 133-34 ("'You will observe that I have concluded that the end of the first trimester is critical. This is arbitrary, but perhaps any other selected point, such as quickening or viability, is equally arbitrary.'" (quoting Justice Blackmun's second draft opinion distributed on November 21, 1972)).

[102] *Id*. at 140-42; *see also id.* at 138-39 (discussing Justices Marshall and Powell's lobbying, which led to Blackmun's memo in which he proposed viability and asked for reactions to his suggestion). After Justice Blackmun had received the responses, he "finally responded with another Memo to the Conference dated December 15, 1972, which indicated that he would change the draft to adopt viability." *Id*. at 139.

[103] *See* Forsythe & Kehr, *supra* note 13, at 55-56 (discussing "the Court's arbitrary expansion of the abortion right to viability," and collecting sources that point out that "the viability rule was complete dictum in *Roe*"); Oral Argument, Roe v. Wade, 410 U.S. 113 (1973) (No. 70-18), *available at* http://www.oyez.org/cases/1970-1979/1971/1971_70_18/argument (providing a full transcript of the argument).

[104] *See* Garrow, *supra* note 56, at 585-86 ("Here I have tried to recognize the dual state interests of protecting the mother's health and of protecting potential life." (quoting Justice Blackmun's December 21, 1972 cover memo) (internal quotation marks omitted)).

[105] Abuse of Discretion, *supra* note 13, at 126 nn.4-5.

right to viability, Justice Powell later told his biographer that *Roe* and *Doe* were "the worst opinions I ever joined."[106]

It is important to recognize that the viability rule is directly connected to the state's interest in fetal life.[107] The viability rule is about the size and significance of the fetus. But the viability rule was not formulated with any serious consideration of maternal health or the implications for maternal health.[108] There is almost no discussion in *Roe* or *Doe* of the implications of expanding the right to viability for maternal health, and there was no evidentiary record to assess the maternal health implications, though the attorney for the Georgia plaintiffs told the Justices that "mortality and complications for late abortions are three times greater, after twelve weeks."[109] And, in the twenty-nine or so abortion cases considered by the Supreme Court on the merits since *Roe*, there has been little consideration of the maternal health implications of the viability rule or of late-term abortions.[110]

3. "Health" considerations in Supreme Court abortion cases have been a "one-way ratchet."

After adopting the mantra that "abortion is safer than childbirth," the Justices have operated since *Roe* with the assumption that "health" concerns are a "one-way ratchet" in favor of access to abortion, based on the assumption that there are only risks from delaying an abortion, and none from abortion itself. Only in 2007 in *Gonzales v. Car-*

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[106] John C. Jeffries, Justice Lewis F. Powell, Jr.: A Biography 341 (1994).

[107] *See* Roe v. Wade, 410 U.S. 113, 163 (1973) ("With respect to the State's important and legitimate interest in potential life, the 'compelling' point is at viability.").

[108] *See* Abuse of Discretion, *supra* note 13, at 145 ("The shift to viability ignored the medical statistics that the Justices had, indicating that the immediate medical risks to women grew considerably after the first trimester.").

[109] Transcript of First Oral Argument at 6, Doe v. Bolton, 410 U.S. 179 (1973) (No. 70-40), *available at* http://www.aul.org/doe-v-bolton-transcripts/.

[110] *See generally*, Gonzales v. Carhart, 550 U.S. 124 (2007); Ayotte v. Planned Parenthood of N. New England, 546 U.S. 320 (2006); Stenberg v. Carhart, 530 U.S. 914 (2000); Mazurek v. Armstrong, 520 U.S. 968 (1997); Lambert v. Wicklund, 520 U.S. 292 (1997); Leavitt v. Jane L., 518 U.S. 137 (1996); Dalton v. Little Rock Family Planning Servs., 516 U.S. 474 (1996); Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833 (1992); Rust v. Sullivan, 500 U.S. 173 (1991); Ohio v. Akron Ctr. for Reprod. Health, 497 U.S. 502 (1990); Hodgson v. Minnesota, 497 U.S. 417 (1990); Webster v. Reprod. Health Servs., 492 U.S. 490 (1989); Thornburgh v. Am. Coll. of Obstetricians & Gynecologists, 476 U.S. 747 (1986); Simopoulos v. Virginia, 462 U.S. 506 (1983); Planned Parenthood Ass'n of Kansas City, Mo., Inc. v. Ashcroft, 462 U.S. 476 (1983); City of Akron v. Akron Ctr. for Reprod. Health, Inc., 462 U.S. 416 (1983); H.L. v. Matheson, 450 U.S. 398 (1981); Williams v. Zbaraz, 448 U.S. 358 (1980); Harris v. McRae, 448 U.S. 297 (1980); Bellotti v. Baird, 443 U.S. 622 (1979) (Bellotti II); Colautti v. Franklin, 439 U.S. 379 (1979); Poelker v. Doe, 432 U.S. 519 (1977); Maher v. Roe, 432 U.S. 464 (1977); Beal v. Doe, 432 U.S. 438 (1977); Bellotti v. Baird, 428 U.S. 132 (1976) (Bellotti I); Singleton v. Wulff, 428 U.S. 106 (1976); Planned Parenthood of Cent. Mo. v. Danforth, 428 U.S. 52 (1976); Connecticut v. Menillo, 423 U.S. 9 (1975).

hart[111] was this "one-way ratchet" finally questioned and largely shelved in favor of a more even-handed examination of health considerations and health data.[112]

4. Shielding the justices from new medical data and developments

Justice O'Connor wrote in her *Akron* dissent in 1983: "[a]s today's decision indicates, medical technology is changing, and this change will necessitate our continued functioning as the Nation's '*ex officio* medical board with powers to approve or disapprove medical and operative practices and standards throughout the United States.'"[113] With *Roe* and *Doe*, the Justices assumed the role of the national abortion control board, but they have no means to monitor the public health impact, as public health officials normally do.[114] The Justices cannot regulate or intervene in public health crises. They cannot monitor new technological developments or review the FDA's approval of RU-486.[115] The Justices are completely passive and dependent on litigation—cases that are selectively appealed to them.[116] And since *Gonzales*, there has been a concerted effort by abortion advocates to keep abortion cases away from the Supreme Court.[117]

III. Maternal Mortality Data

The notion that "abortion is safer than childbirth" has become even less tenable since 1973 for at least five reasons: (1) the dysfunctional abortion data reporting system in the United States that relies completely on *voluntary* reporting;[118] (2) the incomparability of the published abortion mortality rate and the published maternal (childbirth)

[111] 550 U.S. 124 (2007).

[112] *See id*. at 163 (providing that states have "wide discretion to pass legislation in areas where there is medical and scientific uncertainty").

[113] City of Akron v. Akron Ctr. for Reprod. Health, Inc., 462 U.S. 416, 456 (1983) (O'Connor, J., dissenting) (quoting Planned Parenthood of Cent. Mo. v. Danforth, 428 U.S. 52, 99 (1976) (White, J., concurring in part and dissenting in part)).

[114] *See* Forsythe & Kehr, *supra* note 13, at 64 ("With disincentives on state officials to create new clinic regulations, the Court is unable to do anything to fill the vacuum it created. As a passive institution, it must wait for a case to reach it ….").

[115] *See* Benten v. Kessler, 505 U.S. 1084 (1992) (denying application to vacate injunction against importation of RU 486 without full record of the medical implications of RU 486, where two justices would have vacated the injunction).

[116] *See* 28 U.S.C. ' 1251 (2012) (providing for the Supreme Court's original jurisdiction).

[117] *See, e.g.*, Emily Bazelon, *The Reincarnation of Pro-Life*, N.Y. Times Mag., May 29, 2011, at MM13 ("[L]itigators trying to uphold a woman's right to an abortion are not running scared. In fact, they are being remarkably shrewd in their case selection."); Irin Carmon, *Planned Parenthood Takes Texas Abortion Laws to Court*, MSNBC (Sept. 27, 2013), http://tv.msnbc.com/2013/09/27/planned-parenthood-aclu-take-texas-abortion-laws-to-court/ (last visited Feb. 7, 2014) ("Notably, the groups are not challenging the provision of the law that bans abortion after 20 weeks.") (on file with the *Washington and Lee Law Review*). The strategic reason to avoid challenging that ban is that "a Texas challenge would go to the conservative Fifth Circuit," which would potentially uphold the law. *Id*. However, "[s]imilar laws in Arizona and Idaho were twice found unconstitutional in the Ninth Circuit of Appeals, which is considered more liberal." *Id*. Therefore, the combination of the Ninth Circuit decisions with the Fifth Circuit's potential decision to uphold the law "would create a split in the circuits that would make the Supreme Court likelier to hear it." *Id*.

[118] *See* Byron Calhoun, *Systematic Review: The Maternal Mortality Myth in the Context of Legalized Abortion*, 80 Linacre Q. 264, 264 (2013) (listing "numerous and complicated methodological factors that make

mortality rate;[119] (3) medical data on the increasing rate of maternal mortality in the second trimester;[120] (4) the growing body of international medical studies finding long-term risks to women from abortion;[121] and (5) maternal mortality data from countries with superior abortion recordkeeping collection and reporting systems, which find a higher rate of abortion mortality than childbirth mortality.[122]

The medical mantra in 1972 was based on the supposed comparison of maternal (childbirth) mortality rates and abortion mortality rates from Soviet Bloc counties.[123] Today, the claim that "abortion is safer than childbirth" is based on the mechanical comparison of the official published abortion mortality rate and the official published childbirth (maternal) mortality rate. There are several reasons why these rates are non-comparable.

There are only two national organizations that collect abortion data: the Centers for Disease Control and Prevention (CDC), a federal governmental agency, and the private

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a valid scientific assessment of abortion mortality extremely difficult," including, among others, "incomplete reporting" and "voluntary data collection").

[119] *See* Byron C. Calhoun, John M. Thorp & Patrick S. Carroll, *Maternal and Neonatal Health and Abortion: 40-Year Trends in Great Britain and Ireland*, 18 J. Am. Physicians & Surgeons 42, 42 (2013) ("Abortion statistics, when published officially by governments, often tend to be inaccurate due to underreporting or unsubstantiated estimates due to incomplete data collection."); Forsythe & Kehr, *supra* note 13, at 60-62 (explaining the noncomparability of the published abortion mortality rate and the published childbirth mortality rate).

[120] *See* Linda A. Bartlett et al., *Risk Factors for Legal Induced Abortion-Related Mortality in the United States*, 103 Obstetrics & Gynecology 729, 729 (2004) ("The relative risk (unadjusted) of abortion-related mortality was 14.7 at 13-15 weeks of gestation (95% confidence interval [CI] 6.2, 34.7), 29.5 at 16-20 weeks (95% CI 12.9, 67.4), and 76.6 at or after 21 weeks (95% CI 32.5, 180.8).").

[121] *See* John M. Thorp Jr., *Public Health Impact of Legal Termination of Pregnancy in the US: 40 Years Later*, Scientifica, Dec. 2012, at 5, *available at* http://dx.doi.org/10.6064/2012/980812 (detailing long term risks of termination of pregnancy).

[122] *See* Priscilla K. Coleman, David C. Reardon, & Byron C. Calhoun, *Reproductive History Patterns and Long-Term Mortality Rates: A Danish, Population-Based Record Linkage Study*, 23 Eur. J. Pub. Health 569, 570 (2013), http://eurpub.oxfordjournals.org/content/early/2012/09/05/eurpub.cks107.full.pdf (discussing maternal and abortion mortality rates among Danish women); David C. Reardon & Priscilla K. Coleman, *Short and Long-Term Mortality Rates Associated with First Pregnancy Outcome: Population Register Based Study for Denmark 1980-2004*, 18 Med. Sci. Monitor 71, 73 (2012) (same); Mika Gissler et al., *Pregnancy-Associated Mortality After Birth, Spontaneous Abortion or Induced Abortion in Finland, 1987-2000*, 18 Am. J. Obstetrics And Gynecology 422, 424 (2004) (displaying "pregnancy-associated mortality" among Finnish women); David C. Reardon et al., *Deaths Associated with Pregnancy Outcome: A Record Linkage Study of Low Income Women*, 85 S. Med. J. 834, 836-37 (2002) (discussing maternal and abortion mortality rates among Californian women); Mika Gissler et al., *Pregnancy-Associated Deaths in Finland 1987-1994: Definition Problems and Benefits of Record Linkage*, 76 Acta Obstetricia et Gynecologica Scandinavica 651, 653 (1997) (discussing maternal and abortion mortality rates among Finnish women).

[123] *Supra* note 66 and accompanying text.

