

# Telehealth for Contraceptive Care During the COVID-19 Pandemic: Results of a 2021 National Survey

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**Objectives.** To investigate trends in the use and quality of telehealth for contraceptive care during the COVID-19 pandemic in the United States.

**Methods.** The 2021 Guttmacher Survey of Reproductive Health Experiences is a national online survey of 6211 people assigned female at birth, aged 18 to 49 years, and that ever had penile–vaginal sex. We used weighted bivariable and multivariable logistic regressions to analyze the use of telehealth for contraceptive care and the quality of this care.

**Results.** Of the respondents, 34% received a contraceptive service in the 6 months before the survey; of this group, 17% utilized telehealth. Respondents who were uninsured at some point in the 6 months before the survey had greater odds of using telehealth for this care. Respondents had lower odds of rating the person-centeredness of their care as “excellent” if they received services via telehealth compared with in person (25% vs 39%).

**Conclusions.** Telehealth has helped bridge gaps in contraceptive care deepened by COVID-19. More work is needed to improve the quality of care and reduce access barriers to ensure telehealth can meet its full potential as part of a spectrum of care options. (*Am J Public Health.* 2022;112(S5):S545–S554. <https://doi.org/10.2105/AJPH.2022.306886>)

The disruption of the COVID-19 pandemic exacerbated logistical barriers to obtaining sexual and reproductive health care, including restrictions on and concerns about providing in-person care.<sup>1,2</sup> Early in the pandemic, 1 in 3 women reported cancellations or delays in getting sexual and reproductive health care or contraceptive methods. These barriers to care disproportionately affected groups already experiencing systemic inequities based on race, sexual orientation, and income.<sup>3</sup> Providers sought strategies to meet patients’ needs, and telehealth emerged as a means to increase access to contraceptive care by delivering services that do not rely on patients

meeting with a health care provider in person at the same physical location.<sup>4,5</sup>

While there is no firm agreement on terms, generally, telemedicine refers to patient–provider visits delivered virtually. In contrast, telehealth goes beyond the provider–patient dyad, including direct-to-consumer platforms that enable patients to obtain medical advice and treatment without a previous doctor–patient relationship.<sup>6,7</sup> We rely on the phrase “telehealth” here to encompass a range of service modalities used to provide aspects of contraceptive care, including contraceptive counseling, a related checkup or medical test, or a prescription for a method or the contraceptive method itself.

Before the pandemic, telemedicine in contraceptive care was limited in frequency and scope because, in part, of complicated billing requirements and other regulations.<sup>8</sup> The pandemic catalyzed these systems to be simplified and improved, with significant changes to the complex rules for online prescribing, licensing, reimbursement, and coverage that have been barriers to telehealth. The 2020 Coronavirus Aid, Relief, and Economic Security Act introduced many regulatory changes,<sup>9</sup> and state Medicaid programs and commercial insurance plans temporarily modified policies to support the expansion of telehealth.<sup>10–12</sup> These changes allowed many providers and family

planning clinics, including the publicly funded Title X clinics providing care to about 3 million women in 2019 before the pandemic,<sup>13</sup> to implement new telemedicine services for contraceptive care without an in-person office visit.<sup>14</sup>

By June 2020, a study of office-based obstetricians/gynecologists found that 84% were conducting telehealth visits for a range of services, compared with 12% before March 1, 2020.<sup>4</sup> In addition, the number of direct-to-consumer platforms for contraception and demand for their services also increased, including sites such as The Pill Club, Pandia, and GoodRx.<sup>15-17</sup> However, most online platforms do not accept insurance or Medicaid and do not offer sliding fee scale options for uninsured individuals.<sup>14</sup> Despite these shifts in the provider landscape, the Kaiser Family Foundation Women's Health Survey conducted online in late 2020 found that only 5% of women who reported using a contraceptive method in the past 12 months obtained their contraception through a phone or video visit, Web site, or app.<sup>18</sup> Even with this relatively low level of use, one estimate is that almost half of those using telehealth for contraceptive care were new users since the pandemic.<sup>19</sup> Information on demographic differentials on who uses telehealth for contraceptive care is lacking, raising questions about how telehealth can reduce the existing inequities in health care.

