Inside a modest two-room home in Kibera, the vast Nairobi slum, Bethryn and her 12-year-old daughter Alice sit on a second-hand sofa neatly adorned with white doilies. Sitting opposite them is Felix, an HIV counselor, who was brought to the home by a community health worker. Felix has a particularly delicate mission today: to provide Alice with counseling and a rapid HIV test to see if her mother’s HIV infection was transmitted to her in the womb or during birth. Felix, well aware of how voices travel between dwellings in this cramped neighborhood, speaks very softly to Alice, asking her about school and what she knows about HIV. He explains why he has come and what the test will be like. Despite his gentle approach, the girl is clearly frightened, and her worried mother cannot keep her eyes from filling with tears. This is among the more difficult assignments Felix has encountered as an HIV counselor who tests people for HIV in their homes.

For Bethryn and Alice, thankfully, this HIV testing and counseling (HTC) session ends with a negative test result, and they are visibly relieved. Felix is equally happy to have been able to deliver the good news. He combs Kibera’s labyrinth of households 10 hours a day, six days a week, offering HIV testing. Despite the demands and the emotional challenges, he loves his job. “I feel good about people knowing their status in Kibera,” he says. “Many people would not know their status here if it was not for home-based HIV testing and counseling.”

Today in Kibera and elsewhere in Kenya, home-based HTC is an emerging approach for delivering HTC services and increases the number of people who know their HIV status. It allows individuals, couples, and families to learn their HIV status in their home environment. Home-based HTC clients appreciate the convenience and privacy of testing at
In most cases, rapid HIV tests are used, so results are available for the client between 15 and 30 minutes, depending on whether confirmatory testing is required. Kenyan programs utilize HIV rapid tests to provide same-day, real-time results. In all cases, post-test counseling is undertaken. When an HIV positive result is communicated, the HTC provider offers appropriate linkages for prevention, care, and treatment. For those found to be HIV-negative, efforts may be undertaken to help them remain uninfected.

Kenya has become a regional and global pioneer in home-based HTC. The country’s experience can provide a rich foundation for other countries starting to implement or seeking to use home-based HTC as one part of their national HIV response.

HIV and Home-Based HIV Testing and Counseling in Kenya

Despite global advances in uptake and expansion of HTC, the number of people living in Africa who do not know their HIV status remains high at approximately 75 percent (World Health Organization 2011). As countries grapple with strategies to expand HTC while increasing people’s access to needed services, home-based HTC provides a new opportunity to reach more people, removing logistical barriers and stigma often associated with facility-based HTC. In generalized epidemics, home-based HTC represents a remarkable opportunity to test couples, children, and families; to increase early identification of HIV-positive cases; and to identify first-time testers. Home-based HTC programs in Kenya have forged new ground and developed a rich experience of lessons learned and strategies to share with countries and programs seeking to implement this model.

The Government of Kenya has set a goal of universal access to testing: for 80 percent of all Kenyans to know their HIV status by the end of 2013. According to the 2008-2009 Kenya Demographic and Health Survey, HIV prevalence among adults aged 15 to 49 is 6.3 percent. Knowledge of where to get tested for HIV is high—92 percent of women and men know where they can be tested. Despite this knowledge, only 42 percent of men and 58 percent of women have ever been tested for HIV (Kenya National Bureau of Statistics and ICF Macro 2010). The home-based model is highly acceptable (Fylkesnes and Siziya 2004; Negin et al. 2009), and by reaching clients in their homes, home-based HTC removes many of the barriers often associated with facility-based or provider-initiated HTC in Kenya (Weinreb and Stecklov 2009). It also has the potential to reach many who do not consider themselves to be at risk for HIV and who would not seek out testing.

Home-based HTC is an important component of Kenya’s National Health Sector Strategic Plan II (2005–2010), which emphasizes strong community engagement in health. Kenya boasts various programs across the country that have been implementing home-based HTC for two or more years, many of which have developed effective strategies for dealing with some of the challenges of this model.

For Kenya and other countries looking at innovative health strategies, home-based HTC is a platform that aligns with the U.S. Government’s Global Health Initiative (GHI). Addressing GHI’s emphasis on women and girls along with male engagement, home-based HTC is an intervention that can serve families and couples at the household level. As GHI seeks to expand prevention and treatment efforts and promote integration, home-based HTC provides an entry point at the community level to provide referrals and linkages, and can also be used as the foundation for other health interventions at the community level such as family planning, tuberculosis screening, and malaria prevention.

