

# Does the Ethiopian Health Extension Programme improve contraceptive uptake for rural women?

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## EXTENDED ABSTRACT

**Background:** The benefits of using contraception have been widely discussed in the literature. Rise in use of contraception in developing countries has been associated with reduction of fertility, reduction of both child and maternal mortality, women empowerment, poverty reduction, just to mention a few (Cleland *et al*, 2006). During the 1980s and early 1990s, many African countries put emphasis on their family planning programmes (FPP) however most of these countries depended on external funding. Unfortunately the international funders shifted their funding priorities from mid 1990s especially due to the spread of the HIV/AIDS epidemic (Bongaarts *et al*, 2012). Hence most of the FPP in Africa suffered since the governments could not manage to create budgets that will maintain the status quo of their programmes. Contraceptive prevalence rates (CPR) estimated in these countries either increased at a very slow pace or became stagnant and in some cases fertility stalled. In Kenya, for instance, after registering the highest fertility in the world in the late 1970s, there was a significant rising trend in contraceptive usage during 1980s and 1990s, which caused fertility to decline dramatically. However, CPR only increased by 2 percent during the period 1998-2003 which caused fertility to stall at 4.8, and this was mainly accounted by the shift of funding from FPP to HIV/AIDS (Cleland *et al*, 2006).

Some of the African countries reacted differently on the issue of a lack of funding for family planning. The Ethiopian government came up with an initiative of establishing the Health Extension Programme (HEP). The HEP involves recruiting health extension workers (HEW) who are trained for a year on 16 packages (family planning being one of them) and then they were deployed to rural villages to provide primary and preventive health care services (Argaw, 2007). This country – specific initiative was launched in 2004. The target was to have 30,000 HEWs, and each village is supposed to get at least two HEWs. The emphasis was on villages because the majority of Ethiopians (84%) live in rural areas, and that is the population which is most affected by a lack of these services. Evaluation of HEP shows that by February 2008, more than 24,000 HEWs (80% of total coverage intended) had been trained and posted to villages (Giday, *et al*, 2008). The Family Planning package, in particular, is emphasizing on provision of contraceptive supplies to space child bearing and prevent unwanted and unplanned pregnancies (Ministry of Health, 2003). It is expected that the HEP has improved lives of people living in rural areas where significant socio-economic development is not yet taking place to transform societal outlook and way of life.

**Objectives:** This paper presents the trend in use of contraception in Ethiopia. The factors associated with contraceptive use are analysed overtime and hence indirectly determine the impact of HEP on family planning. The specific objectives are:-

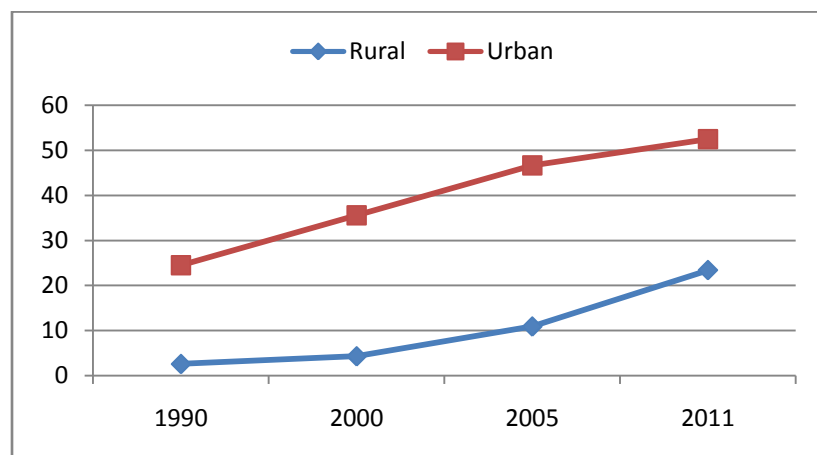
- a) To examine the levels of and trends in contraceptive usage in Ethiopia putting more emphasis on the rural - urban differentials;
- b) To assess the factors responsible for the change in contraceptive use for both rural and urban areas;
- c) To comment on the success and /or failure of the Health Extension Programme on providing family planning services; and
- d) To identify whether there are any lessons learnt and a possibility of replicating this initiative to other African countries.

**Data and Methods:** The analysis uses the Ethiopian Demographic and Health Surveys (EDHS) conducted in 2000, 2005 and 2011. These three data sets are fairly comparable. The 2000 EDHS was conducted before the launch of HEP, hence it is used to give baseline indicators. The 2005 EDHS was conducted a year after the launch so the impact of HEP is expected to be minimal. The most recent EDHS (2011) is expected to provide more insight on the impact of HEP as the survey was conducted seven years after the launch.

Both tabular and graphical analyses are used in the bivariate analysis. The multivariate analysis employed is binary logistic regression since the dependent variable (current use of contraception) has only two outcomes. Due to the emphasis of HEP to the rural areas, analyses on contraceptive use are conducted for rural and urban areas separately.

