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Home HIV testing and counselling: answers raising questions

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This year, UNAIDS announced its ambitious 90-90-90 treatment targets to eliminate the HIV/AIDS epidemic by 2030. To do so will require, within 5 years, 90% of people living with HIV worldwide to know their status, 90% of these individuals to receive antiretroviral therapy, and 90% of those on antiretroviral therapy to achieve sustained viral suppression.¹ In *The Lancet HIV*, Ruanne Barnabas and colleagues² contribute evidence about an intervention that could help to achieve these targets. In assessing community-based home HIV testing and counselling (HTC) in high-prevalence rural areas of South Africa and Uganda, they report that the approach improved key outcomes across the HIV care continuum. In this study, 3393 people were enrolled and tested for HIV. 635 people were HIV positive, including newly identified HIV-positive people and those previously diagnosed who were out of care or eligible for antiretroviral therapy but not receiving it. By 12 months, 619 (97%) of the HIV-positive people identified had visited an HIV clinic, with 76% (94/123) of those eligible receiving antiretroviral therapy; HIV viral suppression at the community level increased significantly, from 287 individuals (50%) to 370 (65%; $p<0.0001$).

HTC guidelines recommend provider-initiated HTC either across health facilities (generalised epidemics) or in specific health facilities and risk groups (concentrated epidemics).³ However, HIV-positive people are diagnosed, present for care, and ultimately initiate antiretroviral therapy in advanced stages of HIV infection, contributing to morbidity, mortality, and onward HIV transmission.⁴⁻⁶ The community-based HTC approach has a greater potential to identify HIV-positive individuals and link them to care before they become symptomatic.

Existing research suggests that community-based approaches to home HTC work. Sabapathy and colleagues⁷ pooled evidence from five countries in sub-Saharan Africa and reported that home HTC had high acceptability, with 76.7% of patients who were offered testing and 99.6% of those tested receiving their result. Community-based approaches more broadly

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For the WHO consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection see http://apps.who.int/iris/bitstream/10665/85321/1/9789241505727_eng.pdf?ua=1

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have been shown to increase HTC uptake, linkage to care, and initiation of antiretroviral therapy.⁸ Findings from pilot programmes suggest that community-based home HTC can effectively link patients to care.⁹ However, until now little evidence has been available about the downstream effects of these approaches, including care retention and viral suppression.²

The targeting and reporting of patients' outcomes along the entire HIV care continuum is a strength of Barnabas and colleagues' study. The study moved beyond the boundary of HTC to assess a package of interventions, including point-of-care CD4 testing to establish eligibility for antiretroviral therapy, initial counselling (including treatment and care referrals), and lay counselling sessions at 1, 3, 6, 9, and 12 months. These components are crucial for further research and future scale-up of this or similar strategies.

Community-based home HCT—even when accompanied by a broader package of interventions—is not a panacea. For example, 161 (43%) people not on antiretroviral therapy at study enrolment had a CD4 count of more than 500 cells per μL and were not eligible for antiretroviral therapy.² Information is needed about the long-term outcomes of people not yet eligible for antiretroviral therapy. Such patients are less likely to engage in regular care before antiretroviral initiation.¹⁰ If gaps in this care occur, they are at increased risk for antiretroviral therapy initiation in the advanced stages of HIV disease, despite having presented for care in a timely manner.⁶ Questions also remain about the effectiveness, and cost-effectiveness, of this and similar interventions in different settings. However, the practical promise of community-based home HTC is clear. At a time when human resources for health-care delivery are scarce, particularly in rural areas,¹¹ the approach can rely on lay counsellors and community health workers to implement and scale these approaches, enabling further ownership of the epidemic within communities.

Moving forward, future studies can use an evaluation design that includes control groups and better isolates the effects of individual intervention components. Although comparisons of groups before and after interventions can provide preliminary insight into an intervention's effectiveness, reported effects might partly or wholly result from secular trends unrelated to the intervention (eg, national expansion of guidelines for antiretroviral therapy eligibility). Rigorous experimental or quasiexperimental designs are needed to improve understanding of the outcomes of community-based home HTC compared with appropriate control groups, ideally from the same country or policy jurisdiction.

This study by Barnabas and colleagues has answered some questions but has raised many more. With the HIV community poised to achieve new global targets, rapid identification, assessment, and implementation of interventions that are effective, cost effective, feasible, and scalable are urgent global priorities.

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