Alan Guttmacher Institute (AGI).[124] Reporting of abortion data to both is *voluntary*.[125] There is no federal law requiring the reporting of abortion data, or complications, or deaths. Because abortion reporting in the United States is completely voluntary, there are only *estimates* of the number of abortions annually and of the number of abortion deaths.[126] As one researcher noted in 2008, "[m]any state health departments are able to obtain only incomplete data from abortion providers, and in some states, only forty to fifty percent of abortions are reported."[127] Death certificates have been found to be unreliable.[128] The bottom line is that they are non-comparable because what goes into the numerators and the denominators of each is radically different.[129] This is explained at length in a medical review article published in the January 2013 issue of the online journal *Scientifica* and in a 2013 article in *The Linacre Quarterly*.[130]

A 2012 article by Raymond and Grimes—perhaps the latest to make the claim that abortion is safer than childbirth—simply repeats the defective and misleading methodology of the past forty years and fails to demonstrate that abortion is safer for several reasons.[131] It is based on U.S. data, which is unreliable because of the dysfunctional data collection and reporting system in the United States that depends completely on volun-

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[124] Rebekah Saul, *Abortion Reporting in the United States: An Examination of the Federal-State Partnership*, Guttmacher Institute, http://www.guttmacher.org/pubs/journals/3024498.html (last visited Jan. 24, 2014) (discussing national reporting and noting only two sources, the "CDC's abortion surveillance system …[which is] the sole governmental source of abortion data" and "[t]he Alan Guttmacher Institute (AGI), which collects abortion data by surveying providers directly") (on file with the *Washington and Lee Law Review*).

[125] *See* Calhoun, *supra* note 118, at 265 (explaining that the CDC data "base their *estimates* on voluntary submissions" and the "abortion reporting by [A]GI is based on voluntary submissions").

[126] *See id.* ("Abortion data are simply not complete and those provided are merely *estimates* with huge variance, and are subject to considerable error.").

[127] Rachel K. Jones et al., *Abortion in the United States: Incidence and Access to Services, 2005*, 40 Persp. on Sexual & Reprod. Health 6, 7 (2008); *see also* Rachel K. Jones et al., *Underreporting of Induced and Spontaneous Abortion in the United States: An Analysis of the 2002 National Survey of Family Growth*, 38 Stud. in Fam. Plan. 187, 189 (2007) ("Although the Guttmacher Institute estimates of numbers of abortions are regarded as the most comprehensive source of abortion statistics in the United States, the estimates may be inaccurate." (citation omitted)).

[128] *See* Isabelle L. Horon et al., *Underreporting of Maternal Deaths on Death Certificates and the Magnitude of the Problem of Maternal Mortality*, 95 Am. J. Pub. Health 478, 478 (2005) (explaining the underestimated magnitude of maternal mortality rates due to inaccurate physician death certificate reporting).

[129] *See* Clarke D. Forsythe & Bradley N. Kehr, *A Road Map Through the Supreme Court's Back Alley*, 57 Vill. L. Rev. 45, 60 (2012) (explaining the incomparability of the abortion mortality rates and childbirth mortality rates due to differences in calculation of each ratio).

[130] *See* Thorp, *supra* note 121, at 2 ("Moreover, [terminations of pregnancy] cannot be linked to other sources of health data such as birth or death certificates, thereby making precise calculation of mortality rates or subsequent birth outcomes impossible."); *see also* Calhoun, *supra* note 118, at 266-72 (explaining the reasons why abortion mortality and maternal mortality measurements are unreliable).

[131] *See* Elizabeth G. Raymond & David A. Grimes, *The Comparative Safety of Legal Induced Abortion and Childbirth in the United States*, 119 Obstetrics & Gynecology 215, 215-16 (2012) (explaining the materials and calculation methods used for the article).

tary reporting.[132] It is based on mere *estimates* of the number of abortions, as reported by the CDC, and *estimates* of rates; yet the CDC admits that it undercounts abortions by fifteen percent, because abortion reporting to the CDC is voluntary.[133] Consider the fact that several states, like California with one-third of all abortions annually, do not report to the CDC.[134] Raymond and Grimes claim that "[t]he risk of death associated with childbirth is approximately fourteen times higher than with abortion."[135] But as one careful medical researcher pointed out, "[t]his statement is unsupported by the literature and there is no credible scientific basis to support it."[136]

In contrast to the unreliable U.S. data, two international studies in the past two years look at maternal mortality data from Chile and Ireland, which both limit abortion. A 2012 study of maternal mortality in Chile relied on fifty years (1957-2007) of official data from Chile's National Institute of Statistics.[137] The authors looked at factors likely to affect maternal mortality, such as years of education, per capita income, total fertility rate, birth order, clean water supply, sanitary sewer, and childbirth delivery by skilled attendants.[138] They also looked at pertinent educational and maternal health policies, including legislation that has prohibited abortion in Chile since 1989, to assess the effects of these policies on maternal mortality.[139] One of the most striking findings is that, contrary to widely held assumptions, prohibiting abortion in Chile did not result in an increase in maternal mortality.[140] In fact, maternal mortality declined after Chile's 1989 abortion prohibition was enacted.[141] From 1957 to 2007, the overall Maternal Mortality Ratio or MMR (the number of maternal deaths related to childbearing divided by the number of live births) declined by 93.8%, from 270.7 deaths per 100,000 live births in 1957 to 18.2 deaths per 100,000 live births in 2007.[142] After abortion was

[132] Thorp, *supra* note 121, at 3 ("Because this system is voluntary, and also due to the inherent reluctance of surgeons to disclose serious complications such as death, underreporting is a major problem.").

[133] *Id.; see also* Karen Pazol, et al., *Abortion Surveillance—United States, 2010*, Morbidity & Mortality Wkly. Rep., Nov. 29, 2013, at 11 (noting CDC reporting and counting practice "inflates abortion statistics for reporting areas" with high percentages of out-of-state abortion recipients and "undercounts abortions for states with limited abortion services," high legal restrictions, or "geographic proximity to services in another state").

[134] *See* Calhoun, *supra* note 118, at 265 ("Current incidence *estimates* exclude abortion in California ….").

[135] Raymond & Grimes, *supra* note 131, at 216.

[136] Calhoun, *supra* note 118, at 264.

[137] Elard Koch & John Thorp et al., *Women's Education Level, Maternal Health Facilities, Abortion Legislation and Maternal Deaths: A Natural Experiment in Chile from 1957 to 2007*, PLOS ONE, May 2012, at 2, http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0036613&representation=PDF (noting the Chilean data extraction from 1957 to present).

[138] *See id.* at 2, 7 (explaining the factors considered including graphs of maternal mortality ratios based on these factors).

[139] *See id.* at 9 (discussing abortion legislation and its effects on maternal mortality).

[140] *See id.* at 3 (charting the decline in maternal mortality rate in Chile).

[141] *See id.* at 9 ("After abortion became illegal in 1989, a decreasing trend in [Maternal Mortality Rate] was observed, from 41.3 to 12.7 in 2003 (69.2% reduction).").

[142] *Id.* at 3.

made illegal in 1989, the MMR continued to decline—from 41.3 to 12.7 per 100,000 live births (-69.2%).[143] Chile has the lowest maternal mortality ratio in Latin America.[144]

A 2012 study of Irish data compared maternal mortality and maternal health trends in Ireland with those in England, Scotland, and Wales.[145] The study compared the populations living in the Republic of Ireland and in Northern Ireland with those in Scotland and England, and examined women's health trends between 1969 and 2009.[146] The report examined numerous women's health factors, including fertility, premature birth rates, stillbirth rates, mental health resource usage, medication usage for mental health, breast cancer rates, and immunological disorders.[147] Among the most significant findings are that the rates of stillbirths in the Republic and Northern Ireland are significantly less than similar rates in England and Scotland. Rates of stillbirth per 1,000 live births were 3.8/1,000 in the Irish Republic and 4.1/1,000 in Northern Ireland, compared to 4.9 in England, and 5.1 in Scotland.[148]

The study found similar contrasts in the rates of low-birth weight infants. Low birth weight infants (<2,500 grams) were increased in England and Scotland compared to the Irish Republic (39.7/1,000 live births in the Irish Republic, 56.3/1,000 in England, and 52.3/1,000 in Scotland).[149] These findings are consistent with previous studies that have found higher rates of stillbirths, premature births, and low-birth-weight infants in women with a history of induced abortion.[150]

The Irish study also looked at maternal mortality in Ireland compared to England, Scotland and Wales. Maternal death rates per 100,000 live births were significantly higher in the English/Welsh populations and Scottish populations (10/100,000 in England/

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[143] *Id.* at 5, 9; *see also* Elard Koch et al., *Fundamental Discrepancies in Abortion Estimates and Abortion-Related Mortality: A Re-Evaluation of Recent Studies in Mexico with Special Reference to the International Classification of Diseases*, 4 Int'l J. Women's Health 613, 618 (2012) (showing declining graphed maternal mortality ratios in Chile).

[144] *See* Koch, *supra* note 143, at 618 ("The findings of this study confirm that [Maternal Mortality Rate] in Chile has steadily and consistently decreased, reaching the lowest rate in Latin America ….").

[145] *See* Byron C. Calhoun, John M. Thorp & Patrick S. Carroll, *Maternal and Neonatal Health and Abortion: The 40-Year Experience in Great Britain and Ireland*, 18 J. Am. Physicians & Surgeons 42, 46 (2013), http://www.jpands.org/vol18no2/calhoun.pdf (detailing a comparative study of abortion and maternal mortality rates in Ireland, Scotland, England, and Wales).

[146] *See id.* at 46 ("Over the 40 years of legalized abortion in the UK there has been a consistent pattern in which higher abortion rates have run parallel to higher incidence of stillbirths, premature births, low birth-weight neonates, cerebral palsy, and maternal deaths as sequelae of abortion.").

[147] *Id.* at 44.

[148] *Id.*

[149] *Id.*

[150] *See 135 Statistically Significant Studies: Abortion—Preterm Birth and/or Low Birth Weight Links 60s-12*, PhysiciansforLife.org (Dec. 1, 2012), http://www.physiciansforlife.org/content/view/2305/26/ (last visited Jan. 25, 2014) (listing studies that show an increased risk of pre-term birth among women with prior induced abortion) (on file with the *Washington and Lee Law Review*).

Wales, and 10-12/100,000 in Scotland), compared to the Irish population (1-2/100,000 live births in the Irish Republic).[151]

The study also looked at demographic trends in Ireland. While the fall in fertility throughout Europe since 1968 has impacted Ireland, the Republic of Ireland and Northern Ireland continue to show higher fertility rates.[152] The Total Fertility Rate (TFR) is near to 2.0 in both Irish jurisdictions. (This corresponds to a family of two children.) That rate is much higher than the average European TFR (around 1.4) and close to the replacement level of 2.07 TFR.[153] As a result, Ireland has a substantially younger population.

The Irish study suggests, at the very least, that the claim that legal abortion is necessary for improved maternal health is dubious.[154]

Another maternal mortality study published in 2013 looked at all Danish women born between 1962 and 1993.[155] The study found a protective effect from childbirth and found that the higher the number of abortions, the higher the mortality risk for women.[156]

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[151] *See* Calhoun et al., *supra* note 145, at 43 ("These rates are instructive since they demonstrate a relatively low [Total Abortion Rate] in both Irish jurisdictions compared with England, Wales, and Scotland (Great Britain).").

[152] *See id*. at 76 (noting that for Northern Ireland "the latest [Total Fertility Rate] is 1.87" and for the Republic of Ireland "Forecasting used the …[Total Fertility Rate] of 1.86]").

[153] *See id*. at 75 (charting the eight European countries against the "Replacement Level 2.07").

[154] The notion that the tragic death of Savita Halappanavar in Ireland in October 2012 shows the dangers of abortion prohibitions is not based on reliable data. RTE, Ireland's "NPR," reported that the Health Information and Quality Authority (HIQA) "report on Savita Halappanavar case finds 'basic care' failures." *See HIQA Report on Savita Halappanavar Case Finds 'Basic Care' Failures*, RTE, http://www.rte.ie/news/2013/1009/ 479282-savita-halappanavar/ (last updated Oct. 10, 2013) (last visited Dec. 30, 2013) (on file with the *Washington and Lee Law Review*)). The main documents in the case are the inquest results (HSE report) and the HIQA report. Sabaratnam Arulkumaran, Final Report: Investigation of Incident 50278 from Time of Patient's Self-Referral to Hospital on the 21st of October 2012 to the Patient's Death on the 28th of October, 2012, at 1 (June 2013), http://cdn.thejournal.ie/media/2013/06/savita-halappanavar-hse-report.pdf; *Patient Safety Investigation Report Published by Health Information and Quality Authority*, Health Info. & Quality Auth. (Oct. 9, 2013), http://www.hiqa.ie/press-release/2013-10-09-patient-safety-investigation-report-published-health-information-and-qualit (last visited Dec. 30, 2013) (on file with the *Washington and Lee Law Review*).

