Delivering Access to “Contraception Deserts”:
The Impact of Telemedicine on U.S. Reproductive Justice

Current Challenges to Contraceptive Access

In 2011, almost half of pregnancies in the United States were mistimed or unwanted (Guttmacher, 2019). Given the wide range of safe and reversible contraceptive options approved for preventing unintended pregnancies, increasing women’s access to these options has become increasingly critical. The impact of access can be detected even with highly generalized data: over 99% of women who have engaged in sexual intercourse have tried a contraceptive method, but only 90% of women at risk of unintended pregnancy are currently using a contraceptive method (Guttmacher, 2020). As it stands, the American healthcare system has failed one in every ten women, and these gaps require remedies.

A glance at current users of reversible contraception indicates that the oral contraceptive pill, as well as the male condom, rank as the most popular forms (Guttmacher, 2020). Based on these tendencies, healthcare professionals and public health researchers have focused their efforts on expanding access to oral contraceptive pills (OCPs) for women across the United States. Most of these experts agree that the best and most straightforward strategy is to supply progestin-only OCPs as an over-the-counter (OTC) medication, as a majority of foreign countries do (Grossman, 2019). OTC birth control pills would encourage longer continuation of contraceptive use without notably increasing risk for adverse health events (Schultz and Evans, 2020). Unfortunately, a transition to over-the-counter OCPs appears unlikely within the next few years, due to the financial priorities of pharmaceutical companies and the FDA’s past blunders with OTC emergency contraception (Brown, 2017).

In the meantime, providers and patients alike are turning toward direct-to-consumer telemedicine as a temporary solution for increasing access to OCPs. A handful of private
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Companies have developed internet websites and mobile applications as novel tools for health professionals to prescribe and deliver OCPs online. This implementation of digital technology naturally prompts questions about safety, effectiveness, and, once again, access. Telemedical websites and applications harbor incredible potential for widening contraceptive access for less privileged groups of women. To challenge them to better realize this potential, this research project analyzes telemedicine provision of hormonal contraception through a reproductive justice lens and outlines recommendations for future improvement in this sphere.

Redefining Contraception Deserts

Recent approaches to characterizing contraceptive access in the United States use the term “contraception desert” to label communities that would benefit from increased access. A “contraception desert” conventionally refers to a geographic area where women cannot easily obtain contraception due to distance from clinics that provide counseling, as well as pharmacies that supply the actual contraception. The Power to Decide campaign specifically defines a contraception desert as a “count[y] where the number of health centers offering the full range of methods is not enough to meet the needs of the county’s number of women eligible for publicly funded contraception” (2020). This definition ranks many Midwestern states, Texas, and Alabama among regions with poor availability of contraception (Power to Decide, 2020).

Incidentally, traditional contraception deserts often coincide with rural areas of the United States. Such an overlap comes as no surprise, as women in rural areas face “longer travel distances to health care facilities,…longer wait times,…[and] a shortage of physicians” (Sundstrom, et al., 2019, p. 1197). Increased distance, increased wait time, and fewer available professionals directly reduces the number of opportunities for rural women to access contraception. Furthermore, obtaining appropriate contraception sometimes requires more than
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one trip for consult, prescription, and pharmacy pick-up, which intensifies the impact of living in a contraception desert. Women located in these “deserts” undoubtedly need more resources for their reproductive health, hence the utility of this label.

However, the current definition of a “contraception desert” also leaves much to be desired. It approaches the problem from a strictly geographic perspective, ignoring diverse reasons for insufficient contraceptive access. Women cite “not having a regular doctor or access to a clinic, inconvenient clinic hours, inability to take time off work or school,…and difficulty paying for an appointment” as additional hurdles to utilizing contraceptive methods (Zuniga, et al., 2019, p. 1). These obstacles, more so than distance and density, apply differentially across the axes of age, socioeconomic status, race, and sexual orientation. A remedy for poor contraceptive access needs to consider these varied perspectives, because fully achieving reproductive justice requires “center[ing] the most marginalized…to access the resources” for their reproductive health (SisterSong). Only after thoroughly identifying which women are the most marginalized, can any solution seek to improve contraceptive access for all women.

