

Tailor-Made: Medication Abortion & Telemedicine

Telemedicine, the use of telecommunications technology to deliver health services to patients remotely, is one of the most significant innovations in health care. According to the American Telemedicine Association (ATA), a leading advocate in the field, telemedicine can improve the quality, affordability, and availability of health care.ⁱ Moreover, expanded access to telemedicine can address workforce shortages experienced in many areas of health care.ⁱⁱ While telemedicine has been around for 40 years, it has gained in prominence and use over the last decade and is expected to grow exponentially in the coming years.ⁱⁱⁱ

Medication abortion—administration of pharmaceutical pills (typically mifepristone followed by misoprostol) instead of aspiration or surgery to end a pregnancy—is an ideal health care service to be provided through telemedicine. It is safe, effective, and preferred by many women. Indeed, while the overall number of abortions in the United States continues to decline, there has been a dramatic increase in the proportion of medication abortions, which now account for approximately one quarter of all abortions in the US^{iv}

Nevertheless, due to state laws restricting abortion care, Food and Drug Administration (FDA) limitations on the distribution of mifepristone, and outdated regulations on telemedicine, only a small number of providers use telemedicine to provide medication abortion.^v

“Telemedicine is widely regarded as an important and promising technology in medical care and its potential benefit to American patients’ access to care is significant...Singling out and restricting one particular use of telemedicine care is wrong.”

-ACOG Statement Regarding Telemedicine Abortion (June 19, 2015)

State of Play

Although the rates of unintended pregnancy have decreased in recent decades due in large part to improved access to contraceptives, the unintended pregnancy rate in the US is still high compared to other developed countries.^{vi} Nearly half of all pregnancies in the US are unintended, and 42 percent of those end in abortion,^{vii} making it one of the most common medical services sought by women of reproductive age.

Many of the women who have limited access to health care in general—women in historically underserved communities such as poor and low-income people, people of color, immigrants, linguistically and culturally diverse communities, and people living in rural areas—also have the greatest difficulty accessing abortion care.^{viii}

In many locations, access to abortion can be difficult due in part to a shortage of providers. Eighty-nine percent of all US counties have no identifiable abortion provider – that rate increases in rural counties – and almost 40 percent of women of reproductive age live in counties with no abortion provider.^{ix} As a result, some women must travel hundreds or even thousands of miles to obtain an abortion. Nationwide, 26 percent of women who received abortion services in 2011 traveled at least 50 miles to obtain care; in some regions, it was significantly more.^x Almost half of women who had later abortions reported that problems finding or getting to a provider resulted in a delay of their procedure.^{xi}

Moreover, once a patient arrives at a clinic she is frequently faced with protesters. Eighty-four percent of abortion clinics experienced at least one form of antiabortion harassment in 2011 and more than half were picketed 20 or more times.^{xii} Such harassment can lead individuals, especially in small towns, to avoid seeking clinical care for fear of being recognized. It can also prompt institutions, such as hospitals and licensing boards, to prohibit clinicians from providing abortion care for fear of attracting antiabortion protesters.

The limited number of providers is especially burdensome for low-income women, who may not have the resources or ability to travel, take time off work (often unpaid), or arrange for childcare.^{xiii} State restrictions governing abortion care include mandatory counseling, waiting periods, and physician-only requirements, as well as laws that force clinics to adhere to the building codes of surgical centers – even when only administering pills – and these restrictions exacerbate the provider shortage, making the process of obtaining an abortion drawn-out and expensive, involving numerous visits to an abortion clinic.^{xiv} Moreover, a ban on Medicaid insurance coverage for abortion care known as the Hyde amendment forces approximately 18-35 percent of Medicaid-eligible women who seek abortion care to carry their pregnancy to term.^{xv} Telemedicine holds the promise of removing many of these barriers to abortion care by enabling women—especially chronically underserved women—to obtain a medication abortion remotely.

