POPULATED PRE-ANALYSIS PLAN
for
Knowledge, Stigma, and HIV Testing: An Analysis of a Widespread HIV/AIDS Program

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Introduction

This Populated Pre-Analysis Plan (PAP) document presents all pre-specified analyses described in the pre-analysis plan (PAP) of the study "Knowledge, Stigma, and HIV Testing: An Analysis of a Widespread HIV/AIDS Program" (formerly titled "Direct and Spillover Impacts of a Community-Level HIV/AIDS Program: Evidence from a Randomized Controlled Trial in Mozambique"), AEA RCT Registry number AEARCTR-0003990, registered on March 8, 2019.[1] On the same date, we uploaded our first pre-analysis plan (PAP) to our AEA RCT Registry record. This date was prior to the endline survey and HIV testing coupon redemption, which were carried out between May and November 2019.

We had previously submitted our study as a Pre-Results Review Paper to the *Journal of Development Economics* (JDE). The JDE refereeing process led to minor changes to our pre-specified analyses. Our study was accepted as a Pre-Results Review Paper at the JDE on July 22, 2019 (Yang et al., 2019). We then uploaded the JDE Pre-Results Review Paper to our AEA RCT Registry as our second (and final) PAP on July 24, 2019.[2]

Our submission of the second PAP therefore occurred two months into the seven-month process of administering the endline survey and HIV testing coupon redemption. None of the changes to the PAP between our first and second (final) PAP submissions were informed by any analyses of our endline survey data or data on HIV testing coupon redemption. Prior to submitting the second and final PAP, we had only conducted data quality control checks for feedback to enumerators in the field.

This Populated PAP accompanies the research paper "Knowledge, Stigma, and HIV Testing: An Analysis of a Widespread HIV/AIDS Program" by the same set of co-authors, which reports on a subset of the results below. In that research paper, and in this Populated PAP, we have modified the terms we use to refer to different treatment conditions (compared to the terms we used in the first and second PAPs). In the first and second PAPs, we used the terms "directly enrolled beneficiary (DEB)" and "non-directly enrolled beneficiary (non-DEB)". In the research paper and in this Populated PAP, we now interchangeably use the terms "Treatment" and "FCC-enrolled" to refer to "directly enrolled beneficiary (DEB)" status, and use the term "FCC-ambient" to refer to "non-directly enrolled beneficiary (non-DEB)" status. In addition, in the research paper and in this Populated PAP, we refer to the Randomization Stage 3 treatments as "minitreatments".

All empirical analyses presented in this Populated PAP are conducted exactly as pre-specified in the second PAP.

When examining HIV-related knowledge and stigmatizing attitudes, we also examine

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[1] For background on Populated PAPs, please see Duflo et al. (2020). Our AEA RCT Registry record can be found at: https://doi.org/10.1257/rct.3990-5.0

[2] Following acceptance based on pre-results review, the JDE allows authors to first submit the full-length paper, with results, to other journals. Further details are available at the JDE Pre-Results Review website (http://jde-preresultsreview.org/).

treatment effects on indices of knowledge and stigma that combine information from the many separate variables in those realms. Due to an oversight, we did not pre-specify that we would create such indices, but we note that analysis of such indices is a widely-used approach to addressing MHT concerns (Finkelstein et al. (2010), Almeida et al. (2014)).

Further details can be found on our project website, which includes the same PAP documents that are in our AEA RCT Registry record, as well as all baseline and endline survey instruments: https://fordschool.umich.edu/mozambique-research/fcc-hiv-aids.

A Details on Outcomes and Hypotheses

A.1 Primary Hypothesis

The primary question of interest in this study is: what are the direct effects of the *Força à Comunidade e Crianças* (FCC, "Strengthening Communities and Children") program on beneficiary households?

We address this question by estimating the causal effect of a household being randomly assigned to be a "Treatment" (or "FCC-enrolled") household, in a community randomly assigned to receive the FCC program. In estimating this effect, all households in control communities will be the control group. (Households in FCC communities but not FCC-enrolled are referred to as "FCC-ambient", and are the subject of secondary analyses.)

Among primary outcomes of interest, there are two types. First, there are outcomes measuring knowledge of, contact with, and services provided by the FCC local implementing partners (LIPs). These will be considered "first stage" outcomes, which we will test to confirm and measure the extent to which the FCC program reached the intended beneficiaries. Second, there are the final outcomes of primary interest.

A.1.1 Knowledge of, Contact with, and Services Provided by LIPs

These outcomes come from the endline survey, reported by the primary household respondent. Section M (Support) of the endline survey asks a series of questions on the household's knowledge of, contact with, and services provided by FCC local implementing partners (LIPs). We examine three outcome variables:

- An indicator for a household having heard of the FCC-LIP (equal to 1 if answering "yes" to question M01, and 0 otherwise).

- An indicator for a household having been visited by a Case Care Worker (CCW) of the FCC-LIP (equal to 1 if answering "yes" to question M02, and 0 otherwise).

- An indicator for a household having been referred to or received any services from the FCC-LIP. This indicator is constructed from several questions in Section M, which

asks about services received from non-government organizations (NGOs), and which organization provided these services. Specifically, this indicator is equal to 1 if the respondent reports the LIP in response to any of the questions MA5, MA8, M09, M13, M20, M24, M28, M31, M34, M36, M39, M41, M42 (and is otherwise equal to 0).

Hypothesis P1 Assignment of a household to Treatment status raises the knowledge of, contact with, and services provided by FCC local implementing partners (LIPs), compared to households in control communities.

A.1.2 Final Outcomes of Primary Interest

Our primary analyses test whether household random assignment to "Treatment" (also known as "FCC-enrolled") status leads to higher rates of HIV testing in the household. The outcome variable of primary interest is HIV testing at the household level. This is a binary outcome indicating that the household either self-reports having had or is directly observed by our survey staff having an HIV test upon our recommendation. This outcome captures the combination of having already had an HIV test, as well as openness to recommendations for future testing, both of which may be influenced by exposure to the FCC program.

To be specific, the component variables of this outcome variable are:

- *HIV testing (self-reported):* An indicator that anyone in the household has been tested for HIV in the last 12 months. This is a household-level variable equal to 1 if at least one household member is reported to have had an HIV test in the last 12 months, and 0 otherwise. This variable will be created based on answers to the endline survey household-level question MA4 (and sub-question MA6) and individual-level question K10 (and sub-question K11).

  - MA4: Have you or any household member been referred to take an HIV test during the past 12 months?

    * MA6: If yes, did anyone in the household take up the recommendation to be tested for HIV in the last 12 months?

  - K10: To your knowledge, have you ever been tested for HIV?

    * K11: If yes, when was the most recent test? (1 = in the last 12 months, 2 = 12-23 months ago, 3 = more than 2 years ago)

- *HIV testing (directly observed):* An indicator that at least one of a household's HIV testing coupons has been redeemed. This is a household-level variable equal to 1 if at least one of a household's incentive coupons is presented at the local health clinic for

the HIV testing incentive payment before the 14-day deadline following the endline survey, and 0 otherwise.[3]

Our composite HIV testing outcome is therefore equal to 1 if HIV testing (self-reported) is equal to 1 or HIV testing (directly observed) is equal to 1, and 0 otherwise.

Hypothesis P2 Assignment of a household to Treatment status raises rates of HIV testing, compared to households in control communities.

A.2 Secondary Hypotheses

Several secondary hypotheses are of interest, related to impacts on FCC-ambient households, impacts on other outcomes, mechanisms of impacts, and spillovers from Treatment to FCC-ambient households.

A.2.1 Impacts on HIV testing, examining self-reported and directly observed variables separately

We also examine the two HIV testing variables separately, without combining them into one composite outcome:

1. The measure of HIV testing based survey self-reports, and

2. the directly observed measure of HIV testing based on redemption of testing incentive coupons.

We examine these two outcomes separately because each has distinct strengths and weaknesses. Self-reported HIV testing in the last 12 months has the downside of being self-reported and may therefore be subject to reporting biases. We therefore complement this measure with a directly observed measure: redemption of the coupons incentivizing HIV testing. Because the take-up of the coupons is directly observed, it has an important strength: it is immune from survey-reporting biases. The drawback of this measure is that the HIV tests are financially incentivized, which departs from the general context of HIV testing. We believe the financial incentive is necessary to ensure the respondents turn in the coupons to our research staff at clinics (without submission of the coupons, there would be no way to measure take-up of testing).

If results differ between the self-reported and directly observed measures of HIV testing, we base substantive conclusions and policy recommendations on the findings that use the directly observed outcome.

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[3]The directly observed variable is coded as zero for households refusing any incentive coupons, as well as for households with no-one eligible for coupons because everyone has been tested within the last three months or because all household members are reported to be HIV-positive.

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Hypothesis S0 Assignment of a household to Treatment status raises rates of HIV testing, compared to households in control communities, as measured separately by the self-reported and directly observed outcome variables.

A.2.2 Impacts on School Attendance

School attendance is a secondary outcome of interest because endorsements to attend school and to prioritize education are components of the home visits of Case Care Workers. School-based components of FCC could also raise school attendance. We estimate the effect of a student's household being assigned to Treatment status, with households of all students in control communities as the control group.

The outcomes are:

- *School attendance (self-reported):* An indicator for a child attending school. This is an individual-level variable equal to 1 if a child is reported to be attending school, and 0 otherwise. The value of the indicator is determined based on the response to endline survey question A17. This variable will be created for all school-age children (aged 6-17) listed in the baseline survey.

- *School attendance (directly observed):* An indicator for a child attending school. This is an individual-level variable equal to 1 if a child is directly observed to be attending school by our project staff in an unannounced school visit, and 0 otherwise. Due to limitations in data collection (due to the onset of the COVID-19 pandemic school closures in March 2020), observations of directly observed school attendance are limited to Manica province.

Hypothesis S1 Assignment of a household to Treatment status raises rates of school attendance among children in the household.

A.2.3 Impacts on Other Outcomes

Other outcomes are also of secondary interest. As in the primary analyses, we estimate the effect of a household being a randomly assigned to Treatment (FCC-enrolled status), with all households in control communities as the control group.

The outcomes are:

- *Life satisfaction:* Question P1 from endline survey: "Please imagine a ladder with steps numbered from zero at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?" This is defined at the individual level for all adult respondents.

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- *Household asset index:* The first principal component of a vector of indicator variables for ownership of 14 assets (car, motorcycle, bicycle, radio, television, sewing machine, refrigerator, freezer, iron, bed, table, mobile phone, clock, and solar panel). This is defined for all households.

- *Health care utilization* for individuals who self-report being HIV positive. This is defined at the individual level for any individuals reported to be HIV positive in the endline survey.

  - An indicator for being on antiretroviral therapy (ART). This is equal to 1 if the individual reported currently being on ART, and 0 otherwise, based on endline survey question K21 ("Are you currently taking antiretroviral medicines?").
  - An indicator for having high ART adherence. This is equal to 1 if the individual is reported to have missed no doses in the last 30 days (perfect adherence), and 0 otherwise, based on endline survey question K23 ("How often did you miss doses over the last 30 days?"). This variable is coded as zero for anyone not currently on ART.

Hypothesis S2 Assignment of a household to Treatment status raises life satisfaction, household assets and ART adherence rates.

A.2.4 Impacts on secondary outcomes that are possible mechanisms

We also measure impacts of the FCC program on outcomes in four groups or "families": 1) HIV-related knowledge, 2) HIV-related stigmatizing attitudes, 3) other positive HIV-related attitudes, and 4) risky sexual behavior. These intermediate outcomes are all measured in the endline survey.

These outcomes are of interest in their own right, and in addition they may be mechanisms through which the program achieves its effects.

As in the primary analyses, we estimate the effect of a household being randomly assigned to Treatment (FCC-enrolled) status, with all households in control communities as the comparison group.

The outcomes are as follows, by family. As relevant, we indicate specific component question numbers from the endline survey.

- *HIV-related knowledge.* Questions are indicators and are coded as 1 if answered correctly, and 0 otherwise. (Correct answers are in parentheses below, with additional detail as needed.)

  - *General HIV Knowledge*
    * J03: Have you ever heard of an infection called HIV? (Yes)

* J16: Is it possible for a person who looks healthy to have HIV? (Yes)

* J16a: Is it possible for a person who feels healthy to have HIV? (Yes)

* J29: Can HIV be cured? (No)

* J28: If HIV is left untreated can it cause AIDS (deficiency of the immune system that can lead to severe infections and death)? (Yes)

* JA11: If not treated, how long do you think it takes for an HIV infected person to develop AIDS (deficiency of the immune system that can lead to severe infections and death)? (Exact answer is 10 years. Coded as correct if absolute difference between respondent's answer and 10 is below sample median in endline survey.)

* JA12: If not treated, how long can a person sick with AIDS survive? (Exact answer is 3 years. Coded as correct if absolute difference between respondent's answer and 3 is below sample median in endline survey.)

– *Correct Methods of Transmission*

* J05: Can HIV be transmitted from one person to another through sex behaviors? (Yes)

* JA9: Can HIV be transmitted from one person to another through blood contact? (Yes)

* J21: Can HIV be transmitted from a mother to her baby during pregnancy? (Yes)

* J22: Can HIV be transmitted from a mother to her baby during delivery? (Yes)

* J23: Can HIV be transmitted from a mother to her baby by breastfeeding? (Yes)

– *Transmission Myths*

* J07: Can people get HIV from mosquito bites? (No)

* J07a: Can people get HIV from shaking hands with an infected person? (No)

* J07b: Can people get HIV from kissing an infected person? (No)

* J14: Can people get HIV from sharing food with a person who has HIV? (No)

* J15: Can people get HIV via witchcraft or other supernatural means? (No)

– *Protection Methods*

* J06: Can people reduce their chance of getting HIV by having just one uninfected sexual partner who has had no other sexual partners? (Yes)

* J06a: Can people reduce their chance of getting HIV by not having sexual intercourse at all? (Yes)

* J08: Have you ever heard of a condom? (Yes)

* J09: Do you know where to buy condoms? (Yes)

* J10: Do you know where to obtain free condoms? (Yes)

* J11: Do you think people can reduce the risk of transmission of HIV if they use condoms whenever they have sex? (Yes)

– *Knowledge about HIV Treatment*

* Indicator for knowing where one can get tested for HIV. Coded from question J24: Do you know of a place where people can go to get tested for HIV? (and answering Yes), and J25: If yes, where can people get tested for HIV? (correctly naming a nearby ART site).

* JA1: Do you know if there are any special medicines that a doctor or nurse can give a woman infected with HIV, to reduce the risk of mother-to-baby transmission? (Yes)

* J26: Is there an effective treatment for HIV? (Yes)

* J26a: If yes, do you know what the treatment is called? (Antiretroviral therapy, or ART)

* J27: Do you know of a place where people can receive treatment for HIV? (Yes)

* JA5: Do you think treatment for HIV will be expensive at the local health center? (No)

* JA6: Do you think treatment for HIV at the local health center can help patients stay healthy? (Yes)

* JA7: Do you think treatment for HIV at the local health center can help patients live for as long as uninfected people? (Yes)

* JA8: Do you think treatment for HIV at the local health center can prevent HIV transmission? (Yes)

* JA13: For people infected with HIV, should they take medication even if they don't feel sick? (Yes)

* *HIV-related stigmatizing attitudes.* Questions are indicators and are coded as 1 if answer reveals lack of HIV-related stigma, and 0 otherwise. (Answers revealing lack of stigma are in parentheses.)