Even as access to telehealth for contraceptive care has increased, there is limited information on the quality of this care or patient satisfaction. A 2020 systematic review of telemedicine for contraceptive care found limited assessments of its quality.<sup>20</sup> One study during the pandemic found that two thirds of young women surveyed agree that telehealth is an acceptable way to get birth control.<sup>21</sup> An online platform surveyed users and

found that nearly all planned to continue to get contraception through telehealth after the pandemic ended, suggesting satisfaction with this form of care.<sup>22</sup>

Patient-centeredness has been increasingly recognized as a critical component of the quality of family planning.<sup>23</sup> Patient-centeredness prioritizes patients' preferences through a high level of interpersonal care, support of patients' decision-making, and information sharing.<sup>24</sup> Previous research has examined patient-centered care as a quality indicator of in-person contraceptive care. However, rapid changes in the health care system mean there is little information on the extent to which telehealth offers patient-centered care. While there are other domains of health care quality, such as its safety, timeliness, and efficiency,<sup>25</sup> focusing on patient-centeredness as a quality metric is of particular importance for reproductive autonomy.<sup>26,27</sup>

The Coalition to Expand Contraceptive Access led a recent multidisciplinary effort that identified telehealth as a priority area for health policy-focused contraceptive research.<sup>28</sup> Comprehensive and timely study of the prevalence and patterns of telehealth for contraceptive care is lacking. Most research in this area has focused on providers, but it is vital to incorporate patient experiences and perspectives. While the 2020 Kaiser Family Foundation study provided a valuable snapshot of utilization, low rates resulted in many issues that could not be investigated, including characteristics of those using telehealth and their evaluation of the quality of this care.<sup>18</sup>

Given the need for timely research about this modality of care from patient perspectives, we used national data collected from respondents in July and August 2021 to examine their recent use of telehealth for contraceptive care.

We identified characteristics of those using telehealth and used a validated scale of patient-centered care to examine respondents' self-evaluation of the quality of the care.<sup>24</sup> This work helps expand the evidence base around telehealth use, quality, and equity as an emergent approach to contraceptive care.

## METHODS

Secondary data for these analyses came from the 2021 Guttmacher Survey of Reproductive Health Experiences, an online survey conducted in July and August 2021 to focus on contraceptive behaviors and service utilization.<sup>19</sup> NORC at the University of Chicago managed survey recruitment and fielding. They recruited through a dual-sampling approach using NORC's AmeriSpeak panel, a probability-based panel designed to be representative of the US household population, and Dynata's nonprobability online opt-in panel, which uses enrollment targets for age, race/ethnicity, and education to ensure the sample composition aligned with the US census population. This dual-sampling approach maximizes sample size to permit robust analysis of less-prevalent behaviors like telehealth use.

Eligible study participants were those assigned female at birth, aged 18 to 49 years, residing in a US household, who had ever had penile-vaginal sex, and who could complete surveys in English. Participants provided informed consent and received a nominal incentive. The final analytic sample for this analysis consisted of 6211 complete responses (3129 AmeriSpeak, 3082 Dynata).

## Measures

Respondents reported contraceptive services received within the 6 months

preceding the survey including a contraceptive method, prescription for a method, or refill of a method; counseling or information about contraception; or a checkup, medical test, or other service related to using a contraceptive method. The survey asked source of care for the most recent service from the following categories: in-person visit with health care provider, telehealth visit with health care provider, online contraception Web site or app (e.g., The Pill Club, Pandia Health, GoodRx), or pharmacy or drug store (13 respondents who obtained care from another or an undetermined source were excluded from the analysis). For clarification, the survey stated, "A telemedicine or telehealth visit is an appointment with a provider conducted by telephone or video conference in place of an in-person visit." Those who had a telehealth visit with a provider reported if the visit occurred by video, phone only, or some other mode. Unless otherwise specified, we used a composite telehealth use measure that includes telehealth with a health care provider, online contraceptive Web site, or app. We adapted this strategy to maximize the number of respondents for relevant analyses; in addition, it addressed concerns that respondents may not consistently distinguish between telehealth from a health care provider versus an online Web site or app, such as if online care included provider-patient interaction.

