

Population Education, Fertility and Family Planning in Ethiopia

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Abstract: Population education is an important component of family planning program. Education and wealth have a marked effect on fertility, with uneducated mothers having three times as many children as women with at least some secondary education. Women perceptions towards family planning can influence the socio-economic development of a country. The present study examines the extent of family planning and fertility of mothers regarding population education and various socio-economic factors affecting fertility. The growing use of contraception has given couples the ability to choose the number and spacing of their children. Total fertility rate of the country reduced from 6.4 births per woman in 1990 to 4.8 births per woman in 2011, three children drop per two women in the last 20 years. Yet despite these impressive gains, contraceptive use is still low (29 percent).

Keywords: Contraception, Family Planning, Fertility Rate, Population (Women) Education.

1. Background

Population education is generally defined as the transmission of knowledge about population processes and characteristics, the causes of population change and the consequences of that change for the individual and society. The concept of population education emerged in the context of population and development – the two most pressing issues humankind today. Both are closely interrelated and both encompass a number of complex factors. Those are confronted with some basic population related questions of how many people are going to inhabit the earth, how they are supported and enabled to make their contributions to bequeath to posterity and how long they are going to be sustained by the natural and human resource base.

The rapid population growth and the concomitant problems of poverty, lack of adequate health and educational facilities, malnutrition, non-fulfillment of even the basic needs of a vast majority of the populace, paucity of employment opportunities, dwindling natural resources and consequent environmental degradation constitute critical dimensions of the present population and development phenomenon. It is also pertinent to note that the population phenomenon today embraces issues beyond development. While the size, growth, composition and distribution of population have a close bearing on socioeconomic development, the population related issues also bring forth concerns for the carrying capacity of biological and ecological system and the future of mankind.

The idea, which population education can play a potential role in addressing population problems, was first mooted in Sweden in 1935. The Population Commission of Sweden, which expressed its concern on the declining rates of birth in that country, recommended a comprehensive and truly vigorous educational campaign to clarify population related issues aimed at influencing the fertility behavior of individuals. A similar view was expressed in the United States during 1937-38. Since the 1960s, the matter was seriously reconsidered in the United States. So that researchers were reiterating the inclusion of population content in the school curriculum. Interestingly, they

made such recommendations in a completely different context, as the perception of population problem had changed during 1960s and the concern had shifted from decline in growth rate to rapid population growth in both industrialized and developing worlds. Efforts were initiated in a number of countries to arrest population growth; and motivational activities for adults provided information about the consequences of high birth rate. The information, education and communication (IEC) or information education and motivation (IEM) strategy was employed in family planning programs to achieve the desired objectives. However, in the developing world the IEC activities of family planning programs were not always as successful as had been expected. It was in this context that the potential of education was realized in order to overcome deeply entrenched traditional learning that influenced demographic behavior of the people.

In population dynamics, size, age and sex structure, mortality, fertility, and growth of a population are studied. Population density is a measure of the number of people per unit of area. A particular geographic area of land is said to have a carrying capacity, representing the maximum population which it can support. Early in the 19th century, Thomas Malthus argued in An Essay on the Principle of Population that, if left unrestricted, human populations would continue to grow until they would become too large to be supported by the available agricultural land. He proposed that, while resources tend to grow arithmetically, population grows exponentially. At that point, the population would be restrained through mass famine and starvation. Malthus argued for population control, through “moral restraint”, to avoid this happening. The world’s current agricultural production, if it were distributed evenly, would be sufficient to feed everyone living on the earth today. However, many critics hold that, in the absence of other measures, simply feeding the world’s population well would only make matters worse, natural growth will cause the population to grow to unsustainable levels, and will directly result crowdedness and deforestation and indirectly in pandemic disease and war. Some other characteristics of overpopulation are high birth rate, low life expectancy, low level of literacy, less capita

income, insufficient arable land, high unemployment rate and unhygienic living habit.

In virtually all societies, better educated men and women have lower mortality rates, and their children have better chances of survival (KC and Lentzner 2010). Almost universally, women with higher levels of education have fewer children, presumably because they want fewer and find better access to birth control. There are, of course, many factors influencing the level of fertility that range from the status of women within the family, to female labor force participation, to general socio-economic development. However, extensive research has shown that among this myriad of factors, the level of female education and the availability of reproductive health services are the two most important ones that are open to policy interventions (Bongaarts and Sinding 2011, and Lutz and KC 2011). The effect of education on fertility is particularly strong in countries that still have relatively high overall fertility levels and hence are in the early phases of their demographic transitions. There are many ways in which education and the resulting human capital affect human well-being at the individual and society levels. A huge body of literature shows that better educated people tend to have better health, higher income and higher life satisfaction (Lutz 2009); better educated societies tend to have higher economic growth and better institutions (Lutz, et al. 2008, and Lutz, et al. 2010).

Despite its long history, there were no estimates of the total population of Ethiopia prior to the 1930s. The first ever population and housing census was conducted in 1984. The 1984 Census covered about 81 percent of the population of the country and official estimates were given for the remaining 19 percent that were not enumerated in the census (CSA, 1991). The second and third population and housing censuses were conducted in 1994 and 2007. Unlike the first census, the second and third censuses covered the entire population. Table 1 provides a summary of the basic demographic indicators for Ethiopia from data collected in the three population and housing censuses. The population increased over the decade from 42.6 million in 1984 to 53.5 million in 1994 and 73.8 million in 2007.

