

# Repositioning family planning through community based distribution agents in Malawi

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## Introduction

Despite being one of the countries that has enjoyed relative peace for a sufficiently long time, Malawi remains one of the countries in the world with the worst health indicators. The maternal mortality rate for Malawi is very high by any standard. According to the Malawi Demographic and Health Surveys (MDHS), the maternal mortality rate for Malawi almost doubled between 1992 (620 per 100,000 live births)<sup>1</sup> and 2000 (1,120 per 100,000 live births)<sup>2</sup> and only dropped slightly to 984 per 100,000 live births (95% CI: 822-1,142) in 2004<sup>3</sup>. The lifetime risk of maternal death in Malawi is 1 in 17, which does not compare favourably with the world average of 1 in 74 and 1 in 4,085 for industrialised countries<sup>4</sup>.

There are many factors that affect maternal mortality and one of them is parity, age at marriage, age of the mother and child spacing all of which determine the fertility pattern of a country. Available statistics already show that fertility in Malawi is still high with an estimated total fertility rate (TFR) of 6.0. There are regional differentials in as far as fertility is concerned in Malawi. Fertility rate was higher in the central region (TFR=6.4) and lowest in the northern region (TFR=5.6). The southern region recorded a TFR of 5.8. Use of modern methods of family planning is higher in the central region (30%), followed by the northern region (29%) and southern region (27%). Median age at first birth was consistently lower for the southern region across all age groups with an overall average of 18.7 years for the 20-49 year age group as compared to 19.4 and 19.0 years for the central and northern regions respectively. Median age at marriage for women in the 20-49 year age group was 17.6 for the southern region (17.8 and 18.4 for the northern and central region respectively). The northern region, however, recorded the highest number of months since preceding births (36.5) as compared to southern region (36.4) and central region (34.9)<sup>3</sup>.

Just like most of the countries in southern Africa, Malawi is experiencing an unprecedented HIV/AIDS epidemic with an infection rate among the childbearing age group of 16.4%<sup>5</sup>.

Youth aged 15-24 claim 46% of new HIV infections of which 60% occur among girls. HIV in Malawi is mainly spread through heterosexual sex hence it remains a reproductive health issues<sup>6</sup>. However, HIV/AIDS control efforts are hampered by low voluntary counselling and testing (VCT) uptake<sup>7</sup> which indicates that significant behaviour change has not yet occurred in Malawi. Worse still, the role of condom use for dual protection has not yet been taken advantage of in Malawi.<sup>8</sup> Special AIDS prevention programmes in Malawi focus on use of condoms, limiting the number of sexual partners and delay of initiation of sexual relationships in young persons although some social cultural factors have also been associated with HIV transmission<sup>9</sup>.

In line with African Union Maputo Plan of Action on Sexual and Reproductive Health adopted in 2006 in Mozambique<sup>10</sup>, Malawi has been trying to revitalize family planning through repositioning. Family planning reposition is done through

increasing family planning awareness, relevance and use of contraceptive information and services through appropriate policies and programmes<sup>11</sup>. Between 1999 and 2003, the Malawi Government, with financial support from the World Bank implemented a Learning and Innovation Population and Family Planning Project (PoP/Fp) of community-based family planning delivery system in three districts. The objective of the project was to test the feasibility of implementing comprehensive district wide community based distribution (CBD) approach to delivery of family planning services. Three pilot districts, Chitipa in the Northern Region, Ntchisi in the Central Region and Chiradzulu in the Southern Region were selected on the basis of their poor social economic indicators in comparison to other districts in their respective regions. The control districts were Karonga in the Northern Region, Dowa in the Central Region and Mulanje in the Southern Region. Control districts were districts that were adjacent to the pilot districts and this was for evaluation purposes. The expected outcome of the project was an increase in the contraceptive prevalence rate (CPR) for modern family planning methods. The objective of this paper is to present results of a comparative analysis of the end of project expected outcome and related outputs for the pilot and control districts<sup>12</sup>.

## Methodology

### The Population and Family Planning Project

The Population and Family Planning Project was a community based project designed to test the feasibility of implementing a comprehensive district wide community based distribution (CBD) approach to delivery of family planning services. The project aimed to train about 100 Community Based Distribution Agents (CBDAs) and strive to retain at least 80% of them through an incentive package. The project's target was to have an average of 200 clients per each CBDA. CBDAs were counselling clients in their residences on family planning and supplying them with the chosen method or refer them to the nearest clinic if they chose a method which required a nurse/medical doctor/clinical officer such as injectables, norplant or tubal ligation. CBDAs were also providing counselling using and distributing leaflets, flyers and posters which were produced and tested centrally by the PoP/FP Secretariat.

