AAPLOG

COMMITTEE OPINION

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State Restrictions on Abortion: Evidence-Based Guidance for Policymakers

The Supreme Court decision on Dobbs v. Jackson *returns abortion regulation to each state, similar to the way the practice of medicine is regulated at the state level. State policymakers must be aware of the most up-to-date evidence on abortion and the effects of abortion restrictions in order to implement what is best for their constituents. There is no scientific evidence that restricting elective abortions leads to increasing maternal mortality; in fact, several good-quality studies show a decrease in maternal mortality after abortion restrictions have been implemented. State restrictions which enforce standard medical care, such as making a diagnosis before implementing an intervention, requiring fully informed consent with appropriate waiting periods between decision and intervention, and requiring screening for contraindications, including mental health risk factors, are common-sense interventions. Restrictions on elective abortions—those procedures done with the primary intent to produce dead offspring—will have no effect on medically-indicated separation procedures necessary to save the life of a woman.*

Background

The court that wrote *Roe v. Wade* into jurisprudence recognized that governments have legitimate interests in protecting a fetus, such as the interest in population and economic growth. However, the *Roe* court did not delineate what this fetal interest is or how it is to be applied. The Court only commented that state interests increase with gestational age, and they created a "trimester" system (then unknown in obstetrics) to crudely delineate when the states were allowed to pass any regulations on abortion.[1]

For the past 50 years, *Roe* largely quashed difference of interpretation of that interest — all states were functionally required to relinquish any interest in protecting fetuses until the third trimester, when they could

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theoretically restrict abortion, protecting fetal life. As the limits of fetal viability were extended into the second trimester by survivals of fetuses born at 24 weeks, a second Supreme Court decision, *Planned Parenthood v. Casey*, eliminated the *Roe* trimester limitations, instead substituting a viability standard that allowed states to restrict abortion on the basis of fetal interests after viability.[2] Since then, states have passed laws displaying varying interpretations of the state's interest in protecting fetal life and some judges have treated some fetuses as juridical persons.[3]

Roe's court acknowledged that there is difference in opinion about when human life begins, but did not engage with any evidence for these opinions or allow any opinion other than its own. The *Dobbs* court has appropriately reestablished states' legal ability to determine how to protect their compelling and legitimate interests in fetal life, in accord with the values held by the people.

Additionally, there are a variety of perspectives on how to define women's health and how this intersects with the interest in protecting the fetus. Although abortion advocates often discuss the harms to women due to abortion restrictions, there are very few comparisons of abortion policy in the United States given the forced uniformity of *Roe*. However, available data from natural experiments worldwide suggest that abortion restrictions are not automatically associated with undesired or adverse outcomes.

Clinical Questions and Answers

Q Do abortion restrictions prevent physicians from ending pregnancy for the sake of saving maternal lives?

Appropriate abortion restrictions do not prohibit physicians from ending pregnancy in the case that the life of the mother is threatened. A recent survey of obstetricians in private practice indicates that only 7% perform abortions, suggesting that abortion is not essential to women's health if over 90% of women's health physicians do not offer it.[4-6] If a life-threatening maternal medical condition requires separation from the fetus, delivery can be initiated without the primary intent to cause a fetus to die. Preterm and even previable delivery of an intact (and usually living) infant to save the life of the mother is fundamentally different from intentionally ending the life of the fetal human being prior to delivery, often by means of dismemberment.[7]

In fact, separation procedures or deliveries designed to avoid overt feticide can be as fast as abortions that make feticide a goal. Deliveries can be accomplished surgically or medically. In the case of a need for emergency separation to save the life of the mother, a C-section can take place in approximately 30 minutes or less, comparable to the speed of a surgical abortion. An induction with gestational age-appropriate doses of misoprostol or Pitocin usually take approximately 24 hours, which is

comparable or slightly slower than medication abortion.[8]

Q Is the availability of abortion by dilation and evacuation (D&E) important for women's health?

After 14 weeks, dilation and evacuation (D&E) is a common way to quickly terminate pregnancy, as D&C becomes less feasible due to fetal maturity and calcified bones. D&E requires that the cervix be dilated, which may be done with osmotic inserts placed hours before the procedure and/or sterile metal rods of increasing size. Once the cervix is open to a sufficient size to allow passage of fetal parts, the body of a fetus is removed in pieces. By this gestational age, this means removing a fully formed head and face, four extremities, fingers and toes, and most internal organs in their mature configuration.[9] The fetus dies either of exsanguination due to tearing of the umbilical cord or other arteries, or directly from crush injuries to the spinal cord, brain, or heart. The placenta is also removed. Depending on the cervical dilation, larger pieces of the fetal body may emerge—even the entire fetus. Cervical dilation is the step of this procedure which likely causes the well-documented increased risk of subsequent preterm birth after these procedures.[10,11]

Often, the most difficult part of a D&E is extraction of the fetal head with its calcified but fragile skull. Grasping the skull may lead to extrusion of brain contents out of the woman's body. This may cause fetal death if not already achieved by other injury and may cause cervical laceration from bone fragments.