This case study provides program planners, implementers, and decision makers with illustrative
examples of strategies and approaches for ensuring quality in home-based HTC. The findings are based on site visits to seven home-based HTC programs in Kenya that included direct observation of home visits, interviews with program managers and public health officials, and small group discussions with home-based HTC providers and supervisors in February 2011. This case study focuses on quality in community mobilization, home-based HTC implementation issues, ensuring quality in HTC, and linkages with appropriate treatment, care and support, and prevention services. Program planners and implementers may find that this case study complements a practical handbook for home-based HTC to be released in 2012: Planning, Implementing and Monitoring Home-based HIV Testing and Counselling: A Practical Handbook (Centers for Disease Control and Prevention [CDC] forthcoming). The handbook is under development by the U.S. President’s Emergency Plan for AIDS Relief HTC Technical Working Group and discusses many of the issues in home-based HTC presented here.

Using a Variety of Approaches

In Kenya, multiple programs implement the home-based HTC strategy through a variety of program designs and approaches, and in differing contexts. Programs featured in this case study (see Table 1) use door-to-door and index client approaches in both rural and urban contexts.

Although home-based HTC is primarily targeted to the general population in generalized epidemics, the index client approach may be applicable to concentrated epidemics. Some programs offer additional services in the home beyond HTC, a model that is known as the integrated approach. Integrated home-based HTC can be used in combination with the door-to-door or index client model (see Box 1 for more information on these three approaches).

These programs have similar organizational structures. However, the ratio of HTC providers to supervisors, division of labor, interpretation of roles, and titles may differ based on whether the program is large or small, door-to-door or index client-based, and rural or urban, or whether home-based HTC is the main focus of the implementing organization or just one of many services delivered. A specific breakdown of program design and roles can be found in the practical handbook (CDC forthcoming).

**BOX 1. APPROACHES TO HOME-BASED HIV TESTING AND COUNSELING**

- **Door-to-door**: Offering HTC to every household in a given geographical area or region.
- **Index client**: Offering HTC to family members of a person living with HIV (or the “index client”) who could be at immediate risk of HIV infection (i.e., children and partners); the index client is an existing patient enrolled in a treatment or care program.
- **Integrated**: May include offering HTC as the primary service while including additional educational or screening interventions such as tuberculosis screening and sputum collection, de-worming, and distribution of bed nets; alternately, the approach may be to integrate HTC into home-based care or community-based care. This model may also include HTC followed by referral for additional services. An integrated approach can be used with either the door-to-door or index client models.
Community Mobilization: Gaining Access to the Community and the Home

Joseph is meeting with community leaders who have organized a meeting to introduce him to the community. Later, at the community meeting, the local leaders excitedly introduce Joseph and explain that over the coming weeks community members will have the opportunity to be tested for HIV. Joseph explains that testing is voluntary and that the information will remain confidential. The community leaders encourage households to welcome Joseph and to take advantage of this unique opportunity to get tested right in their own homes—a task that would normally require a day’s travel to the nearest facility.

High-quality community mobilization is essential to the success of a home-based HTC program (see Figure 1). The goals of community mobilization include engaging community leaders and household members to gain broad support for the program. Community mobilization helps achieve various objectives: encouraging acceptability and uptake of HTC services, easing home entry for HTC providers, decreasing potential security risks for program staff, introducing HTC providers to community leadership and household members, and ensuring HTC providers have comprehensive knowledge of the range of accessible referral sites and services. Programs leverage a community member, or community health worker (CHW), to facilitate entry into the community for home-based HTC providers, and some programs emphasize the success of people living with HIV (PLHIV) in this role. The majority of programs visited in Kenya demonstrated a robust component of community mobilization in their program design and implementation.

All of the door-to-door programs surveyed for this case study reported that involving local administration and village elders in sensitization and mobilization increases acceptability of home-based HTC and contributes to reducing stigma related to HIV testing. Some programs request that village elders nominate community mobilizers who must meet specific criteria. For example, individuals should be well respected in the community, be able to read and write, be dedicated, be able to maintain confidentiality, be able to work weekends, know village boundaries, be 18 years or older, and be a resident of the community. Among the door-to-door programs visited, community mobilization occurred anywhere from one week to one month prior to initiating home-based HTC in the community, and in some programs is ongoing during home-based HTC implementation.

