

Leveraging Chatbots to Understand the Effect of the COVID-19 Pandemic on Family Planning Demand

Insights from Users
in Four Countries



Introduction

At the start of the COVID-19 pandemic, global advocates expressed concerns about the potential impacts of the pandemic on women's access to family planning. Estimates at the start of the pandemic indicated that as many as 48 million women could face challenges obtaining their preferred method, resulting in between 7 and 15 million unintended pregnancies (UNFPA 2020; Riley et al. 2020).¹

Several supply-side assessments were conducted to estimate which methods would be most affected by the pandemic, better understand supply-side factors contributing to these impacts, and provide recommendations to mitigate supply-chain disruptions. Many of these recommendations were implemented, which has contributed to the smaller-than-anticipated effect on contraceptive use. Abt Associates conducted one such supply-side evaluation to assess the effects of COVID-19 on the family planning supply chain in India with support from the David and Lucille Packard Foundation. The assessment used service statistics from public and private facilities, retail sales data, and social marketing sales reports to identify disruptions along the value chain and inform assumptions to model impact. Key informant interviews with manufacturers, social marketing organizations, commercial product marketers, service-delivery NGOs, implementing partners, and digital health organizations helped reveal root causes of these disruptions. The assessment highlighted the differentiated effects the pandemic has had on access to family planning. For example:

- New users of methods that require a service delivery component—such as IUD insertion or implant removal—were likely to face substantial obstacles to access because public and private health facilities were closed during lockdowns. This affected current and new users of long-acting and reversible contraceptives, permanent methods, and in India, injectable contraceptive users, as this method was also delivered in a facility setting.
- Increased costs related to disinfection and COVID-19 prevention made previous fee structures at private health providers unviable, potentially imposing additional financial barriers to accessing methods at these facilities.

¹ More recent analysis has indicated that the pandemic's impact on contraceptive use is substantially smaller than anticipated (UNFPA 2021; Wood et al. 2021).

- Clients faced both increased risk of COVID-19 infection at the facility and movement limitations due to lockdowns. Clients who would typically seek long-acting and reversible contraceptives, permanent methods, or injectables from public facilities were likely to be affected for longer, as well, as public resources were diverted to COVID-19 efforts even after facilities reopened and lockdown restrictions ended.
- Users of oral pills were likely to face fewer effects than users of other methods, with most disruptions occurring during the initial intensive lockdown period. Among those sourcing the product from private sector pharmacies and shops—important private sector sources for these products—were able to bounce back relatively quickly. Among those sourcing from the public sector, the effects continued for an additional couple of months as community health workers, an important public sector source, were diverted to focus on COVID-19 activities and so were unavailable to provide pills at the community level.
- Distribution and sales of condoms were severely affected; however, supply-side actors believed that the market decline was due to decreased non-regular partner sex because of COVID-19 containment measures.

The underlying causes of decreased access to and use of contraceptives above, though specific to India, could be similar in other countries.

Findings such as these have helped governments and donors understand priority areas to address and ensure continued access during the pandemic. However, they all faced a similar limitation: a reliance on supply-side data from manufacturers, global institutional purchasers, and major importers and distributors to understand demand-side changes. Family planning stakeholders hypothesized that women and their partners might have to change their contraceptive method and source. Restrictions on movement, social distancing requirements, the return of migrant husbands, higher prices, and changes in behavior all were cited as potential reasons for these switches. The reliance on supply-side data in many of the assessments of COVID-19's impact can hide immediate changes in demand. Long procurement lead times, the availability of buffer stock at different points in the supply chain, and lags in sales data reported back up to manufacturers and distributors can all mask rapid changes in demand. Developing quicker and low-cost approaches to monitoring changes in demand at the country and local levels can complement the available supply-side data to help governments and their private sector partners better anticipate shifts in the family planning market and prepare to address potential shocks.

As a companion piece to Abt’s supply-side analysis, the USAID-funded Sustaining Health Outcomes through the Private Sector (SHOPS) Plus project set out to test a new approach for measuring changes in contraceptive behavior. The project partnered with Nivi, operators of a digital health chatbot called AskNivi, to see if the platform could generate timely, affordable data to understand shifts in demand. The activity sought to answer three questions:

1. How have women changed their contraceptive behavior from pre-COVID-19 to now?
2. What drove those changes?
3. Is this a feasible, replicable, and cost-effective approach for generating insights into rapid shifts in demand that stakeholders could apply during future global market shocks?

What is Nivi?

Nivi is a global digital company that seeks to empower people to achieve better health. Their platform AskNivi is an artificial intelligence-enabled automated chat service that provides on-demand, trusted, and actionable information to help users make informed decisions about their health. AskNivi is free to end users and operates through both Facebook Messenger and WhatsApp. Nivi packages the data gathered through these conversations to help stakeholders—including service providers, product distributors, and pharmaceutical companies—understand and respond to consumer demand. The company currently operates in India, Kenya, Nigeria, and South Africa.

