Demographic Transition in Ethiopia: Evidence of Change from 1990 to 2016

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Abstract

Since the 1990s, Ethiopia has been experiencing demographic transition. The changes were the result of the country's effort in reducing fertility and mortality rates through implementing socio-economic development programs. The demographic dividend is the economic benefit that results from improved reproductive health, a decline in fertility, and a subsequent shift in population age structure. This study explored the demographic transition and demographic dividend conditions from 1990 to 1916 in Ethiopia. In this research, secondary data from different sources such as research findings, policy documents, development plan and program reports, and analyses of censuses and surveys data were used to evaluate the demographic changes and demographic dividends. Ethiopia's focus on children, maternal health and family planning has brought impressive results. Modern contraceptive use among women of 15-49 years old rose from 4 percent in 1990 to 35 percent in 2016.These changes have led to a total fertility decline from 7.7 children in 1990 to 4.6 children in 2016. Life expectancy at birth rose from 46 years old in 1990 to 63 years in 2016. A range of legal, policy and institutional frameworks have been developed and implemented on gender equity, equality, girls' education, reproductive health issues and the empowerment of women. Hence, further efforts have to be made to reduce the population growth rate and total fertility and to improve the living conditions of the society. This study revealed the nature of population change in Ethiopia and future actions that need to be taken to harmonize the change in economic development and population change.

Keywords: Child Mortality, Contraceptives, Fertility, Maternal, Non-Demographic Objectives

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1. Introduction

Demographical Transition (DT) is a continual change of population indicators from initially stationary population characterized by high mortality and fertility rates to lower fertility and mortality rates (Bacci, 2017).The term demographic transition refers to the gradual shift in fertility and mortality from high and sharply fluctuating levels to low and relatively stable ones (Goldstein, Wolfgang & Sergei, 2003; Lutz, Brian, &Sergei, 2003). The demographic transition theory is a model describing the transition from high birth and death rates to low birth and death rates that occur as part of the economic development of a country (Notestein, 1950). Demographic transition has stages that go through the highest fertility and mortality to the lowest fertility and mortality. In the first stage of DT, there are many very young people but a few old people. This was the main characteristic of pre-industrial society, where children are an economic benefit to families, reinforcing high birth rates (Lutz, Brian, & Sergei, 2003; Notestein, 1950). As they become older, children become major contributors to the family income and also become the primary form of insurance for adults in old age (Davis, 1945; Notestein, 1950). In its second stage, countries begin to industrialize, and death rates drop rapidly because of improved food production and health and sanitation. However, as death rates fall, birth rates remain high, resulting in a population explosion. At this stage, the age structure of the population becomes increasingly youthful. In Western Europe, stage two occurred during the 19th century with the Industrial Revolution (Davis, 1945; Notestein, 1950). In the third stage of DT, there are changes in social trends and fashions, urbanization, and commercialization of agriculture that create demographic window of opportunity called the demographic dividend – the population has fewer dependents and a higher proportion of working-age adults, yielding increased economic growth. In the fourth or last stage of DT, population growth stabilizes as birth rates fall into line with death rates. In some cases, birth rates may even drop below the replacement level, resulting in a shrinking population (Davis, 1945).

Death rates in developed countries may remain consistently low or increase slightly due to lifestyle diseases related to low exercise levels and high obesity and an aging population. As population growth slows, generations born during the previous stages put a growing economic burden on the smaller, younger working population. Thus, some countries in stage four may have difficulty funding pensions or other social security measures for retirees. The transition transforms the demography of societies from many children and few old people

into few children and many elderly; from short life to long; from life-long demands on women to raise young children to the concentration of these demands in a small part of adulthood; from horizontally rich kin networks to vertically rich ones. The transition makes possible the radical change in women's economic and social roles, the invention of retirement as the third stage of life and a demographic efficiency that fosters heavy investment in the human capital of fewer but long-lived children (Davis, 1945).