They show that the death of Savita Halappanavar was due to "inevitable miscarriage" at seventeen weeks and the failure to properly diagnose and treat sepsis (infection), and had nothing to do with the legal status of abortion in Ireland. Health Info. and Quality Auth., Investigation into the Safety, Quality and Standards of Services Provided by the Health Service Executive to Patients, Including Pregnant Women, at Risk of Clinical Deterioration, Including Those Provided in University Hospital Galway, and as Reflected in the Care and Treatment Provided to Savita Halappanavar (Oct. 7, 2013), http://static.rasset.ie/documents/news/hiqareport.pdf. If the hospital would have recognized the life-threatening situation they could have evacuated the woman's uterus, but they did not recognize that she had sepsis. More than anything, the case is a medical malpractice case.

[155] *See* Coleman, Reardon & Calhoun, *supra* note 122, at 569 ("In this Danish population-based study, records of women born between 1962 and 1993… were examined to identify associations between patterns of pregnancy resolution and mortality rates across 25 years.").

[156] *See id*. at 4 ("[T]hose who had experienced induced abortion(s) and natural loss(es) had more than three times the risk of death compared with women who had only experienced birth(s).").

Another study published in 2013 looked at maternal mortality data in Mexico.[157] The authors sought to clarify the data that goes into the numerators and denominators of mortality rates over the past twenty years (1990-2008) in Mexico.[158] They found a substantial drop in maternal deaths and a substantial reduction in abortion-related mortality in Mexico between 1990 and 2010 and that "approximately ninety-eight percent of maternal deaths are related to causes other than illegal induced abortion in Mexico."[159]

Thus, these three recent medical studies, of abortion prohibitions in Ireland, Chile, and Mexico, suggest that countries with abortion prohibitions have lower maternal mortality rates, better women's health trends, and better demographic trends than countries with widely-accessible abortion.

IV. International Medical Data on the Risks of Induced Abortion

In the twenty years since the Supreme Court's decision in *Planned Parenthood of Southeastern Pennsylvania v. Casey*,[160] the number of international, peer-reviewed medical studies on the risks from abortion has grown significantly. Medical studies over the last two decades have created substantial data finding significant increased risks after abortion, as a January 2013, medical review article in *Scientifica* describes in detail.[161]

It is important to handle these data carefully. First, the studies focus on "increased risk" after abortion, which is not the same thing as causation, though increased risk and other indicators may eventually prove causation.[162] Second, some medical studies have found no increased risk after abortion.[163] They need to be taken into consideration.

A. Increased Risk of Pre-Term Birth (PTB) After Induced Abortion

Nevertheless, there are now more than 140 peer-reviewed studies that have found a statistically significant increased risk in pre-term birth (PTB) after abortion.[164] This has particular relevance for African-American women, who have an "almost two-fold higher

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[157] Koch et al., *supra* note 143, at 613.

[158] *See id.* at 615-16 (noting discrepancy in "calculating the numerator of [the Abortion Mortality Ratio]" and "discrepancy [relating] to the calculation of the denominator").

[159] *Id.* at 622.

[160] 505 U.S. 833 (1992).

[161] *See* Thorp, *supra* note 121, at 4-5 (explaining the short and long-term harms of termination of pregnancy); *see also 135 Statistically Significant Studies: Abortion—Preterm Birth and/or Low Birth Weight Links 60s-12, supra* note 150 (listing studies finding an increased risk of preterm birth and low birth weight following abortion).

[162] *Id.* at 5.

[163] *See* Julia R. Steinberg et al., *Fatal Flaws in a Recent Meta-Analysis on Abortion and Mental Health*, 86 Contraception 430, 430 (Nov. 2012), http://www.ncbi.nlm.nih.gov/pubmed/22579105 (last visited Feb. 5, 2014) (suggesting that there is no increased risk of mental trauma after abortion) (on file with the *Washington and Lee Law Review*); Claire Oliver-Williams et al., *Changes in Association Between Previous Therapeutic Abortion and Preterm Birth in Scotland*, 1980 to 2008: A Historical Cohort Study, PLOS Med. 10 (July 2013), http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001481&representation=PDF (suggesting no increased risk of pre-term birth after abortion in recent years with new methods).

[164] 135 *Statistically Significant Studies: Abortion—Preterm Birth and/or Low Birth Weight Links 60s-12, supra* note 150.

rate of preterm births."[165] These studies found an increased risk of PTB after induced abortion among women from more than thirty-five countries, including: Wales, Egypt, the United States, China, Japan, Hungary, Poland, Greece, Britain, Thailand, Australia, Norway, Germany, Finland, France, Italy, Ireland, the Netherlands, Scotland, the Czech Republic, Spain, Slovenia, Romania, Russia, Denmark, Brazil, Botswana, Togo, Taiwan, Nigeria, Iraq, India, Pakistan, Kuwait, Korea, Canada, and Turkey.[166]

A PLOS Medicine study published in July 2013 by Oliver-Williams et al. has been reported as claiming that the increased risk of pre-term birth after induced abortion has been eliminated by modern methods of abortion.[167] But the actual study falls short of making that claim and seems to suffer from a number of methodological flaws. (The authors start by admitting what has been denied by so many for so long: "Numerous studies have demonstrated that therapeutic termination of pregnancy (abortion) is associated with an increased risk of subsequent preterm birth").[168] The abortions were self-reported from personal interviews (not drawn from medical record data or linked to the specific patient).[169] That seems unusual for data from Scotland, where the government pays for abortions and keeps individual records.[170] The abortion methods (chemical v. surgical) were not actually connected with the individual women, preventing the researchers from knowing which type of abortion the women had or even whether they experienced PTB.[171] So, the authors' conclusion that shifting from surgical to chemical abortions eliminated the risk of PTB is no more than a guess and not a finding drawn from scientifically observed evidence. The authors emphasize the technique of pre-treating of the cervix prior to abortion as supposedly reducing the risk of PTB, but there was no data to connect this.[172] It was merely the authors' hunch. Consequently,

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[165] Thomas F. McElrath, *Unappreciated But Not Unimportant: Health Disparities in the Risk of Cervical Insufficiency*, 25 Hum. Reprod. 2891, 2891 (2010); *see also* Emmanuel A. Anum et al., *Health Disparities in Risk for Cervical Insufficiency*, 25 Hum. Repro. 2894, 2899 (2010) (discussing the increased risk of African-American women for "cervical insufficiency" which is a cause of pre-term birth). This is magnified by a "dose effect" if a woman has had two, three, or four prior terminations of pregnancy (TOPs). McElrath, *supra* note 165, at 2892.

[166] *See 135 Statistically Significant Studies: Abortion—Preterm Birth and/or Low Birth Weight Links 60s-12, supra* note 150.

[167] *See* Oliver-Williams et al., *supra* note 163, at 10 (suggesting that "[modernizing] methods of abortion… may significantly reduce the subsequent burden of morbidity and mortality related to preterm births").

[168] *Id*. at 1.

[169] *See id*. at 2 (explaining the methodology of the study, which relied on self-reported data).

[170] *Abortion*, Nat'l Health Servs., http://www.nhs.uk/conditions/abortion/pages/Introduction.aspx (last updated Dec. 6, 2012) (last visited Jan. 25, 2014) (noting that the National Health Service is funded by taxes in Europe and "[i]n some areas, the [National Health Service] will pay for abortions at private clinics") (on file with the *Washington and Lee Law Review*).

[171] Oliver-Williams et al., *supra* note 163, at 2.

[172] *See id*. at 1 (noting that the association between previous abortion and pre-term birth disappeared by 2000 in Scotland, "paralleled by increasing use of medical abortion and cervical pre-treatment…"). Although these trends were possibly related, "we could not test this directly as the data on the method of prior abortions were not linked to individuals in the cohort." *Id*.

the Oliver-Williams study hardly dispels the findings of more than 140 international studies from more than thirty countries finding an increased risk of PTB after abortion.

B. Increased Risk of Mental Trauma After Induced Abortion

Whether negative mental health outcome is associated with induced abortion is one of the most hotly debated questions in medicine today. There are studies on both sides of the question.[173] The studies and the data have to be handled carefully. No one study settles a medical question. And association does not mean causation.

Nevertheless, many would be surprised to learn that there at least ninety-nine international, peer-reviewed, statistically significant studies that have found an increased risk of mental trauma after induced abortion.[174] A 2013 forty-year review essay published in *Scientifica* reviewed the existing data on three reputed long-term risks of induced abortion: pre-term birth, breast cancer, and mental trauma.[175] The author cited the numerous studies that have found an increased risk of mental trauma after induced abortion.[176]

A study published in September 2011 in the *British Journal of Psychiatry* (BJP) critically reviewed the results of twenty-two previous studies on abortion and mental health published between 1995 and 2009.[177] The results revealed a moderate to high increased risk of mental health problems after abortion.[178] This study has sparked a contentious debate in the literature.[179]

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[173] *Compare* Francesco Bianchi-Demicheli et al., *Termination of Pregnancy and Women's Sexuality*, 53 Gynecological & Obstetric Investigation 48, 50 (2002) (explaining the increased psychological impact, and sexual dysfunction of termination of pregnancy), with Anne Nordal Broen et al., *The Course of Mental Health After Miscarriage and Induced Abortion: A Longitudinal, Five-Year Follow-Up Study*, 3 BMC Med. 17, 17 (2005) ("Women who had experienced a miscarriage had more mental distress at ten days and six months after the pregnancy termination than women who had undergone an abortion.").

[174] *See infra* Appendix B; *see also* We Care Experts, Psychological, Relationship, and Behavioral Implications of Abortion: Bibliography of Peer-Reviewed Studies, http://www.wecareexperts.org/sites/default/files/articles/Bibliography%20of%20Peer%20Reviewed%20Studies%20on%20Psychology%20of%20Abortion.pdf (listing international peer-reviewed studies on psychological implications of abortion).

[175] *See* Thorp, *supra* note 121, at 5 (noting pre-term birth, breast cancer, and mental health problems as three conditions "in which the literature is more comprehensive in reporting links between [termination of pregnancy] and the health outcome in question").

[176] *See id*. at 13-16 (listing several studies reviewing mental trauma and its connection to abortion).

[177] *See* Priscilla K. Coleman, *Abortion and Mental Health: Quantitative Synthesis and Analysis of Research Published, 1995-2009*, 199 Brit. J. Psych. 180, 182 (2011) ("After applying the inclusion criteria and rules… the sample consisted of 22 peer-reviewed studies."). This study has sparked a vigorous debate in the literature, including a response by the Royal College of Psychiatrists. Acad. of Med. Royal Colls., Induced Abortion and Mental Health 125 (2011), http://www.nccmh.org.uk/reports/ABORTION_REPORT_WEB%20FINAL.PDF

[178] *See* Acad. of Med. Royal Colls., *supra* note 177, at 180 (noting that "the results revealed a moderate to highly increased risk of mental health problems after abortion").

[179] *See Responses to This Article*, British J. of Psychiatry, http://bjp.rcpsych.org/content/199/3/180.abstract # responses (last visited Jan. 2, 2014) (providing access to responses to Priscilla Coleman's article titled *Abortion and Mental Health*) (on file with the *Washington and Lee Law Review*); *see also* David M. Fergusson et al., *Does Abortion Reduce the Mental Health Risks of Unwanted or Unintended Pregnancy? A Re-Appraisal of the Evidence*, 47 Austl. N.Z. J. of Psychiatry 819, 819-27 (2013) (considering whether abortion has therapeutic benefits to mitigate the mental health risks of abortion). This study was recently criticized

Two possible objections to studies finding an increased risk are that they fail to include appropriate comparison group(s) and that they fail to control for pre-existing conditions, and much of the debate centers on these factors.[180] Four subsequent studies and reviews, by Charles,[181] Robinson,[182] one written for the Royal College of Psychiatrists (RCP),[183] and by Steinberg[184] have challenged the 2011 BJP study. But each has weaknesses of its own.