Survey Overview

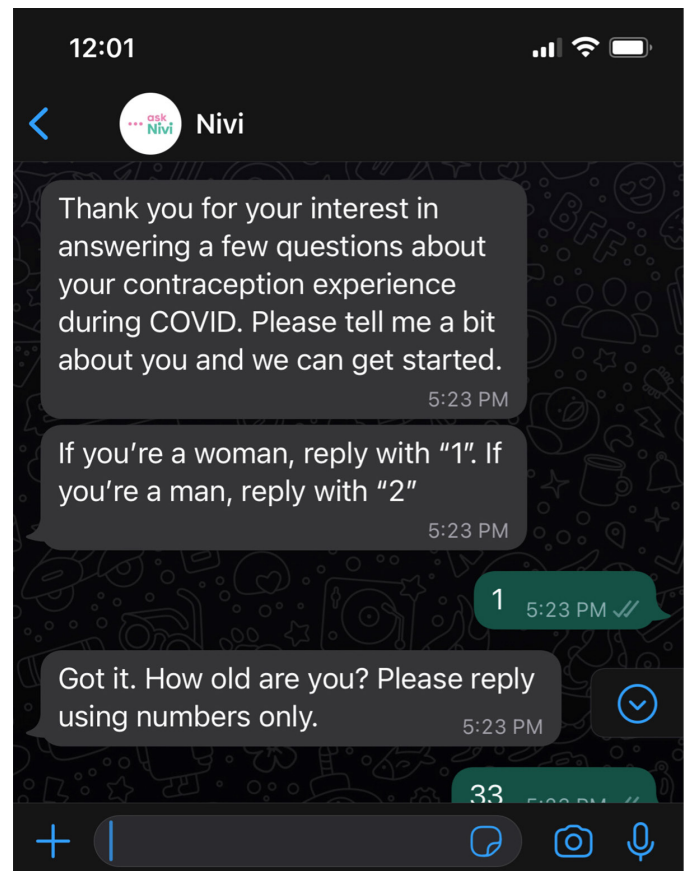
Survey Methodology

SHOPS Plus and Nivi conducted a brief survey using Nivi’s digital chat service in four countries where Nivi operates: Kenya, Nigeria, South Africa, and India. Women aged 18–49 in these countries who have used or tried to access a contraceptive method in the previous two years were eligible to take the survey. SHOPS Plus developed the survey questionnaire, which asked respondents about their current contraceptive behavior compared with before the COVID-19 pandemic began. The survey asked questions about family planning methods used, sources used, reasons for switching method and/or source, and general difficulties accessing family planning methods during the pandemic. The survey asked users to think back to before the pandemic and shut-downs (March 2020) in comparison to the time of the survey (August–September 2021). The questionnaire was refined to a final set of 16 questions (or fewer depending on skip patterns) following a pre-test with 53 eligible respondents across the four country locations and translated into Swahili and Hindi for deployment in Kenya and India (South Africa and Nigeria were English-only). See annex for the complete questionnaire.

The survey was marketed through Facebook, Google ads, Instagram, WhatsApp marketing (India only), and notifications to existing AskNivi users. Once users clicked an ad, the survey opened in either WhatsApp or Messenger. The survey aimed to obtain a sample size of 500 respondents in each country and 2,000 overall. To help achieve the target sample size, Nivi offered a small financial incentive in the form of mobile airtime or a gift card to eligible women. In addition, Nivi advertised a contest giveaway to help increase the number of women engaging with the survey.

*AskNivi used WhatsApp as one means to deploy the survey**

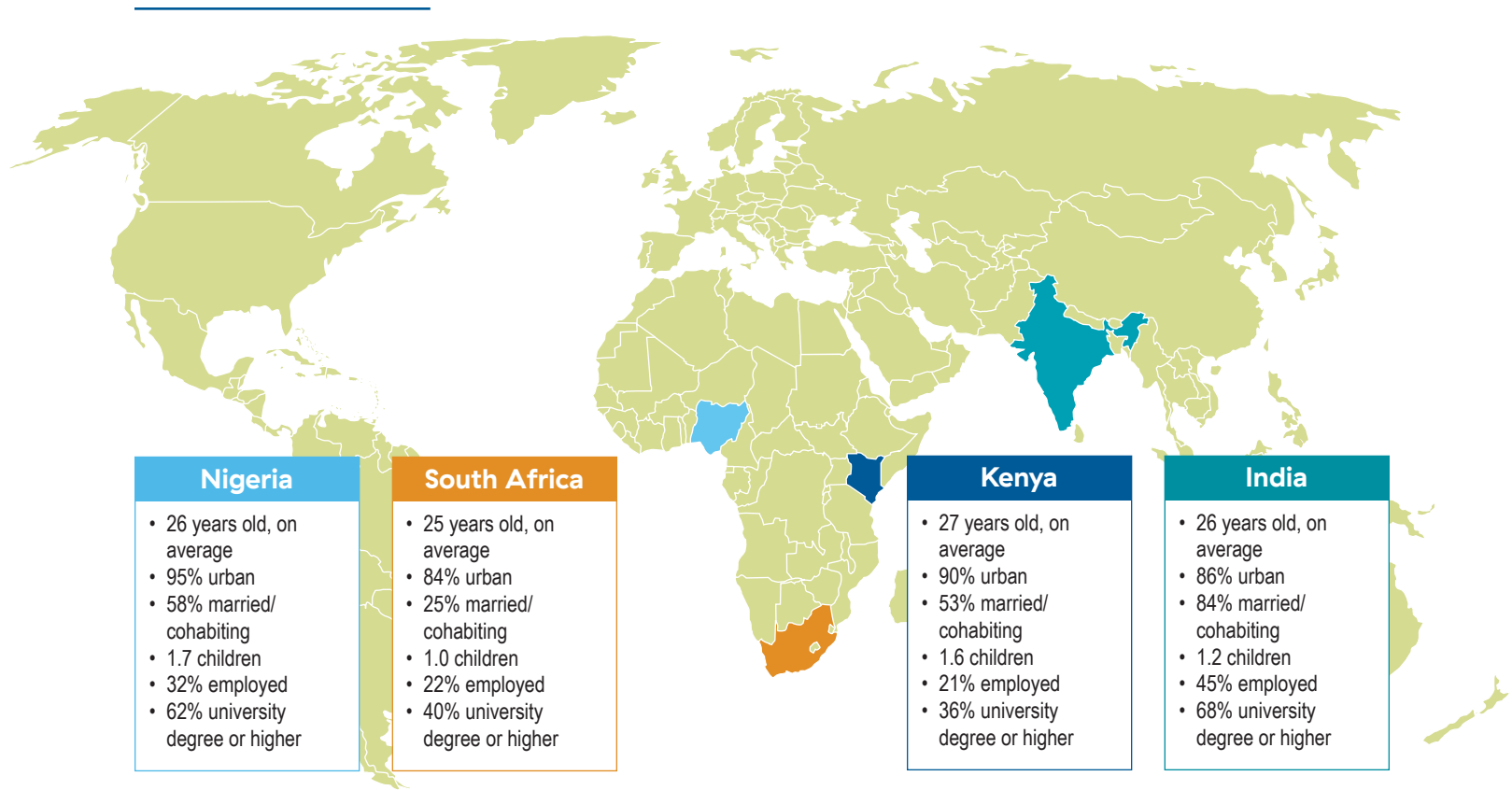
* Note that responses in image are from Beta testing and do not reflect an actual survey respondent