Proven Benefit

An independent, multi-year evaluation of Planned Parenthood of the Heartland's telemedicine abortion program in Iowa demonstrated that provision of medication abortion through telemedicine enhanced access, resulted in earlier abortions, was safe and effective, and was highly acceptable to the women who utilized it.^{xvi}

- *Expanded Access for Women:* In the first year of implementation, the number of sites offering abortion services in Iowa increased from six to 17.^{xvii} A similar expansion occurred in Maine where the number of locations for obtaining abortion jumped from three to 20 after Maine Family Planning Association started providing telemedicine abortion in 2016.^{xviii}

As demonstrated by the Iowa study, the increased number of service delivery points resulted in women who lived farther from an abortion clinic having improved access to

abortion.^{xix} Although the study showed only a minor reduction in the proportion of patients who traveled more than 50 miles to a clinic,^{xx} researchers speculated that distance to the clinic was only one consideration. For instance, qualitative research suggested that patients who chose telemedicine abortion over in-person abortion, overwhelmingly selected the clinic where they received care based on logistical concerns such as timing and proximity.^{xxi}

- *Earlier Abortions:* The number of women utilizing medication abortion (as opposed to vacuum aspiration, the most common alternative for first trimester abortion) increased after the telemedicine abortion service was implemented in Iowa.^{xxii} As a result, more women were able to obtain abortion services earlier in pregnancy.^{xxiii} After the telemedicine program launched, women were 46 percent more likely to have an abortion at or before thirteen weeks and the proportion of abortions performed after thirteen weeks decreased.^{xxiv} While any method of abortion is extremely safe, earlier abortion care has fewer risks, complications, side effects, and costs less.^{xxv}
- *Safe and Effective:* Providing medication abortion through telemedicine had comparable clinical outcomes to face-to-face provision. In Iowa, 99 percent of telemedicine patients had a successful abortion. Serious complications such as going to the emergency room or needing a blood transfusion were rare, occurring in less than one percent of patients.^{xxvi}
- *Highly Acceptable to Patients:* In Iowa, the use of telemedicine for abortion was just as acceptable to patients as a face-to-face interaction with a physician.^{xxvii} In fact, 94 percent of the women in the study who chose telemedicine said they were very satisfied with the encounter, compared to 88 percent of face-to-face patients.^{xxviii} Moreover, patients who utilized telemedicine abortion were more likely to report that they would recommend the service to others.^{xxix} Nevertheless, about 25 percent of patients, notably younger women and women who had never given birth, would have preferred to interact with a physician face-to-face.^{xxx} Qualitative research also suggests that patients weighed their service delivery preference against other factors important to them such as closer proximity and wait time.^{xxxi}
- *Benefits to Other Populations:* While telemedicine abortion has clear advantages for rural women, it could also benefit other populations, such as women in urban settings, women with disabilities, and limited English speakers. For instance, many city dwellers lack access to a car and have limited flexibility in taking time off work to attend doctor's appointments. At Golisano Children's Hospital in New York, they recognized this problem and started a pediatrics telemedicine program at three inner-city preschools where trained assistants help children speak to doctors via video-conferencing equipment in Rochester, New York. Up to 42 percent of these children's families do not have access to a private vehicle, which makes going to the doctor a logistical challenge. Parents estimate they would have to take five hours off work in order to bring their child to the doctor's office unexpectedly for an illness; Golisano's telemedicine program helps them to overcome this barrier to care.^{xxxii} In a similar

fashion, telemedicine abortion would help women who have limited transportation options, little to no sick leave, or other barriers to accessing health care.

Removing the Barriers to Widespread Adoption of Telemedicine Abortion

The multi-year study of telemedicine abortion from Iowa indicates that telemedicine can be used safely and effectively for this service and that it can improve access for underserved populations, especially rural women. Healthcare providers and researchers are already piloting ways to streamline the process of telemedicine abortion and seeking to improve its use, acceptance and efficiency for patients and providers. Yet avoidable barriers still limit progress. Restrictions directed at medication abortion as well as general limits on the use of telemedicine hamper broader access to abortion via telemedicine.

State Restrictions on Medication Abortion

Since the FDA first approved mifepristone for nonsurgical abortion in 2000, states have tried to limit its availability. In recent years, telemedicine has been a primary vehicle for these restrictions. Nineteen states have effectively banned the use of telemedicine for abortion by requiring that the prescribing clinician be in the physical presence of the patient when dispensing the medication.^{xxxiii}

The American Medical Association applauds today's decision to strike down "unsupported and unnecessary government regulation of medicine that impedes, rather than serves, public health objectives."

