

KNOW YOUR STATUS?

Even very small incentives can encourage people to return for their HIV test results. However, for most people, learning status did not substantially change the number of condoms they purchased.



Voluntary counseling and testing (VCT) is a standard component of HIV/AIDS campaigns. But in many areas of Africa, where the epidemic is strongest, few people get tested, and fewer still return to pick up their test results when instant tests are not available. There are two standard explanations for this phenomenon. First, the centers are often far away, raising the opportunity costs of time and the costs of transportation. Second, the psychological barriers are too high: People may be afraid to get their results, especially because treatment opportunities are often scarce and because of the risk of stigma.

Using VCT for prevention efforts follows this reasoning: People who learn they are HIV positive would seek treatment—such as antiretroviral drugs (ARVs) and mother-to-child transmission prevention—and would take precautions to protect others, while those who learn they are HIV negative would take precautions to remain free of HIV. If this reasoning holds, people who know their status will

choose preventive behavior. However, learning one's status could have the opposite effect on behavior. For example, HIV-positive people may believe there is no longer a need to protect themselves and reduce preventive behavior. Or, those learning their HIV-negative status may take fewer precautions because they see no need to protect their partners.

Given the costs and the possible psychological barriers, can cash incentives increase the number of people who come back for their HIV test results? Does learning HIV status increase preventive behavior?

An evaluation by J-PAL affiliate Rebecca Thornton (University of Michigan) provides some answers. She evaluated a program in Malawi that provided free HIV tests in a door-to-door campaign and offered small cash incentives to people to collect their results at temporary, mobile VCT centers in their community. Later, interviewers visited the homes of participants and offered them the chance to buy subsidized condoms.

- **Incentives, even very small ones, increased the number of people who learned their HIV status.** Even an incentive as small as a tenth of a day's wages doubled the number of people who returned for their HIV test results.
- **Reducing distance to the VCT center increased the number of people who learned their HIV status.** People were more likely to get their test results if they lived closer to the mobile centers. Small incentives compensated for greater distance—a 10-cent incentive more than offset the reduction in take-up for people living more than 1.5 km away—but convenience still mattered.
- **Learning HIV status increased the likelihood of buying condoms among HIV-positive people, but the number of additional condoms bought was very small.** Sexually active HIV-positive people who learned their status were three times more likely to buy condoms than sexually active HIV-positive people who did not learn their status, but they bought only two additional condoms on average. There was no significant effect of learning HIV-negative status on the purchase of condoms.

EVALUATION

The intervention was part of the Malawi Diffusion and Ideational Change Project in the districts of Rumphu, Mchinji, and Balaka. The HIV prevalence rate among participants was 6.3 percent, comparable to other population-based surveys in the same districts of rural Malawi.

From May to August of 2004, nurses went door to door offering participants free HIV testing and pre-test counseling in their homes, and 91 percent of participants agreed to be tested. After taking the HIV test samples, the nurses gave each respondent a voucher redeemable for cash upon collection of the HIV test results. Voucher amounts were randomized; each respondent drew a token out of a bag indicating the amount.

WHAT WAS RANDOMLY ASSIGNED

cash incentives { Randomly varied between \$0 and \$3
The smallest non-zero incentive was one-tenth of a day's wage

distance to center { Randomly selected GPS locations for the center
Average travel distance was 2 km
95 percent lived within 5 km



Two to four months after the testing, results were available at temporary VCT centers placed at randomly selected locations in the communities. Those who had been tested were personally informed of the center location and hours of operation (8 a.m. – 7 p.m. for one week). All respondents who obtained their test results received further counseling on safe sexual practices, including abstinence and condom use, regardless of their status.

Two months after the mobile test result centers had closed, participants were visited at home by interviewers who did not know the participant's HIV status. At the end of the survey, they were given 30 cents as a token of appreciation and were offered condoms at half the prevailing retail price (about 2 cents for one condom, or 5 cents for a set of three, up to a maximum of 18).

CONDOM PURCHASES AS A PROXY FOR SEXUAL BEHAVIOR

Measuring changes in sexual behavior is difficult. Often, studies aimed at changing sexual behavior rely on self-reports by individuals, which can be biased by individuals seeking to provide the socially desirable answer. Therefore, this evaluation supplemented self-reported behavior with observed behavior in condom purchasing.