<table>
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<tr>
<th>TABLE 1: KENYAN PROGRAMS PROVIDING HOME-BASED HTC REVIEWED IN THIS STUDY</th>
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<tr>
<td><strong>Name</strong></td>
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<tr>
<td>Eastern Deanery AIDS Relief Program</td>
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<td>Movement of Men Against AIDS in Kenya</td>
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<td>Liverpool VCT</td>
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<td>The Kenya Medical Research Institute, Kibera</td>
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<td>AIDS, Population and Health Integrated Assistance Program, Rift Valley</td>
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<td>The Kenya Medical Research Institute, Kisumu</td>
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<td>The Academic Model Providing Access to Health-care</td>
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* Urban slum area.
For programs using an index client approach, CHWs have an established relationship with the index client, who is living with HIV, who is encouraged to mobilize the household members for home-based HTC. Household entry is facilitated by the existing rapport between the CHW and the index client. Use of PLHIV in community mobilization for any type of home-based testing may enhance uptake and acceptability and can provide support for linkages for clients needing services.

Mobilization efforts for door-to-door programs are typically more extensive than for other home-based HTC approaches, beginning with a thorough mapping of the testing area. This may include a geographical mapping of households and services or may consist of a list of names and addresses in the intervention area. Program managers liaise with district and local administration to map the location of households, take a census, identify similar services by other organizations to avoid duplication of efforts, and plot the location of referral sites. Mapping is also useful for informing logistical planning, setting targets for coverage, and estimating the work force and timeframe necessary to cover an area with home-based HTC. After mapping the testing area, programs begin outreach efforts...
to make communities aware of home-based HTC services in advance, and encourage local officials, community leaders, and residents to participate.

For other strategies for household entry, see the section on “Community and Home Entry” in the practical handbook (CDC forthcoming).


Jane reaches the home at the top of a dusty, rocky path to find a woman washing clothes. She has three small children at her side. The woman made an appointment with the community mobilizer. She welcomes Jane inside. The woman is willing to test, but tells Jane her husband is away at work and is usually home on Sundays. Jane makes an appointment to return the coming Sunday. As she leaves, she encourages the woman to talk to her husband about testing, so he will not be surprised.

When Jane returns that Sunday, the couple is home, and the husband is furious. He is sure that Jane has already tested his wife and that she is positive. He demands that Jane leave without testing anyone. Very respectfully, Jane provides extensive information about the test and assures him that his wife waited so they could be tested together. She gives them time to ask questions and addresses their fears. The husband eventually calms down, admitting that he reacted poorly because he was nervous, but he agrees to test. The three of them discuss disclosure before testing as well as possible outcomes of the test results, so the couple knows exactly what to expect and what their options are in the event that one or both of them is positive.

The process and minimum standards for home-based HTC is the same as other HTC methods—pre-test counseling followed by rapid HIV testing to determine serostatus, post-test counseling, and appropriate linkages for care and treatment—but home-based HTC providers may face a greater prevalence of more complex or difficult counseling scenarios than are typically confronted in other HTC situations. Although the issues are many, a competent HTC provider has a rare opportunity to address a spectrum of health, social, and interpersonal issues because the setting is the home.

There is currently a lack of systematic guidance for challenging counseling situations in the home, and thus individual HTC providers must often rely on their interpersonal and problem-solving skills, or in some cases, they may call on their more experienced supervisor or peers for support. The Kenyan programs have developed effective strategies for some common counseling challenges (see Box 2 and CDC forthcoming) that may prove useful in other contexts.

Couples and partner HTC: For most programs, testing and counseling couples together is an important goal of home-based HTC. Some programs have CHWs expressly book appointments when the couple will be home. If one of the partners is not home during the initial visit, most programs will make an appointment to return, often over weekends, to be sure to find both partners at home. One HTC provider noted, “It may not be instantaneous,

Violence is a bit tricky. Maybe you find a discordant couple. You counsel them, and you leave them happy. Then the next day you find he beat her and left her. It haunts you.

—Counselor

We go into the household and turn it upside down… I ask myself, was it worth it?

—Counselor, on delivering discordant test results
because we may have to go back for the spouse on the weekends. But with home-based testing, we are able to reach more couples.”