Respondents who received a contraceptive service reported how they paid for their most recent contraceptive service and could select more than 1 option; we created a combined variable prioritizing self-pay, then insurance, and then free. Type of provider was identified as a private provider or other providers (family planning clinic, community health center, public health clinic, school-based

clinic, urgent care center, emergency department).

Among those reporting telehealth for their most recent contraceptive service, respondents were asked their reasons for use compared with in-person services; they could identify multiple reasons, which we combined thematically.

Respondents rated the contraceptive care they received from a provider, whether in-person or telehealth, using the Person-Centered Contraceptive Counseling (PCCC) scale. (We did not ask the PCCC scale for contraceptive care received from a pharmacy or drug store, as this may not have included counseling from a pharmacist.) This scale has respondents evaluate provider performance across 4 items: "respecting you as a person," "letting you say what mattered to you about your contraception," "taking your preferences about your contraception seriously," and "giving you enough information to make the best decision about your contraceptive method."<sup>24</sup> Following the approach suggested by Dehlendorf et al.,<sup>24</sup> we created a dichotomous indicator of respondents reporting "excellent" on all 4 items versus all other response combinations.

We collected self-reported demographic information for respondents and measured race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, non-Hispanic Asian/Pacific Islander, and non-Hispanic other/multiple races), marital status (married/living with partner, other), education level (high school or less, some college, college graduate or above), and uninsured in the 6 months before the survey (yes or no). We calculated household income as greater than or equal to 200% or less than 200% of the federal poverty level.<sup>29</sup> Respondents were asked to report their sexual orientation with 1 or more of the following responses: straight, lesbian or gay,

bisexual or pansexual, and other; we combined all responses other than straight into a single "LGB+" category. Respondents were asked to report their gender identity with 1 or more of the following responses: woman, man, nonbinary, transgender, and other; those who solely answered "woman" were coded as cisgender, while all others were coded as "transgender/nonbinary/other." Other characteristics included metropolitan area status (metro area, nonmetro area) and penile-vaginal sex the 6 months before the survey (yes or no).

## Analysis

We estimated the proportion of respondents who received a contraceptive service in the 6 months before the survey and examined variation in provider modality by payment method and type of provider by using the  $\chi^2$  test. We also examined variation in the use of telehealth and the PCCC scale by provider modality in this narrowed population. For both outcomes, we used bivariable logistic regression to examine variation by demographic characteristics and multivariable logistic regression, including variables associated with the outcomes at  $P < .10$  in the bivariable models. The PCCC models were limited to respondents who received contraceptive care from a provider, whether in person or through telehealth. In the multivariable model, we tested for an interaction between Internet quality and modality of care to examine if respondents' Internet quality differentially influenced the PCCC scale.

For all analyses, we used Stata version 17.0 (StataCorp LP, College Station, TX) with panel weights provided by NORC that combine the completed AmeriSpeak panel and nonprobability online interviews using their TrueNorth calibration

weighting service to be representative of the US population of women aged 18 to 49 years who have ever had penile–vaginal sex.

## RESULTS

Overall, 34% of the sample received a contraceptive service during the 6 months preceding the interview; 6% of the overall sample used telehealth for their most recent visit (Table 1). Among respondents receiving a contraceptive service, 17% reported using telehealth (8% with a provider, 9% online) at their most recent visit, 50% saw an in-person provider, and 33% received a contraceptive service from a pharmacy or drug store.

In both the overall sample and among the subsample of respondents who received contraceptive care, about half lived in a household with an income greater than or equal to 200% of the federal poverty level, were non-Hispanic White, were married or living with a partner, and had graduated college. Most identified as straight, identified as cisgender, were insured in the 6 months before the survey, lived in metropolitan areas, and had penile–vaginal sex in the 6 months before the survey.