At the end of the procedure, the fetal parts are reassembled to ensure their presence outside of the uterus, and ultrasound is often used for confirmation of an empty uterus, as remaining parts could lead to infection or hemorrhage. This procedure was described by former Justice Ruth Bader Ginsburg as "tear [the fetus] apart."[12]

D&E is *not* a required option to protect maternal safety; rather, it represents an unnecessary ending of the life of a fetal patient. At times, D&E is used after the age of viability, which is described as 22-24 weeks gestational age (20-22 weeks conceptional age).[13] This fact puts the purpose of D&E in stark light: if there is another way to end pregnancy in settings to protect maternal health, then demand for D&E cannot stand solely on grounds that it is needed to protect maternal lives. Instead, D&E becomes a redundant option distinguished by the end result of an assembly of body parts on a table, rather than a neonate. Women's health does not require dead fetuses; it only requires the ability to separate from a fetus when medical safety demands it.

Abortion providers do not deny that the purpose of D&E, and abortion in general, is to produce a dead fetus. The Royal College of Obstetrics and Gynaecology points out

that abortion providers should be intentional about achieving feticide to avoid live birth.[14] In the partial-birth abortion ban hearing before the Supreme Court, abortion providers claimed that their product was to produce a dead fetus, and that banning procedures which would ensure that the fetus was dead was an infringement on their trade—a telling admission about a procedure which "kills the fetus and is distinct from delivery."[15]

Q Is the availability of abortion by dilation and extraction (D&X), or intact D&E, important for women's health?

Partial-birth abortion (also called D&X or intact D&E) was used to end pregnancy after 22 weeks gestational age before a federal ban on the procedure in 2003.

In this procedure, done up to term, the cervix is dilated so that the operator can reach the fetal legs with instruments (often reaching past the fetal head, face, and other extremities). The legs, followed by the entire body of the fetus, are pulled into the vagina, trapping the head at the cervix. With the head entrapped, the base of the skull is punctured and the brain stem is disrupted, similar to pithing for vivisection of lab animals. The skull is then emptied of its contents with suction to allow easier passage of the head through the vagina. The federal ban on this procedure was upheld by the Supreme Court.[15]

This procedure was developed to spare women the risk of internal laceration due to skull and other bony fragments, but this risk can also be avoided by pursuing induction and vaginal delivery of a fetus without feticide. Intact D&E thus provides no unique or vital role in protecting women's health, over and above delivery for maternal safety.

Q What does a dismemberment abortion ban prohibit, and why ban dismemberment abortion?

Most dismemberment abortion bans prohibit D&E, although most also have an exception that allows D&E on a living fetus when needed to save the maternal patient's life or to prevent serious irreversible physical harm, which will be alleviated by separating the mother and the fetus.

Dismemberment abortion bans may be pursued by policymakers whose constituents seek to prohibit living human organisms from experiencing painful stimuli until their death by feticide. This is an unnecessary addition to the steps required to end pregnancy for the sake of the mother.

There is increasingly definitive evidence that fetuses at the gestational ages when D&E is common possess neurological structures that transmit painful stimuli to the brain.[16] This same evidence has prompted the use of fetal analgesia and paralytics for fetal surgery at gestational ages in the second and third trimesters.[17]

During exposure to painful stimuli (presumably including dismemberment), fetuses display an increase in heart rate, increase in serum stress hormones, and withdrawal from the stimulus. AAPLOG supports bans on dismemberment abortions on living fetuses out of concern that performing feticide in a way that causes a pain or stress response is not only unnecessary but unethical.

Q Is feticide by other means, without dismemberment, important for women's health?

Potassium chloride injection, digoxin injection, and saline induction are ways of ending fetal life prior to delivery and are performed throughout pregnancy. Saline induction is usually performed after D&C becomes more difficult (after 14-20 weeks) and is not used as often as it was in the 1970s. Potassium chloride and digoxin may be used as early as the first trimester.