-Statement of the AMA following Whole Women's Health v. Hellerstedt (2016)

Indeed, Planned Parenthood of the Heartland had to battle such a restriction. In 2013, the Iowa Board of Medicine banned the use of telemedicine for medication abortion after the organization started its telemedicine program.^{xxxiv} The ban did not apply to any other type of health care.^{xxxv} Planned Parenthood of the Heartland sued to invalidate the ban and in June 2015, the Iowa Supreme Court held that it was unconstitutional for the state to prevent physicians from using telemedicine to administer medication abortion when telemedicine was available for other kinds of medical care.^{xxxvi} In an *amicus curiae* brief to the Iowa Supreme Court opposing the ban on telemedicine abortion, the American College of Obstetrics and Gynecologists (ACOG) noted that the ban "fails to create any public health benefit and, instead, actually harms thousands of Iowa women by severely limiting their access to safe and effective first trimester medication abortions."^{xxxvii}

In addition to the telemedicine bans on medication abortion, three states require clinicians to adhere to the protocol in the FDA-approved label for mifepristone.^{xxxviii} Such a requirement is inconsistent with the standard medical practice of adjusting the use of medications (i.e., by indication or dose) when supported by evidence-based research, commonly referred to as "off-label use".^{xxxix} Until recently, the FDA protocol only allowed use of mifepristone for up to 49 days (seven weeks) from the last menstrual period (LMP).^{xl} However, the FDA approved an updated label in March 2016 that brings the label closer in line with the current standard of care and evidence-based medicine. For instance, it allows the use of the drug until 70 days (10 weeks) LMP, a practice that has

been common for several years.^{xli} Likewise, the original label for mifepristone provided the drug dosage as 600 mg but following the recent label update is now 200 mg.^{xlii} Requiring compliance with the original label resulted in a shorter window to receive treatment, increased side effects, increased need for additional treatments, and higher costs.^{xliii}

The original label was based on clinical trials from the 1980s and 1990s and was already out-of-date at the time it was approved. So it is no surprise that in the 16 years since, additional information and improvements in the protocol have been established – and continue to evolve. State laws that seek to freeze medical practice without taking into account evidence-based research are inappropriate and harmful for patients.

Both the American Medical Association (AMA) and ACOG have opposed efforts to limit the use of medication abortion to the FDA label.^{xliv} “Laws that mandate a medical abortion treatment protocol that goes against best medical practice guidelines are dangerous to patient health. A 2016 study of Ohio’s law mandating compliance to the original FDA label showed that patients experienced increased side effects and needed additional treatments when their healthcare providers were required to follow the outdated FDA label for mifepristone.^{xlv} This study demonstrates that laws mandating a specific protocol are ill advised because medical knowledge is not static. As knowledge advances, medical treatments enshrined within such laws become outdated, denying patients the best evidence-based care.”^{xlvi}

The result of state restrictions on medication abortion is that fewer women have used this option for early abortion. An analysis in four states – two with restrictive laws on medication abortion and two with less restrictive laws – found that use of medication abortion declined significantly after the passage of the restrictive laws, whereas the use increased in the less restrictive states even while the overall rate of abortion continued to decrease.^{xlvii}

The multiple barriers to abortion care make it all the more essential to fight back against restrictions on telemedicine abortion and to protect and expand its availability wherever possible.

FDA Regulations

Another significant barrier to medication abortion generally and wider adoption of telemedicine abortion specifically is the Risk Evaluation and Mitigation Strategy (REMS) for mifepristone established by the FDA. The REMS for mifepristone require healthcare providers to self-certify that they possess certain qualifications to the drug maker in order to obtain the product.

Although the FDA loosened the requirement earlier this year from physicians to any legal prescriber of medication under state law, the provision still unnecessarily limits access to the drug. For instance, because healthcare providers must proactively submit the certification and pre-order the drug, those who do not routinely provide medication

abortion services have no incentive to make such advance preparations and are ill-prepared to offer medication abortion should a patient request it.

The REMS also require that providers dispense the drug in a clinic, medical office or hospital. This requirement is medically unnecessary. Under the FDA protocol, a patient does not have to be with her healthcare provider when she takes the drug (only when she receives it), so the requirement serves no valid medical purpose. But the result of this requirement is that mifepristone is not available through pharmacies nor can it be distributed through mail-order pharmacies.

This is yet another reason why telemedicine abortion is so necessary. The inability to obtain mifepristone from a pharmacy or purchase mifepristone in a drugstore combined with the lack of medical providers certified to offer mifepristone and the lack of abortion clinics greatly restricts access. Until women can obtain mifepristone in pharmacies or from any local health care provider of their choosing, telemedicine will be necessary help overcome these obstacles.