– J17: Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV? (Yes)

– J18: If a member of your family got infected with HIV, would you want it to remain a secret? (No)

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- J19: If a member of your family became sick with AIDS would you be willing to care for them in your own household? (Yes)

- J20: In your opinion, if a teacher has HIV but is not sick, should they be allowed to continue teaching at school? (Yes)

- *Other positive HIV-related attitudes.* Questions are indicators and are coded as 1 if answer indicates a "positive" HIV-related attitude, and 0 otherwise. (Answers considered "positive" are in parentheses.)

  - J13: Should children age 12-14 be taught about using a condom to avoid getting HIV? (Yes)

  - JA2: If a woman knows that her husband has an illness that is sexually transmitted, is it justified for her to ask her husband to use a condom in their relationship? (Yes)

  - JA3: It is justified for a wife to refuse to have sexual relations with her husband if she knows that he has sex with other women? (Yes)

- *Sexual behavior*

  - L03: How many sexual partners have you had in your lifetime? (count)

  - L04: How many sexual partners have you had in the last 12 months? (count)

  - L05: Have any of your partners ever been tested for HIV? (1 = yes, 0 = no)

  - L06: Have you ever had sex with someone who you know to have HIV? (1 = yes, 0 = no)

  - L07: Do you currently own condoms? (1 = yes, 0 = no)

  - Indicator for "always uses a condom when having sex" (1 = yes, 0 = no). (Based on responding "all of the time" to question L08: How often do you or your partner use a condom when having sex? (1 = all of the time, 2 = most of the time, 3 = sometimes, 4 = never).)

  - Indicator for a man ever having had sex with a male partner (1 = yes, 0 = no). (Constructed for men only. Based on responding "yes" to question L09: I have to ask this of everyone. Do you have or have you ever had sex with a male partner? This includes your current partner (if you are married this is your spouse) as well as any past sexual partners.)

  - L11: Have you ever been paid in exchange for sex? (Payment can be in money or in other forms, such as goods.) (1 = yes, 0 = no)

  - L12: Have you ever paid someone in exchange for sex? (Payment can be in money or in other forms, such as goods.) (1 = yes, 0 = no)

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Hypothesis S3 Assignment of a household to Treatment status raises HIV-related knowledge, reduces HIV-related stigmatizing attitudes, increases other positive attitudes towards HIV, and reduces rates of risky sexual behavior, compared to households in control communities.

A.2.5 Impacts on non-directly enrolled-beneficiary (FCC-ambient) households

Each primary and secondary hypothesis regarding the impact of Treatment (FCC-enrolled) status has a corresponding hypothesis related to FCC-ambient status. These are impacts on households in FCC communities but not randomly assigned to FCC-enrolled status.

In each case, the outcome variables will be identical to the outcome variables examined for the hypothesis for Treatment status. The causal (right hand side) variable of interest is an indicator for FCC-ambient status, and the comparison group is all households in control communities.

For each prior hypothesis number related to impacts of Treatment status, we append the suffix "(FCC-ambient)" to indicate the corresponding hypothesis for impacts of FCC-ambient status. The FCC-ambient hypotheses are:

Hypothesis P1 FCC-ambient Households randomly assigned to FCC-ambient status will have higher knowledge of, contact with, and services provided by FCC local implementing partners (LIPs), compared to households in control communities.

Hypothesis P2 FCC-ambient Households randomly assigned to FCC-ambient status will have higher rates of HIV testing, compared to households in control communities.

Hypothesis S0 FCC-ambient Households randomly assigned to FCC-ambient status will have higher rates of HIV testing, compared to households in control communities, as measured by separately by the self-reported and directly observed outcome variables.

Hypothesis S1 FCC-ambient Households randomly assigned to FCC-ambient status will have higher rates of school attendance among children in the household.

Hypothesis S2 FCC-ambient Households randomly assigned to FCC-ambient status will have higher life satisfaction, household asset indices, and ART adherence rates.

Hypothesis S3 FCC-ambient Households randomly assigned to FCC-ambient status will have higher HIV-related knowledge, lower HIV-related stigmatizing attitudes, higher rates of other positive HIV-related attitudes, and lower rates of risky sexual behavior, compared to households in control communities.

A.2.6 Spillovers

To what extent do impacts spill over from Treatment (FCC-enrolled) households to FCC-ambient households that are geographically or socially proximate? The outcome of interest for this analysis is the composite measure of HIV testing (Hypothesis P2). Right-hand-side variables of interest are measures of social and geographic proximity to Treatment.

Hypothesis S4   Geographic and social proximity to Treatment (FCC-enrolled) households leads FCC-ambient households to have higher HIV testing rates.

A.2.7 Impacts of Randomization Stage 3 Minitreatments

We implemented additional treatments immediately after the endline survey (the Randomization Stage 3 minitreatments). These additional treatments provide information about HIV, information about ART, information to reduce concerns about HIV-related stigma, and high financial incentives to receive an HIV test. These treatments were randomly assigned at the household level.

The outcome of interest are the directly-observed measure of HIV testing (incentive coupon redemption) at the household level, as described above. This is the only outcome observable after the endline survey.

We estimate the causal impacts of the Randomization Stage 3 minitreatments on HIV testing, and the extent to which their effects vary across FCC-enrolled households, FCC-ambient households, and households in control communities.

Hypothesis S5   The Randomization Stage 3 minitreatments (information about HIV, information about ART, information to reduce concerns about HIV-related stigma, and high financial incentives for HIV testing) have positive effects on rates of HIV testing.

Hypothesis S6   The Randomization Stage 3 minitreatments (information about HIV, information about ART, information to reduce concerns about HIV-related stigma, and high financial incentives for HIV testing) have smaller effects (in absolute value) on rates of HIV testing among Treatment (FCC-enrolled) households than among households in control communities.

We also examine whether the effects of the Randomization Stage 3 minitreatments on HIV testing differ for FCC-ambient households in treatment communities, compared to households in control communities.

Hypothesis S6 FCC-ambient   The Randomization Stage 3 minitreatments (information about HIV, information about ART, information to reduce concerns about HIV-related stigma, and high financial incentives for HIV testing) have smaller effects (in absolute value)

on rates of HIV testing among FCC-ambient households than among households in control communities.

B Multiple Outcome and Multiple Hypothesis Testing

To conduct correct statistical inference in the context of testing multiple hypotheses, we do the following. To reduce the number of hypotheses tested, following Finkelstein et al. (2010) and Almeida et al. (2014), we construct indices for outcomes for which it is sensible to construct an index – such as for HIV-related knowledge and HIV-related stigmatizing attitudes. Then, within sets of related dependent variables and treatments, we report p-values adjusted for the familywise error rate on each coefficient, following the List et al. (2019) method, modified to allow inclusion of control variables by Barsbai et al. (2020).

We pre-specified our multiple hypothesis test (MHT) adjustments incompletely (and with some errors) in the PAP. We specify here the MHT adjustments we carry out in each table of this Populated PAP, making clear which MHT corrections were pre-specified, which were not, and how we have rectified pre-specification errors. Whenever possible, we follow the PAP exactly. When we have made omissions and errors of pre-specification, we have sought to remain true to the spirit of the MHT corrections outlined in the PAP.

- **Table 5.** As pre-specified, we report MHT-adjusted p-values within:

    - the set of the three coefficients on Treatment status in Columns 1-3, and

    - separately, the set of the three coefficients on FCC-ambient status in Columns 1-3.

- **Table 6.**

    As pre-specified: 1) we adjust p-values within the set of two coefficients on Treatment in column 1 (coupon-based HIV testing measure) and 3 (self-reported HIV testing measure), and 2) we do not adjust the p-value on Treatment in column 4 (combined HIV testing measure), since the outcome in that regression combines information from the outcomes in columns 1 and 3. We pre-specified this MHT adjustment presuming the primary outcome of interest would be the combined HIV testing measure. We did not pre-specify what MHT correction we would apply if we followed the pre-specified decision rule that leads us to prioritize the coupon-based HIV testing measure over the combined measure. Now that we are in this case, a more natural approach would be to apply the MHT adjustment among the three coefficients on Treatment in columns 1, 3, and 4.[4]

    Also as pre-specified, we adjust p-values for the FCC-ambient treatments in Columns 1, 3, and 4 as follows: 1) we adjust p-values within the set of two coefficients on FCC-ambient in column 1 (coupon-based HIV testing measure) and 3 (self-reported

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[4]Such an adjustment would lead to even larger p-values, strengthening the conclusion of null Treatment (FCC-enrolled) effects in these regressions.

HIV testing measure), and 2) we do not adjust the p-value on FCC-ambient in column 4 (combined HIV testing measure).

For coefficients in Column 2, we report p-values adjusted for MHT across all five coefficients in that column.[5]

- **Tables 7 and 8.** First, we reduce the number of variables to examine by creating indices representing overall knowledge (as well as knowledge subindices by topic) and an index of stigmatizing attitudes. Second, when we examine multiple outcomes (knowledge subindices and the separate stigma questions), we apply MHT adjustments within outcome families (the knowledge and stigma families separately). In the PAP, we simply said that we would apply MHT adjustments within one family of the 33 knowledge questions, as well as within another family of the four stigma questions. Due to an oversight, we did not pre-specify in our PAP that we would create the knowledge and stigma indices. Analyses of the indices should therefore be taken as exploratory, but we note that analysis of such indices is a widely-used approach to addressing MHT concerns (Finkelstein et al. (2010), Almeida et al. (2014)).

    Table 7, Panel A. In this panel of the table, the outcome variables are the overall knowledge index (Column 1) and the knowledge subindices by topic (Columns 2-6). We apply no MHT adjustment to the coefficient p-value in Column 1; the overall index incorporates information from all knowledge questions, so the single coefficient on Treatment in this regression reveals impacts on overall knowledge. We apply MHT adjustments within the set of five Treatment coefficients in Columns 2-6. Separately, we apply analogous MHT adjustments to the FCC-ambient coefficients.

    Table 7, Panels B-F. In these panels of the table, the outcome variables each of the 33 separate knowledge questions. As pre-specified: 1) we apply an MHT adjustment to the p-values within the set of all 33 coefficients on Treatment, and 2) separately, we apply an MHT adjustment to the p-values within the set of all 33 coefficients on FCC-ambient.

    Table 8. We do not adjust the Treatment coefficient p-value in Column 1, because the stigma index incorporates information from all stigma questions, so the single coefficient on Treatment in this regression reveals impacts on overall stigma. As pre-specified, we adjust coefficient p-values within the group of four Treatment coefficients in Columns 2-5. Separately, we apply analogous MHT adjustments to the FCC-ambient coefficients in the table.

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[5]Column 2 estimates Equation F.1, which was not pre-specified in our PAP; it is a simplified version of pre-specified Equation I.2 below, and simply highlights Comparison A, the pure effect of the FCC program. The MHT adjustments we apply to the coefficient p-values in Column 2 (Equation F.1), Table 6 are analogous to the MHT adjustments we apply to the coefficient p-values in Column 2 (Equation I.2), Table 15.

- **Table 9.** Similarly to Table 8, we first examine in Column 1 an index of the component questions that was not-prespecified in the PAP. We do not adjust the Treatment coefficient p-value in Column 1, because the HIV-related positive attitudes index incorporates information from all positive attitude questions, so the single coefficient on Treatment in this regression reveals impacts on overall HIV-related positive attitudes. As pre-specified, we adjust coefficient p-values within the group of three Treatment coefficients in Columns 2-4. Separately, we apply analogous MHT adjustments to the FCC-ambient coefficients in the table.

- **Table 10.** As pre-specified, we report MHT-adjusted p-values within:

    - the set of the eight coefficients on Treatment status in Columns 1-8, and

    - separately, the set of the eight coefficients on FCC-ambient status in Columns 1-8.

- **Table 11.** We did not pre-specify in the PAP the exact outcomes we would examine in this table, and so also did not pre-specify any MHT adjustment. We now report MHT-adjusted p-values within:

    - the set of the three coefficients on Treatment status in Columns 1-3;

    - separately, the set of the three coefficients on FCC-ambient status in Columns 1-3;

    - separately, the set of the four coefficients on Treatment status in Columns 4-7.

- **Table 12.** We did not pre-specify this table in the PAP, and so also did not pre-specify any MHT adjustment. We now report MHT-adjusted p-values within the set of the five coefficients on Treatment status in the table.

- **Table 13.** As pre-specified, we report MHT-adjusted p-values within:

    - the set of the four coefficients on Treatment status in Columns 1-4, and

    - separately, the set of the four coefficients on FCC-ambient status in Columns 1-4.

- **Table 14.** We implement an MHT adjustment that is more conservative than we pre-specify in the PAP. In the PAP, we say we will adjust within a set of just two coefficients: the coefficient on social proximity to DEB households (from one regression with the combined HIV testing measure outcome) and the coefficient on the indicator for the closest geographic proximity to DEB households (from another regression with the combined HIV testing measure outcome). We now report six instead of two regressions, so that we can show results for the self-reported and coupon-based HIV testing measure. This is because we are now prioritizing the coupon-based HIV testing

measure due to our pre-specified decision rule (discussed before). We also include the coefficients on the intermediate geographic proximity terms. In total, now we do the MHT adjustment within a set of nine instead of just two coefficients across Columns 1-6 of the table.

- **Table 15.** The MHT adjustment we pre-specified in our PAP was incomplete: when stating the set of coefficients we would consider as a group when adjusting p-values, we listed just three out of five of the minitreatment coefficients (and interaction terms),[6] and we neglected to include the coefficient on the main effects of Treatment or FCC-ambient status in the set of coefficients listed. We therefore now do the following: for Column 1, we apply MHT adjustment to p-values within the group of all seven coefficients presented; for Column 2, do the same within the group of all 17 coefficients presented. Because in each case we are adjusting p-values within a larger set of coefficients, this approach is more conservative than our PAP, leading to larger p-values.

- **Tables 16 and 17.** We did not pre-specify MHT adjustments for these tables in the PAP, but they have the same structure as Table 6 above. We therefore apply the same MHT adjustments that we apply in Table 6. We do not calculate MHT-adjusted p-values for the added control variables in Table 16 since they are simply intended as controls.

- **Table 18.** We did not pre-specify MHT adjustment for this table in the PAP, but it has almost the same structure as Table 15 above. We therefore apply MHT adjustments that analogous to those of Table 15: for Column 1, we apply MHT adjustment to p-values within the group of all five coefficients presented; for Column 2, we do the same within the group of all 11 coefficients presented.