Sample Size and Participant Demographics

This effort highlighted the utility of using artificial intelligence-enabled chatbots to gather insights into changing demand and behavior. The methodology proved itself to be a cost-effective way to quickly identify and survey women who have recently used or tried to access family planning. Just over 2,000 women (N=2,134) were eligible for and consented to taking the survey. Eighty-six percent of women completed the survey, totaling 1,845 completed surveys (N=1,845). Survey results described here include responses from both fully and partially completed surveys. The survey reached its target sample size of 500 completed surveys in Kenya and South Africa. However, it was more difficult to engage respondents in Nigeria and India, and the total sample fell short of the target at 315 and 375, respectively. In Nigeria, it was challenging to identify eligible respondents, likely due to a combination of factors including the relatively lower contraceptive prevalence rate in this country, Nivi's newer presence in Nigeria, and a bug in the survey that Nivi identified and resolved. In India, there was a relatively lower percentage of eligible women who consented to the survey (70 percent compared to 84 percent overall).

However, the reach of these chatbots makes them more adept at checking the pulse of specific user segments, rather than understanding the impact of shocks like the COVID-19 pandemic on overall demand. These platforms most easily reach market segments that are tech savvy and have reliable internet connectivity—likely to be young, urban, more educated, and wealthier segments. This was borne out in our sample—respondents had an average age of 26 years old. Most participants lived in urban areas (88 percent), reflecting the digital gap between urban and rural settings. Just over half (52 percent) were married or lived with their partner, though this varied by country (see graphic below). Participants had an average of 1.4 children. Just over one-fourth (28 percent) were employed, and about half (48 percent) had a university degree or higher.



Contraceptive Use and a Methodological Note

Across all participants, 59 percent of women were using a contraceptive method both before the pandemic began and at the time of the survey. Just over 1 in 10 (11 percent) of women were using a method pre-pandemic and then stopped. Twenty-one percent of women were not using a method when the pandemic began but started using one by the time of the survey. Finally, 9 percent of women were not using a method before or during the pandemic. Among respondents, women who were currently using a modern method largely used short-acting methods and did not necessarily mirror use in the broader population as captured in FP2030 estimates (Table 1).

Table 1. Method mix among survey respondents and recent DHS

	India		Kenya		Nigeria		South Africa	
	Survey	2015/16 NFHS-4	Survey	2014 DHS	Survey	2018 DHS	Survey	2016 DHS
Condoms	65%	11%	8%	8%	20%	24%	13%	25%
Pills	13%	8%	24%	14%	24%	12%	24%	11%
Injectables	4%	0%	29%	48%	17%	23%	45%	47%
Implants	1%	0%	26%	18%	21%	24%	8%	7%
IUDs	1%	3%	6%	6%	2%	6%	4%	2%
Sterilization	3%	77%	1%	6%	0%	2%	1%	9%
Other	14%	0%	6%	0%	15%	9%	5%	0%

Note: DHS=Demographic and Health Survey, NFHS=National Family Health Survey

Source: DHS and NFHS figures obtained on FP2030 website country pages and reflect overall method mix.