A 2013 study by researcher David Fergusson reviewed the 2011 BJP study and other studies published since 2011 criticizing the BJP study.[185] Fergusson concluded that "there is no available evidence to suggest that abortion has therapeutic effects in reducing the mental health risks of unwanted unintended pregnancy. There is suggestive evidence that abortion may be associated with small to moderate increases in risks of some mental health problems."[186] Despite the ongoing debate, there remain a number of well-done studies that have found an increased risk of mental trauma after abortion.

C. Increased Risk of Breast Cancer from the Loss of the Protective Effect of a First Full-Term Pregnancy

The claim that abortion increases the risk of breast cancer is also vigorously debated. It has long been acknowledged that a first full-term pregnancy provides a measure of protection against breast cancer.[187]

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in an essay. *See* Steinberg, *supra* note 163, at 430 (noting that the authors "strongly question the quality of this meta-analysis of 22 papers… just as the reliability, validity and replicability of some of the studies… in the meta-analysis have been questioned").

[180] *See* Steinberg et al., *supra* note 163, at 431-32 (noting the "seven significant errors in the methods, analyses and reasoning of Coleman's meta-analysis").

[181] *See* Vignetta E. Charles et al., *Abortion and Long-Term Mental Health Outcomes: A Systematic Review of the Evidence*, 78 Contraception 436, 436 (2009) (identifying methodological issues in studies that found an "abortion trauma syndrome").

[182] *See* Gail E. Robinson et al., *Is There An 'Abortion Trauma Syndrome'? Critiquing the Evidence*, 17 Harv. R. Psychiatry 268, 268 (2009) (suggesting that the most accurate studies found no, or few risks of mental health caused by abortion).

[183] *See* Acad. of Med. Royal Colls., *supra* note 177, at 17 ("No details of any quality assessment process were included in the Coleman review.").

[184] Steinberg et al., *supra* note 163, at 430 (presenting a "summary of the most serious and significant errors of [the Coleman] meta-analysis because policy, practice and the public have been misinformed").

[185] Fergusson et al., *supra* note 179, at 821 (noting that the Coleman study "fail[s] to provide a formal review of the therapeutic benefits of abortion").

[186] *Id.* at 819.

[187] *See, e.g.*, Julie Lecarpentier et al., *Variation in Breast Cancer Risk Associated with Factors Related to Pregnancies*, 14 Breast Cancer Research 1 (2012) (finding a protective effect against breast cancer for women when they experienced a full-term pregnancy).

Yet, there have been seventy international, peer-reviewed studies that have addressed the association since at least 1957.[188] At least thirty-three have found an increased risk of breast cancer after induced abortion.[189]

All of these preceded the Huang study. A November 2013 study by Huang et al. of Chinese women published in Cancer Causes & Controls looked at the association between abortion and breast cancer.[190] The meta-analysis by Huang et al. examined the findings and quality of thirty-six studies (consisting of two cohort studies and thirty-four case control studies) from fourteen provinces in China that had been previously published.[191] The authors acknowledged that "Chinese females historically had a lower risk of breast cancer compared to their counterparts in the USA and other Western countries."[192] Citing a 2012 Chinese study by Li, the authors noted that "the incidence of breast cancer in China had increased at an alarming rate over the past two decades"[193] and that this "marked change in breast cancer incidence was paralleled [sic] to the one-child-per-family policy," citing a 2002 Chinese study by Qiao.[194] This new study was undertaken, at least in part, due to conflicting results in prior studies by Brind (1996) and Beral (2004) and due to conflicting results in prior Chinese studies.[195]

Citing three studies by Russo & Russo (1987), Kelsey (1979), and Kelsey (1981), the authors noted that prior "experimental data" provided a plausible biological reason for an association between induced abortion and an increased risk of breast cancer:

> During the first trimester of pregnancy, hormonal changes propel newly produced breast cells through a state of differentiation, a natural maturing process which greatly reduces the risk of breast cancer in the future. An interruption of this process by

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[188] *See Epidemiologic Studies: Induced Abortion and Breast Cancer Risk,* Breast Cancer Prevention Inst., http://www.bcpinstitute.org/epidemiology_studies_bcpi.htm (last updated Nov. 2013) (last visited Mar. 17, 2014) (listing studies comparing abortion to risk of breast cancer) (on file with the *Washington and Lee Law Review*).

[189] *See infra* Appendix C.

[190] *See* Yubei Huang et al., *A Meta-Analysis of the Association Between Induced Abortion and Breast Cancer Risk Among Chinese Females*, Cancer Causes & Control (Nov. 2013), http://link.springer.com/article/10.1007%2Fs10552-013-0325-7 # page-1 (last visited Mar. 17, 2014) ("Compared to people without any history of [induced abortion], an increased risk of breast cancer was observed among females who had at least one [induced abortion].") (on file with the *Washington and Lee Law Review*).

[191] *Id*.

[192] *Id*. at 2.

[193] *Id*.; *see also* Ai-Ren Jiang et al., *Abortions and Breast Cancer Risk in Premenopausal and Postmenopausal Women in Jiangsu Province of China*, 13 Asian Pac. J. Cancer Prevention 33, 33 (2012) (noting a "marked increase" in the rates of breast cancer in China in recent years).

[194] *Id*. (citing Qiao, *Analysis of Induced Abortion of Chinese Women*, 26 Population Res. 16 (2002))

[195] *Compare* Joel Brind et al., *Induced Abortion as an Independent Risk Factor for Breast Cancer: A Comprehensive Review and Meta-Analysis*, 50 J. Epidemiology & Community Health 481, 494 (1996) (noting a "significant positive association between induced abortion and breast cancer incidence"), with Valerie Beral et al., *Breast Cancer and Abortion: Collaborative Reanalysis of Data from 53 Epidemiological Studies, Including 83,000 Women with Breast Cancer from 16 Countries*, 363 The Lancet 1007, 1014 (2004) (noting "the aggregate relative risk of breast cancer associated with having a record of one or more pregnancies that ended as an induced abortion compared with having no such record… [suggests] no significant adverse effects… ").

> abortion will arrest this process before differentiation occurs, greatly raising the future risk of breast cancer in the future.[196]

The authors were also careful to distinguish induced abortion from spontaneous abortion.[197]

The authors concluded that "overall, this systematic review of thirty-six studies with different designs and conducted across a wide range of regions in China revealed that induced abortion (IA) was significantly associated with an increased risk of breast cancer among Chinese females. The risk increased as the number of IA increased."[198] This is referred to by statisticians as a "dose-response" or "dose-effect"; the stronger the exposure (dose) to the agent, the greater the increased risk.[199] And the authors noted that previous studies supported this dose-effect, finding that the risk increased as the number of abortions increased.[200]

The Huang study found a "dose-response."[201] Thus, one prior induced abortion increased the breast cancer risk by forty-four percent.[202] With two prior induced abortions, they found a seventy-six percent increased risk.[203] And with three prior induced abortions, they found an eighty-nine percent increased risk.[204] (Each finding was statistically significant, meaning that it was not due to chance alone.)[205]

The authors noted an important difference between induced abortion in the United States and in China, which may help explain the biological association. Since abortion in the United States is often to prevent a first birth, whereas abortion is used in China to prevent a second birth under the one-child policy, "the protective effects of early childbirth will probably dilute the harmful effect of more IAs [induced abortions]."[206] The authors noted that further research was needed because of certain limitations in their study.[207]

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[196] Huang et al., *supra* note 190, at 2.

[197] *See id.* ("[S]tudies focused on spontaneous abortion, and studies with incomplete data of interest were excluded.").

[198] *Id.* at 7.

[199] *See Glossary of Statistical Terms*, OECD.ORG (Sept. 25, 2001), http://stats.oecd.org/glossary/detail.asp?ID=671 (last updated Dec. 11, 2001) (last visited Jan. 25, 2014) ("The dose-effect relationship is the relationship between the dose of harm-producing substances or factors and the severity of their effect on exposed organisms or matter.") (on file with the *Washington and Lee Law Review*).

[200] Huang et al., *supra* note 190, at 8.

[201] *Id.*

[202] *Id.* at 4.

[203] *Id.* at 6.

[204] *Id.*

[205] *See Glossary of Statistical Terms*, OECD.ORG (May 26, 2002), http://stats.oecd.org/glossary/detail.asp?ID=3904 (last updated Aug. 11, 2005) (last visited Jan. 25, 2014) ("An effect is said to be significant if the value of the statistic used to test it lies outside acceptable limits, that is to say, if the hypothesis that the effect is not present is rejected.") (on file with the *Washington and Lee Law Review*).

[206] Huang et al., *supra* note 190, at 8.

[207] *See id.* (noting that "future prospective cohort studies with more adequate reference group were needed to investigate the association further" because of possible overstated positive associations between induced abortions and breast cancer in the studies reviewed).

D. Placenta Previa

Placenta previa is the condition when the placenta settles low in the mother's uterus, covering the cervical canal.[208] If it remains in this position in late pregnancy, it can have serious risks for mother, including hemorrhaging, and for the child, including increased risk of sudden infant death syndrome and risks from prematurity if a premature delivery is required.[209] A 2003 review of the literature located three studies that found an increased risk of placenta previa after abortion.[210] A fourth study was published in 2003, which found an increased risk of placenta previa after abortion.[211]

These studies do not settle these medical and scientific questions, though they provide evidence of increased risks of various kinds. At the same time, no studies have yet refuted the findings of increased risk of pre-term birth, or mental trauma, or breast cancer after an abortion. More studies are clearly needed, and more can be expected from various countries with better abortion data recordkeeping and collection than exists in the United States.

V. *Isaacson v. Horne*, the Medical Assumption, and the Viability Rule

The mistakes made by the Justices during the deliberations in *Roe* and *Doe*, including the notion that "abortion is safer than childbirth," are directly relevant to the Court's consideration of state abortion regulations in future abortion cases. The Court in *Gonzales v. Carhart*[212] in 2007 upheld the constitutionality of the federal Partial-Birth Abortion Ban Act (PBABA).[213] But, as a number of scholars have pointed out, the Court expressed concern with late-term abortions and, in dictum, suggested that the states should have greater deference to limit late-term abortions.[214] The Court's dicta gave

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[208] *See Diseases and Conditions: Placenta Previa*, Mayo Clinic (Jun. 2, 2011), http://www.mayoclinic.org/diseases-conditions/placenta-previa/basics/definition/con-20032219 (last visited Jan. 26, 2014) ("Placenta Previa occurs when a baby's placenta partially or totally covers the mother's cervix . . . .") (on file with the *Washington and Lee Law Review*).

[209] *See id*. ("One of the biggest concerns with placenta previa is the risk of severe vaginal bleeding (hemhorrage)," which can be "heavy enough to be life-threatening" and "may prompt an emergency C-section before [the] baby is full term.").

[210] *See* John M. Thorp, Jr., Katherine E. Hartmann & Elizabeth Shadigian, *Long-Term Physical and Psychological Health Consequences of Induced Abortion: A Review of the Evidence*, 58 Obstetrics & Gynecol. Survey 67, 74 (2003), http://content.silaspartners.com/156/41045/156_41045_shadigian.1.pdf ("Three studies were found exploring induced abortion and placenta previa," all of which found a "positive association").

[211] L.G. Johnson, B.A. Mueller & J. R. Daling, *The Relationship of Placenta Previa and History of Induced Abortion*, 81 Int'l J. Gynecol. & Obstetrics 191 (2003).

[212] 550 U.S. 124 (2007).

[213] Partial Birth Abortion Ban Act, 18 U.S.C. ' 1531 (2012).

[214] *See Gonzales*, 550 U.S at 128 (noting that "[t]he Act's stated purposes are protecting innocent human life from [partial-birth abortion] and protecting the medical community's ethics and reputation" and that "Casey reaffirmed that the government may use its . . . regulatory authority to show its profound respect for the life within the women (citation omitted)").

greater deference to the states and concluded that the states have "wide discretion to pass legislation in areas where there is medical and scientific uncertainty."[215]

The twenty-week limit in *Isaacson v. Horne*[216] might have given the Court the opportunity to apply *Gonzales* and review the factual assumption that "abortion is safer than childbirth," because medical data show that the maternal mortality rate from abortion increases significantly in the second trimester.[217] *Horne* could have given the Court the opportunity to reassess its factual assumption that drove the superstructure of *Roe* in light of contemporary medical data in the context of late-term abortions.

