Objective
To assess a community-based integrated family planning and HIV testing and counseling strategy for expanding access to and use of HIV testing and counseling.

Background
HIV testing coupled with effective counseling is an important component in HIV prevention and also serves as a gateway to care, support, and treatment services. To increase access to and use of HIV testing and counseling (HTC), FHI 360 and the Uganda Ministry of Health (MOH) developed an innovative model that would add HTC services to the family planning (FP) services provided by government-endorsed community health workers known as Village Health Team (VHT) members in two districts in Uganda. Since the VHTs have an established relationship with their communities and are already providing reproductive health services, the program has the potential to reach individuals whose sexual and reproductive health needs may currently be underserved by clinic-based services. In addition, the convenience and privacy the model affords could help mitigate some of the known barriers to testing, such as stigma.

With funding provided by the United States Agency for International Development (USAID), FHI 360 collaborated with the Ugandan MOH to implement and evaluate a pilot intervention that integrated community-based HTC into existing FP services. The overall goal was to test this model of integrated service delivery to evaluate if the VHTs could safely provide quality HTC services and if these services were acceptable to the communities and could improve use of HTC. In addition, the evaluation looked at the impact of the added service on the workload of the VHTs and examined if the additional work had an effect on FP service delivery.

Methods
The evaluation was a two-arm post-test-only randomized cluster design study. Eight sub-counties in Busia and Kanungu districts were selected to participate in the evaluation. We purposely selected these two districts to represent a variety of geographic and social contexts. Other criteria for selection were community-based provision of FP services, including injectables; care and treatment services at the sub-county health center III (HCIII) level for referral of HIV-positive clients; and supportive district health teams. HCIII facilities were matched before we randomly allocated four sub-counties to the intervention arm (with VHTs supported by the corresponding facilities offering
FP plus HTC) and four sub-counties to the control group (with VHTs offering FP only).

Between March and April 2012, thirty-eight VHTs from the four intervention sub-counties (Bulumbi, Buteba, Rugyeyo, and Kayonza) received classroom training and supervised practical experience in HTC. All of the participating VHTs had at least six months of experience providing injectable contraceptives. The training covered HIV education, couples counseling, risk assessment, rapid HIV testing using the finger-stick technique, FP for HIV-positive clients, referral mechanisms, and other topics. Community mobilization meetings were conducted after the training to inform the communities about the intervention and to provide an opportunity for VHTs to receive additional supervised practical experience in offering HTC.

Supervision and commodity supply occurred through HCIII, building on support mechanisms for FP to add HTC. External quality assessment (EQA) was used to verify technical competence in conducting and interpreting results of rapid HIV tests. Proficiency testing panels were sent by the National Reference Laboratory at the Uganda Virus Research Institute (UVRI) to HCIII through districts. Results obtained by VHTs were then mailed back to the lab for verification, and feedback was communicated through the same channels. Between May 2012 and September 2013, the integrated HTC and FP services were delivered in the sub-counties by 36 of the trained VHTs, who received a refresher training approximately 8 months after the initial training. Two VHTs were not retained due to poor eyesight, which affected their ability to interpret results. At the end of the intervention period, the VHTs returned to delivering FP services only.

Data collection took place between April and June 2013 by trained data collectors led by FHI 360. Surveys were conducted with all 36 VHTs and 137 of their revisit female FP clients in the intervention group and 119 revisit female FP clients of VHTs in the control group. VHT record data were extracted in both groups from January through March 2013.

Results

Highlights of the results are presented below. The results describe key findings on HTC service delivery from the VHT and client perspectives as well as overall perspectives on VHT provision of both FP and HTC services.

VHT provision of HTC services

- The majority of VHTs in the intervention group were female (81%), and nearly three-fourths had attended at least some secondary school. The average age was 43.7 years.

- VHT knowledge and competence were assessed through the survey, with additional program data from periodic EQA. The survey assessed VHT knowledge and skills through seven questions on essential elements of FP/HTC service provision. On average, the VHTs answered 5.1 out of the seven questions correctly (Figure 1). The question that was answered incorrectly the most was about the recommended period for repeat testing for HIV-negative clients. Only one knew that HIV-negative clients should optimally be retested 3 months after exposure; 75% said that retesting should occur 3 months after the last test. In addition, the survey also noted an over-emphasis on recommending condoms as a primary FP method; 56% agreed that condoms are the only FP method HIV-positive women should use.

- The first EQA found that of the 34 VHTs who participated, 85% had 100% agreement with the reference lab results. Of the five who failed, three recorded results inaccurately. Only partial results from subsequent rounds of EQA were documented, precluding assessment of skill retention.

- Program records show that between January and March 2013, VHTs offered HTC during 647 client visits. Far more women than men were counseled (532 vs. 115, respectively) though men were tested in 80% of their visits while women were tested in 50%. Regarding overall provision of FP and/or HTC services, men more often came for HTC services only (69%) whereas women more often came for FP or FP and HTC (82%). An FP method was provided in 47% of all visits during which clients were tested.
Client experiences with HTC services

- The clients surveyed in the intervention group were on average 31 years old and had five children. Most (89%) were married, the majority in polygamous relationships (66%). Most had completed primary school, although 10% reported having no schooling. On average, the women had been an FP client of the VHT for 4 months.

