# A randomized impact evaluation of a female condom programme in Mozambique-Results 


#### Abstract

From 2013 to 2015, the Amsterdam Institute for Global Health and Development (AIGHD) conducted a randomized control trial in Mozambique to evaluate the impact of a community-based female condom intervention. The intervention was implemented by Pathfinder International and funded by the Universal Access to Female Condoms (UAFC) Joint Programme. The findings show that the bi-weekly support groups were effective in increasing female condom use, especially among women who did not use any contraception at baseline. Evidence suggests that the introduction of female condoms complemented rather than substituted existing contraceptive methods. This research brief reports on the main findings of the study. Details of the intervention and research design are described in the companion research brief.


## STUDY POPULATION AND RESEARCH METHODS

The impact evaluation focuses on the community-based support groups as conducted by 17 volunteer community health workers (facilitators) in the Matola district, Maputo. Each facilitator recruited 20 women who, after a baseline survey, were randomly assigned to either the 'early' (treatment) group, or the 'late' (control) group. All women were interviewed again for the endline survey after the early group had ended but before the late group started.

Of the 311 women interviewed at baseline, 248 women also responded to the endline survey. Although younger, single, and higher-educated women were more likely to drop out of the study, drop-out patterns did not differ statistically between the treatment and the control group. Due to the long-term illness of one facilitator, the analysis excludes this facilitator's 16 recruited respondents. The final sample consists of 232 women (125 in the treatment and 107 in the control group).

## STUDY FACTS

## LOCATION

Matola district, Maputo Province, Mozambique

IMPLEMENTATION PARTNERS
Pathfinder International, in collaboration with ABEVAMO Association and Culdesa Association

RESEARCH PARTNERS
WEconsult, Universidade Eduardo Mondlane

## FUNDING

Universal Access to Female Condoms Joint Programme,
PopDev/NWO-WOTRO

## STUDY PARTICIPANTS

## Sample size

- 232 women (125 in treatment group and 107 in control group)


## Diaries subsample

- 56 women ( 27 in treatment group and 29 in control group)


## Averages at baseline

- 30.8 years old
- 6.3 years of education
- $86 \%$ literate
- $37 \%$ in employment
- $85 \%$ in a stable relationship
- $30 \%$ self-reported to be HIV-infected

A subsample of 56 respondents was also interviewed through detailed weekly sex diaries. During the three-month analysis period, they reported a total of 537 sex acts, or 9.6 sex acts on average per person.

## MAIN OUTCOME VARIABLES

Our main outcome of interest is female condom use. Respondents were asked at both baseline and endline whether they had ever used a female condom, and whether they were currently using female condoms.

At baseline, 7.7\% of women had ever used a female condom. In comparison, $73.7 \%$ had ever used a male condom, and $72.4 \%$ had
${ }^{1}$ Health center groups were excluded from the evaluation due to erratic implementation of the support sessions.
${ }^{2}$ The analysis is based on an ANCOVA approach, using a linear probability specification to estimate the impact of treatment assignment on the outcome variable at endline, controlling for the outcome at baseline as well as facilitator fixed effects.
ever used other modern contraceptives-mostly injections. A mere $7.3 \%$ of women had never used any modern contraception. Baseline current use was substantially lower, at $3.0 \%$ for female condoms, $38.9 \%$ for male condoms and $38.1 \%$ for other modern contraceptives. More than one-third of respondents, $36.6 \%$, were currently not using any modern protection method at baseline.

The baseline percentages did not significantly differ between the treatment and the control group. That is, the individual-level randomization resulted in two groups that were highly comparable at the start of the programme.

## PROGRAMME IMPACT ON FEMALE CONDOM USE

Participation in the support groups had a positive and significant effect on female condom use. Compared to the control group, women who were assigned to the treatment group reported an increase in ever use of 18.4 percentage points ( $p$-value <.001), and an increase in current use of 7.7 percentage points ( $p$-value .016$)^{2}$. That is, both ever and current female condom use more than doubled in the treatment group after baseline.

The diaries, which generated detailed information on the use of protection methods during each sexual encounter, corroborate these findings.

## COMPLEMENTARITY VERSUS SUBSTITUTION OF OTHER CONTRACEPTIVE METHODS

The increase in female condom use was not accompanied by an off-setting decrease in ever or current use of alternative methods. If anything, current use of male condoms and other modern contraceptives increased slightly in the treatment group, although the effect was not statistically significant. Female condoms thus seemed to complement the existing choice set of regular contraceptive methods, rather than substitute it.

## CONSISTENT PROTECTION

The diaries allowed us to investigate whether expanding the set of contraceptives increased the proportion of protected sex acts, and whether consistent contraceptive use was enhanced as a result. We found that the proportion of protected sex acts over the entire analysis period was $86.3 \%$ in the treatment group compared to $76.4 \%$ in the control group. The proportion of condom-protected sex acts was $57.4 \%$ versus $45.1 \%$ in the treatment and control group, respectively.

These patterns were confirmed when looking at consistent use: $79.2 \%$ of women in the treatment group consistently used modern contraception during the study period compared to $61.5 \%$ in the control group; and $41.7 \%$ of treatment women consistently used condoms (male or female) compared to $19.2 \%$ in the control group. Although these differences are estimated imprecisely due to the small sample size, the data suggest a clear pattern of increased protection.

## AUTHORS \& AFFILIATIONS

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Figure 1 Timeline of study and programme.


## IMPACT CHANNELS

The impact of the programme was particularly large for women who did not use any modern contraceptive method at baseline: among them, ever use of female condoms increased with 21.6 percentage points ( $p$-value .001) and current use of female condoms increased with 12.5 percentage points ( $p$-value .001 ).

In addition, women who were least empowered at baseline, as measured by various indicators, benefitted most from the support groups. They reported significantly larger increases in current female condom use compared to more empowered women.

## TAKE HOME

- The programme had a positive and significant MESSAGES effect on (ever and current) female condom use.
- There is no evidence of a substitution effect, i.e. female condoms did not replace the use of other contraceptive methods.
- The effect was strongest for women who did not use any modern contraceptives at baseline and who were least empowered.
- Female condoms are a valuable addition to women's existing choice set, partly closing the gap in unmet need for contraception.


## FURTHER INFORMATION \& CONTACT

See R. Cassidy, M. Groot Bruinderink, W. Janssens and K. Morsink (2017), "The Power to Protect: Bargaining Power and Female Condom Use", for a more detailed analysis.

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