General Telemedicine Restrictions

The practice of telemedicine has grown exponentially over the last ten years but state laws and policies that govern its practice have not kept up with its rapid growth. There are a number of state laws that inhibit faster growth of telemedicine that also affect access to abortion via telemedicine. For instance, some states require that a clinician already have an established relationship with the patient before providing telehealth services, conduct an in-person follow up visit, or utilize specific technology (i.e. video conferencing) before telehealth services can be provided or reimbursed.^{xlviii}

One restriction that particularly limits greater availability of telemedicine is the requirement that health care providers be licensed in the state where the patient receives services.^{xlix} Such a requirement exists in most states, though states are increasingly pursuing strategies to facilitate interstate licensure.ⁱ For instance, some states are adopting telehealth specific licenses, while others are allowing reciprocity with border states or forming compacts with a certain number of states.ⁱⁱ

At least eighteen states allow some form of interstate medical licensure.ⁱⁱⁱ However, such efforts do not always benefit medication abortion. In 2016, when Alaska sought to eliminate the requirement that physicians be located in Alaska to practice telemedicine there, the legislature explicitly excluded medication abortion.ⁱⁱⁱⁱ Such measures silo and stigmatize abortion care, undermine the use of telemedicine as a legitimate method of service delivery, and most importantly – especially in a large, rural state like Alaska with long distances and rough travel conditions much of the year – leave patients with fewer options for getting the care they need.

Recommendations

In order to continue to protect and expand access to telemedicine abortion, telemedicine and reproductive health experts should work together to reduce barriers and increase research and innovation. Doing so will improve women's health and well-being as well as lead to further innovations in the telehealth field.

- *Pursue Further Innovations in Service Delivery of Abortion via Telemedicine:* Researchers and the provider community should continue to develop and test new models for telemedicine abortion. For instance, a pilot study for direct-to-patient provision of medication abortion recently began in the US^{liv} Under this model, an eligible patient video conferences with a healthcare provider and then the medication is sent to the patient by overnight mail.^{lv} This framework is similar to a model used in Australia that has safely served hundreds of women.^{lvi}
- *Conduct Additional Research on the Benefits of Telemedicine Abortion:* One of the goals and promises of telemedicine is to reduce the cost of care for patients and providers. Studies of telemedicine show cost savings.^{lvii} While there has not been a specific study analyzing the cost-effectiveness of telemedicine abortion, anecdotal evidence from qualitative research suggests that systemic savings are likely to result from telemedicine abortion. For instance, in the qualitative study from Iowa, clinic staff observed that telemedicine abortion resulted in greater efficiencies such as fewer cancelations and delays related to travel and a reduced number of patient visits.^{lviii} Likewise, in a qualitative study of telemedicine abortion from Alaska, staff noted that fewer clinicians were needed for medication abortion compared to surgical abortion and that telemedicine enabled clinics to schedule physicians on an as-needed basis rather than for an entire day.^{lix} Additional research should be conducted to confirm such insights.

As noted above, the findings from the Iowa study demonstrated that telemedicine abortion improved access to abortion for rural women. But there were insufficient data to assess whether it also benefited other groups of women, such as culturally and linguistically diverse patients or patients with disabilities. For instance, in an *amicus* brief in the *Planned Parenthood for the Heartland* case, the Iowa Coalition Against Domestic Violence suggested that telemedicine abortion could be an important option for victims of intimate partner violence who are often isolated and have trouble accessing care.^{lix}

Further research should prioritize the benefits to and acceptability of telemedicine abortion for other groups of patients as well as analyze the costs to patients and providers.

- *Oppose Restrictions and Support Expansions in Telemedicine Abortion:* As we have already seen, those opposed to abortion will seek any opportunity to restrict access, even where such efforts contradict or undermine medical and scientific evidence. It is incumbent upon telemedicine associations to join with other medical societies in ensuring that medication abortion is included in the promise of telemedicine. As with leading medical associations such as the AMA and ACOG, the telehealth community

should publicly oppose policies that restrict telemedicine abortion and, conversely, support efforts that foster more innovations and greater access to telemedicine abortion.

Opportunities to do so include:

- Joining litigation efforts to remove unnecessary restrictions on telemedicine abortion by submitting *amicus* briefs;
- Opposing state bills that seek to isolate or remove medication abortion from expansions in telemedicine, such as the legislation in Alaska;
- Testifying in courts and legislatures on the benefits of abortion via telemedicine;
- Releasing press statements or practice bulletins in support of the use of telemedicine in the delivery of abortion care; and
- Proactively supporting the innovations and progress of telemedicine abortion by featuring research on websites and at meetings and conferences for telehealth professionals.