HTC providers across programs reported a need for enhanced skills in couples counseling, stating that while they felt confident about their ability to conduct couples HTC, their counseling would be more effective with additional skills pertaining to counseling partners. HTC providers with training in conflict resolution or gender-based violence (GBV) felt better equipped to handle the hostility or risk of violence that may occur with couples HTC. In one instance, an HTC provider offered her mobile phone number to a couple who continue to call her two years after initially providing HTC in their home, as they search for support for a trying situation. In this situation, the supervisor reminds the HTC provider of her role, encourages her to set boundaries around her capacities, and provides one-on-one and group forums for the HTC provider to share her burdens.

**Disclosure:** Within home-based HTC approaches, there are more immediate opportunities for partner, family, and child disclosure to take place than in other HTC settings. Each of these levels of disclosure—to partners,

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**BOX 2. COUNSELING CHALLENGES**

- Couples and partner HTC
- Disclosure (to partners and children)
- Consent and refusal to test
- Religious and cultural beliefs
- Counselor burnout
- Safety and security
- Child testing
- Alcohol use and abuse
- Partner violence.

[There are] so many challenges in home-based testing and counseling, but we overcome them.

—Supervisor

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A counselor performs an HIV test for a pregnant couple that agrees to be tested in their village home.

**In Kenyan culture there is not much opportunity for a woman and a man to sit together as one. Couples counseling gives them an opportunity to sit together, talk, and bond.**

—Counselor
children, other family members, neighbors, and friends—requires a different skill set on the part of the HTC provider. A competent HTC provider would be trained in all of these scenarios.

HTC providers reported that partner disclosure facilitates discussion of safer sex practices and increases adherence to treatment. Partner disclosure can elicit a range of emotions and reactions that require an HTC provider who can offer appropriate counseling and information to a family in distress. Partner disclosure also lays the groundwork for communicating results to children. For those found HIV-positive, the decision to share results with children is a sensitive matter that will depend on the age and developmental level of the child, the comfort level of the parents, and the experience of the HTC provider.

Socioeconomic status and gender can disadvantage certain groups when it comes to disclosure. One HTC provider in an impoverished section of Nairobi noted that a woman who has a man in the house to help pay for living expenses may fear that disclosing her HIV-positive status will lead to the end of the financial support on which she and her children rely.

HTC providers are tasked with helping clients to determine if and when disclosure is appropriate. The counselor’s role is to help a client navigate the risks, real and perceived, and arrive at a decision that is best for the client. Home-based HTC counselors may find disclosure easier when they agree on a disclosure process before testing a couple, adolescent, or family, so the clients know exactly what to expect when results are delivered.

**Refusal to test:** All programs deal with individuals who decline the offer to test. Most programs conduct a “mop-up” at the end of the testing period, returning to all households in the testing area where household members refused to test or were absent when testing was offered. One program has a policy of making three to four visits for ongoing counseling for those who decline HTC. Supervisors reported that HTC providers struggle with individuals who refuse to test and parents who refuse to consent to their children’s testing. These supervisors work with the HTC provider to find out the basis of the client’s refusal, help them to identify the concerns of the client, and develop a strategy for assisting the client to weigh the benefits and risks of testing during the follow-up visit. The supervisors also emphasize emotional support for the HTC provider, because refusal can be demoralizing. Some programs have HTC providers pair up during mop-up to tackle the most challenging households.

GBV can be a legitimate reason for someone to refuse to test. HTC providers should receive training in this area, and programs may provide guidance that integrates awareness of and strategies for dealing
with GBV in the home, and how to handle refusal to test in such circumstances. (For additional guidance regarding GBV, see AIDSTAR-One’s Gender-based Violence and HIV: A Program Guide for Integrating Gender-based Violence Prevention and Response in PEPFAR Programs).

**Religious and cultural beliefs:** Religious and cultural beliefs can vary widely, even within the same area, and underscore the need to adapt home-based HTC approaches and guidance to the specific context. Some religious sects do not believe in giving blood for testing, which is necessary for the current type of HIV testing employed. Others believe that once they have been prayed for, they are healed and do not need to take antiretroviral drugs or practice safe sex. Certain groups do not grasp the risk of HIV infection, which often means that serodiscordant couples will not use condoms.