Among the 367 respondents who had used telehealth for contraceptive care, respondents gave a range of responses for why they used telehealth, with “It was easier to go online than visiting a health care provider in-person” as the most common response (45%). One third indicated that their or their provider’s concerns about COVID-19 motivated their use of telehealth. Of users, about 20% gave lower cost and increased confidentiality as reasons for their telehealth use, and 11% used telehealth because they did not have a regular provider (Figure A, available as a supplement to the online version of this article at <https://ajph.org>).

**TABLE 1— Percentage Distribution of Respondents by Receipt of Services and Demographic Characteristics: United States, 2021**

Characteristics	Among Full Sample (n = 6211), % (95% CI)	Among Those Who Received a Contraceptive Service (n = 2079), % (95% CI)
<b>Receipt of services</b>		
Received any contraceptive service in the 6 mo before the survey	34 (32, 35)	100
<b>Type of provider for most recent contraceptive service</b>		
In-person	17 (15, 18)	50 (47, 52)
Telehealth	6 (5, 6)	17 (15, 19)
With provider	3 (2, 3)	8 (6, 9)
Online platform	3 (3, 4)	9 (8, 11)
Pharmacy	11 (10, 12)	33 (31, 36)
<b>Demographic characteristics</b>		
<b>Age, y</b>		
18–27	16 (15, 18)	27 (25, 30)
28–38	35 (33, 36)	38 (35, 40)
39–49	49 (48, 51)	35 (33, 38)
<b>Household income<sup>a</sup></b>		
< 200% of the federal poverty level	43 (42, 45)	46 (43, 48)
≥ 200% of the federal poverty level	57 (55, 58)	54 (52, 57)
<b>Race/ethnicity</b>		
Non-Hispanic White	55 (54, 57)	50 (47, 53)
Non-Hispanic Black	14 (13, 15)	17 (15, 18)
Hispanic	21 (19, 22)	24 (21, 26)
Non-Hispanic Asian/Pacific Islander	5 (5, 6)	5 (4, 6)
Non-Hispanic other/multiple races	5 (4, 6)	5 (4, 6)
<b>Marital status</b>		
Married/living with partner	62 (61, 64)	55 (52, 57)
Other	38 (36, 39)	45 (43, 48)
<b>Education</b>		
High school or less	28 (27, 30)	27 (25, 30)
Some college	29 (28, 31)	28 (26, 31)
College graduate or above	43 (41, 44)	45 (42, 47)
<b>Sexual orientation<sup>b</sup></b>		
Straight	85 (84, 86)	82 (80, 84)
LGB+	15 (14, 16)	18 (16, 20)
<b>Gender<sup>c</sup></b>		
Cisgender	98 (98, 99)	97 (95, 98)
Transgender/nonbinary/other	2 (1, 2)	3 (2, 5)
<b>Health insurance status in the 6 mo before the survey</b>		
Insured	80 (79, 81)	74 (72, 76)
Uninsured	20 (19, 21)	26 (24, 28)
<b>Metropolitan statistical area status</b>		
Nonmetro	14 (13, 15)	11 (9, 12)
Metro	86 (85, 87)	89 (88, 91)

Continued

**TABLE 1— Continued**

Characteristics	Among Full Sample (n = 6211), % (95% CI)	Among Those Who Received a Contraceptive Service (n = 2079), % (95% CI)
Internet access quality		
Excellent	76 (75, 77)	76 (73, 78)
Good/average/poor	24 (23, 25)	24 (22, 27)
Had penile–vaginal sex in the 6 mo before the survey		
No	9 (8, 10)	3 (2, 3)
Yes	91 (90, 92)	97 (97, 98)

Note. CI = confidence interval; LGB+ = lesbian, gay, bisexual, and others (includes all responses other than straight).

<sup>a</sup>Federal poverty level according to US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.<sup>29</sup>

<sup>b</sup>Respondents were asked to report their sexual orientation with 1 or more of the following responses: straight, lesbian or gay, bisexual or pansexual, and other. We combined all responses other than straight into a single “LGB+” category.