Table 1: Basic Demographic Indicators

Indicators	Census Year		
	1984*	1994**	2007***
Population(millions)	42.6	53.5	73.8
Intercensal grown rate (percent)	3.1	2.9	2.6
Density (Pop./km ²)	34.0	48.6	67.1
Percent urban	11.4	13.7	16.1
Life expectancy			
Male	51.1	50.9	NA
Female	53.4	53.5	NA

*Including Eritrea; CSA, 1991 ** CSA, 1998 ***CSA, 2010 NA= not available

There was a slight decline in the population growth rate over the decades, from 3.1 percent per annum in 1984 to 2.9 percent

in 1994 and 2.6 percent in 2007. Ethiopia is one of the least urbanized countries in the world, only 16 percent of the country live in urban area (CSA,2010). Female life expectancy is about two years higher than male life expectancy in the country.

Efforts were made to generate reliable demographic data by conducting a number of demographic surveys. These include the 1981 Demographic Survey, the 1990 National Family and Fertility Survey, the 1995 Fertility Survey of Urban Addis Ababa, the 2000, 2005 and 2011 Ethiopia Demographic and Health Surveys (EDHS). The 1990 National Family and Fertility Survey (NFFS) was the first nationally representative survey that incorporated wider information on fertility, family planning, contraceptive use and other related topics. In addition to the topics covered by the NFFS, the 2000, 2005 and 2011 Ethiopian Demographic Health Surveys collected information on maternal and child health, nutrition and breastfeeding practices, HIV and other sexually transmitted diseases. This study aimed to review and compare the achievements of population (women) education, family planning and fertility of the country, Ethiopia, using three censuses and three demographic surveys.

2. Methods

The 2005 Ethiopia Demographic and Health Survey (EDHS) was implemented by the Population and Housing Census Commission Office (PHCCO). And the 2011 EDHS was carried out under the aegis of the Ministry of Health (MOH) and was implemented by the Central Statistical Agency (CSA). A representative probability sample of 14,645 households and 17,817 households were selected for the 2005 and 2011 EDHS surveys respectively. All women age 15-49 in these households and all men age 15-59 in every second household were eligible to be individually interviewed. However, only women are considered in this study.

Both the 2005 and 2011 Ethiopian Demographic and Health Surveys are designed to provide data to monitor the population and health situation in Ethiopia. Specifically, the EDHS collected information on household characteristics, fertility levels and preferences, awareness and use of family planning methods, childhood mortality, maternal and child health, maternal mortality, breastfeeding practices, nutritional status of women and young children, malaria prevention and treatment, women's status, sexual activity, and awareness and behavior regarding AIDS and other sexually transmitted infections in Ethiopia. The samples were designed so as to allow separate estimates at the national level and for urban and rural areas of the country. In addition, the sample design allowed for specific indicators, such as contraceptive use, to be calculated for each of the 9 regions. In this paper we focused only women education, fertility and contraception use over residence.

Three questionnaires were administered for the both 2005 and 2011 EDHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. These questionnaires were adapted to reflect the population and health issues relevant to Ethiopia at a series of meetings with various stakeholders from government ministries and agencies, non-governmental organizations and international donors.

Table 2: Results of the household and individual interviews according to residence

Result	Residence, 2005 EDHS			Residence, 2011 EDHS		
	Urban	Rural	Total	Urban	Rural	Total
Household interviews						
Household selected	3,989	10,656	14,645	5,518	12,299	17,817
Households occupied	3,762	10,166	13,928	5,272	11,746	17,018
Households interviewed	3,666	10,055	13,721	5,112	11,590	16,702
Household response rate ¹	97.4	98.9	98.5	97.0	98.7	98.1
Interviews with women age 15-49						
Number of eligible women	4,685	10,031	14,717	5,656	11,729	17,385
Number of eligible women interview	4,423	9,647	14,070	5,329	11,186	16,515
Eligible women response rate ²	94.4	96.2	95.5	94.2	95.4	95.0

¹Households interviewed/households occupied ² Respondents interviewed/eligible respondents

Source: CSA and ORC Macro, 2006 and CSA and ORC Macro, 2012

Source: CSA, 1991

There are two ways of approaching the study of fertility based on birth statistics: period and cohort fertility. Period fertility analysis looks at fertility cross-section, that is, at births occurring during a specified period of time, normally one year. Cohort fertility analysis, on the other hand, looks at fertility longitudinally, that is, at all births occurring to a specific group of women, normally all those born or married during a particular year.

The reproductive age interval 15-49 can be divided into 5-year intervals and rates could be made specific for each age group. As the name indicates, age-specific birth/fertility rate (ASFR) is a refined measure of fertility. It is defined as the number of births to women of a given age group per 1,000 women in that age group. It is calculated as:

$$ASFR = \frac{\text{Births in a year to women aged } x(x \text{ to } x + n) \text{ in year } t \times 1,000}{\text{Women aged } x(x \text{ to } x + n) \text{ in year } t}$$

Age specific fertility rates are usually expressed per 1,000 women. An example is given in Table 3 using the data obtained from the 1984 population and housing census of Ethiopia. As it is the case for the majority of the developing countries, Vital Statistics Registration System is non-existent in Ethiopia, hence, the numbers of births indicated in the table were those obtained by applying unconventional questions in the census schedule.

Table 3: ASFR for Ethiopia-Total Population, 1984

Age group	Number of women	Birth in the year	ASFR
15-19	1370431	119531	87.2
20-24	1125800	258868	229.9
25-29	1204109	312320	259.4
30-34	1118370	266456	238.3
35-39	967798	200381	207.0
40-44	789732	103811	131.5
45-49	525971	45653	86.8
TFR			6.2

The age specific fertility rates are not convenient for comparing different population groups, as they are not single number measures. This problem is resolved by the development of a formula that summarizes the specific rates into single figure, known as the Total Fertility Rate (TFR). Total Fertility Rate is obtained by summing up the ASFRs over the whole range of reproductive ages for a particular year. It is interpreted as the number of children a woman would have during her lifetime if she survives up to age 50 and were to experience the fertility rates of the year at each age. Then TFR is given by

$$TFR = \frac{5 \times \sum_{i=15-19}^{45-49} ASFR_i}{1,000}$$

In the formulae it is necessary to divide by 1,000 because TFR always expressed per a single woman. On the other hand, ASFRs are often expressed per 1,000 women. In example given above, the TFR for Ethiopia, 1984 was found to be 6.2 children per a woman.

