



Increasing medication Adherence for HIV+ Women

Phone calls delivered to HIV+ women did not increase ART adherence

Target a Priority Outcome More than 36.7 million people are living with HIV worldwide.¹ In Ethiopia, the second largest country in sub-Saharan Africa, HIV prevalence is estimated at 0.9 % and 23% among female sex workers.^{2,3} In response to this epidemic, the U.S. Agency for International Development (USAID) and the international community have committed to achieve the goal of “90-90-90” by 2020: 90% of HIV+ individuals take a HIV test, 90% of these individuals initiate antiretroviral therapy (ART), and 90% of these individuals demonstrate viral suppression.⁴ However, pre-study analysis indicated that retention in care and ART adherence in Ethiopia was below global health community’s target, at approximately 80%.⁵

Translate Evidence-Based Insights USAID Ethiopia and implementing partner, Population Services International (PSI), run established drop-in centers with comprehensive and confidential HIV testing, and treatment reaching more than 300,000 female sex workers (FSW) and other individuals at high risk of contracting HIV infection.⁶

To further take advantage of these services and increase retention in care and ART adherence, health workers delivered encouraging phone calls, which followed a brief script praising the client for taking care of their health. Evidence from

randomized controlled trials in sub-Saharan Africa and elsewhere suggest that non-financial and non-economic encouragement are effective at increasing take-up and adherence to health inputs, including HIV/AIDS services.⁷ Health workers at study clinics delivered the encouraging calls to ART clients the day after and 15 days after they attended their ART appointment. All study participants, both those who received a phone call and those assigned receive no additional call, received a mobile phone and sim card.

Embed Tests The evidence-based insight was tested with an individual level randomized control trial. All 866 study participants, HIV+ individuals not yet on ARTs, consented into the study. Approximately one-half of participants (n=436) were randomly assigned to receive the encouraging phone call and approximately one-half (n=430) were randomly assigned to the standard of care. An ordinary least squares (OLS) regression was used to compare retention in care and ART adherence at 1, 3, and 6-month follow-up. With the sample size, the study was designed to detect a minimum of a 7.7 percentage point increase.

Analyze Using Existing Data USAID implementing partners routinely track ART adherence and retention in care for HIV+ women. These data include detailed information on initial appointment dates, prescription refill schedules, and follow-up appointments attended.⁸ Existing program data served as the primary outcome.

¹ HIV and AIDS (September, 2018).

<https://www.usaid.gov/what-we-do/global-health/hiv-and-aids>

² President’s Emergency Plan for AIDS Relief (PEPFAR)(September, 2018) .

<https://www.usaid.gov/ethiopia/hivaids>

³ Ethiopia Public Health Institute survey (2014)

⁴ The US President’s Emergency Plan for AIDS Relief Data For Impact (August, 2018).

<https://www.pepfar.gov/priorities/data/index.htm>

⁵ PSI Ethiopia internal data records, 2016.

⁶ New USAID Project to Continue Fight against HIV in Ethiopia (September, 2018)

<https://et.usembassy.gov/new-usaid-project-to-continue-fight-against-hiv-in-ethiopia/>

⁷ CDC (2013), “Surveillance of Influenza Vaccination Coverage,” <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6204a1.htm>, retrieved 3/24/2017.

⁸ 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>.

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Reanalyzed Results The phone calls were associated with statistically insignificant increases of 2.4, 2.4, and 3.0 percentage points in retention in care at 1, 3, and 6 months, respectively (95% CIs: (-4.2-9.0), (-1.1-5.9), and (-2.7-8.8), respectively). The results for adherence to ART are nearly identical in magnitude and statistical significance. However, the study allowed for the detection of a minimum of a 7.7 percentage point increase. The increases in ART adherence and retention are not statistically significant at the 1, 3, or 6 months.

Figure 1: Retention in ART Care at 1, 3, and 6-month Follow-Up

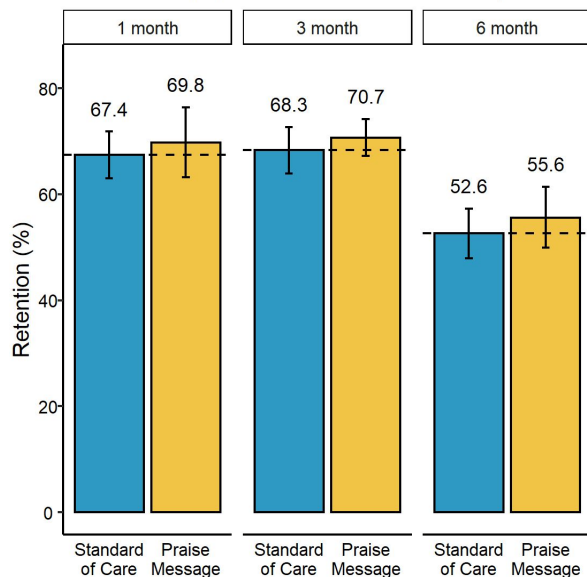
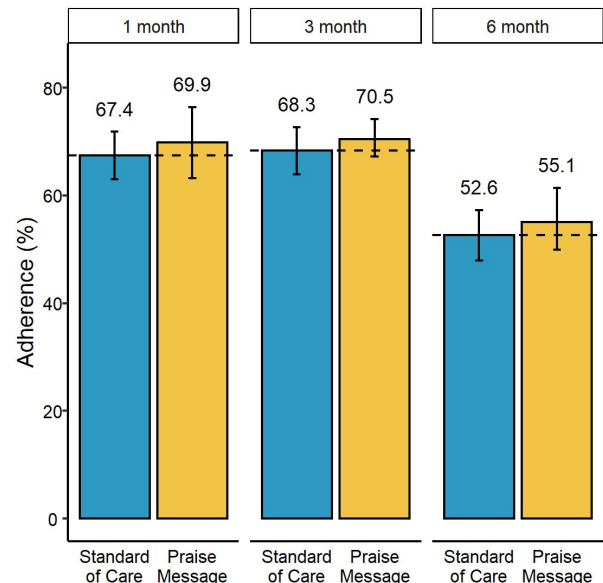


Figure 2: Adherence to ART Care at 1, 3, and 6-month Follow-Up



Build Evidence This study demonstrated that programmatic data from HIV/AIDS programs can be used to conduct a rigorous randomized test on priority USAID outcomes during the course of a program. Such data can also measure the effect of behaviorally-informed program changes on key targeted health outcomes. In future studies, larger sample sizes may be required to detect smaller changes resulting from low-cost interventions.

Related Publication Aderaw Anteneh, Kelly Bidwell, Woldemariam Girma, Kristen Little, Nicholas Wilson, and Endale Workalemahu. "Appraising praise: experimental evidence on positive framing and demand for health services." *Applied Economics Letters*, (2020).

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