To address this, one program emphasizes getting to know the area beforehand by attending community meetings and conducting stakeholder meetings with community leaders to gain a comprehensive understanding of cultural and religious beliefs in the area. When encountering such beliefs, HTC providers and supervisors may have to spend more time informing clients at the household level and working with religious leaders to dispel myths. One HTC provider notes that she responds to proclamations that individuals are healed of HIV through the miracle of God by agreeing that God can help PLHIV through the miracle of medicine.

**Burnout:** The home-based HTC provider’s job is complex and emotionally and physically demanding. Home-based HTC providers meet their clients in the home, where their family, sexual, and social values may be laid bare. Community members often expect HTC providers to act as clinicians or therapists. They are sometimes met with hostility, treated poorly, or blamed for positive test results; violence can thus be a concern (see Box 3). They frequently deliver sensitive information to vulnerable populations and often witness overwhelming need without the training or resources to offer solutions. Due to the stressful nature of home-based HTC, burnout is common among HTC providers, who may feel their work exhausts their emotional and

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**BOX 3. SECURITY RECOMMENDATIONS FOR COUNSELORS AND OTHER COMMUNITY WORKERS**

- Link with local authorities prior to and during testing
- Leverage counselors or community mobilizers/CHWs’ local knowledge of the testing area
- Travel in pairs
- Provide transport for rough terrain or through unsafe areas
- Pair a male mobilizer/CHW with a female counselor
- Identify areas with dangerous dogs, unsafe latrines, and/or live wires
- Ensure an active mobile phone network in the target testing area and sufficient phone credits for users
- Use identity cards to avoid risky situations (i.e., illegal activity occurring in a home while a counselor is present).

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*Home-based HTC counselors must work in difficult and sometimes challenging terrain such as in Kibera, the largest slum in Nairobi.*
mental resources. Burnout requires continual support from supervisors and peers to limit its effects. Given the physical demands of home-based HTC, some supervisors emphasize the importance of a nutritious diet (i.e., through the provision of lunches), access to drinking water, and plenty of rest to maintain mental and physical stamina.

Some supervisors allow HTC providers to take the day off after a particularly intense counseling session, or recommend that they spend the next day retracing their steps to follow-up on linkages instead of entering new homes. Peer support, formal or informal, was highly valued among HTC providers; some called each other after a day’s work to talk about challenges and seek support and advice.

Providing support and incentives to counselors can improve morale and retention and may curtail burnout. One program that operates in a challenging area provides safari boots, raincoats, flashlights, T-shirts, backpacks, water, tuberculosis screening and treatment, immunizations, and other health services to counselors. Another program that employs counselors who live in the target communities while testing, but permanently reside elsewhere, receive floating days off for weekends worked so they can go home to visit family.

**Additional challenges:** Providing an intervention in a client’s home exposes the counselor to a host of issues not readily apparent in facility-based testing. Partner violence and alcohol use and abuse are some of the issues home-based HTC counselors encounter. At present, there are no clear interventions or guidance regarding the handling of these issues. Guidance and strategies for effectively addressing these challenges are distinctly needed.

### Ensuring Quality of HIV Testing and Counseling

**Quality of testing:** Ensuring that correct test results are delivered to clients is paramount to a successful home-based HTC program. The programs visited reported using various laboratory quality assurance (QA) measures, such as laboratory supervision in the field, proficiency testing, and

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**BOX 4. QUALITY ASSURANCE MECHANISMS FOR RAPID TESTING**

- **Retesting:** Retest a given proportion of HIV-positive and -negative clients. However, as reference laboratories are likely to handle retesting in most countries, laboratory capacity may not be able to meet the demand with continued expansion of HTC services, requiring alternative QA measures.

- **Proficiency testing:** Samples with predetermined results are sent by the laboratory to programs and staff who do not know the results conduct testing and provide their results. It is likely more efficient than retesting, however, the cost and involvement of reference laboratories may limit adequate implementation.

- **Direct observation of counselors:** Laboratory supervisors can observe counselors to ensure standard operating procedures for the test kit are being properly followed.

- **Proper transport and storage:** Counselors should be supplied with proper storage containers for test kits and DBS samples.

- **Use of standardized logbooks.**

- **Ensuring stock:** Adequate forecasting and rapid test kit supplies are needed.

- **Reinforcing internal QA:** checking expiry dates of test kits, ensuring proper storage, and ensuring that test results are read properly, including controls.