Learning HIV status could theoretically increase or decrease the demand for condoms. On the one hand, those who learn they are HIV positive may choose to purchase more condoms, if they are motivated to protect their sexual partner(s). On the other hand, they may purchase fewer condoms if they reduce their sexual activity, if they believe there is no longer a need to protect themselves, or if they do not care to protect their sexual partner(s). For those who test HIV negative, the incentive to remain uninfected may lead to an increased demand for condoms, or the lack of a need to protect a partner may cause condom use to fall. Because learning HIV status may affect sexual behavior in different ways, rigorous evaluation is necessary to determine the overall effect.

RESULTS

Incentives, even very small ones, increase the number of people who return to learn their HIV status. As Figure 1 shows, those offered a small cash incentive were more than twice as likely to collect their test results as those offered no incentive. For cash rewards of \$1 or less, the larger the cash incentive, the greater the likelihood that a person would collect test results. For incentives greater than \$1, though, increasing incentives did not further increase the likelihood of collecting results.

FIGURE 1: EFFECT OF THE INCENTIVE AMOUNT ON THE PERCENTAGE RETURNING FOR HIV RESULTS

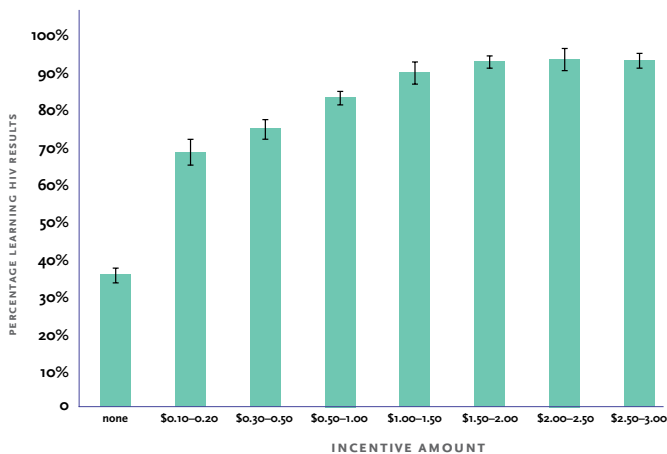
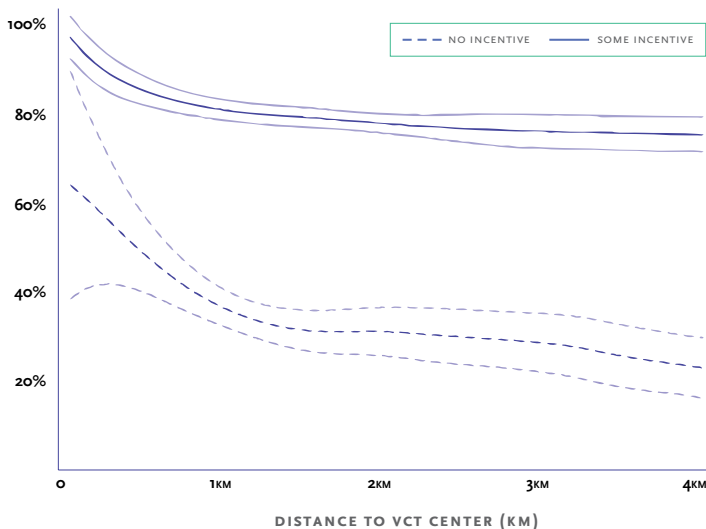


FIGURE 2: IMPACT OF DISTANCE TO CENTER ON RETURNING FOR HIV RESULTS

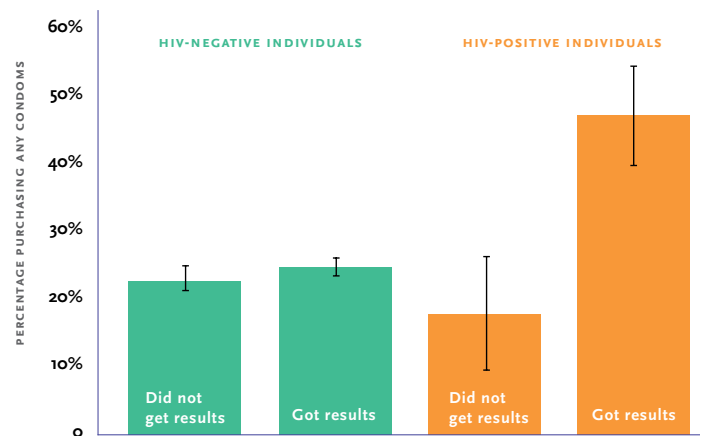


Reducing distance to the center increases the number of people who return to learn their HIV results. People living more than 1.5 km from the VCT center were 6 percent less likely to collect their results (Figure 2). This effect was smaller than the effect of the incentives: an incentive of 10 cents more than offset the reduced take-up by people more than 1.5 km away.