- The client survey showed that the VHTs potentially filled a gap in provision of HIV testing. Of the 137 FP clients surveyed, 80% received an HIV test during the intervention; 27% of those who were tested had never been tested for HIV before. While 76% of those tested were already FP clients, 22% came to the VHT to receive HTC services before they became FP clients.

- Only 21% of tested clients who had a partner tested as a couple, though another 69% tested alone but disclosed results.

- Overall, clients were satisfied with the HTC services they received from the VHTs. None of the clients surveyed said they experienced any problem with the finger-pricked site; at least 90% correctly responded to each of the three questions used to verify counseling content; and at least 95% responded positively to each of the questions that measured the rapport between clients and VHTs.

- Of the surveyed clients who were tested, three tested HIV positive and received linkages to HIV care. Of those who tested negative, all reported that they plan to get tested again and 93% said that they would like to get their next test from the VHT.

- A comparison of client testing behaviors and attitudes in the control and intervention groups showed little difference between the groups. All clients knew of at least one place to get tested and nearly all intend to get tested in the future. Mean scores measuring “stigma,” “partner influence on testing,” and “social influence on testing” were virtually identical.

- One difference noted was in the percentage who stated that they had ever been tested for HIV, with 95% of the control group and 99% of the intervention group reporting prior testing. A second difference was in the number of HIV tests received in the year preceding the survey. Clients in the intervention group received more HIV tests than clients in the control group, with 57% compared to 39% respectively reporting at least three tests.

Experiences with role expansion and integrated service delivery

- The addition of HTC services did not appear to have negatively affected the quality of FP services. Virtually all clients in both the control and intervention groups who had been coming to the VHT for at least a year reported that they were either more satisfied or equally satisfied with the FP services they received compared to a year ago. Only 4% of those clients in the control group and 2% in the intervention group stated that they were less satisfied.

- The clients in the intervention group cited a number of advantages to integrating FP and HTC services including reduced number of visits/saving time (85%), better services and advice (66%), and reduced stigma (21%). The only disadvantages mentioned were concerns about confidentiality (5%) and that the VHT is busy (4%).

- All VHTs in the intervention group reported that they wanted to continue providing HTC services. Most (92%)

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**Figure 1. Score of essential aspects of HTC service provision (N=36)**

<table>
<thead>
<tr>
<th>Score Category</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knows recommended period for repeat testing for HIV-negative clients</td>
<td></td>
</tr>
<tr>
<td>Knows dual protection methods</td>
<td></td>
</tr>
<tr>
<td>Knows that all FP methods are safe for HIV-positive women</td>
<td></td>
</tr>
<tr>
<td>Used FP/HTC job aid</td>
<td></td>
</tr>
<tr>
<td>Takes at least 5 of 6 recommended measures to prevent infection to self and others during testing</td>
<td></td>
</tr>
<tr>
<td>Disposes of lancet in sharps container</td>
<td></td>
</tr>
<tr>
<td>Disposes of other by-products in biohazard bag</td>
<td></td>
</tr>
</tbody>
</table>

Incorrect: 0 20 40 60 80 100 Correct
felt that the overall quality of their work was better than before providing HTC services and 6% reported that the quality was about the same. While 83% reported more monthly clients with HTC provision, 92% felt that their workload was easy to manage.

• Despite their satisfaction in providing HTC services, they also acknowledged certain challenges. The main challenges cited were lack of supplies (47%) and difficulties reaching men (25%). In addition, 50% were “very concerned” about getting infected while testing clients and 17% were “somewhat concerned.”

Conclusions

Key findings from this study indicate that a community-based model for integrated FP and HTC service delivery is feasible to implement and acceptable to VHTs and their clients as a means of delivering counseling messages and expanding first-time and repeat HIV testing. Additionally, VHTs reached new FP clients who first came to them for HTC services. However, the small number of newly diagnosed HIV-positive clients suggests limited overall contribution to enrollment into HIV care and treatment. Provision of integrated services was perceived as convenient and as an opportunity to meet sexual and reproductive health needs comprehensively. No adverse effect was observed on the quality of FP services, or on VHTs’ perceptions of their ability to manage their workload. Based on those findings, lessons learned through implementation, and post-study discussions with key stakeholders, recommendations for implementing and scaling up this approach include:

• Eligibility criteria must be carefully considered. VHTs selected for HTC training should already be providing injectable contraceptives. Additional recommended criteria include good eyesight, given the importance of reading results.

• Training should include sufficient supervised practice with actual clients.

• Enhanced support strategies should be explored to ensure that VHTs can comfortably and properly manage medical waste in their home.

• Supervisors expected to oversee HTC provision by VHTs should be provided with clear roles and responsibilities for this function, with an emphasis on the importance of offering consistent supervision.

• Male involvement may require additional consideration, as VHTs reached few men and uptake of testing among couples remained low.

• Repeat testing needs to be further examined to determine whether community-based FP/HTC may lead to over-testing.

Programs should consider the specifics of their context to determine the potential added value of this model.