**Preliminary Results:** Contraceptive uptake has been very low in Ethiopia prior to the launching of the HEP. Only 4.8% of the currently married women in childbearing ages (CPR) were using a contraceptive method in 1990 which increased to 8.1% in 2000 (Fig 1). There was also a modest increase to 14.7% in 2005. However, a sharp increase was registered during the period 2005–2011 to a CPR of 28.6% in 2011. Two points are worth mentioning in relation to this recent increase. First, as Figure 1 indicates, whilst urban dwellers maintained the same rising trend observed since 1990, the curve for rural women is steep during the period 2005–2011 i.e. a CPR change from 10.9% to 23.4%. Second, the most popular (73%) contraceptive method used is injectables. This is one of the methods that are provided by HEWs. It can therefore be said that the HEP has a lot to do with the rising contraceptive uptake in Ethiopia.

**Figure 1: The trend in CPR for rural and urban areas**



Source: CSA, 1993; CSA and ORC Macro, 2001; CSA and ORC Macro, 2006; CSA and ICF International, 2012.

Thirteen variables have been identified to be related to current use of contraception. A parsimonious logistic regression model is fitted for each of the three data sets. These models are fitted separately for rural and urban women. The preliminary results suggests that region of residence was not significant in 2000 in both rural and urban areas, but was significant in 2005 and 2011 (see Table 1), after controlling for other variables. In 2005, only women who were residing in urban centres of Oromia and Addis Ababa were more likely to use of contraception than those living in Tigray urban centres. For their rural counterparts, all regions except Amhara (note that Addis Ababa does not have rural areas) were less likely to use contraception than Tigray. In 2011, urban women of Amhara join those of Oromia and Addis Ababa to be more likely to use than those of Tigray. The results for rural areas have changed dramatically in 2011. Rural women in Amhara are now more likely to use than those of Tigray and Oromia and SNNP are still significant but in reverse order i.e. they are more likely to use than those in Tigray. It should be noted that the four priority regions in as far as the HEP is concerned are Tigray, Amhara, Oromia and SNNP (Bilal *et al*, 2011).

Women's educational level (as well as their husbands' in 2011) is not significantly influencing contraceptive use for rural women in 2005 and 2011. The same finding is observed for women's work status and their husbands'. This finding might look surprising in the face value given the importance of education and occupation on contraceptive use stated in the literature (Saleem and Bobak, 2005; Tawiah, 1997).

But for the case of Ethiopian rural areas it seems there are other important factors that drive the use of contraception. This can be linked with HEP. That is, there is provision for family planning services regardless of education and occupation of women and their husbands. Other variables included in the final model behave more or less the same as observed elsewhere.

**Table 1: The relationship between region of residence and current contraceptive use after controlling for other variables**

	Region of residence	2000		2005		2011	
		Rural	Urban	Rural	Urban	Rural	Urban
1	Tigray	–	–	RC	RC	RC	RC
2	Amhara	–	–	–	–	↑	↑
3	Oromia	–	–	↓	↑	↑	↑
4	SNNP	–	–	↓	–	↑	–
5	Addis Ababa	•	–	•	↑	•	↑
6	Other*	–	–	↓	–	–	–

Note: RC Reference Category; • missing; – not significant; ↑ more likely to use; ↓ less likely to use

\* It includes all other regions; namely, Gambella, Benishangul Gumuz, Somali, Afar, Harari and Dire Dawa that have small number of cases to fit the model.

Injectables is the most commonly used family planning method very recently not only in urban areas but also among rural women. Contraceptive uptake seems to increase in rural areas due to an increase in the number of women using injectables and implants that used to be offered only by medical professionals in the clinics in the past but by the HEWs in the communities at moment. The new approach seems to benefit rural women to have a single shot in their vicinity and protect themselves against unwanted and unplanned pregnancy for two or three months depending on the type of the dosage (Prata *et al*, 2011).

**Concluding Remarks:** Unlike many African countries, Ethiopia did not watch its family planning (and health system in general) crumble when the international funders changed their priorities against family planning programmes. The Ethiopian government launched a country - specific Health Extension Programme in 2004, which depends mainly on community involvement though commodity supplies were provided by donor agencies and development partners in the same way they were offered elsewhere. This paper is an attempt to assess whether HEP has an impact on contraceptive use or not. It is very clear that contraceptive uptake has increased dramatically especially in the rural areas during the period 2005-2011. The multivariate analysis also indicates that there is a change for the regions where implementation of HEP is concentrated. The most interesting finding is that in 2011, rural women residing in Amhara, Oromia and SNNP showed that they were currently using contraception than women in Tigray, which is the opposite of what was observed in 2005. So there is no doubt that HEP has a serious impact towards use of contraception in Ethiopia and other African countries need to emulate such an initiative.

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