Overall, there was a 10 percentage point increase in the percent of women using contraception from before the pandemic to the current time. However, this should not be interpreted as a generalizable finding about changes in contraceptive use during COVID-19 because of the bias in recruiting participants. The survey was marketed as a contraception study, so women who were currently using contraception were probably more likely to be interested in taking the survey. As a point of comparison, a modern contraceptive prevalence rate increase of just over 1 percentage point in a year is considered as very fast growth (Family Planning 2020 2020), so the 10 percentage point increase identified in our survey results is due to recruitment methods and not attributed to actual increase in use. For the remaining results, we focus on patterns among users rather than examining the net increases and decreases in contraceptive use.

Identifying Why Women Stopped Using Contraception During the Pandemic

Approximately **one in four** women who stopped using family planning cited a COVID-19-related reason.

As noted, 11 percent of respondents who were using a contraceptive before the pandemic were not using a contraceptive during the survey 18 months later.

Understanding the motivating factors for this change can help identify pain points for stakeholders to address in order to sustain use. A majority of the women who stopped using a method during the pandemic cited a typical reason that does not seem related to the pandemic: a desire to get pregnant (30 percent) or side effects (29 percent). Approximately one in four women who stopped using family planning cited a COVID-19-related reason (less than 3 percent of all respondents who were using a contraceptive before the pandemic). More than half of those women conveyed a possible supply chain-related reason: it was out of stock (9 percent of women who stopped using), it became too expensive (4 percent), or their usual source was closed (3 percent). An additional 5 percent of women said that they stopped using family planning because they were worried about getting COVID-19, and 4 percent because of COVID-19-related travel restrictions. Sample sizes are too small to make comparisons at the country level, and patterns are similar across demographic characteristics. Due to limitations of the survey format, women who stopped using a contraceptive for a while after the pandemic and then started again could not be identified. Hence, short-term discontinuation of contraceptive use during peak COVID-19 restrictions could have been higher.

Challenges Accessing Contraception During the COVID-19 Pandemic

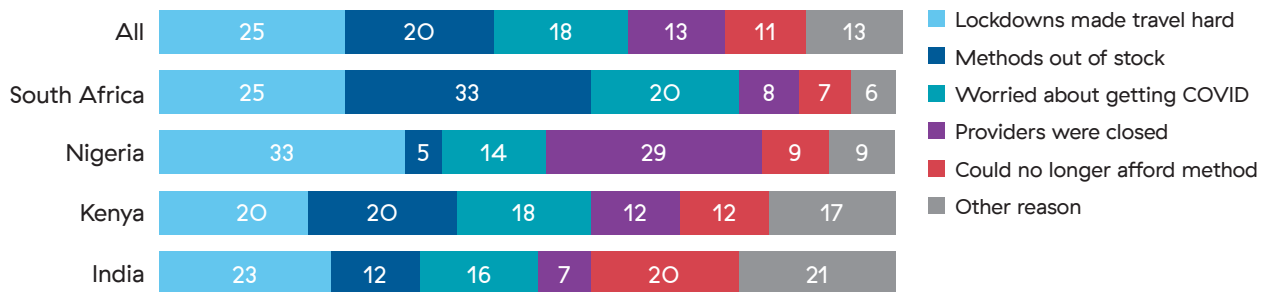
More than **60%** of respondents reported having difficulty accessing a family planning method during the COVID-19 pandemic.

Overall, 62 percent of respondents reported that they had difficulty in accessing a family planning method between the start of the COVID-19 pandemic and the data collection period. This reinforces the possibility that short-term discontinuation could have been higher as noted previously. This was the lowest in India at 50 percent and the highest in Nigeria at 71 percent. The percentage of women reporting difficulty in accessing contraception did not vary by demographic characteristics, indicating that women across age groups, marital statuses, and employment statuses all faced similar levels of difficulty. The sample sizes are too small to ascertain whether women in rural areas and with less education had more or less difficulty than the average.

The difficulty most frequently cited was that lockdowns made travel difficult (25 percent), followed by method stockouts (20 percent), concern about getting COVID-19 (18 percent), and the fact that providers were closed (13 percent). These findings are consistent with the observations made by supply-side actors and highlight the need to both strengthen supply chains and diversify access points to bring family planning methods closer to the user. Differences in challenges obtaining a contraceptive method during the pandemic by country are summarized in Figure 1.