Injecting potassium chloride into the heart or amniotic sac of a fetus or embryo causes death by cardiac arrest, similar to its use to induce cardioplegia in adult cardiac surgery when the patient is on cardiac bypass.[18] Without bypass, potassium chloride is effectively a lethal poison. After death from this injection, the fetus or embryo's body is either using medication, removed by curettage or other mechanical means, or (as in selective reduction) may remain alongside living siblings until delivery of the surviving fetus(es).

Injecting digoxin into the heart or amniotic sac of a fetus or embryo is also cardiotoxic. In patient-facing literature from abortion providers, this medication is described as useful to "decrease the risk of live birth" and "the risk of the doctor or nurse violating the federal [partial birth] abortion ban," causes an increase in cardiac contractility and cardiac failure in most cases.[19] It is not used to cause delivery or to separate mother from child; in fact, delivery is listed as an unwanted adverse effect.[19]

In saline inductions, a needle is used to introduce a supraphysiologic concentration saline into the amniotic fluid, which causes surface injury to the placenta, the skin, mucous membranes, the respiratory tract, and the gastrointestinal tract. The fetus suffocates as his or her oxygen supply is cut off by the constriction of the fetal blood vessels in the placenta or from electrolyte derangement.[20] Fetal death due to saline abortion takes place over 24 to 30 hours. Saline induction is less common due to the number of fetuses who survive attempted feticide and become advocates against abortion and for healing relationships with their families.[21] Some of these survivors relate that a second feticidal attempt was made prior to delivery to avoid live birth, which again demonstrates the separation from delivery and the feticidal intention of non-dismemberment abortions.

Q Is it mandatory to resuscitate a periviable infant born after a delivery is done, rather than a D&E?

A periviable infant (variously interpreted in the United States as one between 20 and 24 weeks gestational age) is a critically ill patient due to developmental immaturity. As is the case for any other class of critically ill patient, these neonates can be offered goal-oriented intensive care including resuscitation and invasive interventions or can be offered comfort-oriented end of life care such as warming, morphine for air hunger, and feeding if applicable.

A previable infant born alive (variously interpreted as a fetus delivered before 20 to 24 weeks, with those before 20 weeks being termed *abortus* or miscarriage in medical literature) is a patient at the end of his or her natural life. As with all end-of-life patients, priority should be placed on comfort and anticipatory grief for family members and other second victims, such as healthcare workers.

As a corollary to this, healthcare providers should not create situations in which the fetal patient is made critically ill unless the maternal patient is likewise facing critical illness and has a serious or acute indication to end the pregnancy. In no other situation would a healthcare provider iatrogenically cause critical illness when another solution is possible; just so, previable or extremely preterm delivery without medical indication is not part of responsible obstetric care. As noted by other professional organizations including the American College of Obstetricians and Gynecologists, a well-timed delivery should be a means of avoiding, not causing, complications.[22] More complete descriptions of the interaction of ethically ending pregnancy[23] and perinatal palliative care[24] are published under separate cover.

Q Do abortion restrictions actually decrease abortion rates?

Abortion restrictions can decrease abortion rates, but statistics are often used to misrepresent this effect. One example of this statistical misrepresentation is found in the assessment of the Mexico City Policy, later known as the Protecting Life in Global Health Assistance Policy (PLGHA). PLGHA is a policy through which the United States restricts USAID funding to organizations that promote abortion in the developing world, while still permitting maternal care. PLGHA has been instated and revoked several times with the changing U.S. political landscape.

Authors associated with the Guttmacher Institute have asserted that countries impacted by this policy saw an *increase* in abortions while the policy was implemented.[25] This is alarming for PLGHA supporters, who aim to promote authentic maternal healthcare and decrease the rate of abortion. However, this conclusion emerges from a misuse of a statistical model called the difference-in-differences

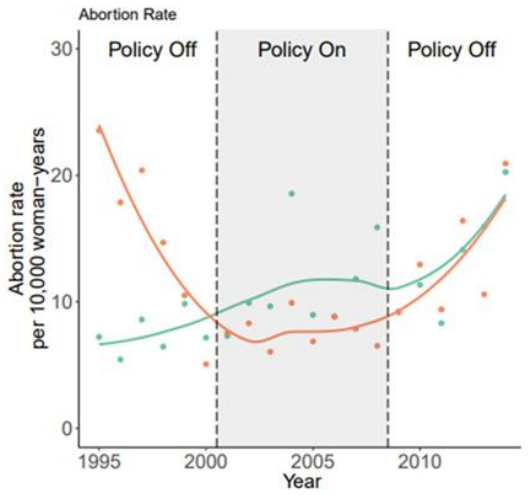

Figure 1. Rates of abortion in countries receiving significant (green) vs less (orange) USAID. Reproduced from The Lancet, Brooks et al., with permission.

assessment, which obscures the impact of policies on abortion rates.