3. Result

Women Education

Education is an important factor influencing an individual's attitude and outlook on various aspects of life. Generally, educational attainment in Ethiopia is very low among both men and women, women much more disadvantaged than men. Sixty-seven percent of women did not have any formal education and 52 percent of men since 2005. And twenty-six percent of women have primary education which is less than 36 percent of men even if it is very little. The corresponding figures in the 2011 survey were 52 percent women and 38 percent men, indicating that nearly the same proportion of persons with no education has declined over the past five years. Also similar proportion increment was shown in primary education (26.4 percent women to 41.4 percent and 36.3 percent men to 52.4 percent) in 2005 to 2011.

Table 4 and Figure 1 show the details of the women education 2011 relative to 2005, it shows decline in no education in 2011 and the young women have started education. However, majority of mothers have no education.

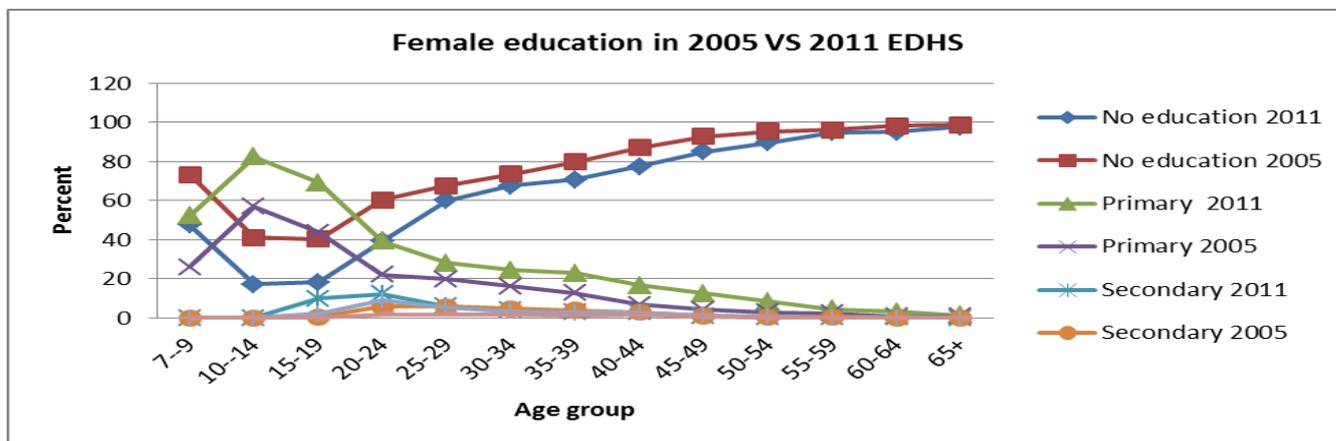


Figure 1: Percentage of female education on age group in Ethiopia since 2005 and 2011

When we compare two surveys women education result of residence, urban education has been better than rural. Uneducated women of urban 31 percent since 2005 declined 28 percent in 2011. Similarly, 73 percent of uneducated women

since 2005 declined to 58 percent in 2011 at rural resident. It indicates good hope for coming future to increase mother education.

Table 4: Percentage distribution of the de facto female education, Ethiopia 2011, 2005 DHS

characteristic	No education		Primary		Secondary		Higher		Missing	
	2011	2005	2011	2005	2011	2005	2011	2005	2011	2005
Age										
6-9	47.6	73.3	52.2	26.1	NA	NA	NA	NA	0.2	0.5
10-14	17.2	41.1	82.4	56.9	0.1	0.0	0.0	0.0	0.2	0.3
15-19	18.4	40.4	69.3	43.6	10.0	0.7	2.3	0.2	0.1	0.1
20-24	39.3	60.4	39.3	22.2	12.2	5.8	9.0	1.8	0.1	0.1
25-29	60.2	67.6	28.2	19.9	6.1	5.9	5.2	1.9	0.2	0.0
30-34	67.7	73.7	24.5	16.2	4.2	4.9	3.5	1.8	0.1	0.2
35-39	70.7	79.8	23.0	12.9	3.3	4.1	2.8	1.4	0.1	0.0
40-44	77.4	87.0	16.6	6.8	3.0	3.0	2.6	1.6	0.5	0.6
45-49	85.0	92.9	12.5	4.2	0.9	1.2	1.3	0.7	0.3	0.2
50-54	89.6	95.3	8.5	3.0	0.6	0.4	0.7	0.2	0.7	0.7
55-59	94.8	96.1	4.6	2.4	0.3	0.5	0.2	0.1	0.0	0.4
60-64	95.1	98.2	3.1	0.9	0.5	0.2	0.2	0.1	1.2	0.5
65+	97.8	98.9	1.4	0.8	0.1	0.0	0.1	0.0	0.6	0.0
Total										
Female	52.1	66.7	41.4	26.4	4.0	5.9	2.3	0.7	0.2	0.3
Male	38.3	52.4	52.4	36.3	5.3	9.7	3.8	1.2	0.2	0.4
Residence										
Urban	28.3	30.7	48.3	34.1	13.9	13	9.4	4.3	0.1	0.1
Rural	58.1	72.8	39.7	25.1	1.3	0.2	0.6	0.1	0.2	0.3

Source: CSA and OCR Macro, 2006; CSA and OCR Macro, 2012

Women exposure to mass media

Exposure to information on television, radio and in the print media can increase knowledge and awareness of new ideas, social changes, and opportunities and can affect an individual's perceptions and behavior, including those about health and fertility. The 2011 EDHS assessed exposure to the media by asking how often a respondent reads a newspaper, watches television, or listens to the radio. Tables 5 shows the percentage of women and men who are exposed to different

types of media, by their age, urban or rural residence, level of education, and wealth quintal. The result shows that the level of exposure to mass media is low in Ethiopia, especially exposure to the print media. Respondents are more likely to listen to the radio (22 percent of women and 38 percent of men) than to watch television or read newspapers. Men have greater access than women to each of these media. Women under age 25 are

more likely than older women to be exposed to the mass media, primarily because their level of education is higher. There is

also a wide gap in exposure to mass media by place of residence, education, and wealth. The patterns of exposure to mass media are similar among men and women. Exposure to each of the specified media sources has increased from 2005.