<sup>c</sup>Respondents were asked to report their gender identity with 1 or more of the following responses: woman, man, nonbinary, transgender, and other. Those who solely answered “woman” were coded as cisgender, while all others were coded as transgender/nonbinary/other for analysis.

Respondents' payment methods differed significantly by the source of care. More telehealth users paid out of pocket for care than those receiving contraceptive care in person or from a pharmacy (36% vs 22% vs 23%; Table 2). Respondents were less likely to pay with insurance for telehealth than in-person or pharmacy-provided care (45% vs 62% vs 61%). In addition, there was

significant variation by type of provider. Telehealth was relatively evenly divided between private (53%) and other providers (47%). In contrast, about two thirds of in-person care was from private providers. Among those receiving telehealth from a provider, a similar proportion of respondents used video (52%) or phone (48%; not shown).

## Receiving Services by Telehealth

In bivariable models, use of telehealth compared with other sources of care had significantly higher odds among respondents who were uninsured in the 6 months before the survey; had incomes less than 200% of the federal poverty level; were non-Hispanic Black, Hispanic, or non-Hispanic Asian/Pacific Islander; or were living in a metro area, compared with their peers (Table 3). In the bivariable model, there was some evidence that transgender/nonbinary/other respondents had higher odds than cisgender respondents of using telehealth than other sources of care for their contraceptive care (odds ratio [OR] = 2.36; 95% confidence interval [CI] = 0.95, 5.86). There was no variation in the likelihood of using telehealth compared with other sources of care by education, age, sexual orientation, Internet quality, or sexual activity.

In the multivariable model, only uninsured respondents had significantly higher adjusted odds of using telehealth (adjusted odds ratio [AOR] = 2.59; 95% CI = 1.92, 3.51) than those with insurance after controlling for

**TABLE 2— Payment Method and Type of Provider Among Those Who Received a Contraceptive Service in the 6 Months Before the Survey: United States, 2021**

Characteristics	Total (n = 2079), %	In-Person (n = 1001), %	Telehealth (n = 367), %	Pharmacy (n = 651), %	P
Payment method					< .001
Self-pay	25	22	36	23	
Insurance	59	62	45	61	
Free	16	16	19	16	
Type of provider					.01
Private	65	67	53	NA	
Other provider <sup>a</sup>	35	33	47	NA	

Note. NA = not applicable.

<sup>a</sup>Other provider includes family planning clinic, other clinic (community health center, public health clinic, school-based clinic), some other place (urgent care center or emergency room), and any other place.

**TABLE 3— Use of Telehealth for Contraceptive Services Among Those Who Received a Contraceptive Service in the 6 Months Before the Survey, by Demographic Characteristics**

	%	OR (95% CI)	AOR (95% CI)
Total	17		
Health insurance status in the 6 mo before the survey			
Insured	12	1 (Ref)	1 (Ref)
Uninsured	29	2.93 (2.18, 3.93)	2.59 (1.92, 3.51)
Household income <sup>a</sup>			
< 200% of the federal poverty level	20	1 (Ref)	1 (Ref)
≥ 200% of the federal poverty level	15	0.69 (0.53, 0.91)	0.90 (0.67, 1.22)
Race/ethnicity			
Non-Hispanic White	13	1 (Ref)	1 (Ref)
Non-Hispanic Black	23	1.91 (1.34, 2.72)	1.36 (0.94, 1.97)
Hispanic	21	1.76 (1.24, 2.52)	1.35 (0.93, 1.98)
Non-Hispanic Asian/Pacific Islander	23	1.92 (1.15, 3.21)	1.59 (0.91, 2.76)
Non-Hispanic other/multiple races	11	0.85 (0.40, 1.83)	0.77 (0.34, 1.75)
Metropolitan statistical area status			
Nonmetro	11	1 (Ref)	1 (Ref)
Metro	18	1.66 (1.05, 2.61)	1.56 (0.97, 2.50)
Gender <sup>b</sup>			
Cisgender	17	1 (Ref)	1 (Ref)
Transgender/nonbinary/other	32	2.36 (0.95, 5.86)	1.66 (0.67, 4.09)
Education			
High school or less	17	1 (Ref)	
Some college	18	1.11 (0.75, 1.64)	
College graduate or above	16	0.98 (0.68, 1.42)	
Age, y			
18–27	18	1 (Ref)	
28–38	16	0.82 (0.59, 1.15)	
39–49	17	0.94 (0.66, 1.34)	
Sexual orientation <sup>c</sup>			
Straight	17	1 (Ref)	
LGB+	18	1.12 (0.80, 1.57)	
Internet access quality			
Excellent	16	1 (Ref)	
Good/average/poor	19	1.21 (0.89, 1.66)	
Had penile–vaginal sex in the 6 mo before the survey			
No	18	1 (Ref)	
Yes	17	0.97 (0.42, 2.21)	