C   Regression Specification

We test hypotheses using ordinary-least-squares regression analyses. To estimate the impact of Treatment and FCC-ambient status, the regression equation is as follows:

$$\mathcal{Y}_{ijs} = \alpha + \beta Treatment_{ijs} + \lambda FCCambient_{ijs} + \gamma_s + \varepsilon_{ijs} \tag{C.1}$$

$\mathcal{Y}_{ijs}$ is the post-treatment outcome for individual or household i in community j in stratification cell (matched pair) s. $Treatment_{ijs}$ is the indicator that community j was randomly assigned as an FCC community, and that household i was randomly assigned to

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[6]Specifically, we failed to edit this part of the 2nd (final) PAP after adding two additional minitreatments between the 1st and 2nd PAPs.

FCC-enrolled status in that community (1 if so, and 0 otherwise). $FCCambient_{ijs}$ is the indicator for a household being in a treatment community but not randomly assigned to FCC-enrolled status (1 if FCC-ambient, and 0 if not). (Both $Treatment_{ijs}$ and $FCCambient_{ijs}$ are equal to zero for anyone in a control community. In other words, $Treatment_{ijs}$ and $FCCambient_{ijs}$ partition households in treatment communities into two mutually exclusive subgroups.) γ_s is a fixed effect for stratification cell s.[7] ε_{ijs} is the mean-zero error term. We cluster standard errors at the level of 76 communities (Moulton, 1986).

The coefficient β is the intent to treat (ITT) effect of assignment to Treatment (FCC-enrolled) status, while the coefficient λ is the corresponding effect of assignment to FCC-ambient status. Random assignment these coefficients to be interpreted as causal effects.

This regression will be used to test hypotheses related to the impact of random assignment to Treatment (FCC-enrolled) status and FCC-ambient status within treatment communities. Hypothesis tests regarding the impact of Treatment status will refer to coefficient β in this regression. Hypothesis tests regarding the impact of FCC-ambient status will refer to coefficient λ in this regression.

All outcomes of interest are presented in Table 1. The broad categories of outcomes are attrition, household balance, local implementing partner (LIP) services, HIV testing, school attendance, welfare measures, antiretroviral therapy (ART), knowledge about HIV/AIDS, HIV-related stigmatizing attitudes, HIV-related positive attitudes, and sexual behavior.

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[7]The inclusion of the stratification cell fixed effects reduces standard errors by absorbing residual variation. Stratification is at the level of 38 matched pairs of communities within which treatment status was randomly assigned (so stratification cell fixed effects are equivalent to matched pair fixed effects).

Table 1: **Variable Definitions**

VARIABLE	OBS. LEVEL	DEFINITION
		Panel A. Attrition
Followup Survey Success	Household	Indicator: Successful followup of household
		Panel B. Household Balance
OVC Criterion 1	Household	Indicator: If a household has children and a grandparent is the household head
OVC Criterion 2	Household	Indicator: Ratio of children to adults ≥ 4
OVC Criterion 3	Household	Indicator: Have school aged children and school aged children are not in school
OVC Criterion 4	Household	Indicator: Household eats less than 2 meals a day
OVC Criterion 5	Household	Indicator: Household goes some days without food
OVC Criterion 6	Household	Indicator: Household's primary income source is illegal or do not have a source of income
OVC Criterion 7	Household	Indicator: Have chronically ill household members
OVC Criterion 8	Household	Indicator: Have HIV postive household member
OVC Criterion 9	Household	Indicator: Have household member on ART medications
OVC Criterion 10	Household	Indicator: Have orphaned children
OVC Criterion 11	Household	Indicator: Have adults that died of chronic illness in the last 5 years
		Panel C. Local Implementing Partner (LIP) Services
Heard of FCC	Household	Indicator: Household has heard of the Local Implementing Partners (LIP)
Visited by Case Worker	Household	Indicator: Household has been visited by a Care Case Worker
Received Services	Household	Indicator: Household has received services from the Local Implementing Partners (LIP)
		Panel D. HIV Testing
Combined HIV Testing Measure	Household	Indicator: Household self-reported HIV testing in past 12 months or has redeemed at least 1 testing coupon
Self-Reported HIV Testing	Household	Indicator: Household self-reported HIV testing in past 12 months

Coupon Redemption for HIV Testing	Household	Indicator: Household has redeemed at least 1 testing coupon

Panel E. School Attendance		
Self-Reported School Attendance	Child	Indicator: Household self-reported that child ages 6-17 currently attends school
Directly-Observed School Attendance	Child	Indicator: Field team directly observed child ages 6-17 currently attending school

Panel F. Welfare Measures		
Life Satisfaction	Adult	On a scale of 0-10 with 10 representing the best possible life, where are you on this scale at this time?
Household Asset Index	Household	Index: The first principle component of indicating owning at least 1 of the following household assets: beds, table, mobile phone, radio, television, bike, motorbike, car, iron machine, freezer, fridge, sewing machine, clock (wall, wrist, or pocket) and solar panel

Panel G. Antiretroviral Treatment (ART)		
ART Usage	Individual	Indicator: Currently takes antiretroviral medicines
High ART Adherence	Individual	Indicator: ART adherence 100% in the last 30 days

Panel H.1. Overall HIV Knowledge		
HIV Knowledge Index	Adult	Index: Overall HIV knowledge covering sub-categories: general HIV knowledge, correct forms of transmission, transmission myths, protection methods, and knowledge about HIV treatment

Panel H.2. General HIV Knowledge		
General HIV Knowledge Index	Adult	Index: General knowledge of HIV as share of correct responses
Heard of HIV	Adult	Indicator: Has heard of HIV/AIDS
Possible for Infected Person to Look Healthy	Adult	Indicator: Believe it is possible for HIV infected persons to look healthy
Possible for Infected Person to Feel Healthy	Adult	Indicator: Believe it is possible for HIV infected persons to feel healthy
HIV is Curable	Adult	Indicator: Believe HIV is a curable disease

Untreated HIV Leads to AIDS	Adult	Indicator: Believe if HIV is untreated then it will lead to AIDS
Length for Untreated HIV to AIDS	Adult	Indicator: Believe it takes 10 years for untreated HIV infected persons to develop AIDS. Coded as correct is absolute difference of answer and correct answer is below sample median.
Length of Survival for Untreated AIDS	Adult	Indicator: Believe it takes 3 years for untreated AIDS infected persons to die. Coded as correct is absolute difference of answer and correct answer is below sample median.

Panel H.3. HIV Transmission Knowledge		
Correct Forms of Transmission Index	Adult	Index: Knowledge of the correct forms of HIV transmission as share of correct responses
HIV Transmitted by Sexual Behavior	Adult	Indicator: Believe HIV is transmitted via sexual behavior
HIV Transmitted by Blood Cloats	Adult	Indicator: Believe HIV is transmitted via blood cloats
HIV Transmitted via Pregnancy	Adult	Indicator: Believe HIV is transmitted from mother to child via pregnancy
HIV Transmitted via Child Delivery	Adult	Indicator: Believe HIV is transmitted from mother to child via child delivery
HIV Transmitted by Breastfeeding	Adult	Indicator: Believe HIV is transmitted from mother to child via breastfeeding

Panel H.4. HIV Myths of Transmission Knowledge		
Transmission Myth Index	Adult	Index: Belief in transmission myths of HIV as share of correct responses
HIV Transmitted by Mosquito Bites	Adult	Indicator: Believe HIV is transmitted via mosquito bites
HIV Transmitted by Hand-Shakes with Infected People	Adult	Indicator: Believe HIV is transmitted via hand shakes with an HIV infected person
HIV Transmitted by Kissing Infected People	Adult	Indicator: Believe HIV is transmitted via kissing with an HIV infected person

HIV Transmitted by Sharing Food with Infected People	Adult	Indicator: Believe HIV is transmitted via sharing food with an HIV infected person
HIV Transmitted via Witchcraft or Supernatural	Adult	Indicator: Believe HIV is transmitted via witchcraft or other supernatural events

Panel H.5. HIV Protection Methods Knowledge		
Protection Methods Index	Adult	Index: Knowledge of protection methods to prevent HIV as share of correct responses
Heard of Condoms	Adult	Indicator: Has heard of condoms
Knows Where to Buy Condoms	Adult	Indicator: Knows where to buy condoms
Knows Where to Obtain Free Condoms	Adult	Indicator: Knows where to obtain condoms for free
Condoms Reduce HIV Transmission	Adult	Indicator: Believes that condoms reduce tranmission of HIV/AIDS
Reduce HIV Risk by Monogomous Sex with Uninfected Person	Adult	Indicator: Believes can reduce HIV risk by having sex with only one partner who is uninfected
Reduce HIV Risk by not having Sex with Infected Person	Adult	Indicator: Believes can reduce HIV risk by not having sex with an HIV infected person

Panel H.6. HIV Treatment Knowledge		
Knowledge about HIV Treatment Index	Adult	Index: Knowledge of treatments for HIV/AIDS as share of correct responses
Effective HIV Treatment Exists	Adult	Indicator: Believes that an effective treatment for HIV exists
Know Name of Treatment	Adult	Indicator: Knows that name of an HIV treatment

Know of Medicines Used for HIV/AIDS	Adult	Indicator: Knows of medicine used by doctors and nurses to treat HIV/AIDS
Infected Persons Should Take ART regardless of Feeling Sick	Adult	Indicator: Believes HIV infected persons should take ART regardless of feeling sick
Know Where to Receive HIV Treatment	Adult	Indicator: Knows where to receive HIV treatment
Think Treatment Expensive at Local Health Center	Adult	Indicator: Believes that HIV treatment is expensive at their local health center
Treatment can Help Infected Persons Stay Healthy	Adult	Indicator: Believes HIV treatment can help HIV infected persons stay healthy
Treatment can Help Prolong Infected Persons' Life	Adult	Indicator: Believes HIV treatment can help HIV infected persons prolong their lives
Treatment Prevents HIV Transmission	Adult	Indicator: Believes HIV treatment helps prevent the transmission of HIV/AIDS

Panel I. HIV Negative Stigmatizing Attitudes		
HIV Stigma Attitude Index	Adult	Index: Negative stigmatizing attitudes as share of non-stigmatizing responses
Buy Groceries from Infected Person	Adult	Indicator: Would buy groceries from an HIV infected person
Keep Infected Family Member a Secret	Adult	Indicator: If they had an HIV-positive family member, they would keep it a secret
Care for Infected Family Member in Own Home	Adult	Indicator: Would care for an HIV-positive family member in their own home

Not Sick Infected Teacher Should be Allowed to Teach	Adult	Indicator: Believe HIV infected teachers who are not sick should be allowed to teach

Panel J. HIV Positive Stigmatizing Attitudes		
12-14 Year Olds be Taught Condoms Prevent HIV	Adult	Indicator: Believe school age children ages 12-14 should be taught how condoms prevent HIV transmission
Justified for Woman to Ask Husband with STI to Use a Condom	Adult	Indicator: Believe a woman is justified to ask husband who may have sexual transmitted disease to use a condom
Justified for Woman to have Sex with Husband who is Sleeping with Others	Adult	Indicator: Believe a woman is justified to have sex with husband who is sleeping with others

Panel K. Sexual Behavior		
Sexual Behavior Index	Adult	Index: Good sexual behavior as the share of good behaviors
Count of Lifetime Sexual Partners	Adult	Lifetime number of sexual partners
Count of Sexual Partners in Past 12 Months	Adult	Number of sexual partners in the past 12 months
Sexual Partners Tested for HIV	Adult	Indicator: Know that their sexual partner has been tested for HIV
Never had Sex with Infected Person	Adult	Indicator: Believe they have never had sex with an HIV infected person
Currently Own Condoms	Adult	Indicator: Currently owns condoms
Always Use Condoms During Sex	Adult	Indicator: Always uses condoms during sex

[Men Only]: Never had Male Partner	Adult	Indicator: [For men only] Have never had sex with a man
Never Paid for Sex	Adult	Indicator: Have never paid someone in exchange for sex
Never been Paid for Sex	Adult	Indicator: Have never accepted payment from someone in exchange for sex

D Balance and Attrition

It is important to confirm the balance of baseline variables with respect to treatment assignment. We examine eleven variables that were collected during the vulnerability assessment survey during study enrollment (in May-Nov 2017). We also examine whether there is any in-migration to communities related to treatment status. These are dependent variables in estimation of Equation C.1. We report the results in Table 2. None of the coefficients on the Treatment or FCC-ambient coefficients are large or statistically significant at conventional levels. These results provide no indication of a substantial imbalance in baseline household characteristics or in in-migration related to treatment status.

Another key question is whether success in locating households in the endline survey is affected by treatment status. We examine this by regressing an indicator variable for a household being surveyed in the endline survey using Equation C.1. The results are displayed in Table 2 Column (12). The dependent variable mean in the control communities is 0.800 (an 80% rate of inclusion in the endline survey). The coefficient Treatment is small in magnitude and not statistically significantly different from zero at conventional levels. The coefficient on FCC-ambient status is positive and modest in size (0.032), and statistically significant at the 5% level.

These results indicate no concern with selection bias for our pre-specified primary coefficient of interest (on Treatment). They do raise the possibility of selection bias due to differentially lower attrition related to FCC-ambient status. This should be kept in mind when interpreting coefficients on FCC-ambient status.[8] (Note that we pre-specified that the treatment effect of FCC-ambient status is only of secondary interest in this study.)

We also conduct analogous tests for balance with respect to the Randomization Stage 3 minitreatments and interaction terms with Treatment (FCC-enrolled) and FCC-ambient status. In Table 3, each regression uses the specification of Equation I.1, while in Table 4 we use the interaction-term specification of Equation I.2 (see Section I below).[9] In both sets of tables the share of statistically significant coefficients on randomized right-hand-side variables is not substantially different from the number we would expect to occur by chance. In Table 3, nine out of 84 coefficients are statistically significant at the 10% level or higher. In Table 4, the corresponding number is 22 out of 204. Neither set of regressions suggests concerns about imbalance of baseline characteristics or in-migration with respect to the randomized treatments.

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[8]That said, other evidence points against major concerns about the selectivity of FCC-ambient households. As can be seen in the prior columns of Table 2, there are no substantial observable differences between FCC-ambient and control households. In addition, controlling for this full set of baseline variables does not have an appreciable effect on the FCC-ambient coefficients in our analyses (results available upon request).

[9]Compared to Appendix Table 2, these tables exclude the attrition outcome variable. Randomization Stage 3 (the minitreatments) was implemented only once households successfully completed the endline survey (in other words, minitreatment status is only defined for non-attriting households).