Age is a salient discriminator of access to contraception, because adolescents, in particular, experience greater obstacles than other age groups. A shocking 18% of women between the ages of 15 to 19 who are at risk for unintended pregnancy do not currently use a contraceptive method (Guttmacher, 2020). Of the adolescent women who do use one, over half rely on male condoms, which are less effective and less efficacious than oral contraceptive pills (Guttmacher, 2020). These trends are not unexpected, considering adolescents “may not have transportation or money, or may want to keep their sexual behavior and contraceptive use confidential” (Williams, et al., 2018, p. 458). Thus, an adolescent woman can live reasonably close to a clinic and/or pharmacy but still find herself in an effective “contraception desert,”
since she depends on the resources or insurance of parents/guardians. Other problems with access can exacerbate this negative effect; for example, in rural communities, teenage pregnancies are higher than their state and national averages (Sundstrom, et al., 2019).

Socioeconomic factors also impact access to contraceptive options. For low-income women and uninsured women, the cost of consistently using contraception can be extremely prohibitive. Indeed, women without health insurance are “dramatically less likely” to use any form of contraception (Barber, et al., 2018, p. 719). On the other hand, women employed at full-time jobs may not be available during business hours, which makes scheduling appointments and OCP pick-ups more challenging, regardless of whether they reside in a geographic “contraception desert” or not. For women of color, race then intersects with these economic factors. Minority communities tend to have fewer healthcare and pharmaceutical services available, and the services that do exist operate for fewer hours of the day (Barber, et al., 2018). Black Americans, in particular, experience these disparities as lower rates of insurance coverage, higher rates of unintended pregnancy, and lower rates of any contraception usage (Barber, et al., 2018; Shih, et al., 2011).

Last but not least, the American healthcare system often overlooks sexual orientation as a factor in contraceptive access. While queer cisgender women do encounter many of the same barriers that heterosexual cisgender women do, they run into unique ones as sexual minorities. Queer women and providers alike often assume that contraceptive care does not apply to sexual minorities (Higgins, et al., 2019). This misconception can result in poor patient-provider communication about contraceptive needs and options. Contrary to this misconception, many queer women do, in fact, engage in sex that could lead to pregnancy; they constitute a significant fraction of contraceptive-seeking patients, especially in the high-risk adolescent group (Higgins,
Delivering Access to “Contraception Deserts”: The Impact of Telemedicine on U.S. Reproductive Justice et al., 2019). Because providers and manufacturers of contraceptive methods tend to target heterosexual women as their primary audience, queer women are left in a “contraception desert” as well.

As telemedicine rises as a legitimate avenue for contraceptive prescription and delivery, it is important to evaluate its benefits and consequences across the varied groups of American women previously discussed. How does a website or an application interact with a queer adolescent on their parent’s insurance? Does it actually empower a low-income Black woman who works long hours and serves as the primary caretaker of her children? Answers to these questions should drive the structure and approach of telemedicine companies to contraception.

**Telemedicine Solutions for Oral Contraceptive Pill Access**

Contraceptive telemedicine directly responds to the reality that most Americans now have access to high-speed internet. Whether through their local library or from their personal smartphone, 84% of American women use the internet (Perrin & Duggan, 2015). Although some of these women cannot regularly visit their local healthcare provider and/or pharmacy, they may find better luck with the flexibility of a website or mobile application. Women who have already utilized telemedicine for obtaining emergency contraceptives cite the “ease of on-line [sic] access, inability to get a timely appointment with a doctor/clinic, feeling embarrassed…, need for confidentiality, and feeling the doctor would not prescribe emergency contraception” as reasons for using an online platform (Williams, et al., 2018, p. 462). Since OCPs suffer from comparable issues of access and stigma in in-person settings, these reasons demonstrate the positive potential of digital provision of OCPs.