Figure 1. Challenges obtaining family planning during COVID-19 by country

Among women who reported having difficulty

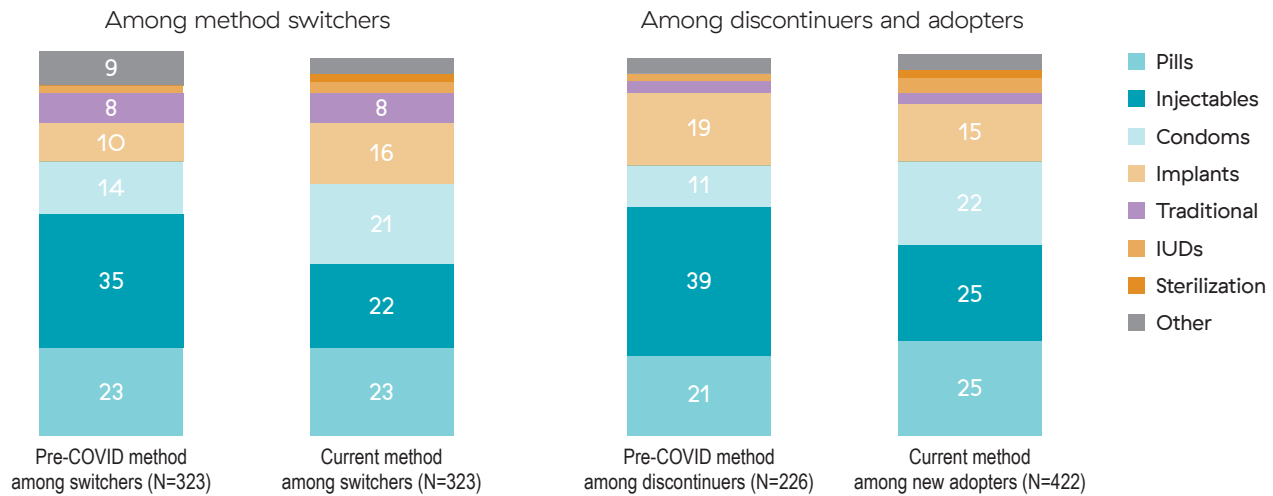


Findings were largely similar by demographic characteristics, with several exceptions. Women with three or more children were more likely to cite that lockdowns made travel more difficult (32 percent). Women with one or two children, single women, and women age 30–39 were more likely to report that method stockouts posed a challenge (25 percent).

Changes in Contraceptive Methods Used During COVID-19

Among all contraceptive users, 27 percent switched methods during the pandemic. This ranged from a low of 22 percent and 23 percent in Nigeria and India, respectively, to a high of 29 percent and 30 percent in South Africa and Kenya, respectively. Across demographic characteristics, there was little variability from the average of 27 percent. Figure 2 highlights overall changes—among method switchers and among discontinuers and new users. The largest overall change in method use among these method switchers were: 1) a decrease in injectables from 35 to 22 percent; 2) an increase in condom use from 14 to 21 percent; and 3) an increase in implant use from 10 to 16 percent. As discussed later, these changes reflect both general method-shifting trends and pandemic-related factors.

Figure 2. Largest difference in method use pre- and during pandemic is in injectables



Among switchers, there were a few deviations from these trends. For example, in India, the increase in condom use was even more stark, from 21 percent pre-pandemic to 50 percent currently, offset by a decrease in use of traditional and “other” methods. Among women with a secondary degree or below, there was very little increase in condom use (from 14 to 16 percent). Instead, these women saw an increase in implants (11 to 16 percent) and pills (19 to 23 percent). Single women were more likely than the average to switch to implants, from 6 percent pre-pandemic to 18 percent currently. Single women also saw the largest decrease in injectable use, from 42 percent to 22 percent. Nulliparous women were also very likely to switch to implants, from 2 percent to 11 percent. In contrast to single women, the largest decrease in method use among nulliparous women was a drop in pill use from 42 percent to 25 percent. While single and nulliparous women often overlap, in our sample, under half (44 percent) of single women were nulliparous.

Similar to method switchers, injectables were the method most affected by women who stopped using contraception during the pandemic. Thirty-nine percent of women who stopped using had previously used injectables (21 percent), followed by implants (19 percent). Sample sizes are too small to disaggregate by country or demographics. Among women who started using a method during the COVID-19 pandemic, short-acting methods were the most popular and adopted at nearly equal levels. Approximately one-quarter of new users adopted pills (25 percent), injectables (25 percent), and condoms (22 percent). Fifteen percent of new users opted for implants, a long-acting method. These patterns vary substantially by country. In India,

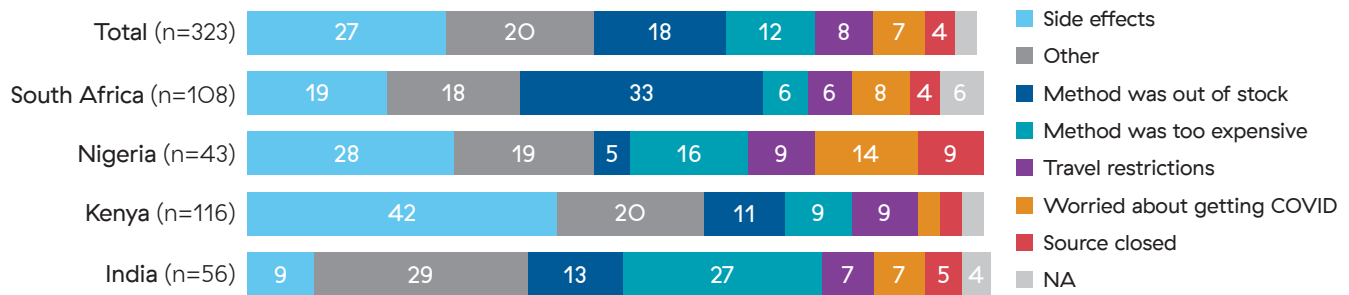
the large majority (63 percent) of new users adopted condoms. In South Africa, over half (51 percent) of new users started using injectables. In Kenya and Nigeria, condoms were less common for new users (7 percent and 16 percent, respectively). Pills were the most popular method among new users in these countries (32 percent in Kenya and 29 percent in Nigeria). By age group, marital status, and education, patterns largely mirrored the average. Employed respondents who started using a method during COVID-19 were more likely to use condoms (31 percent) compared to their unemployed counterparts (15 percent), who were more likely to start using injectables (32 percent). By parity, women with no children were most likely to start using pills (43 percent), while women with two or three children were most likely to adopt implants (25 percent).