- **Training:** preservice and in-service refresher trainings.
collecting dried blood spots (DBS) for retesting. However, in various countries, DBS/retesting is being phased out because of a greater push toward proficiency testing.

Rapid testing QA mechanisms (see Box 4) are important for correct usage of test kits. Counselors need to follow rapid test kit protocols precisely to ensure accurate results. There are greater opportunities for mistakes in home-based settings that require particular vigilance in the area of QA. Such errors could include reading a test result too early (this can lead to false-negative results), improper storage, or simply poor lighting to read the assay. Adherence to the manufacturer protocols of the rapid test kit can greatly improve sensitivity of test results (Wolpaw et al. 2010). Systematic implementation of various tools to enhance sensitivity and specificity, such as use of timers, training, incorporating internal and external QA, and direct observation, can improve the quality of HIV rapid testing (Parekh et al. 2011; for more information on testing QA, see the World Health Organization’s A Handbook for Improving HIV Testing and Counselling Services: Field-Test Version).

Quality of Counseling

Eunice sips a soda by a roadside stall, relaxing after a 10-hour day of HTC in the rural areas of Nyanza Province. Her mobile phone rings on the table, and she sighs, “The last thing I want to do right now is talk.” But when she sees that the caller is Nancy, one of the counselors who reports to Eunice, she thinks she might be needed. Sure enough, Nancy immediately begins describing the last household she visited, where a mother and her two young children all tested positive. Feeling guilty and helpless, the mother broke down, upsetting the children, and although Nancy was strong and supportive during the visit, she too felt upset. “I know exactly how you feel,” she replied. “I was in a similar situation with another counselor last month, and we talked about it later during our one-on-one.” Eunice repeated the advice she had given the last counselor who dealt with this difficult situation, recommending appropriate linkages for the family, linking the family to a CHW who can help them stay in care, and reminding Nancy that she cannot do everything for every family, so she must be content that she has helped them learn their status so they can obtain high-quality care and treatment. “Thank you, Eunice,” Nancy says. “You helped me cope with a difficult situation while still supporting the family. Thank you for answering your phone tonight.”

The HTC provider’s primary responsibility is to meet people in their homes, provide a client-centered pre-test counseling session, conduct

FEATURES OF ONE PROGRAM’S SUCCESSFUL SUPPORTIVE SUPERVISION FOR HOME-BASED HTC

Qualified supervisors: Only nurses or laboratory technicians with several years of experience qualify for supervisory roles. This higher level of skills and training, along with professional maturity, sets the supervisors apart from the counselors. Finally, supervisors attend supervision training where they learn communication, management, and support skills.

Motivational supervision: Tools such as post-observation feedback are provided according to the supervisory training received. Supervisors consistently provide positive feedback first, congratulating counselors on what they do well during a session. Counselors reported that feedback is regular, and it is motivational and constructive, rather than fault-finding.

Supportive culture: Both counselors and supervisors reported feeling a strong team bond with other counselors and supervisors. Supervisors provide mentorship and supervision for each other. One supervisor reported, “We support each other as supervisors. We work as a team.”
HIV testing for the client, and conclude with appropriate post-test counseling including necessary linkages with appropriate follow-up services. When a complete set of HTC services has been provided to a household, then the HTC provider must move on. HTC providers often need to reconcile their feelings of obligation to clients with the short-term immediacy of their duties as well as limited available resources. Delivering a high-quality home-based HTC program requires excellent, appropriately trained HTC providers with an ability to set personal boundaries and who regularly receive quality managerial and supportive supervision (see Box 5). High-quality supportive supervision may be the most critical factor in the productivity, satisfaction, and retention of HTC providers, given the supervisor’s role in providing emotional and psychological support.

Approaches to supervision varied widely from one program to the next, with numerous tools available for support: observation, group support meetings, one-on-one meetings with HTC providers, self-assessment, and peer mentorship. However, the value lies in the delivery of supervision, not in the tool itself. For example, observation followed immediately by feedback and support is a common supervisory mechanism used in many settings. One program notes that this is an effective tool to not only provide feedback on the observed session, but also to empower HTC providers and address underlying challenges. HTC providers at one program reported feeling extremely well supported by supervisors, who systematically implemented such strategies as observation and group support sessions. The supervisors are also available by mobile phone any time of day and will do their best to come to the aid of an HTC provider facing a challenge. HTC providers from most programs repeatedly stressed the importance of the psychological support functions of their supervisors.