For example, the proportion of women 15-49 who listen to the radio at least once a week has increased from 16 percent in the 2005 EDHS to 22 percent in 2011.

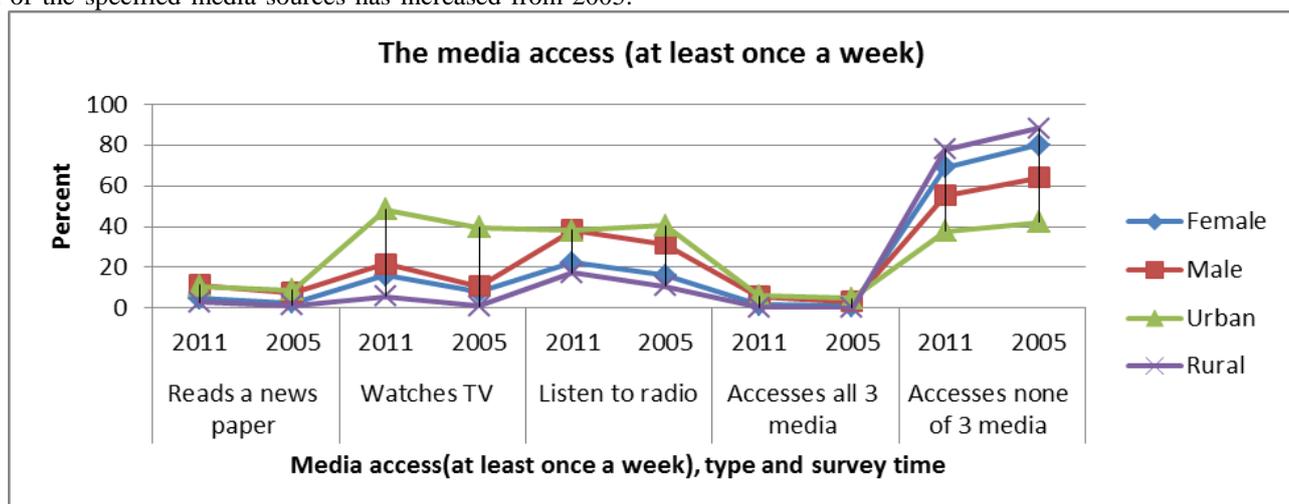


Figure 2: Percentage distribution of women and men who exposed to mass media regarding residence since 2005,2011.

Table 5: Percent distributions of women and men who are exposed to specific mass media on a weekly basis, by selected background characteristics, Ethiopia 2005, and 2011 DHS

Background characteristic	Reads a news paper at least once a week		Watches TV at least once a week		Listen to radio at least once a week		Accesses all 3 media at least once a week		Accesses none of 3 media at least once a week	
	2011	2005	2011	2005	2011	2005	2011	2005	2011	2005
Age 15-49										
Female	4.7	2.5	15.9	7.8	22.2	16.0	1.7	0.9	68.9	79.9
Male	11.4	7.4	21.6	10.7	38.4	31.3	5.6	3.1	55.3	64.0
Residence										
Urban	10.8	8.8	48.3	39.5	38.1	40.4	6.0	4.6	37.8	41.9
Rural	2.8	1.2	5.7	0.9	17.2	10.7	0.3	0.0	77.8	88.1
Education										
No education	0.0	0.0	5.6	1.5	13.9	8.1	0.0	0.0	82.3	91.0
Primary	6.3	3.6	18.1	7.4	25.8	21.2	1.2	0.3	61.8	72.8
Secondary*	18.5	14.3	50.4	43.5	42.3	50.1	8.3	6.6	31.4	31.6
Higher	24.0		63.4		54.9		14.3		18.3	

Source: CSA and OCR Macro, 2006; CSA and OCR Macro, 2012

4. Fertility

Fertility is one of the principal components of population dynamics that determines the size and structure of the population of a country, and powerful effect on its health and economic success. Fertility continues to be relatively high in Ethiopia, with women having an average of 4.8 children during their lifetime. The total fertility rate, TFR, of 2005 is 5.4; this represents a large reduction over the past two decades from TFR of 6.4 in 1990. However, very little change has occurred

since 2000 when the EDHS found a TFR of 5.5. A women's education is highly related to how many children she will bear. Women with a secondary or higher education have nearly two-thirds fewer children, TFR of 2,

than women with no education, TFR of 6.1 in 2005. The age-specific fertility rates for early two surveys show, generally, similar pattern. Over two timings the rural age-specific fertilities are higher than the urban. It showed improvement in 2011 with in age interval 20-34 relative to 2005(Figure 3). The rural fertility rate 5.5 in 2011 is a good indicator showing half children (a child per two women) decline relative to 2005 with 6 children per woman.