The difference-in-differences model is an econometric model designed to assess the impact of an intervention over time using a comparison group in which the intervention was not implemented. The method compares the difference between the intervention and comparison groups before the intervention is implemented, to the difference between them afterwards. The impact of the intervention is judged by how much the difference between the two groups changes, not on the actual change within the intervention group, which accounts for background trends due to other causes. With this model, investigators compared relative changes in abortion rates, not actual numbers. The authors compared abortion rates in countries most reliant on USAID funding to those less reliant on USAID funding. Their data are presented so that it appears there was a paradoxical increase in abortions with the PLGHA in the countries reliant on USAID funding, when in fact those countries' rates stopped rising and began to fall while the policy was in place.

A closer examination of the data demonstrates this (Figure 1).[25] The abortion rates between countries with the most influence from USAID funding (green) and the least influence from USAID funding (orange) did not move in parallel prior to the PLGHA. Without PLGHA, abortion rates were rising in the countries receiving more USAID funding but were falling in countries receiving less. This violates the "equal trends" assumption of the difference-in-differences model and therefore makes it an inappropriate analysis of the impact of PLGHA. With the implementation of PLGHA, countries reliant on USAID funding eventually saw a decline in abortion rates before the policy was revoked, when abortion rates increased sharply again. This picture is against a somewhat confusing background of countries less dependent on USAID funding, which saw increases and decreases in abortion rates less connected with PLGHA.

Overall, there is not a universal answer available as to whether abortion restrictions uniformly decrease abortion rates; many variables are at play, such as socioeconomic and cultural factors, as well as access to maternal and child healthcare. Further study would be necessary to respond to the answer in each case with straightforward data.

Q *Does expanding abortion access increase abortion rates?*

A common assertion is that legalizing abortion keeps the number of abortions stable while decreasing the proportion of unsafe abortions, but this contradicts U.S. estimates between 1972 and 1973. In 1972, NARAL estimated there were 200,000 illegal abortions,[26] and census data documents approximately 4,176,000 females aged 15 to 44,[27] for a total rate of 3.1 abortions per 1000 women. The Guttmacher Institute, which provides statistics on abortion rates from 1973, reports an abortion rate of 16.3/1000 in 1973, more than five times the pre-*Roe* rate.[28]

Q *Do abortion restrictions result in higher maternal mortality rates?*

Abortion advocates often assert that maternal mortality rates inevitably increase when women cannot readily access abortion, but very poor data exist to support this claim.[29] In fact, some data suggest that *abortion* is associated with higher mortality rates, and restrictions may result in improved maternal outcomes.

In Finland, where health data is centralized and progressive policies are in place, abortion is associated with 49.5 maternal deaths per 100,000 women; in comparison, all external causes of death after delivery represented only 8.1/100,000. For all pregnancy outcomes in all age groups under 40, mortality rates were highest after termination of pregnancy.[30] This may relate to several things, including that patients seeking abortion may have a higher baseline risk of maternal mortality. Even if this statistic is very biased, it shows that abortion is unable to resolve any underlying mortality risk.

It is noteworthy, too, that abortion is associated with high risk of maternal death even though Finland only permits abortions before 12 weeks, the least dangerous time of abortion. In contrast, most U.S. states permit abortion through the second trimester, even though the risk of death due to induced abortion increases by 38% for every week after eight weeks gestation.[31] Maternal health outcomes in Finland are superior to U.S. outcomes, and statistics such as these support restriction of abortion to improve rates of maternal mortality.

Mexican states with more restrictive abortion laws had lower overall maternal mortality ratios (38.3 vs 49.6; $p < 0.001$) compared to Mexican states with more permissive abortion laws. Moreover, abortion itself may also be safer in states with more restrictive laws, given that these states have lower maternal mortality ratios after induced abortion (0.9 vs 1.7; $p < 0.001$).[32]

In Chile, an enormous drop in the rate of maternal mortality over a fifty-year period was largely related to health and safety infrastructure. During this period, Chile made abortion illegal, but continued to see the same improvement in maternal mortality rates—making abortion illegal neither improved nor perturbed the improvement in maternal mortality.[33]

South Africa, a counterexample has seen maternal mortality rates *improve* with legalization of abortion after a longstanding prohibition.[34] As in Chile, abortion restrictions are one variable in a network of contributors to maternal mortality, but they do not automatically increase the rate of maternal deaths.