In the approximately thirty abortion cases that the Court has decided on the merits since 1973, the Court has rarely addressed the risks to women from abortion based on medical evidence in a trial record.[218] Instead, the Court has stated that the public has an interest in protecting maternal health, but only in the abstract, as in the *Casey* decision in 1992, where the Court said that "[r]egulations designed to foster the health of a woman seeking an abortion are valid if they do not constitute an undue burden."[219] Future cases may create an opportunity for the Supreme Court to review a real record on the risks of abortion to women, and the unregulated public health vacuum that the Court has allowed for forty years.[220]

Reexamination of the medical mantra in *Roe* also raises some larger questions about the future of the Supreme Court and abortion. There are now four challenges to the mantra that "abortion is safer than childbirth": (1) fundamental challenges to the dysfunctional abortion reporting system here in the United States where all data reporting is voluntary,[221] (2) maternal mortality data showing an increasing rate of maternal mortality from abortion after the first trimester,[222] (3) the growing body of international data on the long-term risks to women from abortion,[223] and (4) maternal mortality data from other countries with better data collection and recordkeeping that show a higher rate of abortion mortality than maternal mortality.[224]

Those challenges set up some possible paradigm shifts. How will the maternal mortality data and long-term risks data affect the consideration of maternal "health"? Will some sort of analysis balancing the risks of "delay" with the risk to women from the abortion be required? Will providers be required to demonstrate that the risks of

[215] *Id*. at 163.

[216] 884 F. Supp. 2d 961, 971 (D. Ariz. 2012), *rev'd*, 716 F.3d 1213 (9th Cir. 2013), *petition for cert. filed*, (U.S. Sep. 27, 2013) (No. 13-402) (concluding the statute survives a facial constitutional challenge), *rev'd*, 716 F.3d 1213 (9th Cir. 2013), *cert. denied*, 82 U.S.L.W. 3404 (U.S. 2014).).

[217] *See* Bartlett, *supra* note 120.

[218] *See* Forsythe & Presser, *supra* note 14, at 90 (describing the original Jane Roe's Rule 60(b) motion in *McCorvey v. Hill* where Circuit Judge Edith Jones reviewed the Court's abortion jurisprudence and its lack of consideration of medical developments).

[219] Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 878 (1992).

[220] *See* Forsythe & Kehr, *supra* note 13.

[221] *Supra* note 118 and accompanying text.

[222] *Supra* notes 119-19 and accompanying text.

[223] *Supra* note 121 and accompanying text.

[224] *Supra* note 122 and accompanying text.

not having the abortion outweigh the risks of having the abortion? If advocates contend that the principle underlying *Roe* is autonomy, not the relative safety of abortion, will the Supreme Court dismiss the data on the relative risks from abortion? Or will the Court allow the states to regulate or prohibit abortion at some gestational stage if providers cannot demonstrate that the risks of not having the abortion outweigh the risks of having the abortion? Unfortunately, the new paradigm will not be addressed in *Horne*, which was denied certiorari by the Supreme Court in January of 2014.[225]

VI. Conclusion

Federal Judge Henry Friendly put his finger on the Supreme Court's errors in 1978 when he criticized the Court for the use of medical data in *Roe* and *Doe* that were not part of any record. He wrote:

> [T]he main lesson I wish to draw from the abortion cases relates to procedure—the use of social data offered…for the first time in the Supreme Court itself…. The Court's conclusion in *Roe* that 'mortality rates for women undergoing early abortions, where the procedure is legal, appear to be as low as or lower than the rates for normal childbirth' rested entirely on materials not of record in the trial court, and *that conclusion* constituted the underpinning for the holding that the asserted interest of the state 'in protecting the woman from an inherently hazardous procedure' during the first trimester *did not exist*.[226]

Friendly continued,

> If an administrative agency, even in a rulemaking proceeding, had used similar materials without having given the parties a fair opportunity to criticize or controvert them at the hearing stage, reversal would have come swiftly and inexorably…. The Court should set an example of proper procedure and not follow a course which it would condemn if pursued by any other tribunal.[227]

These concerns, and the growth in international medical data over the past two decades since *Casey*, should counsel the Supreme Court to give greater deference to the states in their attempt to protect maternal health.

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[225] Isaacson v. Horne, 716 F.3d 1213 (9th Cir. 2013), *cert. denied*, No. 13-402, 2014 WL 102430 (2014).

[226] Henry J. Friendly, *The Courts and Social Policy: Substance and Procedure*, 33 U. Miami L. Rev. 21, 36-37 (1978) (emphasis added).

[227] *Id.* at 37-38.

Appendix A: List of 140+ Medical Studies Finding an Increased Risk of Pre-Term Birth After Abortion

1. G. Barsy & J. Sarkany, *Impact of Induced Abortion on the Birth Rate and Infant Mortality*, 6 Demografia 427 (1963).

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Appendix B: List of 99 Medical Studies Finding an Increased Risk of Mental Trauma After Abortion

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Appendix C: List of 33 Medical Studies Finding an Increased Risk of Breast Cancer After Abortion

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Improving the Accuracy of Maternal Mortality and Pregnancy Related Death

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ABSTRACT: Comparing abortion-related death and pregnancy-related death remains difficult due to the limitations within the Abortion Mortality Surveillance System and the International Statistical Classification of Diseases and Related Health Problems (ICD). These methods lack a systematic and comprehensive method of collecting complete records regarding abortion outcomes in each state and fail to properly identify longitudinal cause of death related to induced abortion. This article seeks to analyze the current method of comparing abortion-related death with pregnancy-related death and provide solutions to improve data collection regarding these subjects.

Background

Nearly half of American women experience an unplanned pregnancy by age 45,[1] often eliciting the choice to either parent or obtain an induced abortion. With four of every ten unplanned pregnancies ending in abortion,[2] induced abortion exists as one of the most common procedures in medicine.[3] Women express various reasons for choosing induced abortion, with risk of maternal health serving as the primary motivation for 2.8% of American women and up to 37.9% of women internationally.[4] Given these data, understanding the current limitations associated with comparing the safety of induced abortion compared to live birth remains vital to providing informed consent to patients as well as accurate information to physicians.

While current statistics suggest pregnancy and induced abortion are associated with low mortality rates, the relative safety of each event remains heavily debated in the medical literature. In 2012, Raymond and Grimes authored a paper in *Obstetrics and Gynecology* comparing the live birth mortality rate (8.8 deaths per 100,000 live

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births) with the mortality rate of induced abortion (0.6 deaths per 100,000 abortions) concluding: "[the] risk of death associated with childbirth is approximately 14 times higher than that with abortion." [5] *Medscape* cites this paper to claim induced abortion poses less threat to the life of the women than childbirth.[3] The Royal College of Obstetricians and Gynecologist (RCOG) also state, "abortion is a safe procedure for which major complications and mortality are rare at all gestations." [6]

Aside from failing to consider the unique health status of the patient, (e.g. past medical history of the mother, gestational age of the fetus, availability and skill of birth attendants, access and transportation to adequate delivery facilities, availability of oxytocin and other medication, method of termination, skill of the abortion provider, number of abortions and health status of the patient prior to termination), comparing the death attributable to induced abortion with live birth remains an impossible task given the current limitations within the CDC *Abortion Mortality Surveillance System and International Statistical Classification of Diseases and Related Health Problems (ICD).* This article seeks to discuss these problems and provide possible solutions.

Limitations Within the CDC Abortion Mortality Surveillance System

The CDC utilizes the *Abortion Mortality Surveillance System* to collect data on abortion. However, the CDC explicitly mentions some of the limitations within this system:

1. Reporting abortion-related deaths is not federally mandated. States and reporting areas *voluntarily* provide the CDC with information regarding induced abortions. Recently California, Delaware, Maryland, and New Hampshire did not report. Since California constitutes nearly a quarter of all the induced abortions in the United States, much of the data regarding induced abortion is entirely immune to analysis.[7]
2. Some states encourage or mandate reporting the number or outcome of performed abortions, however, the enforcement of these laws varies by state. Therefore, the number of reported abortions does not reflect the actual number of abortions.
3. States lack a standardized reporting form, leaving the CDC with incomplete information about the characteristics of women obtaining abortions (e.g., not every form accounts for age, race, ethnicity, type of abortion, outcome of the procedure, ect.).
4. Abortions are reported by location performed rather than the residency of the patient, leading to underreporting of the number of abortions in states with less abortion providers.

These limitations hinder comparing abortion-related death with pregnancy-related death. Since the United States lacks a coherent system for tracking pregnancy outcomes, the best insight regarding maternal morality arises from countries with comprehensive databases and mandatory reporting of abortion and pregnancy related morbidity and mortality. Currently, Finland[8] and Denmark[9] offer some of the most complete data

regarding abortion and pregnancy outcomes. These countries show up to a four-fold increased risk of mortality following induced abortion compared to childbearing. Gissler et. al. notes that relying upon death certificates (as many systems do) misses three out of four pregnancy-associated deaths compared to comprehensive record systems.[10] This indicates that data suggesting childbirth remains less safe than induced abortion may be a result of the limitations of the *Abortion Mortality Surveillance System*.

In addition to studies from international records, data from the California Medicaid system (analogous to the databases in Finland and Denmark) illustrate that compared to women who gave birth, those with a history of abortion were more likely to die from suicide, accidents, homicide, mental disease (newly onset following an abortion) and cerebral vascular disease over an 8-year period.[11] This suggests that when considering the long-term outcomes, pregnancy (not induced abortion) best promotes the health of the patient.

Global trends in maternal mortality also challenge the claim that childbirth is more life threatening to the mother than induced abortion. Interestingly, countries with the most prohibitive abortion laws (e.g. Poland, Malta, and Ireland) display decreasing maternal mortality rates, while countries with some of the most liberal abortion laws (e.g. United States, Norway, and Canada) have increasing maternal mortality rates.[12] However, a recent article in *The Lancet* illustrates that the countries with the most liberal abortion laws also have the highest decline in abortion rate despite a rise in the number of "unsafe" abortions overall.[13] This implies that more "unsafe" abortions occur in areas with less strict abortion laws. However, Koch et. al. analyzes the data in countries with less liberal abortion laws, observing a gross overestimate in the number of abortions (10-fold) and abortion-related mortality (up to 35%) in Mexico.[14] This is concerning given the World Health Organization (WHO) categorizes Mexico as "List A" (having complete vital records on maternal mortality).[15] These discrepancies illustrate the problem with relying on the current data collecting methods offered by the WHO and CDC.

Limitations Within the ICD-10 Coding System

In addition to noting the limitations of the Abortion Mortality Surveillance System and the international data surrounding maternal mortality, definitions and parameters within the ICD-10 of section *O08.- Complications following abortion and ectopic and molar pregnancy* also hinder proper classification of death related to abortion.

The ICD-10 defines *pregnancy-related death* as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death."[16] The ICD-10 does not offer a definition of *abortion-related death*; rather, the definition comes from the CDC's *Abortion Mortality Surveillance System*, defined as a "death resulting from a direct complication of an abortion (legal or illegal), an indirect complication caused by a chain of events initiated by an abortion, or an aggravation of a preexisting condition by the physiological or psychological effects of abortion."[17] However, in order to be considered as abortion-related, the complication must occur within 42 days following the procedure and is up to the subjective discretion of the physician.[18]

There are multiple problems within the ICD-10 coding system that prevents accurate data collecting on when abortion or live birth contributes to maternal morality:

1. As previously mentioned, the ICD-10 lacks a category or definition of abortion-related death. Currently abortion related complications are included under the heading: *Complications following abortion and ectopic and molar pregnancy*. This makes complications following induced abortion indiscernible from ectopic and molar pregnancy complications. Furthermore, these criterion are *subjective* and thoroughness of the physician identifying the cause of death. Esscher et. al. notes that despite mandatory reporting and electronic medical records, some "physicians fail to complete death certificates correctly, information about pregnancy is not always taken into account when certificates are coded, direct maternal deaths are not always coded with an underlying cause of death connected to pregnancy, and indirect maternal deaths are not captured."[20]
2. Pregnancy-related death is an *objective* criteria (i.e. any death when pregnant or 42 days following delivery) defined by time rather than by the cause of death. Therefore, a "pregnancy-related death" may be falsely categorized if the manner of death does not actually relate to the pregnancy itself (i.e. trauma, infection, uncontrolled pre-existing disease, ect.). For example, a death related to eclampsia clearly relates to pregnancy, while a death related to trauma from an automobile accident may not.
3. The 42 day allotment for pregnancy related death is an arbitrary definition selected to parallel the period defining infant mortality.[21] Moreover, this means the time allowed for pregnancy-related death is 7.5 times longer than that of an abortion-related death (i.e. 273 days gestation and 42 days following delivery equaling 315 days,[16] compared to only 42 days following the abortion procedure). Therefore, given the amount of time, deaths related to pregnancy will be higher simply based on the arbitrary timeline.
4. While the CDC states abortion-related deaths include "aggravation of a preexisting condition by the physiological or psychological effects of abortion," certain conditions remain unclassifiable by the ICD-10 coding system. For example, the rupture of an unidentified ectopic pregnancy during an induced abortion causing the death of the patient must be categorized as a pregnancy related death.[21] Complications due to an ectopic pregnancy do not appear within *complications following (induced) termination of pregnancy*.[22] Similar scenarios exist with pelvic inflammatory disease (PID),[23] and uterine rupture.[24] Pelvic inflammatory disease (PID) associated with previous abortions may also lead to ectopic pregnancy.[23] Therefore, complications occurring during an abortion procedure would more accurately be categorized under distinct subheadings (e.g. ectopic rupture, PID, or uterine rupture) within abortion-related death.[25]
5. The ICD-10 does not account for longitudinal causes related to abortion-related deaths. For example, physicians are instructed to routinely implant an intra-uter-

ine device (IUD) following abortion (over other forms of contraception).[26, 27, 28, 29, 30] This may damage the uterus or decrease peristalsis within the fallopian tube, increasing the risk of ectopic pregnancy compared to women not using any form of birth control.[31, 32, 33] Medical abortive agents (e.g. misoprostol) may lead to uterine rupture hemorrhage and scar formation. Much like a history of a previous cesarean section, this predisposes subsequent pregnancies to complications that may lead to hemorrhage and death of the patient upon delivery in a subsequent pregnancy.[24] However, if deaths related to these conditions occur beyond 42 days following the procedure, they become unclassifiable under abortion-related death despite the connection to the induced abortion procedure. These deaths would be difficult to classify as either pregnancy-related or abortion-related giving the overlapping nature of the inciting event.