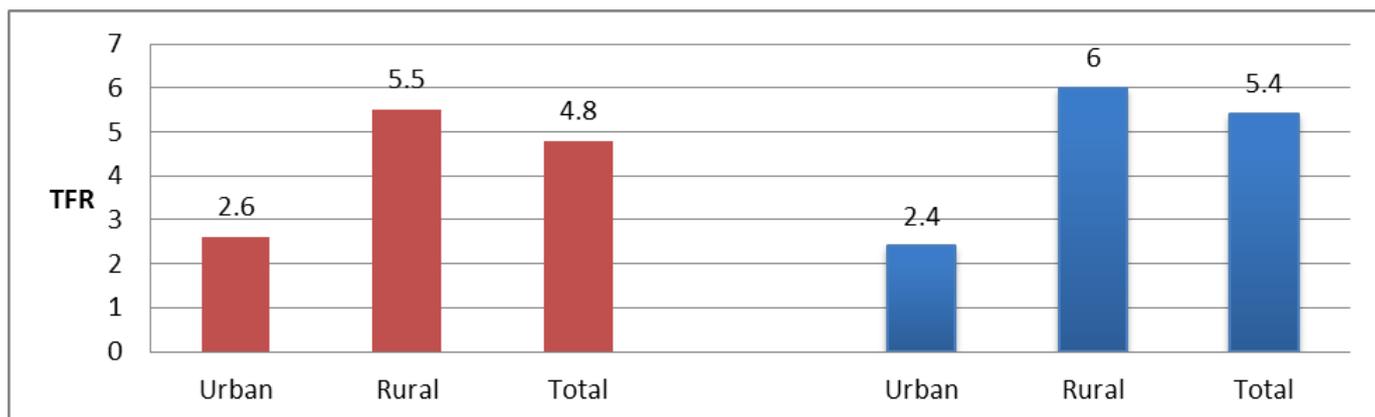
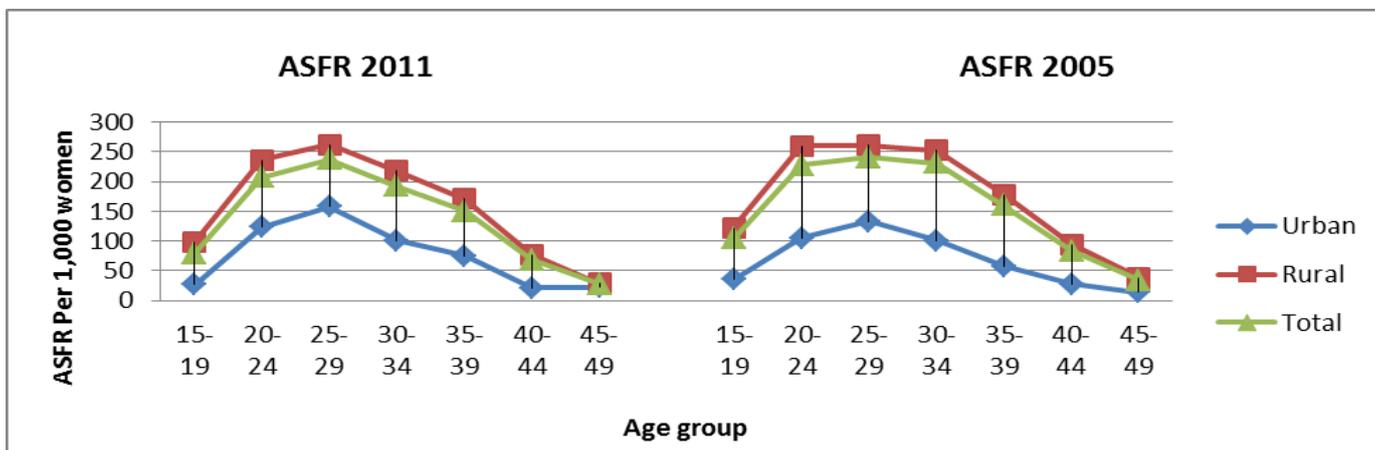
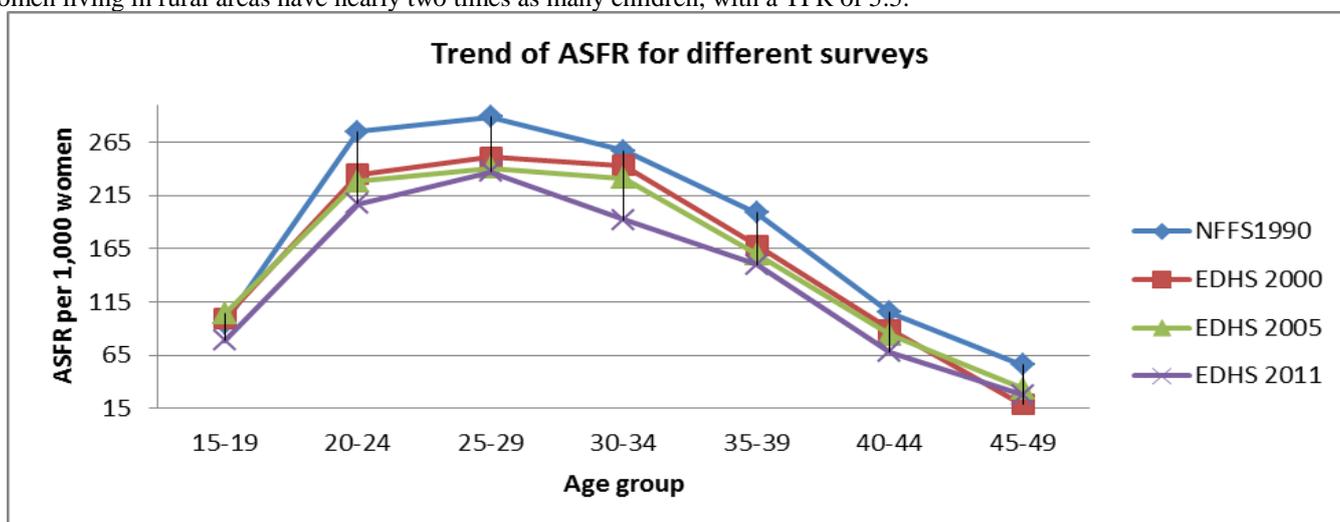


