

# Remote Delivery in Reproductive Health Care: Operation of Direct-to-Patient Telehealth Medication Abortion Services in Diverse Settings

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## ABSTRACT

**PURPOSE** Established models of reproductive health service delivery were disrupted by the coronavirus disease 2019 (COVID-19) pandemic. This study examines rapid innovation of remote abortion service operations across health care settings and describes the use of telehealth consultations with medications delivered directly to patients.

**METHODS** We conducted semi-structured interviews with 21 clinical staff from 4 practice settings: family planning clinics, online medical services, and primary care practices—-independent or within multispecialty health systems. Clinicians and administrators described their telehealth abortion services. Interviews were recorded, transcribed, and analyzed. Staff roles, policies, and procedures were compared across practice settings.

**RESULTS** Across all practice settings, telehealth abortion services consisted of 5 operational steps: patient engagement, care consultations, payment, medication dispensing, and follow-up communication. Online services and independent primary care practices used asynchronous methods to determine eligibility and complete consultations, resulting in more efficient services (2-5 minutes), while family planning and health system clinics used synchronous video encounters requiring 10-30 minutes of clinician time. Family planning and health system primary care clinics mailed medications from clinic stock or internal pharmacies, while independent primary care practices and online services often used mail-order pharmacies. Online services offered patients asynchronous follow-up; other practice settings scheduled synchronous appointments.

**CONCLUSIONS** Rapid innovations implemented in response to disrupted in-person reproductive health care included remote medication abortion services with telehealth assessment/follow-up and mailed medications. Though consistent operational steps were identified across health care settings, variation allowed for adaptation of services to individual sites. Understanding remote abortion service operations may facilitate dissemination of a range of patient-centered reproductive health services.

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## INTRODUCTION

**I**n 2020, the coronavirus disease 2019 (COVID-19) pandemic resulted in nationwide changes in health service delivery, spurring broad shifts toward remote care and telehealth models to reduce in-clinic interactions.<sup>1</sup> Following this trend,

2 medications used to terminate an early pregnancy—that required clinicians to stock and dispense the medication in person to their patients, were loosened by court injunction and later permanently removed.<sup>9,10</sup> The simplification of protocols and removal of federal regulations allowed licensed clinicians (in states that do not prohibit abortion using telemedicine) to mail medication abortion pills directly to patients or to contract dispensing with mail-order pharmacies.<sup>11</sup>

Remote abortion care is a safe and effective alternative to in-clinic care for early pregnancy termination,<sup>12-14</sup> with 99% of patients successfully terminating their pregnancies via telemedicine compared with 98% of patients who used in-clinic services.<sup>15</sup> Patients report high degrees of satisfaction and equal or greater privacy when compared with in-clinic options.<sup>16-18</sup> Additionally, clinicians report preferring the flexibility and increased access to care afforded by telehealth, as well as the ease of integrating into existing clinic infrastructure.<sup>19,20</sup>

Moreover, remote abortion care has the potential to reduce the harmful effects of barriers to care.<sup>21</sup> First trimester abortion care is an essential health care service that is sought by 1 in 4 US women by the time they reach age 45, yet 89% of US counties do not have facilities that provide abortion care, leaving many without abortion services.<sup>22,23</sup> As a result, people needing abortion care travel, on average, 33 miles each way for services, with almost one-fifth having to travel 100 miles or more each way.<sup>24</sup> The farther patients need to travel, the greater the costs associated with seeking care and the longer the delay in access to abortion. While early terminations are very safe, receiving care later in pregnancy can lead to greater complications.<sup>24-28</sup> The cost of services is an additional barrier. The federal government and 34 state governments and the District of Columbia prohibit the use of public funds to pay for abortion, except for cases of rape, incest, or to save a pregnant person's life.<sup>29,30</sup> Thus, most persons seeking abortion services must shoulder the cost.<sup>31</sup> Compared with in-clinic services, telemedicine reduces the cost to the clinic by eliminating unnecessary laboratory and clinical tests, off-loading intake to non-medical staff, and reducing face-to-face clinician time.<sup>32-34</sup>

Telehealth medication abortion services offer a simplified model of care that is well within the scope of family medicine and allows for early abortion care to be integrated into existing primary care practices.<sup>35</sup> Though family physicians provide 20% of first trimester abortions nationally, only 3% provide abortion within their primary care practices.<sup>36-38</sup> Inclusion of abortion services in primary care is a critical step toward fulfilling the shared principles of primary care by offering accessible, equitable, comprehensive, person-centered care across the lifespan.<sup>39</sup> Proliferating remote reproductive health services warrant careful and systematic evaluation so that best practices can be identified, documented, and disseminated widely for broad adoption. This study evaluates telehealth abortion services established during the 2020

COVID-19 pandemic and examines their operation by primary care practices in different health care settings.

## METHODS

We sought to identify and describe the operational steps for providing remote medication abortion care and to compare service models of different practice settings. This study is part of the University of Washington's Access, Delivered initiative aimed at evaluating telehealth medication abortion services and disseminating best patient-centered practices. This research was reviewed and given a determination of exempt status by the University of Washington Institutional Review Board.

This study builds on previous work that examined factors associated with the successful implementation of such services.<sup>20</sup> The study sample, participant recruitment, and data collection methods are described in detail elsewhere.<sup>20</sup> Briefly, we conducted 21 semi-structured, in-depth interviews in November and December of 2020 with clinicians and administrators involved in the implementation of a telehealth abortion service (4) or directly providing this service to patients (17). We defined telehealth abortion services as those that utilized a synchronous or asynchronous remote clinician-patient consultation with medications mailed directly to patients and operating outside of a research study within the United States. To our knowledge we recruited all clinic sites that met inclusion criteria. The clinicians we interviewed were mostly family physicians or family nurse practitioners from 15 service delivery sites representing 4 types of practices: (1) independent primary care practices (independent practices), (2) telemedicine only, web-based health care clinics (online services), (3) specialized family planning clinics (family planning clinics), and (4) primary care clinics within multispecialty health systems (health system). Within each site, we employed snowball sampling, asking each interviewee about other individuals at their site that could offer additional information or a different perspective on the implementation or delivery of the telehealth service. A total of 24 individuals were invited to an interview (2 never responded, 1 declined).

A gift card of \$25 was offered to participants. The study was approved by the University of Washington Institutional Review Board (IRB# 000010012). The study was registered at ClinicalTrials.gov (NCT04381001).

content and interviewer field notes to improve the interview guide for clarity and focus and to discuss data saturation.

**Analysis**

Building on the previous qualitative analysis, a subset of codes relevant to service operation were excerpted, analyzed, and organized based on the principles of service operations man

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minutes of clinician time, with synchronous visits taking longer for the patient visit and chart documentation (10-30 minutes), and asynchronous e-visits requiring less clinician time (2-5 minutes). Licensed clinicians provided remote abortion care, although care coordinators at some clinics completed preliminary screening, counseling, or provided basic information about medication abortion before the clinician consultation. Common telehealth software used across clinic types included Doxy.me Inc and DocuSign Inc. Other platforms included Kareo, Rhinogram, Phone.com, and Epic Systems Corporation.

**Payment**

For payment options, the online services did not accept insurance, requovr p0.3-r p0.3-

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patient engagement, patient consultation, payment, medication delivery, and patient follow-up communication. Though the overarching structure of services remained consistent, each step of care provision was adapted to specific care settings, clinic practices, local regulatory landscapes, and the needs of the unique pet



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