### Baseline and Endline surveys

A pre and post test intervention with control group study design was used. To establish benchmarks for project indicators, a baseline survey (pre-test) in the three pilot districts and the three control districts was carried out in 1999. The results of the baseline survey were used to refine the target indicators for the project. The evaluation survey (post-test) was carried out in 2003 to assess changes in the levels of the Pop/FP indicators since the baseline survey of 1999. The baseline and evaluation surveys collected information on (i) contraceptive prevalence rate, (ii) source of contraceptive methods, (iii) approval of family planning; (iv) preferences about further child bearing, (v) contraceptive knowledge, (vi) knowledge of contraceptive courses and (vii) knowledge of means to prevent HIV and AIDS.

Data on female education levels, housing characteristics

and household facilities and headship of households was also collected. The baseline and evaluation surveys were executed in conformance with conventional procedures so as to ensure comparability with the Malawi Demographic and Health Survey (MDHS).

### Sample design

Both the baseline and the evaluation surveys covered the three pilot districts and three control districts of the project. A systematic sample of 25 census enumeration areas (EAs) was selected in each of the six districts, totalling 150 EAs for the survey: 75 in the control districts and 75 in the pilot districts. The selection of EAs was based on the 1998 national census, with the probability of EA selection being proportional to EA size. A separate household listing operation was not conducted prior to the data collection. Listings were carried out before interviewing in each EA by Health Surveillance Assistants (HSAs), who had been trained as survey interviewers. In a second stage of sampling, a systematic random sample of households was "blindly" drawn from household lists by the supervisors of the interviewers.

The sampling interval for the sample draw for each EA was proportional to its size based on the results from the listing. All women aged 15 to 49 in the interviewed households were eligible for the survey. At baseline a total of 1,637 and 1,704 eligible women were interviewed in pilot districts and control districts respectively. During the evaluation survey a total of 1,615 and 1,592 eligible women were interviewed in pilot control districts respectively.

### Questionnaires

Two questionnaires were used in each of the surveys, a household questionnaire and a women's questionnaire. Each questionnaire was composed of subsets of questions from the standard Demographic and Health Survey questionnaires plus some questions which captured indicators of special interest to the Pop/FP Project. The household questionnaire included a household schedule and questions on household facilities. The women's questionnaire contained sections on the respondent's background, reproduction, contraception, marriage and sexual activity, fertility preferences and HIV/AIDS.

### Analysis

Data was analysed using SSPP. The fisher exact chi-square was used to test statistical significance in proportions of interest between pilot and control districts at baseline and endline.

### Key indicators

The project key performance indicators were to increase the proportion of men and women with a positive attitude toward family planning to 70% and to double the contraceptive prevalence rate of 14% to 28% (14% was national CPR at the start of the project. Malawi had doubled CPR from 7% to 14% in the previous 3 years. That was the basis of the ambition to double it). Process indicators included (i) number of CBD Agents trained to provide a wide range of family planning methods, the number of static family planning clinics with adequate contraceptives, equipment and supplies and the number of family planning Information, Education and Communication message developed and disseminated using a multimedia approach.

## Results

### Population characteristics

Table 1: Socio-economic and demographic Characteristics of the sample

Characteristics of women	Pilot%	Control%
<b>Age</b>		
15-19	20.5	21.3
20-24	23.6	24.4
25-29	17.8	16.8
30-34	11.5	12.2
35-39	11.5	11.8
40-44	7.3	6.6
45-49	7.8	6.8
<b>Marital status</b>		
Never married	51.1	13.9
Currently married	49.0	59.5
Currently in consensual union	26.6	15.2
Widowed	2.6	2.6
Divorced	2.6	3.5
Separated	2.3	3.3
<b>Education</b>		
No education	24.6	25.9
Primary	66.6	66.4
Secondary	8.7	7.6
Post Secondary	0.1	0.1
<b>Housing characteristics</b>	<b>Pilot%</b>	<b>Control%</b>
Mean family size	4.8	4.7
Female Headship	24.5	24.0
<b>Radio</b>		
Have Radio	40.5	43.4
No radio	57.5	56.3
Missing	2.1	0.3
<b>Source of drinking water</b>		
Piped water	8.3	16.4
Bore hole/protected well	44.3	35.0
Unprotected well	26.6	27.3
Surface well	20.9	21.1
Other	0.0	0.2
<b>Time to water source and back</b>		
Less than 15 minutes (%)	27.8	28.4
<b>Sanitation facilities</b>		
Flush toilet	0.6	0.2
Pit toilet/latrine	87.6	78.7
No facility, bush, field	9.8	20.6
Missing	2.0	0.5
<b>Flooring</b>		
Earth and other unfinished	91.8	91.2
Cement and other finished	6.4	8.5
Missing	1.8	0.3