Figure 3: Age-specific and total fertility rates regarding residence

Table 6: Age-specific fertility rates for the three years preceding the survey of residence, Ethiopia 2005, and 2011 DHS

Age	2011			2005		
	Urban	Rural	Total	Urban	Rural	Total
15-19	27	99	79	35	122	104
20-24	123	236	207	105	260	228
25-29	158	262	237	133	261	241
30-34	101	218	192	101	253	231
35-39	75	171	150	58	178	160
40-44	21	77	68	28	94	84
45-49	22	29	28	14	38	34

The most dramatic difference in fertility is between urban and rural women. Women from urban areas have a TFR of 2.6, while women living in rural areas have nearly two times as many children, with a TFR of 5.5.



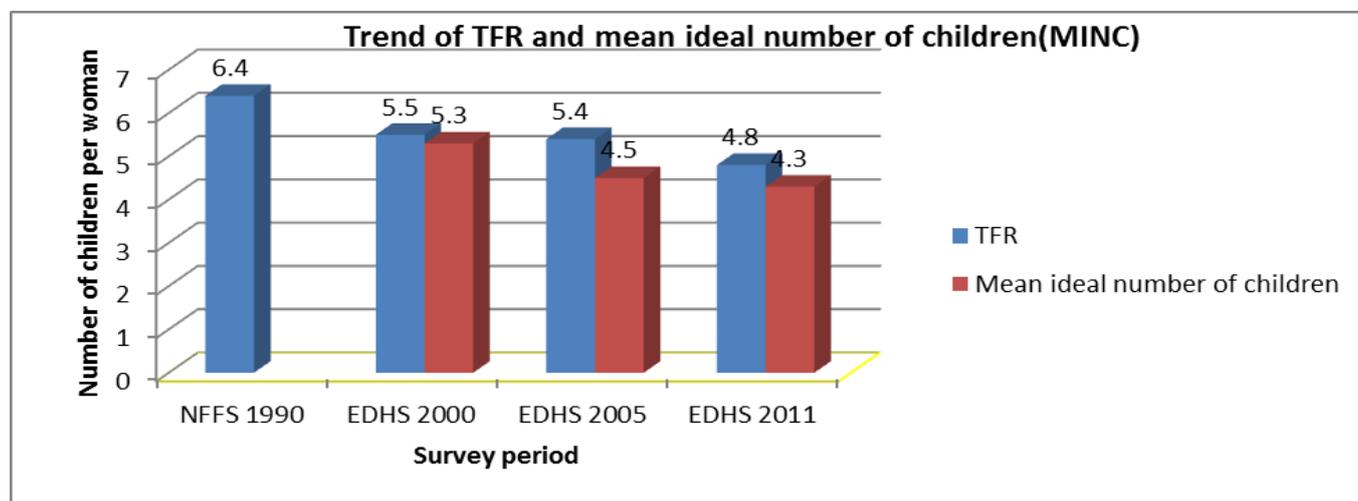


Figure 4: Trends of ASFR, TFR and mean ideal number of children over 20 years (1990 to 2011)

All three measures (ASFR, TFR, and MINC) have been showing declining trends over 20 years. But for all four surveys mean ideal number of children is lower than that of the total fertility rate. Wealth and education level increase lead to declining trend of total fertility rates of two surveys since 2005

and 2011(Figure 5). This may be depending on understanding of fertility impacts on economic and health status. Thus women well educated understood the fertility impact and they use family planning programs. So we should enhance the women education over whole sections and levels of societies to improve the country's livelihood status.

Table 7: Total fertility rates, percentages of pregnant women, mean number of children ever born to women age 40-49, by background characteristics, Ethiopia 2005, 2011 DHS

Background characteristic	2011			2005		
	Total	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49	Total	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence						
Urban	2.6	3.8	5.0	2.4	2.5	5.1
Rural	5.5	8.4	7.3	6.0	9.7	7.3
Education						
No education	5.8	8.8	7.2	6.1	10.1	7.1
Primary	4.6	6.5	6.3	5.1	6.7	5.8
Secondary	1.9	3.0	2.4	2.0*	2.2*	4.2*
Higher	1.3	3.4	2.8			
Wealth quintal						
Least	6.0	9.8	7.2	6.6	10.2	6.9
Second	5.7	8.5	7.2	6.0	11.0	7.0
Middle	5.3	7.5	7.3	6.2	10.5	7.4
Fourth	5.0	7.3	7.3	5.7	8.3	7.6
Highest	2.8	4.5	5.3	3.2	3.8	5.9
Total	4.8	7.3	6.9	5.4	8.4	6.9

*secondary and higher education were merged.

In addition to increasing fertility, teenage mothers have a high level of pregnancy complications, affecting the health of the woman and the infant. Seventeen percent of all teenage girls, age 15 to 19, in Ethiopia are already mothers or are pregnant

with their first child. Nearly three times as many teenage girls in rural areas as in urban have begun childbearing. Almost 30 percent of