Note. AOR = adjusted odds ratio; CI = confidence interval; LGB+ = lesbian, gay, bisexual, and others (includes all responses other than straight); OR = unadjusted odds ratio. The sample size was n = 2079.

<sup>a</sup>Federal poverty level according to US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.<sup>29</sup>

<sup>b</sup>Respondents were asked to report their gender identity with 1 or more of the following responses: woman, man, nonbinary, transgender, and other. Those who solely answered “woman” were coded as cisgender, while all others were coded as transgender/nonbinary/other for analysis.

<sup>c</sup>Respondents were asked to report their sexual orientation with 1 or more of the following responses: straight, lesbian or gay, bisexual or pansexual, and other. We combined all responses other than straight into a single “LGB+” category.



household income, race/ethnicity, metropolitan status, and gender. These findings were similar in models that separately examined telehealth from a provider and care from a contraceptive Web site or app (not shown).

## Patient-Centered Quality of Care

Overall, 37% of respondents rated their most recent contraceptive care provider as “excellent” on all 4 person-centered contraceptive counseling items. There is evidence that respondents were less likely to rate the patient-centeredness of their contraceptive counseling as “excellent” if they received care by telehealth compared with in person in both bivariable (OR = 0.51; 95% CI = 0.31, 0.82) and multivariable (AOR = 0.57; 95% CI = 0.35, 0.92) models (Table 4). The pattern was similar for the 4 component items (not shown). In the multivariable models, respondents without health insurance (AOR = 0.37; 95% CI = 0.24, 0.58); non-Hispanic Black (AOR = 0.53; 95% CI = 0.34, 0.82), Hispanic (AOR = 0.64; 95% CI = 0.41, 0.98), and non-Hispanic Asian/Pacific Islander (AOR = 0.32; 95% CI = 0.16, 0.66) respondents; and respondents with poorer Internet access (AOR = 0.35; 95% CI = 0.23, 0.53) had significantly lower odds than their peers of uniformly excellent scores on the PCCC scale. Household income and education were associated with the PCCC in the bivariable, but not multivariable, models. An interaction test indicated that telehealth’s PCCC score did not vary by respondents’ Internet quality (not shown).

## DISCUSSION

This study demonstrates the extent to which individuals obtained contraceptive services using telehealth during the

second year of the COVID-19 pandemic. Nearly 1 in 5 survey respondents used telehealth for contraceptive care. Respondents rated their telehealth from a provider as being less patient-centered than those receiving services in person, highlighting the need to improve telehealth experiences. Telehealth appears to have increased access to contraceptive care during a public health crisis, especially for individuals who are lower-income, Black, Hispanic, Asian/Pacific Islander, living in metro areas, and uninsured. The investment in and development of telehealth infrastructure, and users’ initial experiences with this care, may promote this care even as the constraints of the pandemic recede.

The changing health care landscape of the pandemic showed that, for many people, telehealth offers benefits for their contraceptive care. Policies should reflect that telehealth can safely and effectively provide contraceptive care and other sexual and reproductive health services.<sup>20,30</sup> It is essential that sustainable reimbursement rates continue even after the pandemic. Legislation around telehealth is complex and rapidly changing; according to the Center for Connected Health Policy, all 50 states currently have pending telehealth legislation under consideration.<sup>31</sup> Given this dynamic policy environment, providers need support in adapting to the changing policy environments, and potential users need information and education about shifts in service availability and attributes.