Relying on the internet as a platform for contraception does raise some concerns regarding populations of women who do not use the internet. In terms of age groups, the internet
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does represent a very powerful solution: over 95% of Americans from the ages of 18 to 29 use the internet (Perrin & Duggan, 2015). From other perspectives, however, Americans with lower educational attainment, low-income Americans, Black and Hispanic Americans, or Americans in rural settings are all less likely to access the internet. Online solutions can easily reinforce existing barriers to contraceptive access for these groups. If executed poorly, websites and applications will continue to serve the same populations that have historically accessed effective contraception and fail to reach those most marginalized by the American healthcare system.

Fifteen websites and applications currently exist for the prescription and delivery of OCPs in the United States (Ibis Reproductive Health, 2020). Prices for a physician consultation range from free to $99. Some services accept public/private insurance to pay for the OCPs, while others charge a flat fee for all patients, with the cheapest pill option priced at $7 per pack. Some services deliver to patient-specified addresses, while other ones coordinate for pharmacy pick-up. And in order to ensure safety and minimize health risks, all websites and applications use a questionnaire or video call with a clinician to screen for medical contraindications (Zuniga, et al., 2019). Even by a superficial evaluation, the variety of service options most likely allows for more women to access OCPs. The telemedicine structure coincidentally benefits healthcare providers as well, because it cuts the overhead costs of operating a clinic and enables each clinician to efficiently complete hundreds of interactions per day (Jain & Mehrotra, 2019). This increased pace significantly cuts the number of healthcare providers needed to cover any type of contraception desert.

Telemedicine most easily addresses access for women in conventional, rural contraception deserts. Though some states currently have more options than others, all fifty can utilize at least one online provider of OCPs (Dorland, et al., 2019). When women in rural South
Carolina were asked for their opinions about deploying telemedicine for contraceptive care, they highlighted its ability to “address disparities in…access” by “reducing travel distance, cost, and wait times” (Sundstrom, et al., 2019, p. 1200). Apart from the reasons mentioned by these women, telemedicine apps also overcome the need for “multiple in-person visits” and the unique “privacy concerns faced by some women in rural settings” (Dorland, et al., 2019, p. 645). Rural women can now easily obtain oral contraceptive pills through telemedicine without venturing out of their local communities or risking embarrassment, though they technically live in a “contraception desert.”

Shifts in government funding for family planning services make affordable contraceptive access unreliable, and contraceptive telemedicine intervenes here, too. NPR recently shared the story of Claire Hammons, who lives in Llano, Texas. After losing health insurance coverage, she faced a staggering $140 bill to visit a doctor for an OCP prescription, and she would need to budget additional funds for trips to the pharmacy (McClurg & Lopez, 2018). Fortunately, Nurx offers her a clinician consultation for $15 and OCPs delivered to her home address for $15 per month. Telemedicine thus minimizes costs for physician visits and medications among uninsured women; plus, they eliminate the hidden costs of “transportation, time off work, and childcare” that working women and low-income women from all racial backgrounds may struggle to afford (Dorland, et al., 2019, p. 645). These women now have the option of obtaining contraception from any location at any time of day, reducing the influence of socioeconomic status on contraceptive access.

The relationship of adolescents to digital provision of OCPs is less apparent. A few websites do permit adolescent users regardless of parental/guardian approval or insurance status. Still, over half of them only offer services to patients over the age of 18, and two of them require
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parental/guardian consent for patients under 18 years of age. These age restrictions do not appear to be driven by clinical evidence, considering studies show that adolescents demonstrate “adult-level contraceptive decision-making” upon interaction with a healthcare provider (Williams, et al., 2018, p. 459). Moreover, all fifteen companies already comply with the minor consent laws of each state, regardless of their own policies. About half of the states in the U.S. restrict the ability of minors to consent to contraceptive care (Williams, et al., 2018, p. 462); the additional exclusions imposed at the discretion of telemedicine companies undoubtedly exacerbates barriers to contraceptive access for adolescents. These policies deserve some re-evaluation.