Conclusion

Effective models and strong scientific evidence shows that providing abortion via telemedicine is safe, effective, and an important option for patients. Unfortunately, many states have preemptively passed laws banning telemedicine for medication abortion. Not only does this stigmatize abortion care, it puts care even further out of reach for many women -- exactly the opposite of what telemedicine is supposed to achieve. Not surprisingly, this burden falls most heavily on those who can least afford it: historically underserved populations such as low-income people, linguistically and culturally diverse communities, and those living in rural areas.

For the promise of telemedicine to be fully realized, abortion cannot be excluded from advances in service delivery. Experts in the field of telemedicine should partner with the reproductive health community to reduce barriers, increase evidence-based research, and collaborate on strategies to improve and streamline the overall provision of abortion care via telemedicine. Patients, not politics, must prevail.

ⁱ American Telemedicine Association, *What are the Benefits of Telemedicine?*

<http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.V-QXHpMrLOE> (last viewed September 22, 2016).

ⁱⁱ National Conference of State Legislatures, *LegisBrief, Telehealth and Licensing Interstate Providers*, Vo. 24, No. 25 (July 2016).

ⁱⁱⁱ For instance, the global telemedicine market is expected to expand at a compound annual growth rate of 14.3 percent through 2020. *Five Telemedicine Trends Transforming Health Care in 2016* <https://www.foley.com/five-telemedicine-trends-transforming-health-care-in-2016/> (last viewed September 23, 2016).

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- ^{iv} Rachel K. Jones and Jenna Jerman, "Abortion Incidence and Service Availability in the United States, 2011," *Perspectives on Sexual and Reproductive Health* 46, no. 1 (2014): 3-14, <http://dx.doi.org/10.1363/46e0414>. Moreover data recently released from Planned Parenthood Federation of America shows an increased of medication abortion from 35 percent in 2010 to 43 percent in 2014. Jillian Mincer, "Abortion by prescription now rivals surgery for US women," Reuters, October 31, 2016 <http://www.reuters.com/article/us-usa-healthcare-abortion-exclusive-idUSKBN12VOCC?feedType=RSS&feedName=healthNews> (last viewed November 1, 2016).
- ^v Currently providers in eight states (AK, HI, IA, ME, MN, NY, OR, WA) use or are piloting use of telemedicine to provide medication abortion. Some Texas providers used telemedicine to provide medication abortion for a short period of time before the state passed a law banning it. Nina Liss-Schultz, "Here's a Tech Fix that Makes Abortions a Lot Easier to Get," *Mother Jones*, February 29, 2016, <http://www.motherjones.com/politics/2016/02/maine-telemedicine-abortion-access-medication>; Molly Redden, "Abortion Without the Clinic on Offer with Revolutionary New US Program," *The Guardian*, March 31, 2016. Clinics in other states may be piloting the use of telemedicine abortion, but do not want to be publicly identified for a variety of reasons.
- ^{vi} Susheela Singh, Gilda Sedgh, and Rubina Hussain, "Unintended Pregnancy: Worldwide Levels, Trends and Outcomes," *Studies in Family Planning* 41, no. 4 (2010): 241–250.
- ^{vii} Lawrence B. Finer and Mia R. Zolna, "Declines in Unintended Pregnancy in the United States, 2008–2011," *New England Journal of Medicine* 374, no. 9 (2016): 843–852, <http://nejm.org/doi/full/10.1056/NEJMsa1506575>.
- ^{viii} Heather Boonstra, "Abortion in the Lives of Women Struggling Financially: Why Insurance Coverage Matters," *Guttmacher Policy Review*, vol. 19, July 14, 2016 <https://www.guttmacher.org/about/gpr/2016/07/abortion-lives-women-struggling-financially-why-insurance-coverage-matters> (last viewed September 26, 2016).
- ^{ix} Rachel K. Jones and Jenna Jerman, "Abortion Incidence and Service Availability in the United States, 2011," *Perspectives on Sexual and Reproductive Health* 46, no. 1 (2014): 3-14, <http://dx.doi.org/10.1363/46e0414>.
- ^x American Public Health Association, *Provision of Abortion Care by Advanced Practice Nurses and Physician Assistants*, APHA Policy Statement 20112, November 2011, <http://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/28/16/00/provision-of-abortion-care-by-advanced-practice-nurses-and-physician-assistants>.
- ^{xi} Foster DG and Kimport K, "Who seeks abortions at or after 20 weeks?" *Perspectives on Sexual and Reproductive Health*, 2013, 45(4):210–218, <http://onlinelibrary.wiley.com/doi/10.1363/4521013/pdf>.
- ^{xii} Jenna Jerman and Rachel K. Jones, "Secondary Measures of Access to Abortion Services in the US, 2011 and 2012: Gestational Age Limits, Cost, and Harassment," *Women's Health Issues* 24, no. 4 (2014): e419–e424, available at <https://www.guttmacher.org/sites/default/files/pdfs/pubs/journals/j.whi.2014.05.002.pdf>.
- ^{xiii} 59 percent of abortions are obtained by women who have one or more children. Jenna Jerman et al, "Characteristics of US Abortion Patients in 2014 and Changes Since 2008," *Guttmacher Institute* May 2016 <https://www.guttmacher.org/report/characteristics-us-abortion-patients-2014> (last viewed September 26, 2016).
- ^{xiv} Heather D. Boonstra, "Medication Abortion Restrictions Burden Women and Providers—and Threaten US Trend Toward Very Early Abortion," *Guttmacher Policy Review* 16, no. 1 (2013): 18-23, <http://www.guttmacher.org/pubs/gpr/16/1/gpr160118.pdf>.
- ^{xv} Heather D. Boonstra, "The Heart of the Matter: Public Funding of Abortion for Poor Women in the United States," *Guttmacher Policy Review* 10, no.1 (2007): 12-16, <https://www.guttmacher.org/pubs/gpr/10/1/gpr100112.html>; Stanley K. Henshaw et al., "Restrictions on Medicaid Funding for Abortions: A Literature Review," *Guttmacher Institute*, June 2009, <http://www.guttmacher.org/pubs/MedicaidLitReview.pdf>.
- ^{xvi} Daniel A. Grossman et al., "Changes in Service Delivery Patterns After Introduction of Telemedicine Provision of Medical Abortion in Iowa," *American Journal of Public Health* 103, no. 73 (2013): 75, <http://dx.doi.org/10.2105/AJPH.2012.301097>.
- ^{xvii} Lisa Rapaport, "Telemedicine Could Expand Access to Medical Abortions," *Reuters Health*, March 28, 2016, <http://www.reuters.com/article/us-health-abortion-telemedicine-idUSKCNOWU1N4>.