Table 2: **Balance and Attrition by Treatment Status**

	Balance Tests											Migration	Attrition
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Child or Grandparent as Household Head	Ratio of Children to Adult ≥ 4	School Aged Children not in School	Household Eats < 2 Meals a Day	Household go some Days w/o Food	Primary Income Illegal or None	Have Chronically Ill Household Member	HIV + Household Member	Have a Household Member on ART	Have Orphaned Children	Adult Died of Chronic Illness in Past 5 Years	Baseline In-Migration	Followup Survey Success
Treatment	0.00407	0.0194	0.0234	-0.00248	0.0195	-0.00662	-0.00731	-0.00583	0.00916	0.0105	-0.000209	-0.00633	-0.00587
	(0.0154)	(0.0137)	(0.0175)	(0.00364)	(0.0276)	(0.00634)	(0.0196)	(0.0146)	(0.0137)	(0.0198)	(0.0110)	(0.00877)	(0.0120)
FCC-Ambient	-0.0231	0.0220	0.0252	-0.00215	0.00630	0.00290	0.00374	-0.00690	0.00834	0.0258	0.0149	-0.00205	0.0320**
	(0.0182)	(0.0156)	(0.0181)	(0.00406)	(0.0255)	(0.00611)	(0.0200)	(0.0161)	(0.0139)	(0.0231)	(0.0121)	(0.00650)	(0.0137)
Observations	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	2,370	4,546
R-squared	0.041	0.048	0.077	0.012	0.062	0.031	0.034	0.038	0.036	0.046	0.023	0.014	0.062
Obs level	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household
Control Mean Dep. Var.	0.297	0.0706	0.300	0.0149	0.601	0.0215	0.227	0.155	0.121	0.268	0.0911	0.0370	0.800
p-value of test Treatment = FCC-ambient	0.197	0.839	0.935	0.937	0.566	0.0968	0.534	0.937	0.952	0.463	0.231	0.678	0.0169

Notes: Dependent variables in columns 1-11 are indicator variables for household characteristics reported during enrollment of household in the study (May to Nov 2017). Dependent variable in Column 12 is an indicator that a household migrated into the community at baseline. Dependent variable in Column 13 is an indicator that a household was successfully surveyed in the endline survey and included in this paper's analyses (see Appendix section C.2 for details). "Treatment" is indicator equal to one if household randomly assigned to "Treatment" status in Randomization Stage 2, and zero otherwise. Coefficient on Treatment was pre-specified as of primary interest in this study. "FCC-Ambient" is defined analogously for "FCC-ambient" status, and was pre-specified as of secondary interest in this study. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. Significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 3: **Balance with Respect to Randomization Stage 3 Minitreatments**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Child or Grandparent as Household Head	Ratio of Children to Adult ≥ 4	School Aged Children not in School	Household Eats < 2 Meals a Day	Household go some Days w/o Food	Primary Income Illegal or None	Have Chronically Ill Household Member	HIV + Household Member	Have a Household Member on ART	Have Orphaned Children	Adult Died of Chronic Illness in Past 5 Years	Baseline In-Migration
Treatment	0.00388	0.0202	0.0239	-0.00245	0.0188	-0.00676	-0.00705	-0.00575	0.00886	0.00985	-0.000601	-0.00688
	(0.0154)	(0.0138)	(0.0175)	(0.00364)	(0.0276)	(0.00635)	(0.0196)	(0.0145)	(0.0136)	(0.0198)	(0.0110)	(0.00873)
Anti-Stigma	-0.00626	0.00699	-0.0223	0.00613	-0.00983	-0.00296	-0.0291	-0.0114	-0.00933	0.00617	0.0299*	-0.00281
	(0.0226)	(0.0136)	(0.0254)	(0.00595)	(0.0248)	(0.00917)	(0.0247)	(0.0181)	(0.0170)	(0.0304)	(0.0160)	(0.0151)
HIV Info.	-0.0153	0.0181	-0.0162	0.00866	-0.0193	-0.0146*	-0.00623	0.0178	0.00473	-0.0201	0.000953	-0.00644
	(0.0242)	(0.0151)	(0.0265)	(0.00627)	(0.0264)	(0.00793)	(0.0255)	(0.0174)	(0.0159)	(0.0268)	(0.0147)	(0.0134)
ART Info.	0.00302	-0.0192	-0.0476**	0.0108**	0.0222	-0.00798	-0.0125	0.0218	0.0235	0.0224	0.0231	0.0126
	(0.0236)	(0.0124)	(0.0228)	(0.00493)	(0.0242)	(0.00840)	(0.0238)	(0.0188)	(0.0180)	(0.0249)	(0.0146)	(0.0147)
High Value Coupon	0.00350	0.0267*	-0.0121	0.0114*	0.0263	-0.00491	0.0271	0.00929	-0.00989	0.0262	0.0235	-0.0262*
	(0.0217)	(0.0159)	(0.0276)	(0.00639)	(0.0282)	(0.00953)	(0.0265)	(0.0216)	(0.0217)	(0.0295)	(0.0170)	(0.0132)
HIV and ART Info.	0.0357	0.0223	-0.0161	0.0132**	-0.0174	-0.00168	-0.0163	0.0151	0.00200	0.0136	0.00736	-0.0271**
	(0.0275)	(0.0166)	(0.0261)	(0.00514)	(0.0261)	(0.00931)	(0.0282)	(0.0189)	(0.0177)	(0.0283)	(0.0172)	(0.0133)
Observations	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	2,370
R-squared	0.042	0.051	0.078	0.013	0.063	0.032	0.036	0.039	0.037	0.047	0.025	0.019
Obs level	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household
Control Mean Dep. Var.	0.297	0.0706	0.300	0.0149	0.601	0.0215	0.227	0.155	0.121	0.268	0.0911	0.0370
p-value of test Treatment = FCC-ambient	0.214	0.905	0.969	0.918	0.600	0.0910	0.543	0.951	0.987	0.426	0.213	0.627

Notes: Dependent variables in columns 1-11 are indicator variables for household characteristics reported during enrollment of household in the study (May to Nov 2017). Dependent variable in column 12 is indicator that household migrated into the community within the last 12 months (available only for randomly selected subset of households asked more extensive set of baseline survey questions, administered May 2017 to March 2018). "Treatment" and "FCC-ambient" defined in Table 2. See Section I for definition of minitreatments. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table 4: **Balance with Respect to Randomization Stage 3 Minitreatments and Interactions**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Child or Grandparent as Household Head	Ratio of Children to Adult ≥ 4	School Aged Children not in School	Household Eats < 2 Meals a Day	Household go some Days w/o Food	Primary Income Illegal or None	Have Chronically Ill Household Member	HIV + Household Member	Have a Household Member on ART	Have Orphaned Children	Adult Died of Chronic Illness in Past 5 Years	Baseline In-Migration
Treatment	-0.0323	0.0355	-0.0116	-0.00623	0.108**	-0.0104	0.0156	-0.0361	-0.0236	0.0461	-0.0152	-0.0106
	(0.0380)	(0.0249)	(0.0396)	(0.00464)	(0.0450)	(0.0149)	(0.0443)	(0.0274)	(0.0258)	(0.0420)	(0.0222)	(0.0184)
FCC-ambient	-0.0464	0.0325	0.00994	0.00786	-0.00338	-0.000962	0.00904	-0.00664	-0.0162	0.0921	0.0357	0.0332
	(0.0360)	(0.0238)	(0.0467)	(0.00936)	(0.0518)	(0.0166)	(0.0446)	(0.0353)	(0.0323)	(0.0528)	(0.0292)	(0.0233)
Anti-Stigma	-0.0327	0.00523	-0.0262	0.00644	0.00925	0.00255	-0.0219	-0.0299	-0.0346	0.0634*	0.0246	0.0150
	(0.0307)	(0.0155)	(0.0342)	(0.00973)	(0.0400)	(0.0150)	(0.0287)	(0.0263)	(0.0249)	(0.0371)	(0.0226)	(0.0218)
HIV Info.	-0.0449	0.0215	-0.0268	0.0142	0.0390	-0.0144	0.0119	0.0243	-0.00264	0.0182	-0.00673	-0.00137
	(0.0321)	(0.0175)	(0.0321)	(0.0104)	(0.0386)	(0.0138)	(0.0351)	(0.0269)	(0.0239)	(0.0294)	(0.0205)	(0.0190)
ART Info.	-0.00341	-0.00267	-0.0587**	0.00608	0.0431	-0.0139	0.00809	-0.00538	-0.00672	0.0249	0.0105	0.0344
	(0.0325)	(0.0136)	(0.0278)	(0.00617)	(0.0326)	(0.0131)	(0.0301)	(0.0260)	(0.0252)	(0.0341)	(0.0179)	(0.0209)
High Value Coupon	-0.0117	0.0312	-0.0478	0.0148	0.0431	-0.0166	0.0328	0.00353	-0.0182	0.0665	0.0398	-0.00332
	(0.0314)	(0.0208)	(0.0365)	(0.00999)	(0.0416)	(0.0140)	(0.0420)	(0.0323)	(0.0332)	(0.0440)	(0.0253)	(0.0200)
HIV and ART Info.	0.0182	0.0434**	-0.0454	0.0153*	0.0115	-0.00342	-0.0258	0.00674	-0.0159	0.0248	0.0255	-0.0354***
	(0.0379)	(0.0212)	(0.0389)	(0.00770)	(0.0381)	(0.0149)	(0.0383)	(0.0274)	(0.0268)	(0.0388)	(0.0256)	(0.0116)
Treatment * Anti-Stigma	0.0730	0.00773	-0.00990	0.00433	-0.0840	-0.0176	-0.00320	0.0284	0.0335	-0.0576	0.0132	-0.0116
	(0.0586)	(0.0300)	(0.0548)	(0.0123)	(0.0537)	(0.0186)	(0.0592)	(0.0410)	(0.0382)	(0.0664)	(0.0339)	(0.0326)
Treatment * HIV Info.	0.0947	-0.0125	0.0502	-0.00286	-0.108*	-0.00637	-0.0341	-0.0258	-0.00119	-0.0975*	0.0456	0.0201
	(0.0578)	(0.0364)	(0.0599)	(0.0130)	(0.0584)	(0.0165)	(0.0633)	(0.0375)	(0.0356)	(0.0516)	(0.0316)	(0.0341)
Treatment * ART Info.	-0.00321	-0.0221	0.0323	0.0137	-0.106*	0.0128	-0.0571	0.106**	0.0934**	0.0109	0.0416	0.00301
	(0.0565)	(0.0322)	(0.0546)	(0.0112)	(0.0561)	(0.0164)	(0.0584)	(0.0425)	(0.0422)	(0.0559)	(0.0309)	(0.0359)
Treatment * High Value Coupon	0.00973	-0.0464	0.102	-0.00604	-0.145**	0.0327	-0.0393	0.0361	0.0285	-0.0631	-0.0199	-0.0181
	(0.0516)	(0.0314)	(0.0663)	(0.0119)	(0.0626)	(0.0214)	(0.0680)	(0.0474)	(0.0464)	(0.0595)	(0.0383)	(0.0242)
Treatment * HIV and ART Info.	0.0458	-0.0306	0.0645	0.0133	-0.111*	0.00686	0.000709	0.0326	0.0353	-0.0199	-0.00459	0.0303
	(0.0633)	(0.0385)	(0.0577)	(0.0144)	(0.0570)	(0.0201)	(0.0688)	(0.0435)	(0.0409)	(0.0608)	(0.0395)	(0.0242)
Observations	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	3,658	2,370
R-squared	0.043	0.054	0.080	0.015	0.069	0.034	0.037	0.043	0.041	0.051	0.027	0.025
Obs level	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household	Household
Control Mean Dep. Var.	0.297	0.0706	0.300	0.0149	0.601	0.0215	0.227	0.155	0.121	0.268	0.0911	0.0370
p-value of test Treatment = FCC-ambient	0.763	0.913	0.662	0.137	0.0386	0.437	0.892	0.408	0.817	0.280	0.0762	0.0746

Notes: Dependent variables in columns 1-11 are indicator variables for household characteristics reported during enrollment of household in the study (May to Nov 2017). Dependent variable in column 12 is indicator that household migrated into the community within the last 12 months (available only for randomly selected subset of households asked more extensive set of baseline survey questions, administered May 2017 to March 2018). "Treatment" and "FCC-ambient" defined in Table 2. See Section I for definition of minitreatments. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

E   "First Stage" Impacts on Contacts with FCC Program

We first examine impacts on outcomes measuring knowledge of, contact with, and services provided by the FCC local implementing partner (LIP) organization. While we are not conducting an instrumental variables (IV) estimation, these measures could be considered "first stage" outcomes that confirm and measure the extent to which the FCC program reached the intended beneficiaries. These outcomes come from the endline survey, reported by the primary household respondent. We examine an indicator for a household having heard of the LIP in their community, an indicator for a household having been visited by a Case Care Worker (CCW) of the LIP, and an indicator for a household having been referred to or received any services from the LIP in their community. This last indicator is constructed from several survey questions asking about services received from non-government organizations (NGOs), and which organization provided these services.

Regression results from estimation of Equation C.1 for these first stage outcomes are shown in Table 5. Treatment leads to statistically higher rates of having heard of, been contacted by, or received services referred by the LIP. FCC-ambient status also has a positive effect on these outcomes, indicating that LIPs reached households in treatment communities in general as well as FCC-enrolled households. All coefficients on Treatment status are statistically significant at the 1% level. Those on FCC-ambient status are statistically significant at the 5% level in Column 1 and at the 10% level in Columns 2 and 3.

Treatment households did have higher rates of contact with the FCC program than FCC-ambient households. For each outcome, coefficients on Treatment status are larger in magnitude than the corresponding FCC-ambient coefficient. For the "visited by case worker" and "received service" regressions, the difference between the Treatment and FCC-Ambient coefficients are statistically significantly different from zero at conventional levels (p-values 0.040 and 0.003, respectively, reported in the bottom row of the table.)

These results indicate that the FCC program did differentially reach more households in treatment communities than in control communities, and Treatment households more so than FCC-ambient households in treatment communities.[10]

---

[10]Note each of the outcome variables have means that are nonzero in control communities. This is to be expected, because LIPs tend to be well-established organizations and have other activities separate from those they are contracted to undertake as part of the FCC program.

Table 5: **Knowledge of, Contact with, and Services provided by LIPs**

	(1)	(2)	(3)
HYPOTHESIS:	P1	P1	P1
VARIABLES	Heard of FCC	Visited by Case Worker	Received Services
Treatment	0.137	0.0646	0.107
	(0.0253)	(0.0112)	(0.0209)
	[0.007]	[0.002]	[0.002]
FCC-ambient	0.117	0.0338	0.0665
	(0.0275)	(0.0113)	(0.0204)
	[0.019]	[0.067]	[0.095]
Observations	3,658	3,658	3,658
R-squared	0.118	0.072	0.101
Obs level	Household	Household	Household
Control Mean Dep. Var.	0.482	0.0563	0.100
p-value of test Treatment = FCC-ambient	0.312	0.0397	0.00296

Notes: Dependent variables are as follows. Column 1: indicator for having heard of the FCC local implementing partner (LIP) organization. Column 2: indicator for having been visited by the LIP Case Care Worker (CCW). Column 3: indicator for having received any services from the FCC program. "Treatment" is indicator equal to one if household randomly assigned to "Treatment" status in Randomization Stage 2, and zero otherwise. Coefficient on Treatment was pre-specified as of primary interest in this study. "FCC-Ambient" is defined analogously for "FCC-Ambient" status, and was pre-specified as of secondary interest in this study. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

F Primary Analysis

We now test the primary hypotheses of impacts on HIV testing. Results are presented in Table 6. We consider the coupon-based HIV testing outcome to be of primary interest, following the decision rule pre-specified in the PAP that we would do so if treatment effects differed between the coupon-based and self-reported HIV testing outcomes (which is the case). In the regression for the coupon-based HIV testing measure (Column 1), the coefficient on Treatment is negative, and the coefficient on FCC-ambient is positive. Both are relatively small in magnitude and neither is statistically significantly different from zero at conventional levels.