Theoretically, contraceptive telemedicine should alleviate problems faced by queer women in accessing OCPs. By employing standardized questionnaires for health screening, the apps eliminate assumptions made about the sexual behaviors of queer women. And with their focus on the prescription of OCPs, healthcare providers are less likely to turn a blind eye to a queer woman presenting with requests for contraceptive care. However, the interactions of queer women with digital OCP provision have not been studied and would benefit from further documentation and research.

**Future Directions for Contraceptive Telemedicine**

Health researchers have expressed skepticism about the ability of websites and applications to properly screen for contraindications to OCP usage. An analysis of nine platforms showed that telemedicine companies do use evidence-based practice to screen their patients, but no platform successfully includes every single contraindication (Zuniga, et al., 2019, p. 3). In order to optimize for patient safety, telemedicine companies should revise their questionnaires and clinical standards to ensure that every relevant contraindication is captured.
Healthcare professionals have also shared concerns that telemedicine provision of OCPs may change the landscape of women’s healthcare. Once women can access contraceptive care without a clinic, they may visit their primary care provider or gynecologist less frequently. And because these digital platforms focus on selling oral contraceptive pills, they do not guarantee the same holistic, preventive care received from in-person interactions with a clinician. Patients who substitute telemedicine for routine clinical visits may miss critical “pap smears, breast exams, and cervical cancer screenings,” increasing their risk for life-threatening diseases (McClurg & Lopez, 2018). Nevertheless, experts believe that it is counterintuitive to restrict OCP access for the purpose of incentivizing routine primary care. As Dr. Mary Jane Minkin of the Yale School of Medicine explains, “online care is absolutely better than no care at all” (Kirby, 2019).

More importantly for the goal of reproductive justice, telemedicine companies broaden access to only one form of contraception: the pill. “Rather than…finding the best possible treatment for a patient’s medical problem,” these providers simply try to pinpoint which OCPs they can safely prescribe to a patient (Jain & Mehrotra, 2019, p. 925). This approach overlooks how women require contraceptive care for a variety of reasons, not just the prevention of unintended pregnancy. OCPs may represent the ideal form of contraception for some of them, but other women may benefit from more long-term or less conspicuous options. Notably, mobile applications will never be able to provide the most effective forms of contraception: intrauterine devices (IUDs) and hormonal implants. However, some of these companies have found alternative ways to enhance the quality of their healthcare services.

Many among the fifteen websites and applications have expanded beyond oral contraceptive pills. Alpha Medical, HeyDoctor, and Lemonaid currently provide prescriptions for skincare, mental health, and more. Maven has expanded to general family planning, including
fertility and pregnancy planning. Nurx provides emergency contraception and HIV pre-exposure prophylaxis (PrEP), in addition to diversifying their hormonal contraceptive options with the patch, the ring, and the shot. Planned Parenthood Direct can provide gender-affirming hormone therapy, emergency contraception, and, in some states, pills for an abortion through telemedicine. Plus, all of the aforementioned applications offer STI testing for their clients. Telemedicine companies can and should draw from their competitors’ innovations; not only will their participation better align them with the objectives of reproductive justice, but introducing competition may drive down the market prices for these newer services.

In terms of areas and populations where internet usage is less ubiquitous, telemedicine companies can consider pursuing community outreach and education. Rural women in South Carolina specifically suggest that telehealth companies could collaborate with a “community center” and attract women by “offering education and health information” (Sundstrom, et al., 2019, p. 1201). Although much less direct, telemedicine companies can also donate some of their profits to advocate for improved contraceptive access and sexual education. PRJKT RUBY, for example, sends 25 cents from each prescription to Population Services International and Power to Decide, nonprofits that advocate for women’s health (Kirby, 2019).

All of these recommendations emphasize how current digital solutions to contraceptive access do not perfectly replace the benefits of physical clinics and pharmacies. Longitudinal patient-provider relationships still play an important role in the lives of American women. Telemedicine companies have, overall, shifted the scales of reproductive justice for the better, but their provision of OCPs is neither perfect nor a panacea. Equitable access to contraception still demands us to advocate for over-the-counter options, better physical infrastructure, steady government funding of public options, fewer legal restrictions, and beyond.
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