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- ^{xx} *Ibid.*
- ^{xxi} Kate Grindlay et al., “Women’s and Provider’s Experiences with Medical Abortion Provided through Telemedicine: A Qualitative Study,” *Women’s Health Issues Journal* 2013
- ^{xxii} Grossman et al., “Changes in Service Delivery Patterns.”
- ^{xxiii} *Ibid.*
- ^{xxiv} Daniel A. Grossman et al., “Changes in Service Delivery Patterns After Introduction of Telemedicine Provision of Medical Abortion in Iowa,” *American Journal of Public Health* 103, no. 73 (2013): 75, <http://dx.doi.org/10.2105/AJPH.2012.301097>.
- ^{xxv} Tracy A. Weitz et al., “Safety of Aspiration Abortion Performed by Nurse Practitioners, Certified Nurse Midwives, and Physician Assistants Under a California Legal Waiver,” *American Journal of Public Health* 103, no. 3 (2013): 454–461, <http://dx.doi.org/10.2105/AJPH.2012.301159>.
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- ^{xxvii} Grossman et al., “Effectiveness and Acceptability of Medical Abortion Provided Through Telemedicine,” *Obstetrics & Gynecology* 118, no. 2 Pt 1 (2011): 296–303, <http://dx.doi.org/10.1097/AOG.0b013e318224d110>.
- ^{xxviii} *Ibid.*
- ^{xxix} *Ibid.*
- ^{xxx} *Ibid.*
- ^{xxxi} Kate Grindlay et al., “Women’s and Providers’ Experiences with Medical Abortion Provided through Telemedicine: A Qualitative Study,” *Women’s Health Issues* 23-2 (2013) e117–e122, 117–118, <http://dx.doi.org/10.1016/j.whi.2012.12.002>
- ^{xxxii} Golisano Children’s Hospital, “Health-E-Access,” accessed June 13, 2016, <https://www.urmc.rochester.edu/childrens-hospital/health-e-access.aspx>.
- ^{xxxiii} Guttmacher Institute, Medication Abortion, Sept 2016 (www.guttmacher.org/state-policy/explore/medication-abortion) (accessed Sept 7, 2016). The states are: AL, AZ, AR, ID, IN, KS, LA, MI, MS, MO, NE, NC, ND, OK, SC, SD, TN, TX, WI. Iowa’s ban on telemedicine abortion is permanently enjoined.
- ^{xxxiv} Iowa Administrative Code r. 653-13.10 (2013), requiring a physician to be physically present and to conduct a physical examination on a patient before prescribing her medication abortion.
- ^{xxxv} *Planned Parenthood of the Heartland*, 865 N.W.2d at 269.
- ^{xxxvi} *Ibid.*, 268–69 (stating that the Iowa Board of Medicine’s purported concerns for women’s health did not outweigh a woman’s right under the US Constitution to terminate her pregnancy, and that the ban in any case had “very limited health benefits” for women seeking abortion).
- ^{xxxvii} See e.g., *Planned Parenthood of the Heartland v. Iowa Board of Medicine*, Final Amicus Curiae Brief of the American College of Obstetricians and Gynecologists (In the Supreme Court of Iowa, No 14-1415 (electronically filed Jan. 20, 2015) <https://www.iowaappeals.com/wp-content/uploads/2015/03/Brief-of-Amicus-Curiae-American-College-of-Obstetricians-and-Gynecologists.pdf> (last accessed September 21, 2016).
- ^{xxxviii} Guttmacher Institute, Medication Abortion, Sept 2016 (www.guttmacher.org/state-policy/explore/medication-abortion) (accessed Sept 7, 2016).
- ^{xxxix} See e.g., *Planned Parenthood of the Heartland v. Iowa Board of Medicine*, Final Amicus Curiae Brief of the American College of Obstetricians and Gynecologists (In the Supreme Court of Iowa, No 14-1415) (electronically filed Jan. 20, 2015) <https://www.iowaappeals.com/wp-content/uploads/2015/03/Brief-of-Amicus-Curiae-American-College-of-Obstetricians-and-Gynecologists.pdf> (last accessed September 21, 2016) (noting that “using a drug differently than originally described by the FDA[] is not only legal but at times *encouraged*.”).
- ^{xl} Susan Wood et al, “For Medication Abortion, Science Should Guide Policy,” *Women’s Health Issue*, 26-4 (2016) 357-360.
- ^{xli} Susan Wood et al, “For Medication Abortion, Science Should Guide Policy,” *Women’s Health Issue*, 26-4 (2016) 357-360. The Guttmacher Institute estimates that this change could double the number of patients who could use