The coefficient estimates in Column 1 do not represent the "pure" effects of Treatment (FCC-enrolled) and FCC-ambient status, because households were also assigned the Randomization Stage 3 minitreatments before being offered the HIV testing coupons. The treatment effects in Column 1 are average treatment effects, pooling households who received minitreatments with those who did not. If there is any interaction between the minitreatments and Treatment or FCC-ambient status, the estimate in Column 1 will not be identical to the pure effect of Treatment or FCC-ambient status.

We estimate the pure effects of Treatment and FCC-ambient status by estimating the following modification of equation C.1:

$$
\begin{aligned}
\mathcal{Y}_{ijs} = {} & \alpha + \beta Treatment_{ijs} + \theta Treatment_{ijs} \times AnyMinitreatment_{ijs} \\
& + \lambda FCCambient_{ijs} + \rho FCCambient_{ijs} \times AnyMinitreatment_{ijs} \\
& + \pi AnyMinitreatment_{ijs} + \gamma_s + \varepsilon_{ijs}
\end{aligned}
\tag{F.1}
$$

$AnyMinitreatment_{ijs}$ is an indicator equal to 1 if a household received any of the minitreatments, and 0 otherwise. Equation F.1 includes this as a main effect as well as in interaction with $Treatment_{ijs}$ and with $FCCambient_{ijs}$. This regression is a simplified version of the regression analyzing the Randomization Stage 3 minitreatments, that we pre-specified in the PAP as of secondary interest in the paper. It is simplified in that we group all minitreatments into one $AnyMinitreatment_{ijs}$ indicator rather than estimating effects (and interactions) of each minitreatment separately. We present this simplified regression here to focus on estimating the "pure" effects of Treatment and FCC-ambient status. (In Table 15 below, we show the pre-specified regression analyses with effects and interactions of each minitreatment separately.)

We present coefficient estimates from this regression in Column 2. The coefficient β in this regression is the pure effect of FCC enrollment on households not receiving any minitreatment. This effect is negative and statistically significantly different from zero (p-value 0.018). The coefficient indicates a very large reduction in HIV testing rates (two-fifths of the mean HIV testing rate in control community households). The coefficient λ

in this regression is the pure effect of FCC-ambient status on households not receiving any minitreatment, which is positive but small in magnitude and not statistically significantly different from zero.

The coefficient θ on the interaction term represents how the impact of FCC enrollment changes when a household receives some minitreatment. This coefficient is positive and statistically significantly different from zero (p-value 0.012). The coefficient is about the same magnitude as the negative coefficient on the Treatment main effect, indicating that receiving some minitreatment fully counteracts the negative effect of FCC enrollment. The corresponding interaction term with FCC-enrolled status is very small in magnitude and not statistically significantly different from zero, providing no indication of any interaction between FCC-ambient status and the pooled set of minitreatments.

In Column 3 we estimate equation C.1 where the outcome variable is the self-report of HIV testing from the endline survey. Both the Treatment and FCC-ambient coefficients are positive, small in magnitude, and not statistically significantly different from zero.

The coefficient on $Treatment_{ijs}$ in Column 1 is more negative than the coefficient in Column 3, a difference that an F-test indicates is marginally statistically significantly different from zero (p-value 0.1480). The coefficients on $Treatment_{ijs}$ in columns 2 and 3 are statistically significantly different from one another at the 1% level (p-value 0.0043). These statistical tests lead us to follow our pre-specified PAP decision rule to base substantive conclusions on the coupon-based HIV testing measure, rather than the self-reported HIV testing measure.

Even though our decision rule leads us to not base conclusions on the composite HIV testing measure, for completeness in Column 4 we estimate equation C.1 for that outcome variable. Coefficients on the Treatment and FCC-ambient indicators are both positive, but modest in size. The coefficient on Treatment is not statistically significantly different from zero at conventional levels, while the coefficient on FCC-ambient is statistically significantly different from zero at the 10% level.

Table 6: **HIV Testing**

VARIABLES	(1) Coupon Redemption for HIV Testing	(2) Coupon Redemption for HIV Testing	(3) Self-Reported HIV Testing	(4) Combined HIV Testing Measure
HYPOTHESIS:	S0	S0	S0	P2
Treatment	-0.0212	-0.105	0.0234	0.0222
	(0.0182)	(0.0386)	(0.0233)	(0.0193)
	[0.367]	[0.018]	[0.450]	[0.253]
FCC-ambient	0.0293	0.0328	0.0379	0.0374
	(0.0203)	(0.0443)	(0.0261)	(0.0196)
	[0.250]	[0.493]	[0.249]	[0.060]
Any Minitreatment		-0.0256		
		(0.0259)		
		[0.346]		
Treatment * Any Minitreatment		0.103		
		(0.0403)		
		[0.012]		
FCC-ambient * Any Minitreatment		-0.00445		
		(0.0503)		
		[0.938]		
Observations	3,658	3,658	3,489	3,658
R-squared	0.058	0.060	0.033	0.031
Obs level	Household	Household	Household	Household
Control Mean Dep. Var.	0.263	0.263	0.652	0.721
p-value of test Treatment = FCC-ambient	0.0165	0.000999	0.518	0.422

Notes: Dependent variables are as follows. Columns 1–2: indicator equal to one if someone in household got an HIV test at local health clinic (based on redemption of encouragement coupon for HIV testing), and zero otherwise. Column 3: indicator equal to one if someone in household self-reported in endline survey having gotten an HIV test in last 12 months, and zero otherwise. Column 4: indicator that either the coupon-based or self-reported HIV testing measures is equal to one, and zero otherwise. "Treatment" and "FCC-Ambient" defined in Table 2. "Any Minitreatment" is indicator equal to one if household was assigned to any minitreatment after the endline survey in Randomization Stage 3, and zero otherwise. See Section I for definition of minitreatments. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

G Secondary Analyses

G.1 HIV/AIDS Knowledge

In Table 7 we estimate Equation C.1 examining the impacts on a hypothesized mechanism: knowledge related to HIV/AIDS and ART treatment. We asked respondents 33 HIV/AIDS knowledge questions, divided into thematic subgroups. We create indices for all 33 questions and subindices for the subgroups measuring the fraction of questions answered correctly. Regression results for the indices of HIV-related knowledge are presented in Panel A. We examine an overall HIV knowledge index (covering all 33 questions), a general HIV knowledge subindex, a knowledge of correct forms of HIV transmission subindex, a belief in myths of HIV transmission subindex, a knowledge of protective methods against HIV subindex, and a knowledge of treatments for HIV subindex. These indices are defined such that an increase in the index is an improvement in HIV knowledge. Across these indices in Panel A, Treatment status has no substantial impact, except for beliefs in HIV transmission myths (Column 4) which is negative and marginally statistically significant (p-value 0.131). FCC-ambient status has no significant effect except in Column (4) with respect to myths of HIV transmission which is also marginally statistically significant (p-value 0.113), and comparable in size to the effect of Treatment status on this knowledge subindex.

To provide further detail, Panels B through F of Table 7 examine effects on each individual knowledge question making up the indices, grouped by thematic subgroup. There are a variety of effects of Treatment and FCC-Ambient status on individual knowledge questions, both positive and negative. Because there are so many of these outcomes, it is difficult to discern clear patterns of effects. We therefore believe the analyses of impacts on the overall knowledge index and subindices in Panel A provide clearer insight into the effects of Treatment and FCC-ambient status on HIV-related knowledge.

Table 7: **HIV-Related Knowledge**

	Panel A					
	(1)	(2)	(3)	(4)	(5)	(6)
HYPOTHESIS:	S3	S3	S3	S3	S3	S3
VARIABLES	HIV Knowledge Index	General HIV Knowledge Index	Correct Methods of Transmission Index	Transmission Myth Index	Protection Methods Index	Knowledge about HIV Treatment Index
Treatment	-0.00598	-0.00602	-0.00788	-0.0302	0.00199	0.00234
	(0.00828)	(0.00961)	(0.0134)	(0.0148)	(0.00906)	(0.00989)
	[0.472]	[0.641]	[0.643]	[0.131]	[0.849]	[0.856]
FCC-ambient	-0.00639	-0.00592	-0.0145	-0.0386	-0.00271	0.0128
	(0.00981)	(0.0100)	(0.0138)	(0.0182)	(0.00984)	(0.0106)
	[0.517]	[0.654]	[0.426]	[0.113]	[0.829]	[0.361]
Observations	3,940	3,940	3,940	3,940	3,940	3,940
R-squared	0.062	0.052	0.039	0.071	0.051	0.065
Obs level	Adult	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.756	0.623	0.831	0.747	0.823	0.772
p-value of test Treatment = FCC-ambient	0.964	0.989	0.615	0.576	0.689	0.256

Notes: Dependent variables are as follows. Column 1: index of overall HIV knowledge. Column 2: index of general HIV knowledge. Column 3: index of correct methods of HIV transmission. Column 4: index of beliefs in myths about HIV transmission. Column 5: index of knowledge of protection methods against HIV. Column 6: index of knowledge of HIV/AIDS treatment. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

				Panel B			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HYPOTHESIS:	S3	S3	S3	S3	S3	S3	S3
VARIABLES	Heard of HIV	Possible for Infected Person to Look Healthy	Possible for Infected Person to Feel Healthy	HIV is Curable	Untreated HIV Leads to AIDS	Length for Untreated HIV to AIDS	Length of Survival for Untreated AIDS
Treatment	0.00430	0.00671	0.00120	0.0185	0.0133	0.0764	-0.000928
	(0.00658)	(0.0119)	(0.0111)	(0.0219)	(0.00979)	(0.0881)	(0.107)
	[0.614]	[0.687]	[0.935]	[0.515]	[0.312]	[0.529]	[0.995]
FCC-ambient	0.00579	0.0284	0.0194	0.0230	-0.00211	-0.0576	-0.0615
	(0.00691)	(0.00976)	(0.0111)	(0.0251)	(0.0104)	(0.0944)	(0.131)
	[0.527]	[0.029]	[0.188]	[0.497]	[0.870]	[0.646]	[0.731]
Observations	3,940	3,614	3,601	3,330	3,146	1,637	1,767
R-squared	0.027	0.028	0.034	0.031	0.041	0.249	0.142
Obs level	Adult	Adult	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.968	0.934	0.937	0.175	0.958	1.490	1.454
p-value of test Treatment = FCC-ambient	0.828	0.0459	0.0482	0.797	0.137	0.0460	0.529

Notes: Dependent variables are as follows. Column 1: indicators for having heard of HIV. Column 2: indicator for believing an HIV-infected person can look healthy. Column 3: indicator for believing an HIV-infected person can fell healthy. Column 4: indicator for believing HIV is curable. Column 5: indicator for believing untreated HIV leads to AIDS. Column 6: indicator for correctly knowing the length of time it takes for untreated HIV to become AIDS. Column 7: indicator for correctly knowing the length of survival for untreated AIDS. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

	Panel C				
	(1)	(2)	(3)	(4)	(5)
HYPOTHESIS:	S3	S3	S3	S3	S3
VARIABLES	HIV Transmitted by Sexual Behavior	HIV Transmitted by Blood Clots	HIV Transmitted via Pregnancy	HIV Transmitted via Child Delivery	HIV Transmitted by Breastfeeding
Treatment	0.00466	0.00963	0.0274	-0.0103	0.00427
	(0.00874)	(0.00816)	(0.0120)	(0.0147)	(0.0125)
	[0.685]	[0.393]	[0.093]	[0.585]	[0.797]
FCC-ambient	-0.00543	0.0107	0.0343	0.0192	0.00224
	(0.00826)	(0.00867)	(0.0124)	(0.0171)	(0.0137)
	[0.613]	[0.349]	[0.050]	[0.383]	[0.891]
Observations	3,619	3,564	3,558	3,345	3,457
R-squared	0.026	0.037	0.035	0.052	0.040
Obs level	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.961	0.952	0.919	0.873	0.903
p-value of test Treatment = FCC-ambient	0.238	0.911	0.391	0.0611	0.893

Notes: Dependent variables are as follows. Column 1: indicator for knowing HIV can be transmitted by sexual behavior. Column 2: indicator for knowing HIV can be transmitted by contact with blood. Column 3: indicator for knowing HIV can be transmitted from mother to child via pregnancy. Column 4: indicator for knowing HIV can be transmitted from mother to child via delivery. Column 5: indicator for knowing HIV can be transmitted from mother to child via breastfeeding. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

	Panel D				
	(1)	(2)	(3)	(4)	(5)
HYPOTHESIS:	S3	S3	S3	S3	S3
VARIABLES	HIV Transmitted by Mosquito Bites	HIV Transmitted by Hand-Shakes with Infected People	HIV Transmitted by Kissing Infected People	HIV Transmitted by Sharing Food with Infected People	HIV Transmitted via Witchcraft or Supernatural
Treatment	-0.00490	0.0180	0.0105	0.00566	0.0177
	(0.0186)	(0.00979)	(0.0153)	(0.0114)	(0.0150)
	[0.836]	[0.169]	[0.596]	[0.705]	[0.367]
FCC-ambient	0.0146	0.0186	-0.0174	0.00699	0.0418
	(0.0237)	(0.0108)	(0.0174)	(0.0124)	(0.0172)
	[0.620]	[0.184]	[0.424]	[0.661]	[0.075]
Observations	3,260	3,418	3,209	3,430	3,383
R-squared	0.037	0.025	0.029	0.031	0.104
Obs level	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.256	0.0613	0.176	0.0835	0.109
p-value of test Treatment = FCC-ambient	0.465	0.957	0.0980	0.897	0.0879

Notes: Dependent variables are as follows. Column 1: indicator for believing HIV can be transmitted via mosquito bites. Column 2: indicator for believing HIV can be transmitted via handshakes with HIV-infected persons. Column 3: indicator for believing HIV can be transmitted via kissing with HIV-infected persons. Column 4: indicator for believing HIV can be transmitted via sharing food with HIV-infected persons. Column 5: indicator for believing HIV can be transmitted via witchcraft or supernatural events. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

	Panel E					
	(1)	(2)	(3)	(4)	(5)	(6)
HYPOTHESIS:	S3	S3	S3	S3	S3	S3
VARIABLES	Heard of Condoms	Knows Where to Buy Condoms	Knows Where to Obtain Free Condoms	Condoms Reduce HIV Transmission	Reduce HIV Risk by Monogamous Sex w/ Uninfected Person	Reduce HIV Risk by not having Sex w/ Infected Person
Treatment	0.00579	-0.0361	-0.0188	0.0148	0.0241	-0.00339
	(0.00965)	(0.0132)	(0.0106)	(0.00974)	(0.0121)	(0.0117)
	[0.636]	[0.040]	[0.163]	[0.262]	[0.131]	[0.812]
FCC-ambient	0.0235	-0.0525	-0.0289	0.00503	0.0208	0.00847
	(0.00777)	(0.0167)	(0.0113)	(0.0110)	(0.0114)	(0.0135)
	[0.027]	[0.018]	[0.040]	[0.723]	[0.144]	[0.600]
Observations	3,940	3,711	3,708	3,358	3,473	3,403
R-squared	0.027	0.026	0.040	0.034	0.038	0.069
Obs level	Adult	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.936	0.808	0.898	0.919	0.886	0.845
p-value of test Treatment = FCC-ambient	0.0563	0.379	0.465	0.392	0.827	0.474

