Increasing clinic visits for women in Mozambique

Text reminders increased clinic visits for family planning services

Target a Priority Outcome

The U.S. Agency for International Development (USAID) promotes access to voluntary family planning information and services around the world. In Mozambique, where there is high demand for modern contraception methods and unmet need, the USAID-funded Integrated Family Planning Program (IFPP), led by Pathfinder International, aims to increase use of modern contraception methods.[1] Population Services International (PSI) leads a component of IFPP in which family planning promoters have one-on-one interactions with women in urban areas, share information about family planning, and, where appropriate, give out referrals to clinics for free family planning services. According to PSI's administrative data, 47% of women who receive referrals visit a clinic, and 97% of women who visit facilities take up a family planning method.[2] USAID/Mozambique and PSI seek to improve referral mechanisms with evidence-based insights.

Translate Behavioral Insights

Pre-study analysis of promoter interactions resulting in a referral suggest that for women who visit a clinic, around 75% of them do so within the first three days after receiving a referral from a promoter. Following this period, the number of women who visit declines rapidly, suggesting that the referral may no longer be salient. Barriers to clinic visits are diverse and can include transportation cost or availability, a shift in user preferences, or inattention; the objective of this project is to target the third barrier. Evidence from randomized evaluations in sub-Saharan Africa suggests that reminders sent via text message can be effective in encouraging take-up of one-off preventive healthcare, though the evidence base around family planning in particular is minimal.[3] In collaboration with PSI and USAID, the Office of Evaluation Sciences (OES) designed a series of eight messages to send via text to women during the first week and month following a promoter interaction, reminding them of their referral for family planning and encouraging them to visit a clinic.

Embed Evaluation

This evidence-based insight was tested with an individual-level randomized evaluation in urban and peri-urban Mozambique. The sample was 5,370 phone numbers corresponding to women who received a referral from a promoter, provided a phone number, and consented to participate in the evaluation. Of those, 2,728 were randomly assigned to be sent text message reminders, and 2,642 received normal follow-up from promoters. Enrollment occurred in two phases in 2020, between January and March and between October and December.[4] We compared the probability of a clinic visit for follow-up care for women who were and were not sent text reminders.[5]

Analyze Using Existing Data

PSI promoters record data about promoter

[1] "Integrated Family Planning Program Overview." USAID. Accessed June 28, 2021. Retrieved from https://2017-2020.usaid.gov/sites/default/files/documents/1860/IFPP_-_Fact-Sheet_9.23.2019.pdf.

[2] This estimate is based on the sample of women observed in this study. 47% is the observed probability of a facility visit among women assigned to the control arm.

[3] Sarah Lund, M. Hemed, Birgitte Nielsen, et al. "Mobile Phones as a Health Communication Tool to Improve Skilled Attendance at Delivery in Zanzibar: A Cluster-Randomised Controlled Trial." *BJOG* 119, no. 10 (2012): 1256–64. Retrieved from: https://doi.org/10.1111/j.1471-0528.2012.03413.x. Thomas Odeny, Robert Bailey, Elizabeth Bukusi, et al. "Text Messaging to Improve Attendance at Post-Operative Clinic Visits after Adult Male Circumcision for HIV Prevention: A Randomized Controlled Trial." *PLoS ONE* 7, no.9 (2012): e43832. Retrieved from: https://doi.org/10.1371/journal.pone.0043832.

[4] Enrollment in the study was paused between March and October 2020 while Mozambique was under a national state of emergency linked to the COVID-19 pandemic. Further analysis of the effects of the SOE on the IFPP program was published separately. Jessica Leight, Catherine Hensly, Marcos Chissano, & Liza Ali. "Short-term effects of the COVID-19 state of emergency on contraceptive access and utilization in Mozambique." *PLoS ONE* , *16*(3) (2021). Retrieved from: https://doi.org/10.1371/journal.pone.0249195.

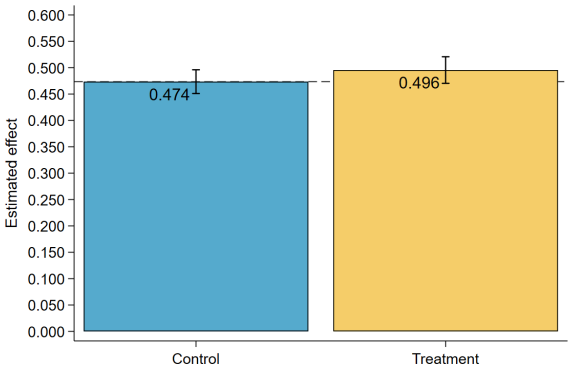
[5] Catherine Hensly, et al. "Increasing Effectiveness of Family Planning Promoters in Mozambique through an SMS Intervention." *AEA RCT Registry*. November 17. (2020). Retrieved from: https://doi.org/10.1257/rct.5383-2.1.

interactions and referrals in an app-based database. The database also includes basic information about the respondent's demographic characteristics (e.g., age, location, and whether the respondent is a current contraceptive user), and any subsequent visit to the clinic (e.g., date and services received). This data was used to compare the rates of clinic visits between January 2020 and January 2021 for women who were and were not sent text reminders.[6]

Results

The results suggest that the text reminders led to a marginally statistically significant increase in clinic visits, and this effect is larger and more precise in the period prior to the COVID-19 state of emergency. Among women who did not receive a text message, 47.4 percent visited a clinic during the observed follow-up period. After adjusting for age, geography, and other factors that might affect the probability of a clinic visit, we estimated that text messages resulted in an increase in clinic visits of 2.26 percentage points (p = 0.081, 95% CI [−0.28, 4.80]).

Figure 1. Effect of text message reminders on clinic visits



In the period prior to the COVID-related state of emergency, this difference was larger: we estimated that text messages resulted in an increase in clinic visits of 3.19 percentage points (p = .042, 95% CI [0.12, 6.27]). We also observed a larger effect among a prespecified subsample, women under the age of 25: among this younger subsample, text messages resulted in an increase of 4.10 percentage points (p = 0.055, 95% CI [-0.09, 8.29]).[7]

Build Evidence

Text message reminders to women who received referrals for family planning in urban and periurban Mozambique increased clinic visits, particularly for young women. This relatively simple and low-cost intervention has the potential to meaningfully increase one-off clinic visits. Additional work could also look at the relationship between clinic visits and family planning method choice and health outcomes, to understand the long-term impact of a simple messaging intervention like this.

[6] Unless noted otherwise, all of the analysis reported in this abstract was prespecified in an analysis plan, which can be found at https://oes.gsa.gov.

[7] The estimate for the message reminders group is based on our estimate of the treatment effect after adjusting for covariates. Error bars represent 95% confidence intervals, and the confidence interval for the message reminders group reflects statistical uncertainty in our estimate of the treatment effect after adjustment for covariates.