This transition usually accompanies the development process that transforms an agricultural society into industrial and urban one. During transition the population growth rate rises as the death rate declines while the birth rate remains high. The experiences of industrialized countries after 1960 have shown, however, that replacement fertility is the lowest level of fertility, yielding rapid population ageing (Kohler et al., 2002). DT is a trigger for demographic dividend that is the economic benefit resulting from improved reproductive health, a decline in fertility, and subsequent shift in population age structure (Gribble & Jason, 2012). If applied properly, it will accelerate economic growth that results from a rapid decline in a country's fertility. This can happen because of increasing working-age population and decreasing youth dependency burden and aged population due to sustained lower fertility.

Demographic transition has an influence on the socio-economy and demography of countries. Prolonged decline in fertility leads to changes in population age structures, and initially these changes affect the base of the population pyramid, as the relative size of younger cohorts begins to decline. This process continues as long as the size of birth cohorts continues to rise. This was the case in most of the forerunners of demographic transition until sometime between the late 1950s and the early 1980s when birth cohorts for the first time began to decrease in size (Gribble & Jason, 2012; Louma, 2016). This window of opportunity had profound economic implications for society, as long as the economy was able to generate enough jobs to accommodate the growing population of working age. Prior to demographic transition high mortality in cities tended to give them an excess of deaths over births, and they were sustained only by rural to urban migration. As mortality declined, the death rates in cities fell below the death rate in rural areas (Louma, 2016). Urbanization is the inevitable result of the demographic transition. The excess population in rural areas tends to move to cities largely independently of economic considerations, partly because cities are more attractive places to live in for non-economic reasons. For example, mortality rates are now

often lower in urban areas than in rural areas, even among people of low socioeconomic status, and cities may have cultural and social advantages not found in rural settings. The urban population has become self-sustaining though urbanization, meaning the increasing proportion of people in urban areas, requires continuing rural to urban migration (Simon, 1996). The rise in rural population that follows mortality decline means more workers per acre of land and lower agricultural wages (Thuku & Almadi, 2013).

There is increasing evidence that improvements in early childhood health and nutrition lead to improved educational outcomes and labor market productivity. Fewer children allow greater female labor market participation (Andrew & Tomoko, 2008). In addition, smaller numbers of children can allow a quantity-quality trade off with each child receiving a larger investment in health and education. High population growth that characterized the demographic transition proved to be a powerful stimulus for migration. Everywhere the key period for the transition of vital rates was also a period for migration. Much of this was overseas migration, but some of it was also interregional and rural to urban migration. The population pressure created by higher population growth rates was an unmistakable push factor for this process. The present migration of Africans and others to North America and Europe is related to change in population age structure and economic reasons (Andrew &Tomoko, 2008).

In recent decades, Ethiopia has made great strides in expanding access to education and health services that enable the country to accelerate the use of demographic opportunities. Ethiopia's focus on children, maternal health and family planning has brought impressive results. Modern contraceptive use among women of 15-49 years old rose from 4 percent in 1990 to 35 percent in 2016.These changes have led to a total fertility decline from 7.7 children in 1990 to 4.6 children in 2016.Health improvements have also contributed to an increase in life expectancy and a decrease in infant and child mortality. Life expectancy at birth rose from 46 years old in 1990 to 63 years in 2016 (Ethiopian Science Academy, 2017).In Ethiopia, there is slow demographic change that can reap a demographic dividend if policies and investments continue to be tailored to tap into this potential for economic growth and development (Andrew & Tomoko, 2008).This helps to maximize the opportunity of using shifted age structure to contribute to the growth of the national economy (Louma, 2016). This led to a reduction in the proportion of dependents per person at the household level and regional and national levels. However, the demographic dividend is neither

automatic nor guaranteed; countries must earn it by implementing policies and strategies that will not only accelerate rapid fertility decline, but also ensure that the resulting surplus labor force is well educated, skilled, healthy and economically engaged (Gribble & Jason, 2012; Louma, 2016).This study, therefore, reviews the progress made towards achieving the demographic transition and the consequence of the changes.

The study used secondary data from the 1984, 1994 and 2007 Population and Housing Censuses, the 2000, 2005, 2011, and 2016 Ethiopian Demographic and Health Surveys as well as data from the United Nations Population Division and Population Reference Bureau (PRB). The analysis relies on simple descriptive statistics: frequencies and percentages. This was complemented by a review of policy documents, research findings, development plans and program reports.