Q Do abortion restrictions result in sub-standard care for women?

Women seeking abortions deserve the same level of healthcare as any other woman. In many cases, abortion restrictions improve the level of care for women by making abortion more like other interactions between physicians and their patients. Restrictions such as ultrasound requirements, hospital privileges and waiting periods can protect women who deserve care like patients in other areas of surgical and pregnancy care.

Ultrasound requirements require abortion providers to verify gestational age and pregnancy location. Put simply, these restrictions ensure that providers make an accurate diagnosis before beginning an intervention. The risks of abortion increase significantly the further along in pregnancy a woman is, so accurate assessment of her gestational age is crucial to providing her a correct sense of the risks she accepts by consenting to abortion.[31] The American College of Obstetricians and Gynecologists (ACOG) describes that only half of women accurately recall their last menstrual period, the simplest way to date pregnancy. For this large proportion of women, dating should be based on ultrasound estimates. Women without an ultrasound to confirm or revise their due date before 22 weeks are suboptimally dated.[35]

According to this guidance, women who do not receive an ultrasound prior to abortion are suboptimally dated, which diminishes the accuracy of providers' counseling about procedure risks. However, in the case of abortion, ACOG claims that ultrasounds are "medically unnecessary" prior to abortions.[36] ACOG does not comment on how informed consent could be adversely impacted or even impossible without accurate knowledge of intrauterine location and gestational age. In contrast, AAPLOG recommends ultrasounds as medically appropriate.[37]

Hospital privilege requirements help abortion providers accurately assess complications and outcomes of their procedures and prevent women from being medically abandoned after their procedure. Currently, the ramifications of abortions are not usually felt by the abortion providers or clinics, but by urgent care facilities, emergency departments, and other women's health providers who provide treatment for abortion complications.[38] These providers typically do not have contact with the abortion providers or access to patient histories, which represent a significant gap in communication about care.

ACOG acknowledges that "accurate communication of information about a patient from one member of the health care team to another is a critical element of patient

care and safety" and that "[o]ne of the leading causes of medical errors is a breakdown in communication."[39] In fact, ACOG describes a "handoff" as "the transfer of patient information and knowledge, along with authority and responsibility, from one clinician or team of clinicians to another."[39] ACOG does not encourage any form of handoff between abortion providers and emergency personnel and no standards for such handoff exist. One alternative to handoffs would be to have abortion providers on call for surgical complications, like many surgical providers in the American healthcare system, but ACOG guidelines do not support this practice.

In summary, ACOG's general communication standards are excellent for women's health, but need to be consistently applied to providers who perform abortion. In the absence of this practice, states may have a vested interest in regulating patient handoffs or admitting privileges to avoid medical error, patient abandonment, or inaccurate perception of complications among those performing abortions.

Q *What supports restrictions on the provision of abortions by non-physician practitioners?*

Non-physician healthcare providers became more common in abortion provision after the National Academy of Sciences (NAS) report which encouraged their involvement.[40] It is possible that the majority of OB/GYNs do not wish to provide abortions.[4-6] In general, OB/GYNs more often intervene in pregnancies for medical reasons, while most abortions are done for social reasons.[41] Advanced Practice Registered Nurses (APRNs) and Certified Nurse Midwives (CNMs) are now able to provide abortions.[42]

Ancillary healthcare workers do not have the same level of training as physicians. Provision of surgical procedures by health care providers who are not trained in recognizing or treating the complications that inevitably follow greatly increase the risk to women who undergo these procedures. Women seeking abortion deserve the same level of care as any pregnant woman, and they do not get that without the care of a physician who has undergone years of hands-on education in surgical technique and hemorrhage management.

Physicians who are certified and licensed to operate on the female reproductive system complete undergraduate training, followed by an additional four-year accredited medical school program. OB/GYNs, the surgeons who predominantly operate on women's reproductive organs, then further complete an additional four-year postgraduate residency program that specifically trains them in performing surgical procedures and the recognizing and managing of treatment complications. This training includes exposure to many procedures, different anatomical variations, different clinical outcomes, and various complications. Residents' medical knowledge is tested through a yearly exam, and after residency, OB/GYNs must pass written and

oral board certification examinations. For the years they are in practice, OB/GYNs complete continuing education. Due to concerns for patient safety and liability, most hospitals do not allow physicians who are not board certified to operate on any of their patients.