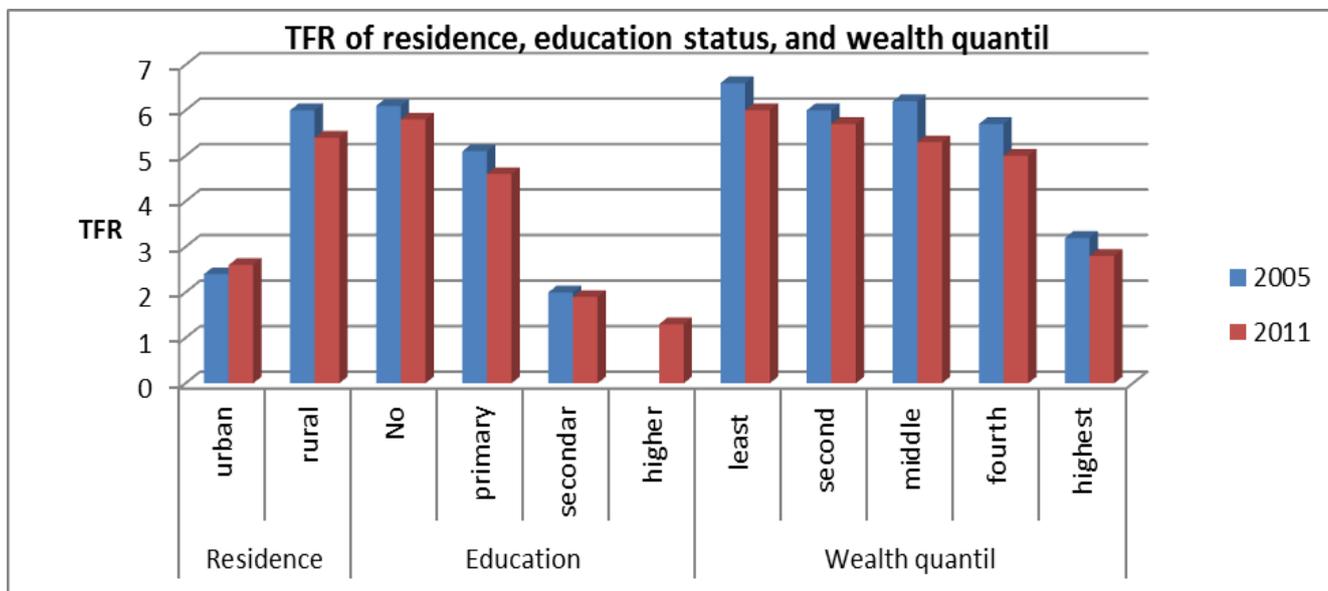


Figure 5: TFR over residence, education status, and wealth quintile since 2005 vs 2011.

teenage girls with no education have begun childbearing, compared to only 3 percent of those with secondary and higher education.

Family Planning

One of targets of the Ministry of Health, with respect to improving maternal and child health, is to increase the contraceptive prevalence rate (CPR) to 66 percent by 2015. In order to achieve this target, the Ministry has given priority to the provision of safe motherhood services such as family planning in the community (MOH, 2010). Knowledge of family planning in Ethiopia is very high. Eighty-eight percent and 97 percent of currently married women have been known at least

one method of family planning since 2005 and 2011 respectively. In two surveys 2005 and 2011, the most widely known modern methods of contraception are the pill (84 percent and 91 percent, respectively), injectables (83 percent and 95 percent), and the condom (41 and 80 percent, respectively). The pill, injectables, and condom are the most widely known modern methods and observable difference over two timings.

For sexually active women and men, consistent use of family planning is the only way to control unwanted childbearing. Current use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning programs.

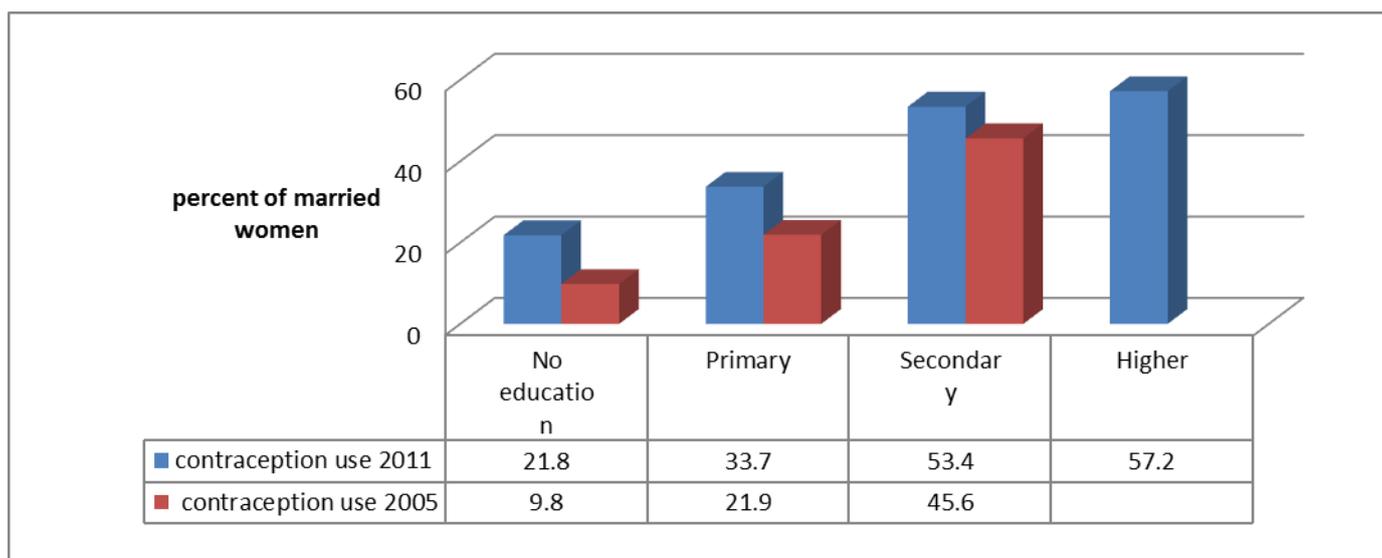


Figure 6: Contraception use of married women since 2005 vs 2011 in Ethiopia

Despite, high knowledge of family planning, only 15 percent in 2005 and 29 percent of married women in 2011 have been using any contraceptive method. Use of modern family planning in 2005 was about four times higher in urban than in rural areas (42 percent versus 11 percent).