3. Evidence of Ethiopian Population Changes

3.1. Population Size and Growth Rate in Ethiopia

The relationship between population growth and economic development is debatable. According to Simon (1996), population increase plays a vital role in economic development. To the contrary, according to Furuoka (2010), population growth may hinder economic development in that it can create a relatively low benefit in terms of the demographic dividend to economic development. Normally, a country pays a high price for its unchecked population growth. Population growth impedes economic development because the demographic overhead chokes up the economic progress and consumes a giant portion of the national income. According to Thuku and Almadi (2013), rapid population growth tends to have an impact on savings per capita and retards growth of physical capital per worker.

In 1980-85, Ethiopia's population was growing at the rate of 2.9% per year, and increased to 3.5% in 1990-95 (UN, 2015). Since 1980s and 1990s, Ethiopia has been experiencing rapid demographic changes. The changes were the result of the country's effort in reducing fertility and mortality rates. Fertility and mortality rates have been declining, thus population has increased by almost twofold from 48.5 million in 1990 to 100 million in 2017 (CSA &ORC Macro, 2011). Since 1995-2000, the population growth rate has been declining and in 2010-2015, Ethiopia's population growth rate was estimated at 2.5% (Figure 1). The available data indicates that over the past 100 years, Ethiopian population has grown by 6.7 times, approximately from 11 million in 1900 to 74 million in 2007 (CSA,2007).At the beginning of

the 20th century the growth rate of natural increase was estimated at 0.2% per annum. The growth rate steadily increased from 0.2% in 1900 to 2.6% in 1980. The growth rate is exponential during this period and the population size increased during the period (1900-1980) (Figure1). The growth rate for the period between 1980 and 1984 shows deviation (rate decreased) from the actual trend. The declining trend for the period from 1994 to 2007 is perhaps because during this time family planning and population control programs were initiated in the country, especially in urban centers. The population growth rates for the three censuses was estimated from the population exponential growth model, which stands at 3.97% for the period 1984-94 and 2.29% for 1994-2007.

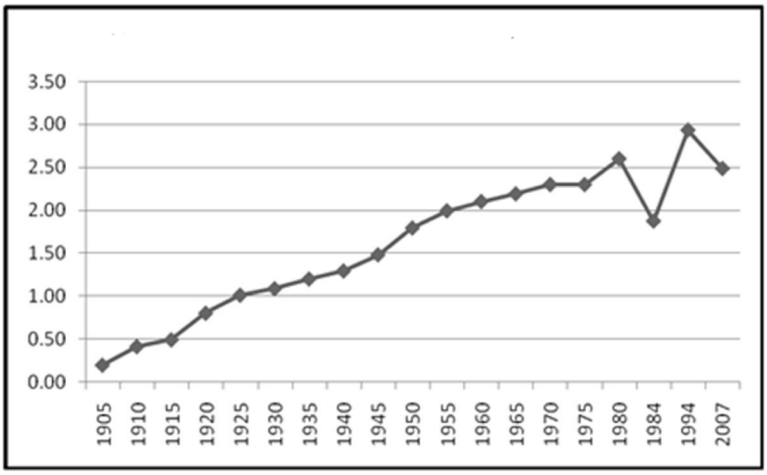

Figure1: Population size and growth change in Ethiopia
Source: CSA (1993; 1994; 2007) and UN (2012)

3.2 Age Dependency and Structure

Age structure of a population is an important factor in population dynamics and the proportion of a population in different age classes. Changes in age distribution have significant social and economic consequences. They have implications for the allocation of resources for education, healthcare and social security to the young and old population (Birdsall et al., 2001).Currently, there are more young people (aged 15-24 years) than ever before in the history of the world (UNFPA, 2015). This large cohort of young people is the result of the tremendous population growth that occurred primarily in developing countries between the 1950s and 1970s. This growth led to the current large cohorts of young people that dominate the populations of many developing countries (UNFPA, 2015; Louma, 2016).