Notes: Dependent variables are as follows. Column 1: indicator for having heard of condoms. Column 2: indicator for knowing where to buy condoms. Column 3: indicator for knowing where to obtain free condoms. Column 4: indicator for knowing condoms reduce HIV transmission. Column 5: indicator for knowing they can reduce HIV risk by having monogamous sex with an uninfected person. Column 6: indicator for knowing they can reduce HIV risk by not having sex with an HIV-infected person. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

	Panel F								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
HYPOTHESIS:	S3	S3	S3	S3	S3	S3	S3	S3	S3
VARIABLES	Effective HIV Treatment Exists	Know Name of Treatment	Know of Medicines Used for HIV/AIDS	Infected Persons Should Take ART regardless of Feeling Sick	Know Where to Receive HIV Treatment	Think Treatment Expensive at Local Health Center	Treatment can Help Infected Persons Stay Healthy	Treatment can Help Prolong Infected Persons' Life	Treatment Prevents HIV Transmission
Treatment	0.0289	-0.0802	-0.00115	0.0486	0.0328	0.0141	0.0168	0.00975	-0.0336
	(0.0151)	(0.0240)	(0.0155)	(0.0184)	(0.00958)	(0.0146)	(0.0161)	(0.0167)	(0.0277)
	[0.172]	[0.023]	[0.959]	[0.056]	[0.157]	[0.467]	[0.430]	[0.683]	[0.359]
FCC-ambient	0.0381	-0.0289	0.00346	0.0523	0.0338	0.00655	0.0284	0.0208	-0.0196
	(0.0128)	(0.0279)	(0.0138)	(0.0183)	(0.0105)	(0.0132)	(0.0140)	(0.0130)	(0.0281)
	[0.040]	[0.406]	[0.848]	[0.033]	[0.018]	[0.705]	[0.129]	[0.235]	[0.573]
Observations	3,597	3,311	3,820	3,600	3,821	3,546	3,668	3,619	3,293
R-squared	0.044	0.053	0.030	0.049	0.027	0.082	0.054	0.051	0.134
Obs level	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.903	0.678	0.859	0.867	0.919	0.109	0.890	0.905	0.693
p-value of test Treatment = FCC-ambient	0.348	0.0199	0.681	0.783	0.900	0.545	0.304	0.267	0.518

Notes: Dependent variables are as follows. Column 1: indicator for knowing there is an effective HIV treatment. Column 2: indicator for knowing the name of ART. Column 3: indicator for knowing the name of medicines used to fight HIV/AIDS. Column 4: indicator for knowing an HIV-infected person should take ART regardless of feeling sick. Column 5: indicator for knowing where to recieve HIV treatment. Column 6: indicator for thinking HIV treatment is expensive at local health center. Column 7: indicator for knowing treatment can help an HIV-infected person stay healthy. Column 8: indicator for knowing treatment can prolong an HIV-infected person's life. Column 9: indicator for knowing treatment prevents HIV transmission. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

G.2　HIV-Related Stigmatizing Attitudes

We now examine another possible mechanism driving the negative effects of FCC enrollment on HIV testing: HIV-related stigmatizing attitudes. We measure this mechanism with an index, the share of four separate questions on stigmatizing attitudes that are answered in a non-stigmatizing manner. We report the regression results for these outcomes using Equation C.1 in Table 8. In the regression for the overall stigma index, the coefficient on Treatment status is negative and statistically significant (p-value 0.009). While none of the coefficients on Treatment status for individual stigma questions (columns 2-5) are statistically significantly different from zero, the coefficient on Treatment status in the regression for "Would not keep it a secret if a family member had HIV" is negative and the large in magnitude. FCC-ambient status has a marginally statistically significant impact on the stigma index (p-value 0.108), and in the regression for one component ("Willing to buy groceries from an HIV infected person") the coefficient on FCC-ambient is negative and statistically significant (p-value 0.066).

Table 8: **HIV-Related Stigmatizing Attitudes**

	(1)	(2)	(3)	(4)	(5)
HYPOTHESIS:	S3	S3	S3	S3	S3
VARIABLES	HIV Stigma Attitude Index	Buy Groceries from Infected Person	Not Keep Infected Family Member a Secret	Care for Infected Family Member in Own Home	Infected Teacher Should be Allowed to Teach
Treatment	-0.0135	-0.0139	-0.0281	-0.00506	-0.00330
	(0.00505)	(0.00991)	(0.0196)	(0.00313)	(0.00657)
	[0.009]	[0.280]	[0.259]	[0.192]	[0.709]
FCC-ambient	-0.0103	-0.0292	-0.000129	-0.00476	0.000831
	(0.00636)	(0.0124)	(0.0200)	(0.00368)	(0.00602)
	[0.108]	[0.066]	[0.997]	[0.287]	[0.919]
Observations	3,820	3,756	3,777	3,801	3,748
R-squared	0.025	0.039	0.048	0.017	0.028
Obs level	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.746	0.858	0.168	0.993	0.965
p-value of test Treatment = FCC-ambient	0.602	0.289	0.0821	0.956	0.613

Notes: Dependent variables are as follows. Column 1: fraction of four questions on HIV-related stigma answered in a non-stigmatizing way. Columns 2-5: for each separate question on HIV-relates stigmatizing attitudes, indicator equal to one if answered in a non-stigmatizing way, and zero otherwise. For full detail on each stigmatizing attitudes question, see Appendix Section E. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

G.3 Positive HIV-Related Attitudes

We now examine the impact of Treatment and FCC-ambient status on other pre-specified secondary outcomes. In Table 9, we examine impacts on positive attitudes related to HIV using Equation C.1. Coefficients on Treatment and FCC-ambient in these regressions are mixed in sign, and none of the coefficients in the table are statistically significantly different from zero. The coefficient on Treatment in the regression for the belief that a woman is justified not having sex with a husband who is having sex with other people (Column 3) is marginally statistically significantly different from zero (p-value 0.113). Overall, this set of results provides little indication of positive effects of Treatment (FCC-enrolled) or FCC-ambient status, and may provide an additional area of concern that Treatment led to worsened attitudes related to HIV.

Table 9: **Positive HIV-Related Attitudes**

	(1)	(2)	(3)	(4)
HYPOTHESIS:	S3	S3	S3	S3
VARIABLES	Positive Stigma Attitudes Index	12-14 Year Olds be Taught Condoms Prevent HIV	Justified for Woman to Ask Husband with STI to Use a Condom	Justified for Woman to Refuse Sex with Husband who is Sleeping with Others
Treatment	-0.0124	0.0279	-3.03e-05	-0.0492
	(0.0157)	(0.0239)	(0.0188)	(0.0226)
	[0.431]	[0.367]	[0.998]	[0.113]
FCC-ambient	-0.00894	0.0146	-0.00943	-0.0437
	(0.0165)	(0.0267)	(0.0206)	(0.0264)
	[0.589]	[0.669]	[0.724]	[0.202]
Observations	3,849	3,501	3,434	3,611
R-squared	0.080	0.053	0.045	0.074
Obs level	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	0.563	0.408	0.769	0.542
p-value of test Treatment = FCC-ambient	0.826	0.579	0.650	0.815

Notes: Dependent variables are as follows. Column 1: indicator for believing 12-14 year olds should be taught condoms prevent HIV. Column 2: indicator for believing it is justified for a woman to ask her husband with an STI to use a condom. Column 3: indicator for believing it is justified for a woman to refuse sex with her husband who is sleeping with other people. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

G.4 Sexual Behavior

Using Equation C.1, we estimate the effect of Treatment and FCC-ambient status on measures of sexual behavior. Regressions for eight outcome measures are displayed in Table 10. Treatment status has a negative impact on the number of sexual partners in the past 12 months (Column 1), and this effect is statistically significantly different from zero (p-value

0.060). This effect may be related to previously-discussed impacts of Treatment on beliefs about transmission myths and in HIV-related stigmatizing attitudes. Increases in beliefs about transmission myths and in HIV-related stigmatizing attitudes may lead people to reduce their number of sexual partners so as to avoid HIV infection. Treatment effects on other outcomes in the table are mixed in sign and not statistically significantly different from zero.

Effects of FCC-ambient status are a mixture of positive and negative effects: a negative effect on the number of sexual partners in the past 12 months (Column marginally statistically significant, p-value 0.109), a positive effect on whether one's sexual partner has been tested for HIV (Column 2, marginally statistically significant, p-value 0.104), a positive effect on never having sex with a male partner for male respondents (Column 6, statistically significant, p-value 0.087), and a negative effect on never having been paid for sex (Column 8, marginally statistically significant, p-value 0.140).

Table 10: **Impact on Sexual Behavior**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HYPOTHESIS:	S3	S3	S3	S3	S3	S3	S3	S3
VARIABLES	Count of Sexual Partners in Past 12 Months	Sexual Partners Tested for HIV	Never had Sex w/ Infected Person	Currently Own Condoms	Always Use Condoms During Sex	[Men Only]: Never had Male Partner	Never Paid for Sex	Never been Paid for Sex
Treatment	-0.104	0.0299	0.000943	0.00216	0.00983	0.000523	0.00103	-0.0158
	(0.0338)	(0.0204)	(0.00643)	(0.0183)	(0.0113)	(0.00979)	(0.00830)	(0.0103)
	[0.060]	[0.282]	[0.899]	[0.928]	[0.503]	[0.966]	[0.919]	[0.259]
FCC-ambient	-0.0893	0.0479	-0.0167	-0.0150	0.0178	0.0186	-0.0237	0.000791
	(0.0395)	(0.0223)	(0.00929)	(0.0187)	(0.0139)	(0.00910)	(0.0134)	(0.0121)
	[0.109]	[0.104]	[0.158]	[0.529]	[0.303]	[0.087]	[0.140]	[0.959]
Observations	3,889	3,336	3,864	3,891	3,800	1,184	3,801	3,798
R-squared	0.012	0.060	0.026	0.046	0.041	0.031	0.062	0.046
Obs level	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult
Control Mean Dep. Var.	1.122	0.575	0.951	0.224	0.0939	0.975	0.916	0.912
p-value of test Treatment = FCC-ambient	0.696	0.401	0.0786	0.349	0.596	0.143	0.143	0.212

Notes: Dependent variables are as follows. Column 1: count of the number of sexual partners in the last 12 months. Column 2: indicator for sexual partner having tested for HIV. Column 3: indicator for never having had sex with an HIV-infected person. Column 4: indicator for currently owning condoms. Column 5: indicator for always using condoms during sex. Column 6: (for men only; set to missing for women) indicator that respondent has never had a male sex partner. Column 7: indicator for having never paid for sex. Column 8: indicator for having never having been paid for sex. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

G.5 Other Secondary Analyses

Table 11 examines the impact of Treatment and FCC-Ambient status on school attendance and school enrollment using Equation C.1. For school attendance, columns 1 and 2 are at the level of individual children enumerated in both the baseline and endline survey. The outcome in column 1 is an indicator for the child being reported by the survey respondent as attending school. The outcome in column 2 is an indicator for the child being recorded in the school roster as enrolled in school (based on inspection and searches of student names in physical school record books by our research staff). The outcome in column 3 is an indicator for the child being observed to be attending school by our research staff in unannounced in-person attendance checks at schools. (The latter outcome is available only for students in Manica province because data collection was interrupted by the COVID-19 pandemic school closures in March 2020.) For none of these outcomes is there any large or statistically significant effect of either Treatment (FCC-enrolled) or FCC-ambient status.[11]

Outcomes in columns 4 to 7 are at the school level (synonymous with communities because communities in our study were defined as areas around focal schools).[12] Because these outcomes are at the school/community level, we simply examine the impact of random assignment to being an FCC community (Randomization Stage 1). In column 4, the outcome is student enrollment counts at the start of the 2019 schoolyear (February), based on examination of school enrollment record books.[13] The outcome in column 5 is the log of the dependent variable of column 4. The outcomes in columns 6 and 7 are analogous to those in columns 4 and 5, but as of the start of the 2020 schoolyear (February). For none of these outcomes is there any large or statistically significant effect of random assignment as an FCC community.

In Table 12 we examine outcomes from a survey of the principals of the focal school in each community. These were carried out during the same time frame as the endline survey in 2019 (two schools are missing because their principals refused or were not available to be surveyed). "Treatment" here is an indicator for the school/community being an FCC treatment school/community (Randomization Stage 1). Treatment does not affect whether principals have heard of the FCC program's local implementing partner (LIP) organization (which is not surprising, since these are locally-known organizations). Treatment does increase the probability that principals have been contacted by the LIP and that schools have

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[11]As pre-specified, in the regressions of Columns 1-3 we restrict the sample to children who were enumerated in the baseline survey (in the randomly selected subset of households that received the baseline survey). The regression results are similar for the full sample of children that households report on in the endline survey: there are no large or statistically significant effects of Treatment or FCC-ambient status on school attendance or enrollment.

[12]These regressions only have 74 observations instead of 76 in 2020 because for two communities in each year we were unable to complete the collection of school enrollment rosters. In 2020, we were not able to obtain school enrollment rosters for two schools before they closed due to the COVID-19 pandemic.

[13]School enrollment books were all in physical (paper) form. Our research team took digital photos of physical school enrollment record books of the focal school in each study community, and then manually counted the number of enrolled students with double-entry data entry and cross-checking.

received financial support from the LIP. These results provide confirmation of the success of random assignment of communities to FCC program or control status (Randomization Stage 1).[14] In Column 4, we examine school enrollment as reported by principals. There is no effect on school enrollment, confirming the findings of the prior Table 11 which uses administrative enrollment data. The result in Column 5, looking at log school enrollment reported by principals, is a similar: no large or statistically significant effect of Treatment.

In Table 13 we examine other pre-specified secondary outcomes related to well-being (assets and life satisfaction) and ART adherence (ART usage and high ART adherence) using Equation C.1. The asset index is at the household level. Life satisfaction is at the individual adult level. ART adherence outcomes are at the level of individuals, restricting the sample to only those reported to be HIV-positive. With the exception of the asset index regression, in none of these regressions are coefficients on Treatment or FCC-enrolled large or statistically significantly different from zero at conventional levels. In the regression for the household asset index, both coefficients are relatively large (the standard deviation of the index is 1, so effects amount to one-sixth to one-fifth of a standard deviation); the coefficient on FCC-ambient status is marginally statistically significant (p-value 0.119). All told, results in this table also provide no evidence that either Treatment (FCC-enrolled) or FCC-ambient status had positive effects on households or individuals.