Understanding Method Changes

Among women who switched methods during the pandemic, **nearly half** attributed this to stockouts, expense, or travel restrictions.

Women who switched methods during the COVID-19 pandemic reported a variety of reasons (Figure 3). The largest single motivation was related to side effects (27 percent). However, nearly half of switchers cited a reason that could partially be attributed to the pandemic. Nearly one-fifth (18 percent) of method switchers reported that method stockouts was the reason for their switch, and another 12 percent reported that they switched because the method was too expensive. While it is not clear that these stockouts and costs were related directly to the COVID-19 pandemic, they do align with factors that supply-side stakeholders raised in previous global assessments (Ganesan et al. 2020). It is important to note that the women reporting high costs as a factor obtained their previous method from public and private sector sources at relatively equal rates—and the high costs could be related to both costs of travel to the method source and costs to purchase the method. Method stockouts were reported by one-third of switchers in South Africa and by just over one-quarter (26 percent) of single women who switched methods. High expense was a key rationale among women in India who changed methods (27 percent) and among nulliparous women (19 percent). Just under 1 in 10 (8 percent) of women who switched methods cited travel restrictions as their rationale. This rationale increased to 15 percent among women age 30–39, compared to 6 percent of women 18–29 who reported this factor as a reason to switch methods. Similar to women who stopped using altogether, these motivations highlight the need to further strengthen supply chains and diversify access points.

Figure 3. Rationale for changing methods



Changes in Contraceptive Sources During COVID-19

Despite approximately **one-quarter** of users switching methods, there were not large net differences to the overall source mix.

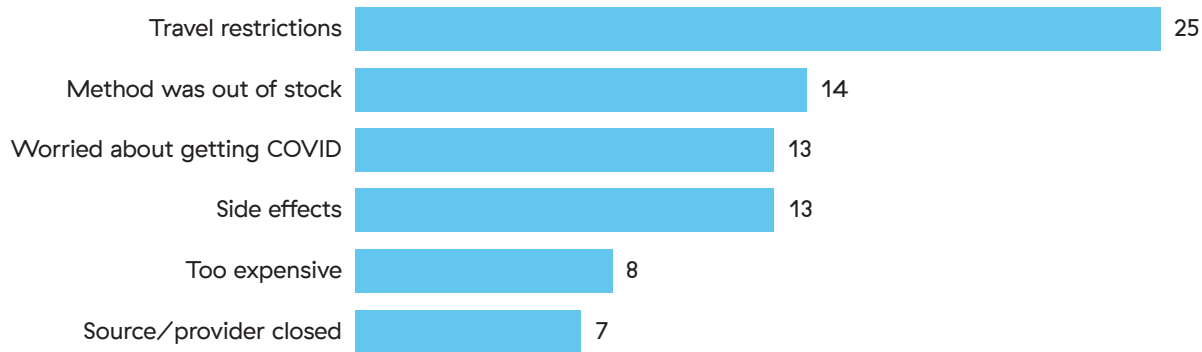
Among women who used family planning before the pandemic and continued to do so, 26 percent have changed the source of where they obtained their method since March 2020. This figure ranges from 15 percent in India to 23 percent in South Africa, 29 percent in Nigeria, and 33 percent in Kenya and remains fairly stable across demographic groups. Among these women who changed sources, there were not large net differences to the overall source mix. The two primary changes were an increase in use of pharmacies and drug shops from 22 percent to 26 percent and a decrease in public hospitals from 26 percent to 18 percent, resulting in a slight overall shift from public to private sources. This pattern is more pronounced among women in the 30–39 year age group, with an 11 percentage point increase in pharmacy or drug shop use (21 to 32 percent), offset by a decrease in public hospitals from 32 percent to 19 percent. Women who started using a method during the pandemic also closely mirrored these same sources. These changes are in line with findings related to method switching, as pharmacies and drug shops tend to be more numerous and thus more convenient or requiring less travel than public hospitals. Globally, they also tend to be more significant sources of short-acting methods that many women switched to or newly adopted.

Understanding Source Changes

Among women who changed sources during the pandemic, COVID-19 prompted the majority of switches (Figure 4). The primary reason women cited was travel restrictions (25 percent), ranging from 33 percent of women who switched in Nigeria and 30 percent Kenya to very few women in India (8 percent). Other COVID-19-related reasons consisted of method stockouts (14 percent), worries about getting COVID-19 (13 percent), too expensive (8 percent), and source closure (7 percent). Of all switchers, only 13 percent indicated a reason that was unrelated to the pandemic—13 percent indicated that the switching was tied to concerns about side effects with their previous method. There was less country variation for these rationales, except for method stockouts, which was highest in South Africa (23 percent) and lowest in India (6 percent). By age group, women 30–39 were more worried about getting COVID-19 than their younger counterparts age 18–29 (26 versus 10 percent). Younger women cited expense as a rationale for changing sources more than women age 30–39 (10 versus 3 percent). Women with a university degree or higher were also more likely to report travel restrictions than women with a secondary degree or lower (33 versus 20 percent).