The households in pilot and control districts had similar characteristics. The age-sex structures of the pilot and control districts was comparable, showing the broad-based pattern that is typical of populations that have been subjected to high fertility for a sufficiently long time. The mean household sizes were 4.8 for pilot and 4.6 for control districts. Female headship was 24.5% in pilot and 24% in control districts. Women reported married or in a consensual union were 76% in pilot and 75% in control districts. Educational levels were also the same. Women reporting formal education in pilot districts were 25% while in control districts it was 26%. Other socio-economic characteristics like possession of a radio, source of drinking water, time to water source and back, sanitation facilities and type of house flooring were also similar (PoP/FP, 2000)<sup>13</sup>. Table 1 shows the socio-economic and deographic characteristics of the respondents in control and pilot districts.

### Knowledge, Attitudes and Use

At baseline 89% of respondents in pilot districts could name at least one modern method of contraception compared to 93% in control districts ( $p < 0.0001$ ). This improved to 97% for both pilot and control districts at the end of the project ( $p > 0.05$ ). While there were no differences in approval of family planning in pilot (89.2%) and control (88.6%) ( $p > 0.5$ ) at the beginning of the project, the study found a significant difference in approval of family planning in pilot (95%) and control (92%) ( $p = 0.001$ ) districts by the end of the project.

With respect to contraceptive prevalence rate the study observed that at baseline, the CPR (modern methods) for currently married women was 24% for pilot districts and 25% for control districts ( $p > 0.05$ ). This improved to 36% in the pilot districts and to 30% in control districts ( $p = 0.0003$ ) after the intervention. There was a substantial increase in condom use. At baseline 11.6% of women who had sex in the last 12 months reported condom use in pilot districts. This was 10.9% in control districts ( $p = 0.4$ ). This improved to 17% in pilot districts and 11% in control districts ( $p < 0.0001$ ).

Table 2: Knowledge, Attitudes and Use of family planning

Period	Pilot	CONTROL	Statistical significance (chi-square)
<b>Knowledge</b>			
Baseline	89.2%	88.6%	$p > 0.5$
End line	95%	92%	$P = 0.001$
<b>Approval</b>			
Baseline	89%	93%	$p < 0.0001$
End line	97%	97%	$p < 0.05$
<b>CPR</b>			
Baseline	24%	25%	$p < 0.05$
End line	36%	30%	$P = 0.0003$
<b>Condom use at last sex</b>			
Baseline	11.6%	10.9%	$P = 0.4$
End line	17%	11%	$P < 0.0001$

### Sources of FP services and products

Sources of family planning services were from public sources, private medical and other private sources. At the baseline, 84.4% of users obtained their services from public health facility providers in pilot districts while 73.3% of

users obtained their services from public providers in control districts. Of these, only 1% in both pilot and control districts obtained their services from CBDAs. At endline, 89% and 75% of users obtained family planning services from public sources in pilot and control districts respectively. Of these 24% obtained family planning services from CBDAs in pilot districts and only 2% obtained them from CBDAs in control districts. Between baseline and endline therefore, there was a 23 percentage points increase in the role of CBDAs in pilot districts and only a 1 percentage point increase in the role of CBDAs in control districts.

### Discussion

This paper has documented the results of the first and only district wide community based distribution of family planning services project in Malawi. While at baseline, approval of family planning was the same in pilot and control districts, at the end of the project, there was a higher approval rating in pilot districts which was statistically significant difference ( $p = 0.001$ ) than in the control districts suggesting that CBDAs are effective in changing FP attitudes.

Similar results were obtained for knowledge of modern contraceptive methods, CPR, Condom use, sources of family planning services. It must be observed that the role of CBDAs as a public supply source increased from 1% to 24% in pilot districts and only from 1% to 2% in control districts. The figure of 24% constituted a quarter of all public supply in pilot districts. The introduction of CBDAs also resulted in an increase of the use of public sources overall which suggests that CBDAs have indeed influenced attitudes towards family planning as well as behaviour change. CBDAs are therefore an important supply source as Malawi repositions its family planning programme.

### Conclusion and recommendations

A comprehensive district wide community based distribution (CBD) approach to delivery of family planning services can lead to increased approval of family planning, knowledge of modern methods of contraction, increased CPR and increased condom use at last sex. It may also increase utilization of public sources of family planning.

It is recommended that in the absence of adequate facilities to provide family planning services within 5-10km of their residence, CBDAs should be used to provide family planning services district wide. It is also recommended that a cost benefit analysis of using CBDAs should be carried out using cost figures from organisations working with CBDAs such as Banja La Mtsogolo (BLM) and Family Planning Services of Malawi (FPAM).

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