

Integrating family planning into HIV services increases use of more effective contraception

KEY MESSAGES

- There is a very high rate of unintended pregnancy among HIV-infected women in sub-Saharan Africa
- Providing effective contraception to this group of women who want to delay or end child-bearing would help them to plan their families; it would also help to prevent mother-to-child transmission of HIV and to reduce maternal and newborn illness and death
- There has been a growing programmatic push toward integrating family planning (FP) services into HIV care and treatment, but there has been a lack of rigorous research on such integration
- A cluster randomized trial in Nyanza Province, Kenya found that integrating FP into HIV care and treatment was associated with a higher proportion of women using more effective contraception (hormonal methods, intrauterine device, or sterilization)
- The study found that integration was cost-efficient and cost-effective, and acceptability of integration was high among both men and women
- Integration is a promising approach to increase the use of more effective contraception among HIV-positive women

CONTEXT: BENEFITS OF PREVENTING UNINTENDED PREGNANCY

Among HIV-infected women in sub-Saharan Africa, about 60–90% of pregnancies are unintended.^{1–3} Improving uptake and use of voluntary family planning (FP) among this group of women could help them and their partners have the families that they want. In addition, prevention of unintended pregnancy contributes to prevention of mother-to-child transmission of HIV (PMTCT) and reduces maternal and newborn illness and death.

There are low rates of use of more effective contraceptive methods—sterilization, intrauterine device (IUD), subdermal implants, injectables and oral contraceptives—in sub-Saharan Africa in general and among HIV-infected individuals in particular.^{4,5} Such low rates are due to lack of information about these methods, partner opposition, fear of side effects, and barriers to access. In particular, structural barriers, including the fact that most women obtaining HIV services who want contraceptive services are referred to a separate FP clinic, create an unnecessary obstacle to pregnancy prevention.

There has been a growing programmatic push toward integrating voluntary FP services into HIV care and treatment.⁵ However, there has been little rigorous evidence evaluating the effectiveness of such integration. This policy brief summarizes the findings of a new cluster-randomized controlled trial (cRCT) in Kenya that aimed to answer this question.^{6,7}

A NEW TRIAL OF FP/HIV INTEGRATION

The study had **two main objectives**:

1. To determine whether integration of FP services into HIV care and treatment improved the uptake of more effective contraceptive methods.
2. To document the costs and cost-efficiency of integration. In the analysis of the costs of integration, the researchers estimated the extra (“marginal”) cost for each additional woman using more effective FP and the extra (“marginal”) cost of avoiding a pregnancy.

The study also explored whether pregnancy incidence was affected by integration of FP services, although this was not a primary outcome of the study. The study took place in Nyanza Province in western Kenya between 2009 and 2011. The researchers performed a cluster-randomized trial, meaning that clinics, rather than individuals, were randomized to integrated FP/HIV services (the intervention) or non-integrated services (control). At **integrated clinics**, women with HIV who wanted contraception received it during routine HIV care—along the lines of a “one-stop shop.” At the **control sites**, women who wanted contraception were referred to FP clinics at the same facility.

Eighteen public sector HIV clinics at dispensaries, health centers, and sub-district and district hospitals were included in the trial. Twelve sites were randomized to the intervention, while six sites served as controls. Box 1 summarizes the interventions included in the study.

The data for the study came from clinical encounters at the HIV clinic at the 18 study sites. Clinical information was recorded on paper forms and then entered into an electronic medical records system. The researchers included data from all women age 18 to 45 years who had at least one visit to one of the clinics during the study period. The study did not follow individual women over time; instead the researchers examined contraceptive use across the clinics for one year after completing all training.

BOX 1. INTERVENTIONS INCLUDED IN THE CRCT OF INTEGRATED FP/HIV SERVICES

At all 18 sites

- Peer educators were trained to conduct group educational health talks about FP to clients waiting to be seen at HIV clinics. These talks focused on why some HIV-infected individuals choose to use FP and reviewed all available FP methods.
- Staff underwent training on the mechanism of action, efficacy, and safety of all FP methods in the context of HIV infection and infection prevention. Staff were also trained in counseling about and providing all reversible contraceptive methods.
- HIV clinic staff were trained to ask all clients about their current use of contraception, condom use, and their interest in using FP.
- Condoms were generally provided at the HIV clinic.
- Patients interested in female sterilization were kept on a list to receive services when a roving team came to the facility to perform the procedures, generally once every one to three months. Patients interested in vasectomy were referred to an outside provider.

At 6 control sites

- Staff continued the standing practice of referring clients interested in non-condom FP to a separate maternal-child health/FP clinic at the same facility.