Further evidence of the need for years of training is that the American Board of Medical Specialties has recognized the inherent complexity in performing abortions in the second and third trimesters by approving an additional two-year subspecialty training for abortions performed beyond the first trimester.[43]

The healthcare training of ancillary healthcare workers (non-physicians) is not equivalent in depth to the training received by physicians. For example, the requirements for midwifery training as outlined by the American College of Nurse Midwives (ACNM) include only a bachelor's degree with or without being a registered nurse (usually with plans for accelerated nursing studies prior to midwifery education) or RN without a bachelor's degree (usually only when bridging to a BSN prior to midwifery studies).[44]

CNM training is focused on normal delivery of term infants, under the supervision of a physician. Their training does not focus on performance of normal or abnormal surgeries on the female reproductive system, nor does it include training in the management of surgical complications of D&Cs including perforation of the uterus or nearby organs.

An APRN may have even less training.[45,46] An APRN may hold a bachelor's degree in nursing but may also enter APRN training with a three-year associate degree. APRN training programs typically require between one and three years of additional training, some of which may be conducted online. Their training also does not focus on the performance of normal or abnormal surgeries on the female reproductive system, nor does it include training in the management of surgical complications of D&Cs including perforation of the uterus or nearby organs. Neither a CNM nor an APRN would be eligible for surgical privileges at a hospital, because hospitals know the risks to patients that come from unskilled personnel providing surgery beyond their training.

Q Is it safe to permit non-physicians to perform surgical abortions?

Pregnancy results in dramatic anatomical, physiological and biochemical changes to every maternal organ.[47] Years of surgical experience with complication management provides more safety for women than provision by nonsurgically trained personnel such as midlevel providers. At least 1 in every 50 surgical abortions require additional surgery to manage complications.[48] Of abortions provided by non-physicians or even physicians without surgical training, this means 1 in every 50 patients needs a physician to manage the complications of this provider's actions.

Moreover, multiple causes of severe injury and death after abortion are best managed by persons with an in-depth medical and surgical education; these include hemorrhage (5.6%), genitourinary tract laceration (3.3%), retained products of conception (1.6%), uterine perforation (0.2-0.5%), uterine rupture (0.04-0.28%), infection (local or systemic), venous thromboembolic disease, rare complications of anesthesia, and rare cardiac or cerebrovascular events (heart attack or stroke). Incomplete tissue removal or damage to adjacent gynecologic, genitourinary, gastrointestinal or vascular organs may require additional emergency uterine surgery, hysterectomy, bowel resection, bladder repair, or other surgeries.[48-53] Abortions performed by non-physician providers may be at greater risk for complications, although there is definitive evidence of this.

Even if policymakers desire to allow non-physicians or physicians without surgical training to perform some abortions, evidence should be borne in mind that not all abortions are equivalent. The frequency of complications increases with gestational age due to the greater degree of anatomic and physiologic changes later in pregnancy.[31] Women are more likely to suffer hemorrhage, uterine perforation, and all complications with greater uterine size.[54-58] The overall rate of death for late term abortions in one study was almost tenfold the rate of death of all abortions (6.7 vs 0.7 per 100,000).[58]

Compared to first trimester abortions, the relative risk of maternal death from abortion at 13-15 weeks was 14.7 times higher (1.7/100,000), at 16-20 weeks was 29.5 times higher (3.4/100,000), and after 21 weeks was 76.6 times higher (8.9/100,000).[30]

These data may prompt restrictions on the provision of abortion by non-physicians to certain gestational ages, or completely prohibit these providers from performing abortions given their lack of in-depth training for dealing with complications of pelvic and obstetric procedures.

Q *Is there any consensus by various medical organizations on surgical training requirements for abortion procedures?*

The 2016 consensus statement from 32 medical and surgical societies focused on requirements for patient safety during surgical procedures.[59] All of these ten core principles assume that the person performing the surgery or procedure is of the minimal level training of a physician. Six of ten core principles are specifically violated by allowing APRNs or CNMs to perform office-based surgery.

Starting a surgical or medical procedure without having the skill set and ability to handle the known complications of that procedure is unethical. However, currently, many abortion providers do not maintain hospital privileges and their patients with complications are commonly sent to the local emergency room to be cared for by other physicians who often do not have the medical record of the patient. In rural areas, emergency providers may not have consulting physicians on call to

handle uterine perforations or other complications from surgical or medication abortion.

Q Would allowing non-physician providers the ability to perform abortions increase access for women who live far away from abortion providers?

One argument frequently made for allowing non-physician providers to offer abortions (especially medication abortion) is to increase access for women who desire elective abortions, but who live a long distance from an abortion provider.

Most studies of medication abortion were done in locations where emergency care is readily available for complications.[60] Cochrane reviewers take care to emphasize that results may not be generalizable to other settings such as rural locations.