Many programs must balance an emphasis on providing high-quality HTC with the potential trade-off of meeting program targets. Some programs reported that in some cases, meeting targets that stress the importance of testing large numbers can affect the quality and time spent on testing and counseling.

One of the benefits of [home-based] HTC is the opportunity to discuss other issues in the home and the services that are available. Another is the ability to sit with the whole family and come up with a plan that works. When they come in for services, they are well prepared.

–Program manager
AIDSTAR-One | CASE STUDY SERIES

WHO IS LIKELY TO ENROLL INTO CARE AND TREATMENT FOLLOWING HOME-BASED HIV TESTING AND COUNSELING?

Kenya Medical Research Institute in Kisumu recently piloted a peer educator program to follow-up with HIV-positive home-based clients who consented to these visits. The peer educators visited the home up to three times, offering to facilitate entry into HIV treatment. After two to four months of follow-up, 42 percent of individuals who tested positive during home-based HTC were enrolled into care.

An evaluation of the program yielded some positive and interesting results about who is likely to complete a referral, and provides information on who may need additional support to ensure successful linkage with follow-up services.

Clients who enrolled into HIV care services were more likely to be:

- Older
- Female
- Married
- Reportedly less healthy than those who did not enroll
- Participants who had disclosed their HIV status to someone.

Reasons for not seeking care (n = 370) included:

- Still felt healthy (44 percent)
- Did not believe HIV test result (22 percent)
- Confidentiality or other stigma concerns (20 percent)
- Other (14 percent).

Source: Amolloh et al. 2011

Ensuring Linkages to Treatment, Care and Support, and Prevention Services

After a difficult session where Ojwang delivered discordant results to a young couple, he met up with Otieno, the community mobilizer he works with. He explained to Otieno that he had obtained consent from the couple to link them for follow-up and assured the couple that he and Otieno would both safeguard their confidentiality. Otieno listened closely to Ojwang, who gave Otieno the names and whereabouts of the couple, and told him that the couple was expecting a visit from him some time that week. Immediately after speaking with Otieno, Ojwang began to feel less anxious—he knows that Otieno, himself living with HIV, is familiar with all of the possible linkage points this couple might need. He can explain each site in detail and provide “inside” information on the services delivered.

Ojwang knows that although it will not be easy for the young couple to adapt to their new situation, Otieno will surely treat them with compassion, as he has with many previous clients, and he will add them to the list of individuals, couples, and families that he follows up with every month to ensure they are receiving the care, treatment, and prevention services they need.

Successful referral and follow-up for someone who has tested in the home are challenging. For home-based HTC programs where counselors do not live in the community they are testing, but rather move from area to area, providing linkages and follow-up for clients can be especially difficult. However, all programs recognize the importance of providing linkages to treatment, prevention, and care interventions.

One program seeks (and in most cases receives) consent from HIV-positive clients to be connected with a CHW from their neighborhood who will follow-
up with referrals to care, treatment, and prevention services. Clients are referred to the health facility, which provides comprehensive health care, support, and treatment for individuals and families, and prevention for discordant couples. Because the vast majority of clients from this program go to one particular facility, CHWs can easily discover whether a client has missed an appointment and can follow-up with that client at home.

Another program that leverages CHWs to follow-up on linkages noted the low uptake of referrals. Supervisors and HTC providers conducted a group session to brainstorm ways to improve rates. Supervisors asked HTC providers to role-play about how they communicate with clients about linkages to care and treatment. As a group, they recognized that they could improve the words and tone of voice they choose and how to discuss linkages with clients, which improved rates of successful referral uptake.

One program provides logistical support and transport for emergency referrals, including to pregnant women who test positive during home-based HTC, HIV-exposed children, and very ill household members. HTC providers who identify these cases phone their supervisors, who arrange for the client to be transported immediately to the health facility.

Some programs are using mobile technologies in the field, such as smart phones. These phones can facilitate various activities. For example, GPS capabilities can assist with mapping and locating households, gathering demographic as well as health data, and following up on linkages. The use of such devices may also ease the burden of paperwork on the counselor. However, all technologies have their limits. Strictly relying on smart phones for mapping and locating households carries risks, as GPS data may be lost, confidentiality needs to be guaranteed, and cost must be considered. If programs choose to employ such technologies, there should be clear objectives as to the type and amount of data collected that can inform and shape the program as well as have relevance at the regional or national level.