At 12 intervention sites

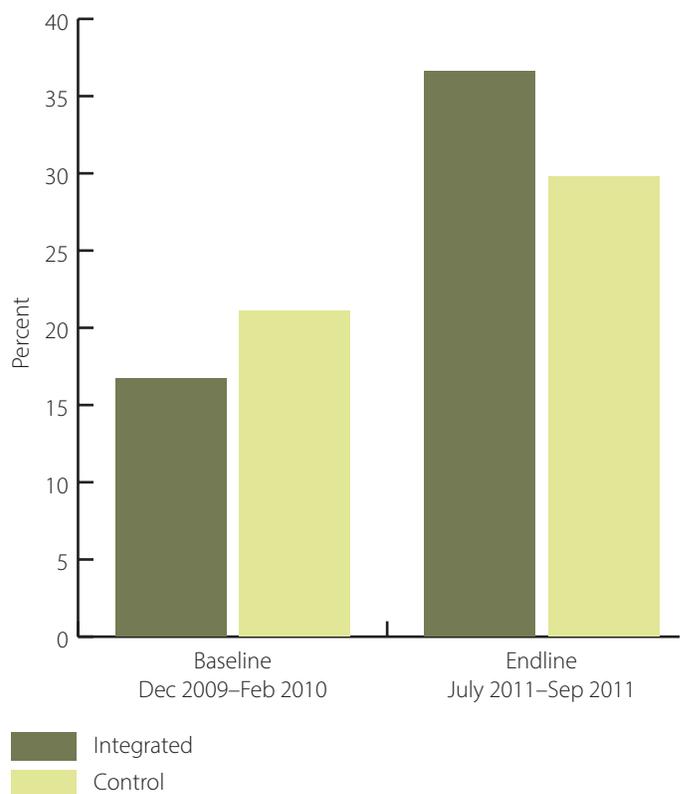
- HIV clinics integrated FP counselling and provision into the HIV clinic according to guidelines established by the Kenyan Government. In addition to asking about interest in using FP, HIV clinic staff at integrated sites also provided all reversible FP methods within the HIV clinic. In some cases, new equipment or supplies, such as a table for a gynecologic examination or insertion supplies for IUDs, were also procured.

KEY FINDINGS

Use of more effective contraception

Prior to starting the study, the proportion of women using more effective contraception was low at all study sites. At sites randomized to integrated FP/HIV services, women at only 16.7% of clinical encounters reported use of more effective FP, compared to 21.1% at sites randomized to be control sites. One year after staff had completing training on FP at all sites (see Box 1), use of more effective contraception increased to 36.6% at integrated sites and 29.8% at control sites, a statistically significant difference (Figure 1). The higher rate of use of more effective FP at integrated sites was largely due to greater use of sub-dermal implants and injectables. Overall, women at integrated sites had an 80% higher odds of using more effective contraception at the end of the study compared to women at control sites (odds ratio (OR) 1.81, 95% confidence interval (CI) 1.24–2.63).

FIGURE 1. PREVALENCE OF USE OF MORE EFFECTIVE CONTRACEPTIVE METHODS AMONG WOMEN'S ENCOUNTERS AT INTEGRATED VS. CONTROL SITES



Dual-method use

As use of other FP methods increased, dual-method use (condoms used together with more effective contraceptive methods) also increased. Dual-method use increased from 10.1% to 20.9% at integrated sites and from 11.5% to 19.1% at control sites. However, there was no significant difference in the odds of reporting dual-method use between study arms (OR 1.30, 95% CI 0.77–2.17).

Condom use

Use of condoms alone or with another method decreased slightly at intervention sites from 60.5% to 57.7%, while it increased from 51.0% to 59.1% at control sites. Comparing women at intervention to control sites, the researchers observed a non-significant overall reduction in the odds of using condoms (OR 0.64, 95% CI 0.35–1.19).

Pregnancy rates

Over the first year of the study, the researchers did not see a significant difference in reported pregnancies between women at intervention compared to control sites. They observed 5.5 pregnancies per 100 woman-years at intervention sites and 6.1 pregnancies per 100 woman-years at control sites, a non-significant difference.

Cost of integration

There were costs associated with the training and equipment described in Box 1 at both integrated and control sites. On average, these costs were \$4,859 per site at the integrated sites and \$4,018 per site at the control sites. The bulk of these costs were personnel costs, as well as expenditures related to refresher training, mentoring, and supportive supervision. Combining these costs with the observed increase in use of FP at integrated sites resulted in a cost of \$65 per additional user of more effective contraception. The cost per incident pregnancy averted was \$1,368.



Patient being counseled by her HIV care provider on family planning options at Nyadenda Health Center, Kenya

KEY CONCLUSIONS

The researchers drew two key conclusions from their study.

First, **integration of FP into HIV care and treatment is associated with significantly higher use of more effective contraceptive methods.** Although the study found no significant reduction in pregnancy incidence, it is likely that one year is too short a period of observation for this outcome. In addition, the researchers did not design the study to find a difference in this outcome.

Second, **integration in this context was cost-efficient and cost-effective.** A major strength of the study is that the analysis is based on the costs of the actual intervention rather than estimates and includes observed effectiveness data rather than modeled effects.

The study found a small reduction in condom use at integrated sites, although the overall change in condom use between the two study arms was not significantly different. Dual-method use was stressed in patient counseling, and the study found that dual-method use increased in all sites. More research is needed to identify interventions to increase condom use along with more effective FP methods.

In addition to the results published in these two papers, future analyses will report on several other outcomes of the study. In particular, the researchers found that acceptability of integration was high among both men and women, as well as health care providers, and integration was associated with a reduction in some negative views of FP among men. Furthermore, in the second year after training, when control sites began integrating FP services into HIV care and treatment and supervision transferred from study staff to Ministry of Health staff, use of more effective FP was maintained at a high level at the original intervention sites and increased to a similar level at the original control sites.

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FUNDING

The authors acknowledge the funding support of the Bill & Melinda Gates Foundation and the Tides Africa Fund.