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[14]The control group means for the outcomes in columns 2 and 3 are not zero because LIPs have other activities that they carry out in communities aside from the FCC program.

Table 11: **Impacts on School Attendance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HYPOTHESIS	S1	S1	S1	S1	S1	S1	S1
VARIABLES	Self-Reported School Attendance	Directly-Observed School Enrollment	Directly-Observed School Attendance	School Enrollment: 2019	Log(School Enrollment: 2019)	School Enrollment: 2020	Log(School Enrollment: 2020)
Treatment	-0.0207	-0.00936	-0.00456	225.7	0.0566	32.38	-0.0245
	(0.0136)	(0.0248)	(0.0177)	(449.7)	(0.0823)	(230.3)	(0.0588)
	[0.232]	[0.775]	[0.847]	[0.767]	[0.499]	[0.896]	[0.667]
FCC-ambient	0.0103	-0.0143	0.0107				
	(0.0119)	(0.0237)	(0.0142)				
	[0.512]	[0.650]	[0.856]				
Observations	3,883	3,473	3,473	76	76	74	74
R-squared	0.037	0.045	0.226	0.823	0.895	0.902	0.926
Obs level	Child	Child	Child	School	School	School	School
Control Mean Dep. Var.	0.901	0.440	0.0982	3416	7.824	3036	7.818
p-value of test Treatment = FCC-ambient	0.0420	0.814	0.387	——	——	——	——

Notes: Dependent variables are as follows. Column 1: indicator for self-reporting that school age child (ages 6 – 17) are currently attending school. Column 2: indicator for school age child (ages 6 – 17) being observed enrolled in school through roster checks. Column 3: indicator for school age child (ages 6 – 17) being observed attending school during random attendance checks (available only for students in Manica province). Column 4 and 5: number of students enrolled in the community's focal school at start of 2019, collected from digitized school rosters (one observation per community), in counts and logs respectively. Column 6 and 7: analogous to columns 4 and 5, but for 2020 schoolyear. Child level outcomes are only for children who are also observed at baseline. For Columns 1-3, "Treatment" and "FCC-Ambient" defined in Table 2. For Columns 4 and after, "Treatment" is an indicator for the community having been randomly assigned as an FCC program community. All regressions control for matched pair fixed effects. Standard errors in parentheses (cols. 1-2: clustered at the community level; cols 3-4 robust standard errors). P-values adjusted for multiple hypothesis testing in square brackets.

Table 12: **Impacts on Outcomes Reported by School Principals**

	(1)	(2)	(3)	(4)	(5)
HYPOTHESIS:	S1	S1	S1	S1	S1
VARIABLES	Heard of LIP	Contacted by LIP	Receives Financial Support by LIP	Principal Reported School Enrollment: 2019	Log(Principal Reported School Enrollment: 2019)
Treatment	0.0556	0.750	0.389	81.94	-0.0148
	(0.0563)	(0.0742)	(0.101)	(245.4)	(0.0684)
	[0.329]	[0.000]	[0.002]	[0.865]	[0.898]
Observations	74	74	74	74	74
R-squared	0.486	0.817	0.644	0.834	0.906
Obs level	School	School	School	School	School
Control Mean Dep. Var.	0.919	0.135	0.405	2498	7.638

Notes: Dependent variables are as follows. All outcomes are from surveys conducted of the principal of each focal school in Jul-Dec 2019. Column 1: indicator for principal having heard of LIP. Column 2: indicator for principal having been contacted by LIP. Column 3: indicator for principal reporting financial support from LIP. Column 4: principal-reported number of students enrolled in the community's focal school. Column 5: log of outcome in column 4. One observation per community. "Treatment" is an indicator for the community having been randomly assigned as an FCC program community (Randomization Stage 1). All regressions control for matched pair fixed effects. Standard errors in parentheses (cols. 1-2: clustered at the community level; cols 3-4 robust standard errors). P-values adjusted for multiple hypothesis testing in square brackets.

Table 13: **Impacts on Outcomes of Secondary Interest**

	Welfare Outcomes		Health Care Utilization if HIV-Positive	
	(1)	(2)	(3)	(4)
HYPOTHESIS:	S2	S2	S2	S2
VARIABLES	Life Satisfaction	Household Asset Index	ART Usage ART Usage	High ART Adherence
Treatment	0.0205	-0.158	-0.0134	-0.00517
	(0.167)	(0.0985)	(0.0143)	(0.0303)
	[0.922]	[0.232]	[0.478]	[0.889]
FCC-ambient	0.177	-0.194	0.0142	-0.0316
	(0.171)	(0.0913)	(0.0114)	(0.0344)
	[0.428]	[0.119]	[0.324]	[0.472]
Observations	3,935	3,658	656	614
R-squared	0.098	0.209	0.057	0.099
Obs level	Adult	Household	Individual	Individual
Control Mean Dep. Var.	4.672	0.595	0.977	0.834
p-value of test Treatment = FCC-ambient	0.148	0.595	0.0944	0.461

Notes: Dependent variables are as follows. Column 1: On a ladder from 1 to 10, with 10 as the best life, where does the respondent place themselves on the ladder. Column 2: the first principal component of ownership of 14 different household assets. Column 3: indicator for using ART if HIV-positive. Column 4: indicator of having not missed a day of using ART in the past 30 days in HIV-positive. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

H Spillovers from Treatment and FCC-Ambient Households

We are also interested in spillovers from direct beneficiary households (Treatment) to non-direct beneficiaries (FCC-Ambients). One key channel through which spillovers may occur is information: Treatment may share information with proximate FCC-Ambients. In addition, stigma may be a key mechanism, if reduced stigma by Treatment leads FCC-Ambients in proximity to them to be more willing to take up HIV testing. This analysis seeks evidence of spillovers via geographic proximity and social network ties.

Building on Equation C.1, we will use the following equations to estimate spillovers, separately for social and geographic proximity:

$$\mathcal{Y}_{ijs} = \alpha + \delta Treatment_{ijs} + \sigma FCCambient_{ijs} + \nu EnrollS_{ijs} + \omega \mathcal{S}_{ijs} + \gamma_s + \varepsilon_{ijs}, \quad \text{(H.1)}$$

$$\mathcal{Y}_{ijs} = \alpha + \delta Treatment_{ijs} + \sigma FCCambient_{ijs} + \mu EnrollDist1_{ijs} + \zeta EnrollDist2_{ijs} +$$
$$\kappa Dist1_{ijs} + \lambda Dist2_{ijs} + \gamma_s + \varepsilon_{ijs}.$$
$$\text{(H.2)}$$

Compared to regression Equation C.1, regression equations H.1 and H.2 add estimates of spillover impacts on households of being socially and geographically proximate to other households that were directly enrolled in the FCC program. $EnrollS_{ijs}$ is a measure of the extent to which members of one's social network were randomly assigned to direct program enrollment.[15] $EnrollDist1_{ijs}$ is the number of directly enrolled beneficiaries within a "close" radius of household i, while $EnrollDist2_{ijs}$ is similar but for direct beneficiaries in an "intermediate" distance.[16]

In each of these regression specifications, it is also important to control for variables representing the household's general social connectedness and geographic proximity to other surveyed households, because we would expect that households with larger social networks or in more densely-populated neighborhoods to have more directly-enrolled individuals in their social networks or in geographic proximity. Failing to control for such variables would lead to biased estimates of the coefficients on $EnrollS_{ijs}$ in Equation H.1, and on $EnrollDist1_{ijs}$, and $EnrollDist2_{ijs}$ in Equation H.2. Therefore, in Equation H.1, we control for $\mathcal{S}_{ijs}$, a

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[15]The number of social network members enrolled as direct beneficiaries is typically in the single digits. We specify this variable simply as the count (number) of social network members enrolled as direct beneficiaries. In the analysis sample, the number of social network members who are Treatment has mean 0.260 and standard deviation 0.781.

[16]The definition of "close" and "intermediate" distances are as follows, with mean and standard deviation of the number of Treatment: close 0-200 meters (mean 2.08, std.dev. 3.17), intermediate 200-500 meters (mean 6.37, std. dev. 7.41). "Far" distance is the excluded or reference category.

measure of the extent to which members of one's social network are included in the survey sample. In Equation H.2, we control for $Dist1_{ijs}$ (the number of surveyed households within a "close" radius of household i) and $Dist2_{ijs}$ (similar but for surveyed households in an "intermediate" distance).

In Equations H.1 and H.2, the coefficients on $EnrollS_{ijs}$, $EnrollDist1_{ijs}$, and $EnrollDist2_{ijs}$ quantify particular types of spillover effects. The coefficient $EnrollS_{ijs}$ isolates spillovers that operate through social network connections. It represents the impact of having additional social network members randomly assigned as Treatment.

Spillovers operating via geographic proximity are revealed in the coefficients on the interaction terms with the $EnrollDist1_{ijs}$ and $EnrollDist2_{ijs}$ variables.[17] The coefficient μ on $EnrollDist1_{ijs}$ is the impact of having more geographically close individuals randomly assigned as Treatment. We would expect this coefficient to be larger in magnitude than the coefficients ζ the term corresponding to "intermediate" distance. These spillover coefficients are all credibly interpreted as causal effects. Because direct enrollment in FCC is randomly assigned, the extent to which households have directly enrolled households in their social network or geographically proximate is also random.[18]

Hypothesis tests regarding spillovers from Treatment to FCC-Ambient households refer to coefficients ν, μ, and ζ in these regressions for the relevant outcome variable.

Regression results from the estimation of Equations H.1 and H.2 are presented in Table 14, for each of the HIV testing measures (coupon-based, self-reported, and combined). None of the coefficients representing spillovers (on the variables "Number of Treatment in Social Network", "Number of Treatment within 0-200 meters", and "Number of Treatment within 200-500 meters") are large in magnitude or statistically significantly different from zero. These results provide no indication of substantial spillovers between Treatment and FCC-Ambient households leading to differences in HIV testing via social or geographic proximity.

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[17]Measuring geographic spillovers in this manner corresponds to the widely emulated method used in Miguel and Kremer (2004) to capture health spillovers of deworming in Kenya.

[18]It is reasonable to presume that spillover effects differ between households who themselves were and were not randomly assigned to direct FCC enrollment. In particular, we might expect spillover impacts to be larger for households not directly enrolled. We will also investigate such heterogeneity in the magnitude of spillovers. In exploratory analyses, we would estimate regression specifications that add interaction terms with the $EnrollS_{ijs}$, $EnrollDist1_{ijs}$, and $EnrollDist2_{ijs}$ variables, on the one hand, with the indicators $\mathcal{B}_{ijs}$ and $\mathcal{N}_{ijs}$ on the other. A comparison of corresponding coefficients on the $\mathcal{B}_{ijs}$ and $\mathcal{N}_{ijs}$ interaction terms would reveal whether spillovers had a greater impact among the directly enrolled compared to the non-directly-enrolled.

Table 14: **Spillover Effects on HIV Testing**

	Spillover - Social Proximity			Spillover - Geographic Proximity		
	(1)	(2)	(3)	(4)	(5)	(6)
HYPOTHESIS:	S4	S4	S4	S4	S4	S4
VARIABLES	Combined HIV Testing Measure	Self-Reported HIV Testing	Coupon Redemption HIV Testing	Combined HIV Testing Measure	Self-Reported HIV Testing	Coupon Redemption HIV Testing
Treatment	0.0522	0.0413	-0.00879	0.0272	0.0215	-0.0367
	(0.0261)	(0.0312)	(0.0271)	(0.0275)	(0.0330)	(0.0318)
FCC-ambient	0.0332	0.0170	0.0392	0.0435	0.0377	0.0139
	(0.0234)	(0.0282)	(0.0261)	(0.0287)	(0.0355)	(0.0338)
# of Treatment Households Connected With	0.00699	0.0279	-0.0302			
	(0.0187)	(0.0191)	(0.0207)			
	[0.739]	[0.172]	[0.219]			
# of Households Connected With	0.00438	0.000252	0.00680			
	(0.00499)	(0.00559)	(0.00605)			
# of Treatment Households in 200 Meters				-0.00125	-0.000254	0.00403
				(0.00429)	(0.00574)	(0.00368)
				[0.781]	[0.967]	[0.286]
# of Treatment Households in 200 to 500 Meters				-0.000121	1.01e-05	-0.000154
				(0.00246)	(0.00281)	(0.00253)
				[0.966]	[0.996]	[0.959]
# of Households in 200 Meters				0.00105	0.000664	6.12e-05
				(0.00118)	(0.00156)	(0.00143)
# of Households in 200 to 500 Meters				0.000748	0.00100	0.000746
				(0.000620)	(0.000759)	(0.000718)
Observations	2,085	2,000	2,085	3,648	3,479	3,648
R-squared	0.038	0.038	0.060	0.032	0.034	0.059
Obs level	Household	Household	Household	Household	Household	Household
Control Mean Dep. Var.	0.721	0.644	0.281	0.721	0.651	0.263
p-value of test Treatment = FCC-ambient	0.528	0.515	0.0740	0.389	0.475	0.0147

Notes: Dependent variables are as defined in Table 6. "Treatment" and "FCC-Ambient" defined in Table 2. "# of Treatment Households Connected With" measures social proximity through the total number of households a household knows who have Treatment status in their community. "# of Treatment Households in 200 Meters" measures near geographic proximity through the total number of households within 200 meters of the respondent household. "# of Treatment Households in 200 to 500 Meters" measures the intermediate geographic proximity through the total number of households within 200 to 500 meters of the respondent household. Column 1 controls for the total number households this household is connected to in their community (presented in the table). And Column 2 controls for the total number of households that live geographically close to this household within 200 meters, or $200 - 500$ meters (presented in the table). All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

I Randomization Stage 3 Minitreatments

The purpose of the Randomization Stage 3 minitreatments is to understand the complementarity between the FCC program and more targeted interventions promoting HIV testing. They also help reveal the potential mechanisms behind our primary results above. The following regression estimates the effects of the Randomization Stage 3 minitreatments described in Section A.2.7:

$$\mathcal{Y}_{ijs} = \alpha + \beta Treatment_{ijs} + \lambda FCCambient_{ijs} + \boldsymbol{\delta}' \mathbf{M_{ijs}} + \gamma_s + \varepsilon_{ijs}. \tag{I.1}$$

$\mathcal{Y}_{ijs}$ is the coupon-based HIV testing measure (the only outcome available after the minitreatments). $\mathbf{M_{ijs}}$ is a vector of indicator variables for each of the five minitreatments. $\boldsymbol{\delta}$ is the vector of coefficients representing the intent to treat (ITT) effects of household assignment to the corresponding minitreatment. These can be interpreted as causal effects because each is randomly assigned.