Figure 4. Travel restrictions and method stockouts were primary rationale for switching sources during the pandemic

Among women who switched sources N=307



Conclusions

This assessment generated evidence-based insights among a niche group of social media and smartphone users into how the COVID-19 pandemic affected demand for family planning and challenges in accessing contraception. Results drawn from this study cannot be generalized to the national population; rather, they provide key insights into behavioral patterns among a more educated and urban market segment. The majority of respondents (62 percent) reported that they faced challenges in obtaining or accessing a method. The most frequently cited challenges, related to travel restrictions or supply issues, were also highlighted by global assessments (e.g., stockouts and increased costs). It is likely that the urban and highly educated skew of our survey respondents underestimates the effect of these challenges. Stockouts, higher costs, and transport problems are possibly more prevalent in rural areas and among lower-income communities, where we had fewer respondents. Further, rural and lower-income women may face additional challenges that were not surfaced through our survey sample. Further research on the barriers that family planning users in these segments have faced would help reveal additional needs and potential solutions.

The challenges identified that prompted method or source switching largely related to two themes: 1) supply-chain constraints that raised prices or limited availability and 2) de facto and de jure limits on movement that made women less likely to venture to a health facility. Some of the supply-side solutions identified in Abt's supply-side assessment in India are relevant here. For example, online sales and e-commerce models are a potential strategy to mitigate travel restrictions. Some marketers of over-the-counter contraceptives reported increasing their focus on online sales in response to the pandemic and shared positive results from this pivot. Another strategy to mitigate the effects of travel restrictions is for pharmacies and shops to conduct outreach to their customers and to accept orders over WhatsApp or telephone. These solutions would be relevant for the women we sampled and may need to be adapted to reach rural or lower-income populations.

Among respondents, method switching mainly saw a shift from injectables to condoms or implants, which aligns with projections from Abt's supply-side analysis of the impact of COVID-19. To offset the identified decrease in use of injectables, country stakeholders can consider policy options to expand access to this method. For example, in many countries, injectables are prohibited from being sold by or provided in pharmacies. Allowing trained providers to offer injectable provision in private pharmacies and drug shops could increase access and enhance the resilience of contraceptive markets in the face of future system shocks. Additional tactics to mitigate contraceptive use disruptions include ensuring private facilities continue to have access to publicly procured commodities, where this partnership is already in place, accelerating market access to DMPA-SC to increase self-care, or allowing users to have

an advanced supply of oral contraceptive pills (e.g., distributing three or six cycles at a time instead of one). Key to these efforts is also clear and consistent communication with clients so that they are aware of contraceptive alternatives, changes in source options (e.g., online delivery), or options to obtain an advance supply of their method.

There are also several strategies to mitigate disruption of long-acting and reversible contraceptives access. Postpartum family planning, including immediate postpartum methods, can help sustain access to long-acting and reversible contraceptives. Policy makers can consider increasing availability and provision of postpartum family planning in public and private sectors as a strategy to build resilience for future disruptions. Additionally, guidelines permitting extended use of long-acting and reversible contraceptives beyond the labeled duration of use and clarifying recommended extended duration to health care providers should be considered (Nanda et al. 2020). Third, faith-based and nongovernmental organizations contribute to a significant proportion of long-acting and reversible contraceptive provision in many countries. Donor support to increase facility-based and outreach services of these organizations can help mitigate reduced service availability at public facilities. Finally, one of the reasons cited (in the supply-side analysis) for decreased provision of long-acting and reversible contraceptives in private facilities is the high cost of personal protective equipment relative to the service fee for long-acting and reversible contraceptive provision. Donation of personal protective equipment to facilities could help overcome this barrier.

Among the survey respondents, there were no major shifts in sourcing shares among women who switched sources. This indicates that women who did switch sources likely opted for a similar type of outlet—that is, switching from one public clinic to another. Again, this may look different in rural areas where there are fewer facilities and outlets available. In these areas, travel restrictions and method stockouts may have more severe implications on continued method use and source switching. Better understanding of demand-side patterns in rural areas warrants additional investigation.

Despite challenges in accessing contraception, almost 6 out of 10 survey respondents reported that they have continued to access and use family planning throughout the pandemic. While more women reported that they started to use a family planning method in the past year than reported that they stopped, this is likely a function of the survey recruitment process and platform. However, more than 80 percent of respondents continued or started using contraception during COVID-19, indicating that the pandemic has not been an insurmountable barrier for women who want to use family planning. Similarly, for women who stopped using a modern method since March 2020, most respondents indicated motivations in line with what is typically observed during “normal” times—namely, side effects or a desire to get pregnant. This aligns with global reports and surveys that have found fewer contraceptive service disruptions

compared with initial projections by global leaders at the start of the pandemic (PMA 2021; UNFPA 2021; Riley et al. 2020). Governments, donors, private sector, and supply-chain actors have successfully collaborated to mitigate the impact on contraceptive access and use (UNFPA 2021). Our results provide an additional demand-side pulse in four diverse health markets to further support the finding that, while COVID-19-related challenges in accessing contraception persist, the majority of women are able to continue or start accessing a method.