mifepristone to end a pregnancy (from 37% to 75%). Rachel Jones and Heather Boonstra, "The Public Health Implications of the FDA Update to the Medication Abortion Label" (June 2016) <https://www.guttmacher.org/article/2016/06/public-health-implications-fda-update-medication-abortion-label> (last accessed Sept 8, 2016)

^{xlii} Susan Wood et al, "For Medication Abortion, Science Should Guide Policy," *Women's Health Issue*, 26-4 (2016) 357-360.

^{xliii} Upadhyay UD, et al (2016), "Comparison of Outcomes before and after Ohio's Law Mandating Use of the FDA-Approved Protocol for Medication Abortion: A Retrospective Cohort Study," *PLoS Med* 13(8): e1002110. doi:10.1371/journal.pmed.1002110.

^{xliv} *Planned Parenthood of Greater Texas v. Abbott*, Brief of Amici Curiae American College of Obstetrics and Gynecologists and the American Medical Association, Filed December 19, 2013 at 13, <https://www.acog.org/-/media/News-Releases/20131220Release.pdf> (last viewed September 26, 2016).

^{xlv} Upadhyay UD, et al (2016), "Comparison of Outcomes before and after Ohio's Law Mandating Use of the FDA-Approved Protocol for Medication Abortion: A Retrospective Cohort Study," *PLoS Med* 13(8): e1002110. doi:10.1371/journal.pmed.1002110.

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ⁱⁱ National Conference of State Legislatures, LegisBrief, Telehealth and Licensing Interstate Providers, Vol. 24, No. 25 (July 2016).

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