Medication or surgical abortion performed by a non-physician provider without adequate backup and without knowledge, training or equipment to manage life-threatening complications should be unthinkable. Hemorrhage can occur rapidly due to anomalous anatomy, incorrect gestational age, undiagnosed ectopic pregnancy, or poor surgical technique. A woman remote from assistance may easily die from massive blood loss.

Some CNMs and APRNs perform procedures such as colposcopies, endometrial biopsies, and LEEPs, but these are not comparable to abortion. These procedures are done on non-pregnant patients who have a lower risk of bleeding and do not require the level of sedation needed for an abortion. The possible complications from these procedures are minimal compared to the complications which can occur after medication or surgical abortion.

Patient safety is not well-served by permitting non-physician provision of abortions. If a woman desires an abortion, it is far safer for her to travel to an area where there are adequately trained personnel and emergency services. Elective abortion is not an emergency medical procedure although its complication rates are gestational-age-specific; thus, making elective abortion available in many areas at the expense of the safety of this availability is misplaced compassion.

Q Do abortion restrictions result in coercion of women?

Just as some restrictions aid diagnosis by confirming intrauterine pregnancy and gestational age, others can aid informed consent. A 2004 study that surveyed women who had undergone abortions in the U.S. showed the importance of waiting periods, increased counseling and in-person visits in order to screen for coercion and ensure informed consent.[61] Selected findings include:

- 67% of women stated they received no counseling prior to their abortion.

- Only 11% of women felt that the counseling they received prior to their abortion was adequate.
- Only 17% of women were counseled on alternatives.
- 64% of women responded that they felt pressured to have the abortion.
- 54% of women were unsure about their abortion decision at the time of their abortion.
- 30% of women who responded had health complications after their abortions.
- 36% of women had suicidal ideations after their abortions and 54% felt badly about their decision.
- 60% of women stated that they felt "part of me died."
- Only 4% of women claimed to feel more in control of their life after their abortion.

This cohort of patients' experiences is vulnerable to recall bias and selection bias, but it nevertheless provides evidence that some women remember their abortion as an experience of uncertainty, incomplete counseling, and regret. This suggests that a particular type of restriction, such as waiting periods or specific requirements for informed consent, may improve consent and sureness about decision-making.

A more recent survey of women who experienced medication abortion revealed that women feel the need for help after abortion:

- 82% did not know where to go for help after abortion
- 24% searched for help after their abortion experiences[62]

An advantage of restrictions might be to provide handoff, resources for post-abortion care, or follow-up. Potential advantages of waiting periods include the ability to provide standard medical care, such as Rho(D) immunoglobulin administration when indicated, which decreases the rate of alloimmunization in future pregnancies.[63]

Q Could abortion restrictions decrease preterm birth rates?

This question has never been directly studied. However, the Institute of Medicine lists surgical abortion as an immutable risk factor for preterm birth (PTB),[64] as over 165 studies converge on increased risk and dose effect from multiple abortions.[10,11]

Preterm birth adds $26.2 billion to U.S. healthcare expenditures yearly[65] and has unmeasured long-lasting costs related to the higher rates of cardiovascular disease and stroke among mothers who deliver preterm infants.[65] This increased risk of preterm birth is especially impactful in Black women, who already have a three-to-four-fold higher abortion rate and double the preterm birth rate compared to

non-Black patients.[66,67] As a result, states may see a compelling and legitimate interest in reducing preterm birth by restricting surgical abortions.

Q Could abortion restrictions decrease the burden of mental illness?

In addition to the physical ramifications of abortion, there is also a relationship between abortions and mental health complications. America is battling its largest mental health epidemic to date, and many women seeking abortion possess one or more of the 14 risk factors for adverse mental health outcomes determined by the American Psychological Association.[68] From 1993 to 2018 there were 75 studies examining the relationship between abortion and mental illness, of which two-thirds showed an increased risk of mental health complications after abortion.[69]

Abortion advocates usually focus on multiple studies that emerge from a single cohort of women (the Turnaway cohort), but these studies all carry biases that stem from the way the data was collected. The cohort had a response rate of 37%, low for a highly cited study with multiple secondary analyses.[69] After recruitment, 44% of women dropped out leaving a cohort of only 17% of eligible participants. This small slice of the population is vulnerable to selection bias since women more wounded by abortions may be less likely to participate. The original Turnaway study did not collect variables known to increase the risk of adverse mental health outcomes such as gestational age. Given these weaknesses it is unwise to rely only on Turnaway data; instead, an honest assessment of the effects of abortion should use the entirety of the scientific literature on this topic.