Table 8: Percentage distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Ethiopia 2011 DHS

Background characteristics	Any method	No method used	Any modern method	Modern method		
				Pill	Inject able	Others
No. of living children						
0	23.4	76.6	21.1	3.0	16.9	1.2
1-2	35.3	64.7	33.9	2.7	27.2	4.0
3-4	29.7	70.3	28.4	2.2	20.8	5.3
5+	22.8	77.2	22.0	1.2	15.6	5.1
Residence						
Urban	52.5	47.5	49.5	6.7	35.4	7.2
Rural	23.4	76.6	22.5	1.1	17.6	3.7
Education						
No education	22.2	77.8	21.8	0.9	16.9	3.9
Primary	35.7	64.3	33.7	2.8	26.5	4.3
Secondary	57.6	42.4	53.4	9.1	36.0	8.4
Higher	67.8	32.2	57.2	12.7	34.2	9.6
Wealth quintile						
Lowest	13.3	86.7	13.0	0.4	10.6	2.0
Secondary	22.2	77.8	21.5	0.6	16.3	4.6
Middle	24.4	75.6	24.0	1.4	18.8	3.9
Fourth	31.7	68.3	30.3	1.5	23.9	4.8
Highest	51.8	48.2	48.2	6.7	34.6	6.8
Total	28.6	71.4	23.7	2.1	20.8	4.4

There is also substantial variation in current use of modern contraceptive methods by region, ranging from 3 percent in Somali to 45 percent in Addis Ababa. It increased (49.5 percent of urban vs 22.5 percent of rural) and 4 percent in Somali to 56 percent in Addis Ababa in 2011. Contraceptive use differs significantly across educational categories (see Figure x). Similarly the wealth quintile increase indicates high use of contraception.

Use of contraceptive methods among currently married women in Ethiopia has increased steadily in the twenty-year period between 1990 and 2011 from 5 percent to 29 percent. The increase is especially marked for modern methods in the five years between 2005 and 2011, from 14 percent to 24 percent. This trend is mostly attributable to the recent rapid rise in the use of injectables from 10 percent in 2005 to 21 percent in 2011.

5. Discussion

The survey results have shown the majority of mothers have had no education (67% in 2005, 52% in 2011). Even if the urban mothers over 28 percent have had no education (30% in 2005, 28% in 2011). A good fortune, rural women have shown 15 percent improvement in education over 5 year (73% of no education in 2005 to 58 % in 2011). Education achievement is highly associated with the accesses of mass media, contraception use prevalence rate and fertility rate control. Thus first education matters the demand and preference of mass media. In 2011 survey result, from not educated respondents no respondent read printed media (obvious) but 6.3 percent of primary educated, 18.5 percent of secondary, and 24 percent of higher educated respondents read news paper at least once a week. Seventy-eight percent of rural population have had no accesses of news paper, television and radio. Of which 69 percent are women (see Table 5). This may stay the

country with challenging national education through mass media and limit to achieve objectives of family planning program. The educated women have a limited number of children than uneducated mothers (Figure 5). In both 2005 and 2011 surveys, the number of children per uneducated mother has had three times the secondary educated mother. It increased more than four times the higher educated mother in 2011 survey result (TFR, 5.8 children per uneducated mother and 1.3 children per higher educated mother). Figure 4 shows the trends of ASFR for different surveys, the 2011 ASFR curve depict under the 2005, and the 2005 ASFR curve under 2000 and 1990. For all surveys, the mean ideal number of children is less than the TFR. This may indicate women exercise bearing more children than that they may expect due to lack of education, lack of media access, less economic status or lack of information and affordable and cheap contraception. The urban TFR 2.6 in 2011 is higher than 2.4 in 2005, but country TFR 4.8 in 2011 is less than 5.4 in 2005, one child drop per two mothers. We take it as a good practice.

Overall, knowledge of contraception has remained consistently high in Ethiopia over the past five years with 97 percent of currently married women having heard of at least one method of contraception. The injectables, pills and condom are the most widely known modern methods with 95 percent, 91 percent and 80 percent of women respectively. Currently married men are more likely to recognize the condom as a method of family planning than currently married women. Twenty-nine percent of currently married women are using a method of contraception. Of which modern methods are more widely used than traditional methods, with 28 percent of currently married women using a modern method and 1 percent using a traditional method. Use of contraceptive methods increased six times in the twenty-year period between 1990 and 2011 from 5 percent to 29 percent. The increase is especially marked for modern methods.

Family planning and mother health was the motto of the national population policy. Family planning program is perhaps the most effective policy intervention to control fertility and stabilize population size. The family planning methods provided by the program are vasectomy, tubectomy, the IUD, conventional contraceptives (condoms, diaphragms, jelly/cream tubes, foam tables) and oral pills. This paper extracts, summarizes and compare the major findings from the Ethiopian Demographic and Health Surveys 2005 and 2011 on women education in relation with current fertilities, use and knowledge of family planning, and family planning preferences among Ethiopian women.

6. Conclusion

To have healthy, economical and social developed population, it is good practice to maintain the population size seeing resource availability and carrying capacity of land. To keep population size and structure as is, we may control mothers' fertility. Survey results indicate that there has been a decline in fertility from 6.4 births per woman in 1990 to 4.8 births per woman in 2011, three children drop per two women in the last 20 years. Education and wealth have a marked effect on fertility, with uneducated mothers having three times as many children as women with at least some secondary education and women in the lowest wealth quintile having twice as many children as women in the highest wealth quintile. Thus, we encourage nations to adopt the strategy of population education -the government should consider making provision, in both the formal and non-formal educational programs, for informing their people on the consequences of existing alternative fertility behavior for the well-being of the family, for the educational and psychological development of children and for the general welfare of society, so that an informed and responsible attitude to marriage and reproduction will be promoted.

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