Learning HIV status did not affect condom purchasing behavior for most people. At the follow-up interview, participants received a monetary payment and the opportunity to purchase subsidized condoms. Overall, about a quarter of participants purchased at least one condom. Among those who chose to make a purchase, the average number bought was 3–4 condoms. Figure 3 shows how the probability of buying a condom varied by HIV status and whether participants learned their status. For those who tested HIV negative, learning HIV status did not affect condom purchasing.

Sexually active HIV-positive individuals who learned their status were much more likely to purchase condoms than those who did not (Figure 3), but on average, they bought only two additional condoms. Because participants received cash and were in the convenience of their home, this change may be an upper bound for the impact of HIV testing on condom-purchasing behavior at stores.

FIGURE 3: EFFECT OF LEARNING STATUS ON CONDOM-PURCHASING BEHAVIOR



WHY DO SO FEW PEOPLE LEARN THEIR HIV RESULTS? Only 18 percent of the participants reported having been previously tested for HIV, and without incentives, only 34 percent of those tested in the study collected their results. A possible explanation is that the psychological costs from learning HIV status are too high: worry, fear of death, and fear of stigma or physical violence if others find out. Besides offsetting the travel costs of collecting HIV results, cash incentives may offset these psychological costs: The cash incentives may reduce the stigma by giving people an alternate reason to seek VCT without judgment, and also provide a small but immediate reward which can help overcome procrastination.

POLICY LESSONS



Small incentives can have large effects, even in the face of theorized psychological barriers. Psychological barriers may not be as important in determining whether people collect their test results as might be expected: even the smallest incentives doubled the number of people who learned their results. These incentives were small enough that they are unlikely to have compelled people to do something they strongly opposed.

Another randomized evaluation found a similar response to small incentives. In rural Udaipur, India, immunization rates stagnated at only 6 percent, decades after public health clinics had a policy of providing free immunizations. Providing convenient, reliable immunization camps nearby—and small incentives for the parents—raised full immunization rates six-fold (see J-PAL Briefcase, “Incentives for Immunization”). Taken together, these results show how small incentives can increase take-up in contexts where people sometimes postpone or forgo seeking health services with

delayed or ambiguous benefits in the face of immediate and salient costs.

Distance is a significant barrier for take-up of health services. Distance (travel costs) may be a major barrier to the take-up of a free health service, especially in rural areas. Take-up of test results fell dramatically after only 1 km, and no participants travelled more than 9 km for their results, even with incentives. Other randomized evaluations of programs providing health services—cleaner water, iron fortification of flour, immunization—have found similar drops in take-up by distance.

More research is needed to understand how learning HIV status affects preventive behavior. HIV testing may be important to get people into treatment, but its effect on preventive behavior, as measured by condom purchases in this study, appears to be limited. Door-to-door VCT campaigns are expensive and are not usually targeted at key populations at higher risk, thus lowering the cost-effectiveness of the program in preventing new HIV infections. These costs must be weighed against small apparent benefits. Only a small subset of participants showed more preventive behavior after learning their status, and even among them the effect was very small. Another study in Kenya and Tanzania similarly found that learning test results was not effective at decreasing STI rates, and it raised the concern that people surprised by an HIV-positive result could engage in more risky behavior (Gong 2010).

This evaluation demonstrates the power of small incentives and the importance of convenience in increasing take-up of health services. More research is still needed to learn how to incentivize preventive behavior and how more convenient products, like rapid diagnostic tests, influence the effects of VCT programs.

For Further Reading: Thornton, Rebecca L. 2008. “The Demand for, and Impact of, Learning HIV Status.” *American Economic Review* 98(5): 1829-1863.

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