The most comprehensive review of available literature done in the U.S showed that 49 of 75 (65%) studies showed a positive correlation between abortion and adverse mental health outcomes.[69] In the literature reviewed as a whole, abortion increased the risk for depression, anxiety, substance abuse, suicidal ideation and suicidal behavior, even when compared to women with unintended pregnancies who carried to term.

Outside of the U.S., the most complete data set on this topic is the previously cited Finnish study on maternal mortality, which showed a seven-fold higher suicide rate after abortion when compared to giving birth. The mortality rate for suicides was 3.3/100,000 in ongoing pregnancies, 21.8/100,000 after termination of pregnancy, and 10.2/100,000 among non-pregnant women.[30] Certainly there are many factors that differ between the group of women seeking abortions, the group of women who continue toward delivery, and women who are not pregnant. At the very least, these data suggest that abortion cannot nullify the effects of these differences — it is not a cure for any pre-existing

determinants or conditions, nor is it a reliable preventative measure.

In summary, a minimum of 20-30% of women suffer from serious, prolonged negative psychological consequences after an abortion, which amounts to 260,000 new cases of mental health problems in the U.S. each year.[69] Given the current mental health crisis in the U.S., lawmakers may seek abortion restrictions to alleviate this burden on Americans.

Q *Could reporting requirements increase the accuracy of data?*

Published abortion outcomes data including rates of complications are inaccurate; the total number of legal abortions performed in the U.S. is not even known.[70] Data are voluntarily reported to the CDC by state health departments, and this leads to significant information gaps. California, for example, does not report any data on abortions.[71] The Guttmacher Institute independently supplies data, but it consistently reports higher numbers of abortions than the CDC. In 2014, for instance, the CDC reported 652,639 abortions while Guttmacher reported 926,000.[72,73] Twenty-seven states require abortion providers to report complications of abortions, but no enforcement penalties are in place. Twelve states require that coroners, emergency rooms or other health care providers to report abortion-related complications or deaths for investigation.[74] Mandated reporting and methods of enforcing these mandates could lead to more accurate data and a more informed policy approach.

Q *Do state-level abortion bans contradict "reproductive justice?"*

According to certain definitions of a just society, claims have been made that abortion restrictions violate "the human right [to] maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities."[75]

This framework focuses on the real burdens of pregnancy and childbirth, which are indeed separate from the subsequent burdens of parenting and are not relieved by surrendering or adopting a newborn.[76] However, this framework fails to take into account the fetal patient, which is also being cared for by prenatal care providers. Abortion is not the same as a decision avoid conceiving a child, it is actively ending the life of a preborn child.

State legislators need not endorse abortion as the only or best means of avoiding the legitimate burdens of pregnancy and childbirth. There are other options. Policymakers on both sides should strongly consider funding initiatives that alleviate poverty, aid families in need, improve prenatal care services, and prevent unplanned pregnancies.

Summary of Recommendations and Conclusion

The following recommendations are based on good and consistent scientific evidence (Level A):

1. The large majority of OB/GYNs do not perform abortions, suggesting it is not essential to women's healthcare.

2. Abortion restrictions do not prohibit physicians from separating mother and fetus through induction of labor or cesarean section in the case of life-threatening maternal conditions. Delivery can be initiated without the primary intent of causing the fetus to die.

3. Preterm or pre-viable delivery of an intact (usually living) fetus due to a life-threatening maternal condition is fundamentally different from intentionally ending the life of the fetal human being prior to delivery. The risk of death from induced abortion increases by 38% for every week after eight weeks gestation.

4. Surgical abortion is associated with increased rates of preterm birth; more abortions lead to higher increases in preterm birth rates.

5. There is an association between abortion and mental health problems, especially with certain underlying risk factors.

6. Abortion is associated with increased suicide rates in a Finnish sample.

The following recommendations are based on limited and inconsistent scientific evidence (Level B):

1. About 20-30% of women who undergo an abortion will subsequently suffer from serious, prolonged negative psychological consequences, which amounts to 260,000 new cases of mental health problems in the U.S. each year.

2. Some abortion restrictions reduce the rate of abortions, although many variables affect these situations.

3. Some women remember their abortion as an experience of uncertainty, incomplete counseling, and regret.

The following recommendations are based primarily on consensus and expert opinion (Level C):

1. Regulating handoff of post-abortion patients or requiring admitting privileges may support patient care by avoiding medical error, preventing patient abandonment, and improving measurement of abortion complications.

2. Waiting periods may improve consent and sureness about decision-making.

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