6. It is also important to consider circumstances where pregnancy and childbearing might contribute to abortion-related death. For instance, some data suggest the rupture of a uterine scar from a previous caesarean section (CS) may increase complications of second trimester abortion.[34] Deaths from these events would also be difficult to classify as completely pregnancy-related or abortion-related.
7. Women often do not report their reproductive history (e.g. gestation at the time of abortion, method of abortion, spontaneous abortion, etc.) obfuscating the correlation between reproductive events and morbidity or mortality.[19]

Examining the Potential Long-Term Complications Associated with Induced Abortion

In addition to limitations within the CDC surveillance system and the ICD-10, the long-term complications of induced abortion are currently unaccounted for in the statistics on abortion-related death. Among these complications that may lead to the patients death are: mental illness, social demographics and breast cancer.

The effect of induced abortion on the mental health of a patient remains debated. The American Psychiatric Association (APA) claims, "there is no credible evidence that a single elective abortion of an unwanted pregnancy in and of itself causes mental health problems for adult women."[35] Interestingly, peer reviewed research illustrates an increase in mental illness directly attributable to induced abortion, especially in adult women in their twenties,[36] compared to live birth or spontaneous miscarriage.[37, 38] A recent review of nineteen studies on abortion and mental health reported thirteen studies showing a clear risk for at least one mental problem directly attributable to induced abortion, five studies with no effect and only one paper with worse mental outcome for childbearing.[39] Fisher et. al. also note a significant increase in sexual abuse in women with history of repeat induced abortion.[40] Other studies indicate that the risk of alcohol misuse, illicit drug use, suicidal behavior and incidence intimate partner violence (IPV) dramatically increases with the number of abortions.[41, 42] Gissler et. al. illustrates that suicide post-abortion is greatest among females age 15 to 24.[10] This is concerning given that suicide is the third leading cause of death among women ages 15-19.

Some argue correlations between mental health and induced abortion fail to consider the mental health status of the patient prior to pregnancy.[43] Despite an increased incidence in overall psychiatric illness after induced abortion, Munk-Olsen et. al. argue that a "selection phenomena" exists where women with a history of induced abortion constitute a population predisposed to psychiatric illness.[44] However, while the "selection phenomenon" explains the lack of new onset mental illness, it does not explain the increase in incidence of preexisting mental illness acutely following an induced abortion. Yet, given the increased incidence in mental illness following induced abortion it remains clear that such an event contributes to the mental distress experienced by a patient. Seeking an induced abortion may even constitute an expression of a psychiatric illness.

While mental illness associated with induced abortion remains debated, Furgusson et. al. illustrates that induced abortion does not abate the overall risk of mental illness compared to women without a history of abortion.[45] Given this data, the medical community would be more accurate by avoiding the use of the term "therapeutic abortion" when referring to an elective or induced abortion. It is worth noting that certain pregnancies (e.g. molar pregnancy or ectopic pregnancy) may require "abortive" procedures (i.e. D&C) to protect the life of the mother. However, in these circumstances there are clear benefits to aborting the pregnancy. These conditions would most accurately define a "therapeutic abortion."

While women obtaining an induced abortion show an increased incidence of mental illness, pregnancy is not void of mental health complications. Postpartum depression occurs in 10 to 20 percent of pregnancies and increases with maternal age, unmarried status, smoking or drinking, substance abuse, hyperemesis gravidarum, preterm birth, and high utilization of sick leave during pregnancy.[46] However, the incidence of postpartum depression is only slightly higher than depression among nonpregnant women[47] and symptoms typically improve without medication six months following delivery.[47]

In addition to mental health complications, the potential link between induced abortion and breast cancer exists as a long-term health consequence of induced abortion. Breast cancer is the most common women-specific cancer, consisting of nearly one third of all cancers.[48] Second to heart disease and lung cancer, breast cancer is the leading cause of death in American women. In the past decade, breast cancer decreased in white women, increased in black women and remained level in other ethnicities.[49] While these trends may be due to disparage within health care access, black women show the highest incidence of abortion by population with an increasing incidence of breast cancer (compared to other ethnicities).

Abortion may be linked to breast cancer due to the carcinogenic effects of estrogen (during pregnancy) without the protective effects of breast maturation (after an abortion).[50] *Harrison's Principles of Internal Medicine* notes, "Breast cancer is a hormone-dependent disease. Women without functioning ovaries who never receive estrogen-replacement therapy do not develop breast cancer."[51] Unlike other organs in the body, the breast does not fully mature until a women's first live birth. During pregnancy, immature

breast epithelial cells proliferate; this cell type lacks the protective effects of postlactional epithelium, making it more susceptible to carcinogens.[52, 53] Therefore, early menarche, late first full-term pregnancy and later onset of menopause all increase the exposure of estrogen to the body, which contribute to the risk of breast cancer.[51]

Despite the currently accepted physiological model of breast cancer as a hormone-based disease, the National Cancer Institute (NCI) issues the highest level of evidence against any relation between abortion and breast cancer.[54] The NCI considers any data indicating a possible cause between abortion and breast cancer a result retrospective data collecting and recall bias in the studies conduced in the 1990s.[55] Currently, the NCI rejects the abortion-breast cancer link based on a 2003 NCI workshop of "100 experts," a 2004 *Lancet* meta-analysis[56] and the 2009 American College of Obstetrics and Gynecologists (ACOG) report on abortion and breast cancer.[57] Interestingly, the NCI still accepts the well established fact that breastfeeding reduces the risk of breast cancer- yet induced abortion prevents women from this protective effect.[58]

While the link between abortion and breast cancer remains debated, many studies continue to indicate that induced abortion increases the risk of breast cancer in women.[59] In 2009, a prospective study by Ozmen et. al. found induced abortion to be a statistically significant independent risk factor for breast cancer (OR=1.66).[60] Lecarpentier et al. observed examined the medical history of French women with homogeneous risk regions for BRCA1 and BRCA2, finding an increase in breast cancer in patients with a history of induced abortion (OR = 1.28-3.84), with the highest risk in those with multiple abortions or a first abortion before age twenty.[61] A case control study by Jabeen et. al. in 2013 illustrated a 20-fold (OR= 20.62) increase in breast cancer in patients with a history of induced abortion.[62] Khachatryan et. al. conducted a case control study in Armenian women with diabetes mellitus type 2, finding an increase risk associated with a history of induced abortion (OR=2.86).[63] Given the rise in breast cancer in China with the one-child-policy, much research has been done on examining the effect of induced abortion on breast cancer in China. While two Chinese studies do not show an increase risk of breast cancer in women with a history of induced abortion,[64, 65] another study[66] and one recent meta-analysis[67] clearly illustrate a correlation between induced abortion and breast cancer. If a causal link exists between abortion and breast cancer, deaths due to abortion-related cases of breast cancer ought to be included in the criterion of abortion-related death. While this currently remains indiscernible, future research may elucidate the percentage of breast cancer attributable to induced abortion.

Practical Implications and Future Recommendations To Improve the Accuracy of Assessing the Risk of Maternal Death

Many factors contribute to the general impression that induced abortion remains markedly safer than childbirth. Calhoun accurately summarizes the problems with attaining valid scientific assessment of abortion mortality: "incomplete reporting, definitional incompatibilities, voluntary data collection, research bias, reliance upon estimations, political correctness, inaccurate and/or incomplete death certificate completion,

incomparability with maternal mortality statistics, and failing to include other causes of death such as suicides."[68] Therefore, the problem for providing accurate information to patients and physicians remains an issue of working within a faulty system, not a lack of data or analysis.

The following changes would dramatically improve the accuracy of discerning the etiology of maternal health:

1. Require mandatory reporting of all abortions and maternal deaths in all states as part of the use of electronic medical records (EMRs).
2. Separately and clearly track induced abortion-related deaths from deaths due to spontaneous abortions or stillbirths or live-birth related deaths by using a uniform tracking and coding system which clearly identifies which type of parturition event took place, and the relationship of the death to the parturition event.
    a. Include an objective definition of abortion-related death within the ICD-10 manual. Add an additional category and ICD code for long-term abortion-related death, allowing for complications that contribute to the death of the mother over time (especially from repeated abortions, breast cancer, ect.).
    b. Replace the arbitrary time frame for maternal deaths with a time frame that supports any complication directly attributable to pregnancy.
    c. Add a causality requirement to pregnancy-related deaths (matching causal association included in abortion-related deaths). For instance, if a mother has uncontrolled hyperthyroidism and dies while pregnant due to a thyroid storm that was not exacerbated by pregnancy, causality could not be attributable to the pregnancy and therefore could not be categorized as a pregnancy-related death.
    d. Separate abortion from ectopic pregnancy and molar pregnancy in the ICD-10 section labeled *Complications following abortion and ectopic and molar pregnancy.* The new section under abortion complications should include subheads such as ectopic pregnancy rupture, uterine rupture, and other preexisting gynecologic conditions exacerbated by the induced abortion.
3. Update the analysis from NCI and CDC regarding newly published papers in support of the abortion and breast cancer link. Given the fact that data continues to arise on either supporting or negating the link, the NCI ought to justify why such a high strength of evidence rating exists.

In the meantime, health care professions ought to be aware of the limitations within the current system, especially when discussing pregnancy options for patients.

Conclusion

Comparing abortion-related death and pregnancy-related death remains difficult due to the inadequacy of the *Abortion Mortality Surveillance System* and the ICD-10 categories within *Complications following abortion and ectopic and molar pregnancy.* These systems lack a systematic and comprehensive method of collecting complete records

regarding abortion outcomes in each state. Furthermore, the ICD-10 classification does not identify the most proximal causes of death related to induced abortion. Lastly, mental and physical sequelae associated with induced abortion are currently denied by medical authorities despite primary literature that illustrates induced abortion is an independent risk factor for mental illness and breast cancer in certain populations. Until progress is made in collecting more accurate data, comparing abortion-related death and pregnancy-related would best be done within systems that include a complete and accurate medical record.

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Medical Experiments on Persons with Special Needs, A Comparative Study of Islamic Jurisprudence vs. Arab Laws: UAE Law as Case Study

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ABSTRACT: This article is a comparative study of medical experiments on persons with special needs in Islamic jurisprudence and Arab laws; United Arab Emirates (UAE) law as case study. The current study adopts a comparative analytical and descriptive approach. The conclusion of this study points out that the Convention on the Rights of Persons with Special Needs, ratified by a number of Arab States, including the United Arab Emirates, approves conducting medical experiments on persons with special needs, subject to their free consent. As a result of ratifying this Convention, a number of special laws were enacted to be enforced in the United Arab Emirates. On the other hand, this issue is controversial from an Islamic jurisprudence point of view. One group of jurisprudents permits conducting these experimentations if they are designed to treat the person involved, and prohibits such experimentations for scientific advancement. Other jurisprudents permit conducting medical experimentations on persons with special needs, whether the purpose of such experimentations is treatment of

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the disabled or achieving scientific advancement. The opinion of this group is consistent with the International Convention and the Arab laws in this respect. However, neither the Convention nor the Arab laws regulate this matter by specific and comprehensive conditions, as addressed by some contemporary scholars. It is recommended that the Convention and the Arab laws adopt these conditions. Additionally, the Convention does not state whether the experimentations may be conducted for the interest of the person with disability or for the purpose of scientific advancement. The text of the Convention is unclear and therefore requires further illumination.

