



# Contraception use and effectiveness among women in a trial of the diaphragm for HIV prevention

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# BACKGROUND

•Little data exist on contraceptive effectiveness or use patterns in sub-Saharan Africa.

•Data on use and effectiveness of contraception can highlight gaps in existing services and inform interventions to increase access and reduce unintended pregnancy.

## **RESEARCH QUESTIONS**

- 1. What contraceptive methods did women in the MIRA trial use?
- 2. Did provision of the diaphragm, a nonspermicidal gel, and condoms reduce risk of pregnancy compared to provision of condoms only?
- 3. What were the predictors of pregnancy in a population of women at high risk of HIV?

## **METHODOLOGY**

• Analyzed data from women at risk of pregnancy (n=4905) in the Methods for Improving Reproductive Health in Africa trial (MIRA), an open-label, randomized controlled trial of the diaphragm for HIV prevention.

•Described reported contraceptive method use and calculated rates of pregnancy by contraceptive method.

•Compared time to first pregnancy by study arm (condoms or condoms plus diaphragm and gel), and estimated a Cox proportional hazards model to identify predictors of pregnancy.

The most commonly used contraceptive methods at study enrollment were condoms (25.8%), injectables (25.4%) and OCs (21.6%); long-acting method use was low (Table 1). During the trial, 51.6% of women used the same method, 27.4% switched to a more effective method, and 20.9% switched to a less effective method (Figure 1). Rates of pregnancy were similar between women in the intervention arm (diaphragm, gel, and condom, 21.6%) and control arm (condom, 21.2%); study arm was not a significant predictor of pregnancy (Figure 2). Pregnancy rates by contraceptive method were similar to published data.

	None/no		Other										Long- acting			
Characteristic	method	Ν	method*	Ν	Condoms	Ν	POPs	Ν	OCs	Ν	Injectables	Ν	methods	Ν	Total	Ν
Most effective																
contraceptive																
method used (%)	5.3	260	2.3	112	25.8	1265	14.4	708	21.6	1058	25.4	1244	5.3	258	100.0	4905
Age ( <i>mean</i> )	32.5	260	32.6	112	28.2	1265	26.1	708	28.1	1058	27.0	1244	38.2	258	28.4	4905
Years of education																
(mean)	8.1	260	8.6	112	10.1	1265	9.8	708	9.7	1058	9.8	1242	7.8	257	9.6	4902
Country (%)																
South Africa	9.2	225	1.5	37	34.2	839	1.8	44	7.1	173	37.1	910	9.2	225	50.0	2453
Zimbabwe	1.4	35	3.1	75	17.4	426	27.1	664	36.1	885	13.6	334	1.4	33	50.0	2452
*Including less effective	methods like	withdr	awal and tra	ditional	methods.											



Long-acting methods of contraception were infrequently used, suggesting a lack of access to information and services. Offering long-acting methods to women participating in HIV prevention trials and to women in Southern Africa could significantly reduce unintended pregnancy. Increasing information about, access to, and policy support for long-acting methods with higher effectiveness is a critical public health priority across the world.

Blanchard K et al. Contraception use and effectiveness among women in a trial of the diaphragm for HIV prevention. *Contraception*. 2011; 83:556-563.

### RESULTS

Table 1. Demographic characteristics by contraceptive method at enrollment for women (n=4905) included in the contraception analysis

### **CONTRIBUTED KNOWLEDGE**

### REFERENCE

