

## APC 2019 Extended Abstract

### Effects of a Mass Media Radio Serial Drama on Family Planning Demand Generation and Determinants of Family Planning Use in Burundi

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#### **SIGNIFICANCE/BACKGROUND**

Unmet need for family planning (FP) is defined as the percentage of married women who do not want to get pregnant (unmet need for limiting) or would like to postpone the next pregnancy (unmet need for spacing) but are not using any method of FP. A review of DHS StatCompiler data for all developing countries in 2016 (PMC 2016) shows that unmet need for FP is widespread. Unmet need is highest in sub-Saharan Africa (SSA), at an average of 25%, followed by Latin America and the Caribbean (LAC) and South and Southeast Asia (SEA) both at 18% and lowest in North Africa, West Asia, and South & East Europe (NAWASE) at 14%.

A starting point for this paper is the widespread belief in the FP literature that lack of access to services is the major reason for unmet need for FP. However, access explains only a small fraction of the observed unmet need for FP in the developing world: with an average of 0.4% in NAWASE, 0.3% each in SSA and LAC; and 0.2% in SEA. Focusing on Africa, the review reveals that the main reasons averaged across all SSA countries for non-use include: fear of side effects/health concerns and opposition (respondent, spouse, religious, others) - each 16%, large family norms - 11%, and lack of knowledge - 7%.

Further, in an era of scarce resources for social behavior change interventions programs, donors are increasingly seeking to know the return on their investments. Yet, research on the cost-effectiveness of mass media programs designed to shape social norms, attitudes, and behaviors in Africa are sparse.

#### **MAIN QUESTION/HYPOTHESIS**

The above review suggests that large family norms and the cultural and informational barriers to contraceptive use are currently the proximate barriers to achieving widespread use of contraceptives in SSA. Population Media Center (PMC) hypothesizes that these cultural and knowledge barriers can be effectively addressed by its unique mass media radio serial drama platform. This platform not only reaches a large audience, but also engages the audience through stories and role models to promote positive knowledge, attitude, norms, self-efficacy, and behavior change in the determinants of contraceptive use. Using this platform, PMC investigated this hypothesis in Burundi, SSA, the world region where unmet need for FP has been shown to be one of the highest in 2016 (32%). The paper also examines the cost-effectiveness of the intervention.

## METHODOLOGY

### **Program Development**

PMC developed and launched *Agashi!* (“Hey, Look Again!”), a 208-episode radio serial drama (RSD) using entertainment-education (EE) in the Kirundi language from January 2014 to January 2016 across the entire nation of Burundi. Thematic areas addressed included FP knowledge, attitudes, self-efficacy, and behavior. Because gender issues cut across all the determinants of FP, gender norms were also addressed by the RSD.

### **Impact Evaluation**

The objectives of the evaluation were threefold, focusing only on the FP thematic area:

1. Determine whether the RSD *Agashi!* influenced listeners to seek FP and reproductive health (RH) services during broadcast
2. Evaluate the impact of listening to the RSD on key program indicators, post broadcast
3. Estimate the reach of the program and cost-effectiveness of key programmatic indicators

#### *1. FP and RH Service Points Exit Surveys*

Two rounds of exit surveys were conducted in randomly selected public, private, and religious health facilities offering FP and RH services in ten of the 17 provinces in Burundi. The first round was conducted in September 2014 and the second round from September to October 2015.

#### *2. Post Broadcast (Endline) Survey*

PMC contracted with a local independent research firm to conduct a nationally representative cross-sectional survey employing a multi-cluster design immediately following broadcast end. The survey was conducted with a sample of 1296 reproductive aged women and men (women: 15-49, men: 15-59) and collected information on demographic, family planning, gender issues, and exposure to the RSD. To evaluate the effects of the drama, changes in knowledge, attitudes, and behaviors on key thematic indicators due to exposure to the RSD were determined using multivariate logistic regression comparisons between regular listeners and non-listeners to the RSD. To help isolate the effects of the drama, individual variation in demographic factors were controlled for. Findings are presented as adjusted odds ratios. Regular listenership, the independent variable was derived from listening weekly to the drama. For the purpose of logistic regression, the independent variable and all thematic indicators were dichotomized.

#### *3. Program Reach and Cost-effectiveness*

Cost-effectiveness was calculated using total program cost and measures from the effectiveness analysis. Total program cost was obtained by summing all costs from inception to conclusion. The audience size reached by the intervention, also referred to as national population potentially exposed to the drama was estimated in the following ways. First, the United Nations age-segregated population data for Burundi was used to obtain the number of Burundian women and men. Second, the sub-population without radio access in the country (based on DHS StatCompiler) was discounted from the above estimated number, and third, the result was multiplied by the percentage of regular listeners based on evaluation findings.

Cost per listener (CPL) was obtained by dividing total program cost by audience. Cost per attributable attitudinal change (CPAAC) and cost per attributable behavior change (CPABC) were calculated but only for thematic indicators that were positively impacted by the RSD (p-value  $\leq 0.05$ ), using estimates from the analysis.

## **RESULTS/KEY FINDINGS**

### **1. FP and RH Service Points Exit Surveys**

In 2014, 62% of 1,224 clinic clients surveyed reported listening to *Agashi*; this figure increased to 90% of 1,236 clients surveyed in 2015. In 2014, 12% of the 1,244 clients surveyed cited the program as their primary motivation for attending the clinic; this figure increased to 20% of clients in 2015, meaning that one in five clients sought health services as a result of the program (see Figure 1).