Keywords: Medical experiments, persons with special needs, Islamic jurisprudence, Arab laws.

Ever since ancient times, humanity, guided by sound instinct, has realized the importance of care for persons with special needs. This concern was reflected in enacting international conventions, establishing global institutions, and holding conferences targeted as a whole towards committing special attention to persons with special needs of diverse segments; meet their special needs; facilitate their development; eliminate their sense of embarrassment; and integrate them into normal life and its productive circle. On the other hand, medical and biological experiments, including experimental and unprecedented surgeries; stem cells experiments; genetic engineering; and human genome, using the newly developed methods in medicine and biological surgery, are the most serious practices throughout human history to which human beings may be exposed to deliver advances in scientific therapy. There is no argument that medical experiments are of paramount importance to the continuation of human advancement in the medical field. Many medical discoveries were based on medical experiments. Indeed, experiments have an effective role in developing and discovering treatments for human beings. However, the nature of medical experiments poses major risks, including potential serious damage to human beings in general, and to persons with special needs in particular. Therefore, it is necessary to take human safety requirements into account, which may not be undermined or prejudiced.

Accordingly, this comparative study is concerned with the opinions on medical experiments on persons with special needs from the Islamic jurisprudence and Arab laws points of view; UAE law as case study. This study adopts comparative analytical and descriptive approach to describe and analyse this practice, and then conducts a comparative study of this practice from Islamic jurisprudence perspective on one hand, and the Arab laws on the other; UAE law as case study.

This article is centered around the following themes: First, the concept of disability under international conventions and Arab laws and its reality in the world. Second, the position of Arab laws; UAE law as case study, *vis-a-vis* medical experiments on persons

with special needs. And third, the position of Islamic jurisprudence *vis-a-vis* medical experiments on persons with special needs.

First, the Concept of Disability in International Conventions And Arab Laws and Its Reality in the Arab World

Article 1 of the *Convention on the Rights of Persons with Special Needs* defines the persons with special needs as those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.[1] On the other hand, the definition of persons with special needs adopted by the UAE legislature is in line with the concept of disability identified in the Convention. According to Article 1 of the Federal UAE Law No. 29 of 2006, as amended by Federal Law No. 14 of 2009, persons with special needs are persons with incapacity or failure of physical, sensory, mental, communicative, educational or psychological abilities, whether whole or partial, permanent or temporary, to the extent that reduces the possibility of meeting their ordinary requirements in the circumstances of their peers with no disabilities.[2]

The researcher observes that in this definition, the UAE lawmaker has combined medical and human rights approach to disability. This definition extends its protection to those with permanent and temporary disabilities based on the lawmaker's belief that they may be subjected to discrimination because of their disability. Furthermore, the lawmaker's concern to establish this new understanding of disability is demonstrated by dedicating Chapter V of the Federal Law No. 14 of 2009 to ensure the right of the persons with disability to enjoy a qualified environment free of environmental constraints. The lawmaker has recognized that disability is not limited to physical dysfunction or sensory or mental impairment of the disabled person, but rather goes beyond to the surrounding environmental constraints as well as other constraints.[3]

On the other hand, the World Health Organization, in collaboration with the World Bank, has prepared the first *World Disability Report*, which was released on June 9, 2011. The report puts forward an extended definition of disability and increases the percentage of persons with special needs in the population to 14% and even 15%. This means that one billion persons can be classified as persons with special needs out of the total world population of seven billion.[4]

The author believes that this report compiles the best available information on disability for the purpose of improving the lives of persons with special needs, and

[1] *Convention on the Rights of Persons with Special Needs*, United Nations, § 1. - *Rights of Persons with Special Needs*, §1, Emirate of Abu Dhabi, Judicial Department, First Edition, 2011, p. 12.

[2] *The Initial Report of the United Arab Emirates on the International Convention on the Rights of Persons with Special Needs*, p 19; *Rights of Persons with Special Needs*, § 1, Judicial Department, Emirate of Abu Dhabi, First Edition, 2011, p. 12.

[3] *The Initial Report of the United Arab Emirates on the International Convention on the Rights of Persons with Special Needs*, p 20.

[4] World Health Organization, *World Report on Disability,* at http://www.who.int/disabilities/world_report/2011/report/en/ (last visited May. 15, 2014).

facilitating the enforcement of the Convention. The report also proposes steps that can be taken by all parties concerned, e.g. governments, civil society organizations, and organizations of persons with special needs, in order to develop rehabilitation services and support; ensure adequate social protection; launch comprehensive policies and programs; and promote new and existing standards and legislation, all for the benefit of the persons with special needs and the community at large. In any case, persons with special needs should be at the very heart of these endeavours.

According to the Global Health Survey, 785 million people (15.6%) of those aged 15 or above live with some form of disability. On the other hand, the *Global Burden of Disease Report* refers to 975 million people (19.4 %), 110 million people (2.2%) of whom suffer from extreme difficulties in performing functions, according to the World Health Survey estimates, while 190 million people (3.8%) are considered to have "severe disability" (this term is used for conditions such as Tetraplegia, severe depression, or blindness) according to the *Global Burden of Disease Report*.

The *Global Burden of Disease Report* is the first to refer to disability that affects children aged 0 to 14 years. The report estimates indicate that 95 million children (5.1%) have disabilities, 13 million (0.7%) of whom have severe disabilities. According to the report authors, there are more than one billion persons with special needs, or about 15% of the world's population, based on 2010 world population estimates. This percentage is higher than the previous estimates of the World Health Organization amounting to 10%, which date back to the seventies.[5]

Second, the Position of Arab Laws; UAE Law as Case Study, *vis-a-vis* Medical Experiments on Persons with Special Needs

On December 13, 2006, the United Nations formally endorsed the *Convention on the Rights of Persons with Special Needs*, the first human rights convention of the twenty-first century. The *Convention* aims to protect and promote the rights of and opportunities available to people with special needs and disabilities in the world. Hence, the countries that have signed the *Convention* are required to abide by the national laws and dispose of the old ones. Under the *Convention*, persons with special needs are granted, *inter alia*, equal rights to education, employment, and cultural life; the right to ownership and inheritance of various properties; and the right not to be discriminated against in terms of marriage and children, and not to become entities divested of free will in medical experiments. Article 15 of the *Convention* provides as follows: "No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his or her free consent to medical or scientific experimentation."

[5] Arab Organization of Disabled Persons on the Internet: *First Global Report on Disability,* at http://www.aodp-lb.net/_report.php?events_id=55 (last visited Mar. 15, 2014); World Health Organization, *World Report on Disability,* at http://www.who.int/disabilities/world_report/2011/report/en/ (last visited May. 15, 2014).

The *Convention* has been ratified by many countries of the world, including the Arab States. Yet, the question is what is the impact of this *Convention* on the laws of the State Parties? In this article, the author seeks to analyze the impact of ratifying this *Convention* on the laws of the countries: UAE law as case study.

First of all, since its establishment on December 2, 1971, the United Arab Emirates has dedicated considerable attention and concern to the issue of disability. This is based on the grounds that persons with special needs are an integral part of society and they have similar rights and obligations to those of non-disabled members of the community. The United Arab Emirates, since its emergence, was keen that the basic principles of human rights, enshrined in the *Charter of the United Nations* and the *Universal Declaration of Human Rights*, are incorporated in its constitution and laws. In addition, the UAE has acceded to and ratified various international conventions on fundamental human rights, including the *International Convention on the Elimination of All forms of Racial Discrimination* (1974), the *Convention on the Rights of the Child* (1997), the *Convention on the Elimination of All forms of Discrimination against Women* (2004), the *Convention on the Rights of Persons with Special Needs* (2010), the *Convention against Torture* (2012), the *Convention against Transnational Organized Crime* (2007), and its supplementary *Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children* (2009). The UAE also has acceded to the *Arab Charter on Human Rights*, the *Cairo Declaration on Human Rights in Islam*, and Geneva conventions on international humanitarian law. In addition, it has ratified nine of ILO Conventions on working hours; forced labour; labour inspection; night work for women; equal pay; minimum labour age; and the worst forms of child labour.[6]

The author concludes that the attention dedicated by the UAE to persons with special needs is represented in the enactment of laws, legislation, and resolutions that safeguard the rights of this group of community members. The author believes that the UAE was concerned with persons with special needs even before the enactment of the *Convention on the Rights of Persons with Special Needs*. This concern is evident in the statutes, laws, and ministerial resolutions that aim to protect the welfare of this group of community members, and which have culminated in promulgating the Federal Law No. 29 of 2006 on the Rights of Persons with special needs. This law recognizes a wide range of rights for persons with special needs, and identifies the obligations of the State ministries, institutions, and bodies towards this community segment. Signing the *Convention on the Rights of Persons with Special Needs* and its supplementary Protocol on 12/2/2008 confirms the UAE commitment to these rights.[7]

[6] *The Initial Report of the United Arab Emirates on the International Convention on the Rights of Persons with special needs*, p 18.

[7] At the informal level, the objectives of Emirates Human Rights Association include raising awareness among individuals, including persons with disability, and identifying their rights and duties towards the community as well as the State's rights and duties towards them. The Association operates within the limits of the law, in cooperation with governmental and civil bodies inside or abroad the State, towards achieving its objectives. It further consolidates the principles of respect for individual rights, including persons with disability, eliminating any violations which they might be exposed to, and maintaining equality between

On the other hand, the UAE ratification of the *Convention on the Rights of Persons with Special Needs* affirms its commitment to ensuring the protection of the personal safety of persons with special needs, in accordance with Article 17 of the Convention, which stipulates that every person with disabilities has a right to respect for his or her physical and mental integrity on an equal basis with others. This right is warranted through the prohibition of using persons with special needs in medical experimentations without his/her consent or the consent of his/her guardian or his/her legal representative.[8]

The author is of the opinion that this fact is clearly reflected in the Federal Law No. 10 of 2008 on Medical Liability,[9] including Article No. (4), paragraph (4), which states that the medical practitioner, in particular, is required to inform the patient about the nature and seriousness of his/her illness, unless his/her interest requires otherwise, or his/her mental state does not tolerate informing him/her in person. The family of the patient should be notified in the following two cases: If the patient is a minor or incapacitated, or if the health condition of the patient does not tolerate informing him/her in person and it is impossible to obtain the approval of the patient to inform his/her family. Article 7 provides that except for emergencies, which require an immediate surgery to save the patient or fetus life, surgeries may not be performed unless certain conditions are met. Among these conditions are obtaining the written consent of the patient, if the patient has full capacity, or the consent of his/her relatives up to the fourth degree, if the patient lacks competence, or if it was impossible to obtain the patient's consent, on performing the surgery or any other necessary surgery, and afterward explaining to the patient the effects and potential medical complications that might arise from the surgery.

In addition, Article 8 provides that patients are not allowed to be discharged from a health care facility where they receive treatment, unless their health condition allows discharging them according to the common medical principles or based upon their desire to be discharged, despite being informed of the relevant consequences. A written acknowledgement should be signed by the patients or one of their relatives up to the second degree, if the patients lack competence, or their approval was not possible to be obtained. This acknowledgement should be documented in the patient's medical record.

Finally, Article 10 prohibits conducting medical research or experiments on human beings without obtaining a license from the authority specified in the executive regulation, and upon satisfaction of the conditions to be determined by the regulation.[10]

On the other hand, a free human being is entitled to rights to his body, which may not be compromised without his consent. Any infringement upon the freedom of the patient or his rights to his body, even if motivated by the interest of the patient, will

community members and non-discrimination based on religious and intellectual beliefs, colour, and race. *See* Emirates Human Rights Association, http://www.ehrauae.ae/arabic/index.php (last visited May. 15, 2014)

[8] *The Initial Report of the United Arab Emirates on the International Convention on the Rights of Persons with special needs*, pp. 36-37.

[9] Federal Law of the United Arab Emirates No. 10 of 2008 on Medical Liability, § §: 4; 7; 8; and 10.