These data offered uneven evidence of telehealth’s role in improving access to contraception for traditionally underserved groups. Low-income respondents and respondents of color were more likely to use telehealth, but LGB+ respondents and rural respondents were not. This last finding is

particularly noteworthy, given the expectation that telehealth could offer opportunities in settings where in-person care is less available. It may reflect difficulties in pivoting to telehealth during the pandemic among rural providers. We did not find evidence that reduced Internet quality was a distinct barrier to obtaining telehealth contraceptive care; this has been raised as a potential barrier for rural communities for telehealth for other health care issues, especially with older populations.<sup>32</sup>

The greater use of telehealth among transgender and nonbinary respondents than among cisgender respondents suggests the need for more research in this area. As gender-affirming care becomes increasingly challenging to access, transgender people may find telehealth an available mechanism to access a broad range of health care needs, including contraception.<sup>33</sup> Beyond gender identity, some individuals seeking services will value that telehealth can provide care from a more diverse pool of providers than is available from nearby providers.

Similarly, there is an ongoing need to better understand the challenges and opportunities that online contraceptive platforms and apps afford. For example, these services may feel more confidential, or clients may feel less stigma than with in-person care. Online platforms offer convenience, but a tradeoff may be affordability as most do not accept insurance for all or part of the costs, and costs can vary widely.

Two related findings—that telehealth contraceptive care use was more common among respondents without health insurance and those who self-pay—raise questions about publicly funded clinics in this new landscape. These clinics are designed to offer free or low-cost services to low-income individuals, many of

**TABLE 4— “Excellent” Person-Centered Quality of Care Among Those Who Received a Contraceptive Service in the 6 Months Before the Survey, by Demographic Characteristics**

	%	OR (95% CI)	AOR (95% CI)
Total	37		
Source of care			
In-person	39	1 (Ref)	1 (Ref)
Telehealth	25	0.51 (0.31, 0.82)	0.57 (0.35, 0.92)
Health insurance status in the 6 mo before the survey			
Insured	44	1 (Ref)	1 (Ref)
Uninsured	17	0.26 (0.17, 0.39)	0.37 (0.24, 0.58)
Household income <sup>a</sup>			
< 200% of the federal poverty level	30	1 (Ref)	1 (Ref)
≥ 200% of the federal poverty level	44	1.86 (1.37, 2.51)	1.33 (0.93, 1.91)
Race/ethnicity			
Non-Hispanic White	46	1 (Ref)	1 (Ref)
Non-Hispanic Black	27	0.43 (0.29, 0.65)	0.53 (0.34, 0.82)
Hispanic	29	0.47 (0.32, 0.71)	0.64 (0.41, 0.98)
Non-Hispanic Asian/Pacific Islander	20	0.29 (0.14, 0.58)	0.32 (0.16, 0.66)
Non-Hispanic other/multiple races	41	0.81 (0.42, 1.55)	0.95 (0.49, 1.83)
Internet access quality			
Excellent	43	1 (Ref)	1 (Ref)
Good/average/poor	19	0.31 (0.21, 0.46)	0.35 (0.23, 0.53)
Gender <sup>b</sup>			
Cisgender	38	1 (Ref)	1 (Ref)
Transgender/nonbinary/other	15	0.30 (0.08, 1.13)	0.61 (0.18, 2.07)
Education			
High school or less	28	1 (Ref)	1 (Ref)
Some college	38	1.53 (0.99, 2.37)	1.31 (0.83, 2.07)
College graduate or above	42	1.85 (1.24, 2.77)	1.09 (0.69, 1.72)
Age, y			
18–27	34	1 (Ref)	
28–38	36	1.09 (0.73, 1.62)	
39–49	41	1.34 (0.89, 2.02)	
Sexual orientation <sup>c</sup>			
Straight	39	1 (Ref)	
LGB+	35	0.84 (0.57, 1.24)	
Metropolitan statistical area status			
Nonmetro	32	1 (Ref)	
Metro	38	1.32 (0.87, 2.01)	
Had penile–vaginal sex in the 6 mo before the survey			
No	31	1 (Ref)	
Yes	37	1.33 (0.58, 3.09)	

Note. AOR = adjusted odds ratio; CI = 95% confidence interval; LGB+ = lesbian, gay, bisexual, and others (includes all responses other than straight); OR = unadjusted odds ratio. The sample size was n = 2079.