### **2. Post Broadcast (Endline) Survey**

Program evaluation findings are reported by thematic areas beginning with knowledge and followed by attitudinal and behavioral changes in FP.

#### *Reinforcing Knowledge FP*

- Listeners were 2 times more likely than non-listeners to say they know a place to obtain a method of family planning (Adj. odds ratio = 1.983;  $p < .001$ , controlling for sex, marital status, number of children, education, urban rural residence, and religion).
- Listeners were 1.9 times more likely than non-listeners to say that they know a place to obtain information on family planning (Adj. odds ratio = 1.914;  $p < .003$ , controlling for sex, marital status, number of children, education, urban rural residence, and religion).

#### *Improved Attitudes Towards FP*

- Listeners were 4.1 times more likely than non-listeners to disagree with the statement “Men are not interested in family planning because it is a woman’s responsibility” (Adj. odds ratio = 4.078;  $p < .009$ , controlling for marital status, number of children, education, urban rural residence, and religion).
- Listeners were 2.3 times more likely than non-listeners to report that their partner/spouse is open to the discussion of the problems of family planning (Adj. odds ratio = 2.256;  $p < .001$ , controlling for sex, number of children, and religion).
- Listeners were 2.2 times more likely than non-listeners to say that they generally approve of family planning (Adj. odds ratio = 2.197;  $p < .002$ , controlling for age, sex, marital status, number of children, education, urban rural residence, and religion).
- Listeners were 2.1 times more likely than non-listeners to disagree with the statement “The use of contraceptives can cause sterility in women” (Adj. odds ratio = 2.054;

p<.001, controlling for age, sex, marital status, number of children, education, urban rural residence, and religion).

- Listeners were 1.8 times more likely than non-listeners to disagree with the general statement “I do not approve of contraception because of my religion” (Adj. odds ratio = 1.798; p<.010, controlling for age, sex, marital status, number of children, education, urban rural residence, and religion).
- Listeners were 1.8 times more likely than non-listeners to say that they generally approve of family planning for limiting the number of children (Adj. odds ratio = 1.786; p<.001, controlling for age, sex, marital status, number of children, education, urban rural residence, and religion).
- When asked “Is it possible to have exactly the number of children desired?”, listeners were 1.7 times more likely than non-listeners to respond “yes” (Adj. odds ratio = 1.727; p<.001, controlling for age, sex, marital status, number of children, education, urban rural residence, and religion).

#### *Fostering Positive FP Behaviors*

- When asked “In the past 12 months have you been to a health institution to obtain information on the secondary effects of modern family planning method?”, listeners were 1.7 times more likely than non-listeners to respond “yes” (Adj. odds ratio = 1.682; p<.025, controlling for sex, age, number of children, education, urban-rural residence, and religion).

### **3. Program Reach and Cost Effectiveness Findings (Selected Indicators)**

#### *Program Reach*

Exposure (respondents who listened at least once weekly to the drama): 81% translating into

Audience Size of: 2,254,547

Program Cost: \$1,662,235

#### *Cost Effectiveness*

Cost Per Listener (CPL): 74 cents (US)

#### Cost Per Changes in FP Knowledge

Knowledge of source of family planning methods

- Number of listeners with improved knowledge: 248,000
- Cost per knowledge change: \$6.70

Knowledge of source of family planning information

- Number of listeners with improved knowledge: 202,909
- Cost per knowledge change: \$8.19

#### Cost Per Changes in FP Attitudes

Disagreement with the phrase “Men are not interested in family planning because it is a woman’s responsibility”

- Number of listeners changing attitude: 225,455
- Cost per attitudinal change: \$7.37

Spouse/Partner openness to discussion of the problems of family planning

- Number of listeners stating changes in attitude: 270,546
- Cost per attitudinal change: \$6.14

Generally approve of family planning

- Number of listeners changing attitude: 202,909
- CPAKC: \$8.19

The use of contraceptives can cause sterility in women

- Number of listeners changing attitude: 293,091
- Cost per attitudinal change: \$5.67

Approval of family planning for the health of the mother

- Number of listeners changing attitude: 270,546
- Cost per attitudinal change: \$6.14

Disagreement with the statement “Do not approve of contraception because of religion”

- Number of listeners changing attitude: 90,182
- Cost per attitudinal change: \$18.43

Approval of contraception for limiting the number of children

- Number of listeners changing attitude: 315,637
- Cost per attitudinal change: \$5.27

Agreement with the phrase “It is possible to have exactly the number of children desired”

- Number of listeners changing attitude: 360,726
- Cost per attitudinal change: \$4.61

### Fostering Positive FP Behaviors

Visited health institution to obtain information on the secondary effects of modern family planning method

- Number of listeners changing behavior: 202,909
- Cost per behavior change: \$8.19

### **Knowledge Contribution**

The foregoing findings have proven the potential of PMC’s mass media RSDs for FP interventions geared toward generating demand for family planning. Results show compelling

effects of PMC's RSD in Burundi, supporting our hypothesis. This conclusion is based on the Program's evaluation on several fronts. Apart from the popularity of *Agashi*, findings indicate that the RSD succeeded in (1) motivating listeners to seek FP and RH services and (2) positively influencing the determinants of FP use along the various domains in the behavior change continuum, namely reinforcing knowledge, improving attitudes/norms, and fostering positive change in behavior. A close examination of the evidence presented here reveals that cost-effectiveness is dependent on the number of listeners impacted for any particular determinant (e.g., contrast knowledge of source of FP methods with disagreement with the statement "Do not approve of contraception because of religion").