Home-Based HIV Care Linked to Increased Uptake Of Antiretroviral Therapy

Having the option to start HIV care at home is associated with increased uptake of antiretroviral therapy among adults who make use of self-administered HIV tests, according to a randomized trial conducted in Blantyre, Malawi.[1] As part of the trial—the first to assess the effects of home-based initiation of treatment—free self-testing kits were provided in the study areas, and participants who tested positive had access to HIV care through local primary care centers. However, residents of the seven randomly selected communities where the option of home-based initiation of care was offered were significantly more likely to begin antiretroviral therapy than were residents of communities where only facility-based HIV care was available (adjusted risk ratio, 2.4).

The cluster-randomized trial was conducted in 2011 in high-density urban neighborhoods in Blantyre, where a previous study had shown the prevalence of HIV to be as high as 18%. Researchers selected 14 noncontiguous community health worker catchment areas to receive self-administered oral HIV tests and posttest counseling. Volunteer counselors trained in HIV testing distributed testing kits and information to adults aged 16 or older who wished to participate. Participants were asked to use their test at home and return it to the counselor so that the results could be tallied; they were not required to disclose results to the counselor. In all study areas, participants with positive test results could go to a study clinic to have their results confirmed and begin antiretroviral therapy if eligible (i.e., if their CD4 cell count was lower than 350 cells/mm3, they were in clinical stage 3 or 4, or they were pregnant or breastfeeding). In half of the study areas, counselors also informed residents about the availability of home-based services; participants who chose this approach received home initiation of HIV care (including two weeks of antiretroviral therapy, if eligible) and a follow-up appointment at a clinic. Researchers tracked the number of adults initiating therapy at home or at clinics. Adherence to antiretroviral therapy regimens was self-reported at 2–4 weeks, three months and six months.

Some 8,194 adults lived in the areas where optional home initiation of HIV care was offered (the "home group"), and 8,466 in the areas where only facility-based care was available (the "facility group"); the two populations generally had similar demographic and other characteristics, although the proportion of households that had reported a death in the past year was higher in the home group than in the facility group (4.1% vs. 2.4%). Participants' mean age was 30; slightly more than half were male, and nearly two-thirds were married or cohabiting.

In the six months that HIV self-testing was available, 58% of adults in the study areas took a kit from community counselors. Uptake did not differ between the two groups. However, participants in the home group were more likely than those in the facility group to report a positive HIV self-test result to counselors (risk ratio, 1.9).

A higher proportion of participants in the home group than in the facility group initiated antiretroviral therapy (2.2% vs. 0.7%; risk ratio, 2.9). This difference remained statistically significant (2.4) after adjustment for household mortality in the past year, a proxy for baseline levels of HIV prevalence and availability of care. Of the 181 participants initiating antiretroviral therapy in the home group, 64% began treatment at home and 36% began at a health facility. After six months, 29% of antiretroviral initiators in the home group and 24% initiators in the facility group were no longer receiving treatment, but the difference was not statistically significant.

The total cost of home-based testing and initiation of antiretroviral treatment was US$20,005, or US$172 per participant who initiated home care. This figure, the researchers say, compares favorably to other community- and facility-based programs.

The researchers attribute the difference in the uptake of antiretroviral therapy between the two groups to the increased convenience and perceived confidentiality offered by home-based care relative to care at a facility. They also point out that home care supplements, rather than replaces, facility-based services, and that because CD4 cell counts were highest among those initiating care at home, home-based care may lead to increased survival for patients. They conclude that "at a time when universal test and treat approaches to controlling the HIV epidemic are being considered, home initiation of HIV care shows high promise as a simple strategy to improve uptake of [antiretroviral therapy] when HIV self-testing is carried out at home."—*H. Ball*

REFERENCE

1. MacPherson P et al., Effect of optional home initiation of HIV care following HIV self-testing on antiretroviral therapy initiation among adults in Malawi, *Journal of the American Medical Association,* 2014, 312(4):372–379.