<sup>a</sup>Federal poverty level according to US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.<sup>29</sup>

<sup>b</sup>Respondents were asked to report their gender identity with 1 or more of the following responses: woman, man, nonbinary, transgender, and other. Those who solely answered “woman” were coded as cisgender, while all others were coded as transgender/nonbinary/other for analysis.

<sup>c</sup>Respondents were asked to report their sexual orientation with 1 or more of the following responses: straight, lesbian or gay, bisexual or pansexual, and other. We combined all responses other than straight into a single “LGB+” category.



whom are uninsured, and should provide contraceptive care that is less costly than online platforms. Further research is needed on how patient preferences shaped patterns of use and preferences for care and the long-term impacts on demand for publicly funded services, as contraceptive care options diversify.

It is concerning that this study found that respondents had lower odds of reporting that their care was patient-centered when they saw the provider through telehealth than in person. This difference diminished in multivariable models but remained at a level to suggest that patients considered care provided through telehealth to be less patient-centered. It will be essential to support telehealth providers in improving and prioritizing patient-centered approaches, whether through training or other interventions. Furthermore, respondents of color reported overall lower PCCC scores when controlling for the modality of care, suggesting that inequities in quality of care were unchanged by telehealth. More research on this and other aspects of the quality of telehealth care is needed.

## Limitations

This study has a few relevant limitations. Although the online methodology allowed for timely data collection, there may be selection biases not addressed by the sampling weights. The 2021 Guttmacher Survey of Reproductive Health Experiences does not include adolescents aged younger than 18 years, for whom telehealth for contraceptive care may pose unique challenges and opportunities. Many online platforms require individuals to be aged at least 18 years or require parental consent.<sup>14</sup> Adolescent telehealth may raise additional privacy concerns.

However, telehealth offers opportunities for adolescent care, including the potential to more easily receive confidential care without alerting caregivers and reducing geographic and travel-related barriers to care.<sup>34</sup> More clinical guidelines addressing telehealth for this population are needed.

In addition, we could not identify validated measures of contraceptive telehealth for the survey. Although we developed our survey items for telehealth based on recent work in the field,<sup>18,21,35</sup> we may not have accurately or thoroughly measured respondents' care experiences or consistently identified distinctions among telehealth from a provider, Web site, or app. There is a need to develop robust measures of telehealth to allow for surveillance and research of the changing care landscape. As providers further develop models of care that challenge conventional categorizations of telehealth, future efforts should examine how telehealth and in-person care may work in concert with one another.

## Public Health Implications

The provision of contraceptive care through telehealth can help to increase access and provide services with fewer barriers and constraints. Attention to the quality of this care is needed. Policies should support and expand access to telehealth for contraceptive services while ensuring that people have the full range of options available to them, including in-person visits with a health care provider.

## Conclusions

Telehealth is helping to bridge gaps in sexual and reproductive health care resulting from the upheaval of COVID-19,

but work remains to ensure it is equitable and high-quality. *AJPH*

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At the time of this work, all of the authors were with the Guttmacher Institute, New York, NY.

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L. D. Lindberg was the lead contributor to the conceptualization of the work. L. D. Lindberg, R. K. Jones, J. Mueller, and M. Haas designed the survey; L. D. Lindberg, J. Mueller, and M. Haas analyzed and interpreted the data; and all contributed substantially to the writing of the article. All authors read and approved the final article.

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## CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare that are relevant to the content of this article.

## HUMAN PARTICIPANT PROTECTION

Study procedures were approved by the Guttmacher Institute and NORC institutional review boards. All respondents provided informed consent to participate.

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