[10] *The Initial Report of the United Arab Emirates on the International Convention on the Rights of Persons with Special Needs*, pp. 36-37.

make the responsible party liable, if this party could have obtained the consent of the patient. The consent is defined as the patient's descent of the immunity established by law for his body. When this consent exists, the medical work is no longer considered as infringement upon the right to be protected by law and the physician's act is considered permissible rather than criminalized. This was decided by the UAE Federal Penal Code which provides for the special conditions that should be satisfied for exercising the right to medication and surgery, including conducting these acts with the explicit or implicit consent of the patient or his legal representative.[11]

Third, the Position of Islamic Jurisprudence *vis-a-vis* Medical Experiments on Persons with Special Needs

To start with, scientific research and medical experiments on human beings have brought about the need to strike balance between the requirements of modern biology in the fields of medicine, surgery, and empirical scientific research, and maintaining a minimum degree of respect due to the human body and preserving the human dignity of persons with Special Needs. This can only be guaranteed by drafting new "bioethical" legislation to determine the lawful, legal, ethical, and humanitarian controls governing scientific research and medical experiments on persons with special needs.

The author believes that jurisprudential controversy in this regard lies between the scholars' aspirations and the Islamic controls, which aim to maintain the interest and health of human beings, especially the disabled, and protect humanity from damage, harm, and misery. Scholars have concerns about the dark side of science, which is generated when sharp contrast is drawn between science and ethics. The protection of the human body is prescribed by the Islamic law and is sanctioned by Islamic jurisprudence within a framework of rights, guarantees, and Islamic and ethical precepts, which ought not to be violated by the modern medical and biotechnological revolution.

The author's study of the opinions of contemporary Islamic jurists revealed that the scholars have divided this issue into two parts. First, if the disabled person is infected with the disease in respect of which the experimentation is intended to be carried out, the medical experimentation may be conducted subject to the following conditions: the condition of the person should be deemed as incapable of improvement through the recognized treatment methods, and conducting the experiment should stand in the interest of the involved patient. In addition, the entity that will carry out the experiment should have the necessary scientific and ethical capacity, and should not have a reputation for risking people's lives to satisfy scientific desires. Moreover, the experiment should be conducted with the consent of the patient or the person in charge of the patient, after being expressly informed by the doctor of the potential benefit or harm that may arise from the experiment under consideration.

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[11] *See* Abdul Ilah, Hamdi, *Medical Liability from a Legal Point of View*, (Paper Presented at the Second Arab Conference for Medical Liability, Dubai, 28-30/11/2012), p 14; and Abdel Aal, Medhat, *Nature of Physicians' Liability*, (Paper presented at the Second Arab Conference for Medical Liability, Dubai, 28-30/11/2012), p.1-2.

Second, if the disabled person is not infected with the disease for which the experimentation is intended to be carried out, most modern scholars have argued that it is not permissible to conduct the experiment in this case, on the grounds that God has honoured man, whether healthy or disabled. Allah says: "وَلَقَدْ كَرَّمْنَا بَنِي آدَم" "We have honoured the sons of Adam."[12] Additionally, the scholars advocating this opinion rested on the principle of natural equality among people, whether disabled or not. According to these scholars, it is not lawful to subject the body of the disabled person to risk and experiments, the benefits of which are unrealized generally, as opposed to conducting these experiments on the patient in order to find cure for the disease in question. This does not prejudice the principle of equality among people, because the person in this case is subjected to these experiments due to his illness and the failure of treatment through the proven means or methods. These scholars also based their opinion on the principle of protecting the human body. Man is obliged to maintain the integrity of his body in order to remain able to perform his social role. Regulations are keen to safeguard mankind from anything that may affect their safety. Moreover, they argue that the medical experiments would often cause damage to the person concerned, and do not have any proven positive result. The purpose of these experiments, they note, is not to cure the person of an illness from which he suffers. These experiments are illegal, even if authorized by the person subjected to the experiment. The consent of the person is of no relevance, unless the experiment is carried out to protect his body or due to a necessity authorized by the legislature, which is not the case in this instance. The proponents of this view conclude their arguments by referring to the lack of necessity, affirming that there is no urgent need to conduct medical experiments on the disabled. [13]

Other contemporary Islamic scholars permit conducting medical experiments on the disabled, if these experiments are geared towards scientific advancement, subject to a number of conditions. Among these conditions are: obtaining the measured and enlightened approval of the person who will be subject to the research or experimentation, or the consent of his representative. This person should have the right to revoke his approval and bring the experimentation to an end at any stage upon his request. In addition, there should be a legitimate justification for undertaking the scientific research and medical experiments on human beings, which is the interest targeted by

[12] Quran, Al-Isra, verse 70.

[13] Maabreh, Afaf Aiah, *Judgment on Conducting (Therapeutic) Medical Experiments on Human and Animal Subjects*, (Master Thesis, Yarmouk University, 2002), pp. 36-40; Al-Nafeesah, Abdul Rahman Hassan on the Internet: *Judgement on if the medical practitioner may perform tests on a patient treated by the same medical practitioner*, at http://fiqh.islammessage.com/NewsDetails.aspx?id=7293 (last visited Mar. 15, 2014); Zeini, Mahmoud Mohamed, *Medical Practitioners' Responsibility for Compensatory Operations*, (Alexandria: Culture University Foundation, 1993), p 122; Qudah, Mustafa Ahmed, *Rights of Persons with Special Needs between the Law vs. Sharia*, (PhD Thesis, University of Dar Al-Hadith al-Husseiniya, Rabat, Kingdom of Morocco, 1992), p 43; Aref, Arif Ali, *The Legitimacy of Disposition of Human Organs*, (PhD Thesis, University of Baghdad, Iraq, 1991), p 335; and Abu Al-Ashwaq, Abdul Ilah on the Internet: *Legitimacy and Legality of Science-Based Medical Experiments on Persons*, at http://www.amanjordan.org/pages/openions/6123.html (last visited Mar. 20, 2014).

the researcher or medical practitioner from conducting the treatment experiments for purely scientific purpose. The experiment in question should be preceded by adequate and serious laboratory and animal experiments, and the researcher should adhere to the religious, scientific and ethical rules governing medical practices in the course of experimenting on human beings, including the need to respect the principle of the physical entity of the patient. Furthermore, the expected or foreseen benefits should prevail over the potential risks caused by experimentation on humans, after obtaining the necessary administrative and government approvals. In addition, the control bodies in charge of the health regulation should be informed, and the rules and standards set forth in the relevant international agreements should be observed, including the *Declaration of Helsinki* (1964), as well as the *Declaration of Tokyo* (1975). Any hospital authorized to set up a centre for experimental medical research, including transfusion and transplantation of human organs, tissues or cells; unprecedented surgeries; and medical experiments on the disabled, should maintain insurance covering medical liability resulting from damage to the person involved in the scientific research or medical experimentation.[14]

This group of scholars note that the ethics of medical experimentations on the disabled should be emphasized. The medical practitioner or researcher, in conducting the research or the experiment, should be guided by the set of rules, conditions, customs and ethics regulating experimental research on human subjects, with the aim of protecting the life, body, and corpse of the person with disability. Utmost respect of the human being, whether alive or dead, should be maintained under the Islamic law. Accordingly, this requires exercising vigilance and caution; commitment to scientific seriousness; adequate prevention of risk; determining the physical framework of the experiment; and adherence to the scientific requirements of experimental research on human subjects. Therapeutic medical experiments are perceived as legitimate only if the benefits derived from such experiments outweigh the risks involved, and are carried out with the consent of the person subject of the therapeutic experimentation, and in conformity with the ethical and scientific principles, and the rules regulating the practice of experimental art.[15]

The medical experiments on human subjects should be undertaken by a highly qualified and competent physician, no less than a consultant in the relevant discipline, and should be assisted by adequately qualified medical team. Further, such scientific

[14] *See*: Belhadj, Al-Arabi on the Internet: *Conditions for Experimental Science-Based Medical Research,* at http://fiqh.islammessage.com/NewsDetails.aspx?id=6882 (last visited Mar. 20, 2014); *A law that allows medical experiments on human beings raises legitimate controversy,* at*:* http://www.alwatan.com/graphics/2001/Dec/21.12/heads/ft9.htm, (last visited Jul. 25, 2014); and Belhadj, Al-Arabi, *Experimental Scientific Medical Research Conditions,* at: http://fiqh.islammessage.com/NewsDetails.aspx?id=6882, (last visited Mar. 20, 2014).

[15] *See* Al-Othman, Abdul Rahman Ibrahim, *Medical Experiments on Persons: A Comparative Jurisprudential Study*, (PhD Thesis, Imam Muhammad ibn Saud Islamic University, Kingdom of Saudi Arabia, 2010) 1432, p 129; and Saleh, Fawaz, *The Impact of Scientific Progress in Biomedicine on Patients' Rights: Comparative Legal Study* (Damascus University *Journal of Economic and Legal Studies*, 2009, Volume 25, Number 2), p. 400.

experiments should be conducted only in licensed hospitals that have the necessary medical specialties, the required expertise and capacity, and the requisite technical resources and supplies to conduct such pilot and unprecedented experiments. Over and above, these tests should be subject to constant scrutiny by the medical community in the state concerned.[16]

In the final analysis, the rights of the subject of scientific research or medical experiments should be respected; his physical and mental safety and human dignity should be protected; the health and safety of his organs and functions should be maintained; and the effects of the experimental operation on his physical and intellectual abilities should be kept to a minimum. It is not permissible for the medical practitioner or the researcher to impair the physical or mental safety of the person without his consent, or without authorization by the Islamic law. Moreover, the medical practitioner or researcher involved may not trade in or manipulate human organs, tissues or cells, contrary to the provisions of Islamic jurisprudence. Islamic law provides for the penal, civil, and disciplinary liability of physicians, surgeons, and researchers, if the experimentation is conducted without consent of the subject, without informing him of the full risks anticipated, or without informing the medical control bodies. In conclusion, any hospital authorized to set up a centre for scientific and medical research on human subjects is required to establish a medical ethics committee. The mandate of this committee would be to ensure the satisfaction of the legal, scientific, and ethical conditions for experimenting on human subjects, and that the highest degree of care for the human subject of research or medical experimentation is exercised and guaranteed.[17]

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[16] *See* Al-Othman, supra note 11, pp 109-110; Al-Fadhel, Munther, *Medical Experiment on the Human Body*, (*Kufa Legal and Political Science Journal*, 2010, Vol. 7), p 25; and Othman, Mohamed Raafat, *Use of Human Beings as Test Subjects in Experiments,* at: http://www.onislam.net/arabic/ask-the-scholar/8358/8346/52350-2004-08-01%2017-37-04.html, (last visited Jul. 25, 2014).

[17] Othman, Mohamed Raafat on the Internet: *Using Human Beings as Subjects of Scientific Experiments*, at http://www.onislam.net/arabic/ask-the-scholar/8358/8346/52350-2004-08-01% 2017-37-04.html (last visited Mar. 15, 2014); Al-Ghareeb, Mohamed Eid, *Medical or Scientific Experimentations and the Sanctity of the Human Body*, (no publisher, 1989 m), p 15; Al-Ghamdi, Khalid Abdullah, *Human Right to Health Safety in Law and Sharia: A Comparative Study of the State Conventions*, (Master Thesis, Naif Arab University for Security Sciences, Riyadh, 2007), pp. 175-177; Abu Matar, Nariman Wafeek, 2011, *Scientific Experiments on the Human Body: A Comparative Jurisprudential Study*, (Master Thesis, Islamic University of Gaza, 2011), pp. 85-86; Belhadj, Al-Arabi, *Provisions of Medical Experiments on Human Beings in Light of Sharia and Contemporary Medical Laws*, (Amman: Dar Al-Thaqafah, 2012), p 73.

Conclusion

The *Convention on the Rights of Persons with Special Needs* approves conducting medical experiments on the persons with special needs, subject to their free consent. The *Convention* was ratified by a number of Arab states, including the United Arab Emirates. The ratification of this *Convention* has given rise to enacting special laws in the United Arab Emirates.

On the other hand, there are differing views in Islamic jurisprudence as to this issue. Certain scholars permitted these experiments, on the proviso that such experiments are carried out for the treatment of the disabled, while they described them as forbidden if intended for scientific advancement. Other scholars permitted carrying out medical experiments on persons with special needs, whether aimed at the treatment of the disabled or delivering scientific advancement. The opinion of this group is consistent with the *International Convention* and Arab laws. However, the *Convention* and the Arab laws did not regulate this issue by definite and comprehensive conditions, as addressed by some contemporary jurists. It is recommended that the *Convention* and the Arab laws adopt these conditions. Additionally, the *Convention* does not state whether the experimentations may be conducted for the interest of the person with disability or for the purpose of scientific advancement. The text of the *Convention* is unclear and therefore requires further illumination.

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