Photo: KC Nwakalor

for random sampling, as the marketing mechanisms are more appealing to certain kinds of people (in this case, family planning users), precluding the ability to interpret results regarding the percentage of women who stopped using a method. For this reason, this method can serve as a channel to take rapid pulse checks of a market rather than as a means of quantifying or measuring market-wide impacts on demand and use. In addition, many chatbots only operate in a limited number of countries. While they are capable of entering new markets, it takes time to register and start up a presence in each new country, lengthening the survey implementation period and limiting their ability to reach new audiences. Donors and governments should consult with the companies operating these platforms to understand their barriers and identify solutions to ease their market entry to better position them to support comprehensive market pulse checks in the future.

Finally, it is important to note that stakeholders could do more to address the limitations this type of data collection strategy currently faces. First, this approach had difficulty reaching rural, older, and less-educated populations. It is possible that the populations who are most easily reached through this type of channel are also best positioned to adapt to the supply shocks or other disruptions caused by the COVID-19 pandemic—but this assumption would need to be tested through more robust research that donors could fund. In addition, this methodology does not allow

Annex. Complete Questionnaire

Family Planning Questions

- Q1. Are you currently using a method of family planning (contraception) to prevent pregnancy? If so, which one?
1. NO, not using any method (Skip to Q3)
 2. Condom (male or female)
 3. Pill
 4. Injection (Depo, a shot every 2 or 3 months)
 5. Implant (inserted in arm)
 6. Intrauterine device/IUD (known as coil, loop)
 7. Tubal ligation (sterilization, surgery)
 8. Withdrawal or other traditional method
 9. Other
-
- Q2. Where did you obtain this family planning method most recently?
1. Hospital, public
 2. Hospital, private
 3. Health clinic, public
 4. Health clinic, private
 5. Pharmacy or drug shop
 6. Online pharmacy/shop
 7. General shop or market
 8. Other
-
- Q3. Were you using any method of family planning when lockdowns, clinic closures, or other restrictions caused by the COVID-19 pandemic took effect (around March or April 2020)?
1. NO, I was not using a method before COVID (Skip to Q9)
 2. YES, I was using the same method I am using now (Skip to Q6)
 3. YES, but I was using a different method then
-
- Q4. Which method of family planning were you using back then?
1. Condom (male or female)
 2. Pill
 3. Injection (Depo, a shot every 2 or 3 months)
 4. Implant (inserted in arm)
 5. Intrauterine device/IUD (known as coil, loop)
 6. Tubal ligation (sterilization, surgery)
 7. Withdrawal or other traditional method
 8. Other

- Q5. Why did you change your method of family planning?
1. Original method was out of stock
 2. Original provider/source closed
 3. Travel restrictions made me switch providers
 4. Worried about getting COVID-19
 5. Needed less expensive method
 6. Side effects
 7. Other
-

- Q6. Did you change where you obtained your family planning method during the COVID-19 pandemic?
1. NO, same source/provider (Skip to Q9)
 2. YES, new source/provider
-

- Q7. Where did you get your method of family planning before COVID-19?
1. Hospital, public
 2. Hospital, private
 3. Health clinic, public
 4. Health clinic, private
 5. Pharmacy or drug shop
 6. Online pharmacy/shop
 7. General shop or market
 8. Other
-

- Q8. Why did you change where you obtained your family planning method?
1. Original method was out of stock
 2. Original provider/source closed
 3. Travel restrictions made me switch providers
 4. Worried about getting COVID-19
 5. Needed less expensive method
 6. Side effects
 7. Other
-

- Q9. At any time during the COVID-19 pandemic, did you have difficulty obtaining a method of family planning (contraception)? If so, in what ways was it difficult?
1. NOT APPLICABLE: I did not look for methods during the pandemic
 2. NO: No difficulties
 3. YES: Lockdowns made travel hard
 4. YES: Methods were out of stock
 5. YES: Providers (health facilities, pharmacies, shops) were closed
 6. YES: Worries about getting COVID
 7. YES: Could no longer afford the method
 8. YES: Another reason
- YES TO ALL (Skip to Next Section)

- Q10. Thinking back to before the COVID-19 pandemic, did you intend to start using a contraceptive method?
1. Yes
 2. No (Skip to Q12)
-
- Q11. Why did you decide not to start using a contraceptive method?
1. I got pregnant or decided to try to get pregnant
 2. I was worried about side effects
 3. Nearby providers (health facilities, pharmacies, shops) did not have the method I wanted
 4. My partner did not want me to use a method
 5. Methods were too expensive
 6. Other reason
-
- Q12. Why not?
1. I was not sexually active
 2. I was pregnant or wanted to get pregnant
 3. I had a bad experience with contraceptives in the past
 4. Nearby providers (health facilities, pharmacies, shops) did not have the method I wanted
 5. My partner did not want me to use a method
 6. Methods were too expensive
 7. Other reason

Demographics

Before we finish, could you tell us a little more about yourself:

1. What is your highest level of education?
1. None
 2. Primary
 3. Secondary
 4. University or higher
-
2. Are you currently employed?
1. Yes
 2. No
-
3. How many children do you have? _____
-
4. What is your marital status?
1. Single (end survey)
 2. Married or living with a man as if married
 3. Widow/Divorced/Separated (End survey)

5. *If married*: Does your husband currently live with you or elsewhere?
1. With me
 2. Elsewhere

6. *If married*: Thinking back to before COVID began in March 2020, did your husband live with you or elsewhere?
1. With me
 2. Elsewhere

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