Using PLHIV as CHWs, community mobilizers, and HTC providers may decrease stigma and increase uptake of testing and linkages. As noted in the discussion on community mobilization, the use of PLHIV can have a significant, positive impact on home-based HTC services. PLHIV typically have first-hand knowledge about the referral point: who works there, the type and quality of the services, what services are paid for versus those that are free, and the pros and cons of each referral site. One program provides a daily stipend for PLHIV posted at referral sites who educate patients, escort them through the site, and let them know what to expect. Remuneration of PLHIV for their services is an important consideration as it will impact quality as well as program costs. Programs have recruited PLHIV from within local support groups.

Despite the ingenuity of some approaches, follow-up for clients in home-based HTC programs remains a challenge. Policymakers and donors could strengthen this component by rewarding programs not strictly for the numbers of people tested but for those who successfully complete their linkage into services.

Recommendations

**Identify the right strategy for the problem:** Home-based HTC is one strategy that should be considered as a part of a country’s
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Community mobilization is essential to the success of home-based HTC:
Community commitment and involvement is an essential building block for an effective home-based HTC program. Involving the community and leadership will vary across contexts. Employing a variety of mobilization strategies will help to ensure community entry and uptake of the intervention.

Anticipate the challenges and use staff to develop strategies: Home-based HTC presents a variety of distinct situations and challenges not encountered in other HTC settings. Program planners and staff can anticipate the challenges noted here, and develop policies or strategies to equip counselors with the knowledge, skills, and resources needed to perform their job. Additionally, seasoned HTC counselors and supervisors have a wealth of knowledge and experience. Their input is an invaluable resource that should be tapped into as the program unfolds to develop strategies, role-plays, counseling messages, and other tools for challenges that are encountered in the field.

Identify goals and outcomes of home-based HTC from outset: Decision makers should decide whether the goal of home-based HTC is universal testing, active case finding, linkage to care and treatment, prevention messaging with high-risk negatives, or any of a number of other legitimate objectives. Decisions on when to retest an area are necessary because it will impact program priorities and delivery.

QA measures are needed to ensure accurate results, effective counseling, and satisfied staff: Providing the right HIV test result is imperative, and this can be achieved by instituting a variety of QA mechanisms for rapid testing beyond relying on supervision from the reference laboratory, which may be overextended and understaffed. Creating a strong supervisory team can support quality counseling that responds

Overall HIV strategy and specifically, HTC strategy. Planners should determine if home-based HTC is the appropriate strategy for their context and the objectives they are trying to meet. Home-based HTC is one strategy among many, and programs should use relevant data (epidemiology, population density, HIV prevalence, target population size) to decide whether this strategy is appropriate for the setting. Kenya chose home-based HTC as its strategy for hard-to-reach populations, areas of high prevalence, densely populated regions, and targeted high-risk groups. Door-to-door or index client models should be weighed to see which best serves program goals and the target population. While there is little data on cost-effectiveness, countries may want to understand the costs of a home-based HTC program and determine its cost-effectiveness in relation to other HIV strategies. Kenya has recognized that while home-based HTC is an expensive model, it is needed to reach particular at-risk populations.
to the various issues that arise, and can help counselors learn how to navigate challenging situations. Supportive supervision can be utilized to help staff feel empowered, cared for, and satisfied with their work.

**Ensuring referrals and linkages is imperative:** Testing people for HIV in the community is an important step for HTC; however, identifying adequate referral points for treatment, care, and support is equally important if testing is to have an effect on the HIV epidemic. How referrals are made, tracked, and followed up are critical components that programs may consider an objective of home-based testing.

**Home-based HTC can be a platform for integrating other community interventions:** Program planners should consider home-based HTC as a potential platform for integration of a range of services at the community level (e.g., malaria, family planning, and tuberculosis), or consider integrating HTC into existing home-based care and support activities.

**Leverage home-based HTC to address the needs of women and girls:** National-level decision makers may leverage home-based HTC programs as a mechanism for responding to GHI’s emphasis on programming for women and girls and increasing male engagement, as they reach more families and couples than other HTC models, and can uniquely respond to the needs of women, girls, and families while encouraging male involvement. Home-based HTC can help with male partner disclosure, which can impact uptake of treatment, adherence, and prevention of mother-to-child transmission.

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