Analyses of the minitreatments' effects on the FCC-enrolled treatment effect are conducted using the following regression equation, which is a modification of Equation I.1:

$$\begin{aligned} \mathcal{Y}_{ijs} = {} & \alpha + \beta Treatment_{ijs} + \lambda FCCambient_{ijs} + \boldsymbol{\tau}' \mathbf{M_{ijs}} + \boldsymbol{\pi}' Treatment_{ijs} \times \mathbf{M_{ijs}} \\ & + \boldsymbol{\psi}' FCCambient_{ijs} \times \mathbf{M_{ijs}} + \gamma_s + \varepsilon_{ijs}. \end{aligned} \tag{I.2}$$

This regression is similar to Equation I.1, but adds interaction terms between $Treatment_{ijs}$ and each of the minitreatments, as well as interaction terms between $FCCambient_{ijs}$ and each of the minitreatments. These interaction terms reveal whether the effects of the minitreatments differ for FCC-enrolled and FCC-ambient households, compared to the effect in control communities. Because of the inclusion of these interaction terms, the coefficients in the vector $\boldsymbol{\tau}$ represent the ITT effects of assignment to the respective minitreatment in control communities.

The coefficients in the vector $\boldsymbol{\pi}$ represent the difference in the ITT effect of the respective minitreatments for FCC-enrolled households, compared to the effect of the minitreatments for households in control communities. Alternately, they represent how the respective minitreatment changes the effect of FCC-enrollment, compared to the effect of FCC-enrollment for households receiving no minitreatment. (There are analogous coefficients related to the effects for FCC-ambient households.)

Both Equations I.1 and I.2 are as described in our pre-analysis plan. Regression results are displayed in Table 15. The outcome of interest in directly observed HIV Testing (the only outcome collected after the endline survey and thus after the implementation of the Randomization Stage 3 minitreatments.). Estimation of the average effects across the full sample (Equation I.1, Column (1)) reveals that only the high-value coupon has an effect on

HIV testing rates that is statistically significant (p-value 0.013). The effect amounts to 7.29 percentage points, on top of the control group rate of 26.3%.

Estimation of differential effects of the minitreatments across Treatment and FCC-ambient treatment groups (Equation I.2, Column (2)) helps provide explanations for the effects found in prior results tables. The coefficient on the Treatment main effect (top row of Column (2)) represents the impact of Treatment status for individuals who did not get any of the Stage 3 treatments. The coefficient is negative, large in magnitude (10.9 percentage points), and statistically significant (p-value 0.020). This result reveals that Treatment status actually substantially reduces HIV testing rates.

Coefficients on the interaction terms between Treatment status and the Stage 3 treatments (row 9-13 of Column (2)) indicate how the Stage 3 treatments modify the main effect of Treatment status. All of the interaction term coefficients are positive, and most are large in magnitude and statistically significantly different from zero at conventional levels. Providing HIV-related information, counteracting concerns about HIV-related stigma, and providing higher financial incentives all make the impact of Treatment status on HIV testing more positive. These effects are comparable to the magnitude to that of the main effect of Treatment status; all these Stage 3 treatments therefore can be viewed as counteracting the negative effect of Treatment status on HIV testing. These effects are also all similar in magnitude to the effect of providing additional financial incentives (an additional 50 MZN) to get an HIV test.

The exception to this pattern is the coefficient on the interaction term with the combined HIV and ART information treatment, which is much smaller in magnitude and not statistically significantly different from zero at conventional levels. It is possible that providing too much information to respondents reduces the effectiveness of all information provided, perhaps by causing lapses in respondents' concentration or attention.

The main effects of the Stage 3 treatments in Column (2) (row 3-7) represent impacts in control communities. All of these effects are negative, small in magnitude, and not statistically significantly different from zero. The exception is the coefficient on the anti-stigma treatment, which has a p-value 0.084. It is possible that in control communities the anti-stigma treatment actually makes stigma concerns more salient, making people more reticent about getting tested.

Coefficients on the interaction terms between FCC-Ambient status and the Stage 3 treatments (the last rows of coefficients in Column (2)) indicate how the Stage 3 treatments modify the main effect of FCC-Ambient status. Consistent with the FCC-Ambient treatment being less intensive than the Treatment treatment, all of these interaction term coefficients are closer to zero compared to the corresponding interaction terms with the Treatment treatment, and none are statistically significantly different from zero.

The pattern of impacts of minitreatments bolster the idea that the FCC program had

important deficiencies in providing HIV information and in countering stigma concerns. The minitreatments providing HIV-related information and countering concerns about HIV-related stigma make the impact of the FCC program on HIV testing more positive. This positive effect is off a base of a substantial negative impact of the program on testing among those who got none of the minitreatments.

Table 15: **Minitreatment Impacts on HIV Testing Coupon Redemption**

	(1)	(2)
HYPOTHESIS:	S5	S6
VARIABLES	Coupon Redemption HIV Testing	Coupon Redemption HIV Testing
Treatment	-0.0212	-0.105
	(0.0183) [0.371]	(0.0387) [0.020]
FCC-ambient	0.0293	0.0329
	(0.0201) [0.249]	(0.0444) [0.520]
Anti-Stigma	0.00427	-0.0521
	(0.0230) [0.860]	(0.0283) [0.084]
HIV Info.	-0.0136	-0.0474
	(0.0233) [0.555]	(0.0329) [0.162]
ART Info.	-0.00810	-0.0282
	(0.0245) [0.746]	(0.0330) [0.419]
High Value Coupon	0.0724	0.0342
	(0.0288) [0.013]	(0.0450) [0.444]
HIV and ART Info.	-0.0224	-0.0136
	(0.0242) [0.351]	(0.0368) [0.714]
Treatment * Anti-Stigma		0.142
		(0.0491) [0.006]
Treatment * HIV Info.		0.119
		(0.0525) [0.028]
Treatment * ART Info.		0.120
		(0.0548) [0.032]
Treatment * High Value Coupon		0.118
		(0.0592) [.053]
Treatment * HIV and ART Info.		-0.00895
		(0.0556) [0.869]
FCC-Ambient * Anti-Stigma		0.0666
		(0.0619) [0.275]
FCC-Ambient * HIV Info.		-0.000682
		(0.0617) [0.991]
FCC-Ambient * ART Info.		-0.0815
		(0.0626) [0.208]
FCC-Ambient * High Value Coupon		0.0173
		(0.0805) [0.822]
FCC-Ambient * HIV and ART Info.		-0.0314
		(0.0728) [0.659]
Observations	3,658	3,658
R-squared	0.062	0.067
Obs level	Household	Household
Control Mean Dep. Var.	0.263	0.263
p-value of test Treatment = FCC-ambient	0.0161	0.00101

Notes: Dependent variable in both columns is indicator equal to one if someone in household got an HIV test at local health clinic (based on redemption of encouragement coupon for HIV testing), and zero otherwise. "Treatment" is indicator equal to one if household randomly assigned to "Treatment" status in Randomization Stage 2, and zero otherwise. Coefficient on Treatment was pre-specified as of primary interest in this study. "FCC-Ambient" is defined analogously for "FCC-Ambient" status, and was pre-specified as of secondary interest in this study. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

J   Requested Secondary Analyses

Reviewers of our JDE Pre-Results Review paper additionally requested further analyses to test the robustness of our results. In response to these reviewers, we added these analyses to our second and final PAP, and present the results here.

The first request was that our analyses control for household size and total number of HIV testing recommendations (number of testing incentive coupons given to a household) when estimating impacts on HIV testing. We run the same regressions presented above in Table 6, but now add these two control variables. We present the results in Table 16. Household size is positively associated with testing for HIV, and total number of testing recommendations is negatively associated with testing for HIV. Inclusion of these controls does not substantially change Treatment and FCC-ambient coefficients or their statistical significance levels, compared to the coefficients in the regressions of Table 6 that do not include these controls.

The second request was that we analyze HIV testing at the individual level rather than the household level. We run the same regressions presented above in Table 6, but where observations are individuals instead of households. We present the results in Table 17. Results from these individual-level regressions are very similar to the household-level regressions reported in Table 6 above, and yield essentially the same conclusions. In the regression for the coupon-based HIV testing measure (Column 1), the coefficient on Treatment is negative, and the coefficient on FCC-ambient is positive. Both are relatively small in magnitude and neither is statistically significantly different from zero at conventional levels. One difference is that both Treatment and FCC-Ambient status have positive and statistically significant effects on self-reporting having been tested for HIV and on the combined HIV testing measure (Columns 3 and 4). It may be that experimenter demand effects leading to upward-biased self-reported HIV testing in response to treatment are more severe for individual-level measures, compared to household-level measures.

In Column 2 of Table 17, the coefficient on Treatment (the pure effect of FCC enrollment when households do not receive any minitreatment) is negative and statistically significantly different from zero (p-value 0.094). The coefficient on FCC-ambient in this regression is the pure effect of FCC-ambient status on individuals in households not receiving any minitreatment, which is positive but small in magnitude and not statistically significantly different from zero.

The coefficient on the "Treatment * Any Minitreatment" interaction term represents how the impact of FCC enrollment changes when a household receives some minitreatment. This coefficient is positive and statistically significantly different from zero (p-value 0.029). As in Table 6, the coefficient is about the same magnitude as the negative coefficient on the Treatment main effect, indicating that receiving some minitreatment fully counteracts the negative effect of FCC enrollment. The corresponding interaction term with FCC-enrolled

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status is very small in magnitude and not statistically significantly different from zero, providing no indication of any interaction between FCC-ambient status and the pooled set of minitreatments.

Table 16: **Other Secondary Analysis of Treatment and FCC-Ambient on HIV Testing**

	(1)	(2)	(3)	(4)
HYPOTHESIS:	P2	P2	P2	P2
VARIABLES	Coupon Redemption HIV Testing	Coupon Redemption HIV Testing	Self-Reported HIV Testing	Combined HIV Testing Measure
Treatment	-0.00507	-0.0782	0.0141	0.0246
	(0.0175)	(0.0366)	(0.0207)	(0.0189)
	[0.833]	[0.065]	[0.585]	[0.196]
FCC-ambient	0.0390	0.0453	0.0353	0.0398
	(0.0185)	(0.0418)	(0.0239)	(0.0194)
	[0.114]	[0.331]	[0.259]	[0.043]
Any Minitreatment		-0.0311		
		(0.0259)		
		[0.251]		
Treatment * Any Minitreatment		0.0898		
		(0.0385)		
		[0.023]		
FCC-ambient * Any Minitreatment		-0.00797		
		(0.0474)		
		[0.878]		
Household Size	-0.00962	-0.00963	0.0390	0.0220
	(0.00289)	(0.00292)	(0.00366)	(0.00353)
Household Total Test Recommendations	0.0560	0.0559	-0.0550	-0.0102
	(0.00440)	(0.00443)	(0.00521)	(0.00496)
Observations	3,658	3,658	3,489	3,658
R-squared	0.122	0.123	0.086	0.043
Obs level	Household	Household	Household	Household
Control Mean Dep. Var.	0.263	0.263	0.652	0.721
p-value of test Treatment = FCC-ambient	0.0180	0.00180	0.351	0.407

Notes: Dependent variables are as follows. Column 1 and 2: indicator for redeeming a coupon for an HIV test. Column 3: indicator for self-reporting having an HIV test or redeeming a coupon for an HIV test. Column 4 and 5: indicator for self-reporting taking an HIV test. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects . Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

Table 17: **Individual-Level Analysis of Treatment and FCC-Ambient on HIV Testing**

VARIABLES	(1) Coupon Redemption for HIV Testing	(2) Coupon Redemption for HIV Testing	(3) Self-Reported HIV Testing	(4) Combined HIV Testing Measure
Treatment	-0.00112	-0.0585*	0.0490***	0.0518***
	(0.0159)	(0.0308)	(0.0161)	(0.0175)
	[0.934]	[0.094]	[0.030]	[0.008]
FCC-ambient	0.0214	0.0167	0.0534***	0.0671***
	(0.0167)	(0.0318)	(0.0197)	(0.0200)
	[0.328]	[0.677]	[0.042]	[.002]
Any Minitreatment		-0.0224		
		(0.0197)		
		[0.179]		
Treatment * Any Minitreatment		0.0701**		
		(0.0317)		
		[0.029]		
FCC-ambient * Any Minitreatment		0.00592		
		(0.0352)		
		[0.818]		
Observations	15,005	15,005	13,894	15,005
R-squared	0.046	0.047	0.039	0.027
Obs level	Individual	Individual	Individual	Individual
Control Mean Dep. Var.	0.213	0.213	0.275	0.432
p-value of test Treatment = FCC-ambient	0.201	0.0398	0.812	0.450

Notes: Dependent variables are as follows. Column 1: indicator for self-reporting taking an HIV test. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects . Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

The third request was that we test hypotheses S5 and S6 regarding the Randomization Stage 3 minitreatments, but pooling HIV and ART information minitreatment arms. This is a modification of Equations I.1 and I.2, where $InfoHIV_{ijs}$, $InfoART_{ijs}$, and $InfoHIV/ART_{ijs}$ are combined into a single indicator variable (equal to one if the household was randomly assigned to any of the three information minitreatments, and zero otherwise). Table 18 displays the results. Results concord with the findings of Table 15 above. In both regressions, the main effect of the information minitreatments is negative and not statistically significantly different from zero. In the interaction term regression, Column 2, the interaction effect of Treatment with the pooled information minitreatments is positive and statistically significant (p-value 0.062), indicating that providing correct information on HIV and ART offsets the negative effect of Treatment (FCC-enrolled) status on HIV testing. No other coefficient estimates are substantially different compared to the corresponding coefficients in Table 15 above, in which the information minitreatments are not pooled.

Table 18: **Other Secondary Analysis of Randomization Stage 3 Impacts on HIV Testing**

VARIABLES	(1) Coupon Redemption HIV Testing	(2) Coupon Redemption HIV Testing
Treatment	-0.0210	-0.105
	(0.0182) [0.361]	(0.0387) [0.021]
FCC-ambient	0.0293	0.0330
	(0.0202) [0.251]	(0.0444) [0.486]
Anti-Stigma	0.00429	-0.0520
	(0.0230) [0.849]	(0.0283) [0.084]
High Value Coupon	0.0728	0.0345
	(0.0288) [0.012]	(0.0449) [0.459]
Pooled HIV and ART Info.	-0.0139	-0.0311
	(0.0203) [0.504]	(0.0290) [0.287]
Treatment * Anti-Stigma		0.142
		(0.0490) [0.007]
Treatment * High Value Coupon		0.118
		(0.0592) [0.051]
Treatment * Pooled HIV and ART Info.		0.0848
		(0.0452) [0.062]
FCC-ambient * Anti-Stigma		0.0666
		(0.0618) [0.296]
FCC-ambient * High Value Coupon		0.0175
		(0.0804) [0.844]
FCC-Ambient * Pooled HIV and ART Info.		-0.0369
		(0.0543) [0.505]
Observations	3,658	3,658
R-squared	0.062	0.065
Obs level	Household	Household
Control Mean Dep. Var.	0.263	0.263
p-value of test Treatment = FCC-ambient	0.0164	0.00101

Notes: Dependent variable in both columns is indicator equal to one if someone in household got an HIV test at local health clinic (based on redemption of encouragement coupon for HIV testing), and zero otherwise. "Treatment" and "FCC-Ambient" defined in Table 2. All regressions control for matched pair fixed effects. Standard errors clustered at the community level in parentheses. P-values adjusted for multiple hypothesis testing in square brackets.

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