Similarly, in Ethiopia the rapid growth rate of the population and the broad-based pyramidal shape shows a preponderance of younger individuals, many of whom are of reproductive age. In Ethiopia, age distribution indicates that the ratio between children, labor force, and old age population was 15:16:1 in 1990 and 14:16:1 in 2010 (Assefaet al., 2011). It is projected that it will drop to 9:17:1 and 4:11:1 in 2030 and 2050 respectively (Assefaet al., 2011). This will have a child dependency ratio of 0.85, 0.55 and 0.39 in 2010, 2030 and 2050 respectively while having an old age dependency ratio of 0.06, 0.07 and 0.10 from 2010 to 2030 and 2050 (Table1). This indicates that the older section of the population is growing in proportion to the mix of the dependent population. Despite the growth of the productive labor force, around 7% of youth are unemployed while 25% of them are underemployed (Megquier & Belohlav, 2014) making saving and productivity still poor, that will create a problem for socio-economic development.

Table 1: Proportion of children, labor force and the elderly and population dependency ratio in Ethiopia from 1990 to 2050

Year	Prop.<15	Labor	Elderly	Children.	Elderly	Pop(mill)
1990	15	16	1	0.92	0.06	48
2000	16	16	1	0.93	0.06	66
2010	14	16	1	0.85	0.06	87.1
2030	9	17	1	0.55	0.07	137.7
2050	4	11	1	0.39	0.10	187.6

Source: CSA (1993, 2007) and UN (2012)

The Ethiopian population is characterized by a young age structure with a median age of not more than 18 years – a feature of rapidly growing population. Abroad age distribution of the Ethiopian population is presented for the past 50 years and the future 20 years based on observed data and projections (Table2). The age structure of the Ethiopian population did not change much from 1960-2010 (Table2). Age structure of children population less than 15 years has remained high. It ranged between 44 and 45% for most of the time except for 2010 where a high decline was observed. The proportion of the working group, on the other hand, declined from about 54% in the 1960s to 51% in 2010; it then began to increase in 2005 and stood at 55% as the result of declining fertility. The proportion of the elderly has increased by a little over1% during the period 1960 to 2010. According to Kate and Charlotte (2012), when youth are developing behaviors that will shape the rest of their lives, education, health

and other programs need to be addressed. It appears that the proportion of the children population under 15 will continue declining, if fertility decline continues in the future.

Table 2: Age structure of Ethiopian population from 1960 to 2030

Year	Age<15	Age 15-59	60+
1960	43.5	53.8	2.6
1970	44.1	53.3	2.7
1980	44.5	52.6	2.9
1990	44.9	51.9	3.1
2000	45.8	51.0	3.2
2010	41.3	55.0	3.7
2020	40.0	55.8	4.2
2030	36.0	59.2	4.8

Source: CSO (1972), CSA (1993; 2007) and UN, (2012).

3.3 Fertility Reduction

Fertility can be reduced due to the combined action of both socio-economic and biological factors. For instance, the degree of women's empowerment can affect the acceptable number of children (Mason, 2001). Furthermore, when women enter the labor market, the opportunity costs of their time rise, and each additional child represents time away from work and income lost. When women gain power, they can bring fertility decisions more in line with their own preferences (Hirschman & Young, 2000). Additionally, when women are educated, their ideas about family life and childbearing often change. All of these mechanisms will lower the acceptable number of children (Eswaran, 2002; Hirschman & Young, 2000). When women gain access to information about prenatal controls through education, come to see them as safe, and can obtain them through larger freedom of movement, the costs of prenatal controls will fall (Mason, 2001).

In similar manner, this is true in Ethiopia; Total Fertility Rate (TFR).according to the 1994 census report, was 6.7 children per woman in Ethiopia. It decreased from 5.5 children in 2000 to 5.4 children in 2005, and then decreased further to 4.8 children in 2011 and to 4.6 children per woman in 2016 (CSA, 1993, 1994;CSA and ICF International, 2000, 2005, 2011, 2016). The country recorded the highest TFR in 1990, a TFR of 7.7 children per woman (CSA, 1993). Since then, however, it has been declining. It declined from 7.7 children per woman in 1990 to 5.9 in 2000. TFR continued declining and reached 4.6 children per woman in 2016 (Figure 2). The decline was slow initially but later accelerated until 2011 but getting slower again. However, according to the Population Reference Bureau (PRB) report of 2014 and

mini CSA and ICF International in 2014, total fertility rate of Ethiopia in 2014 was 4.1 children per woman. It decreases from time to time, so it is a good achievement. There is a continued effort to reduce the rate below this to reach 4.0.TFR continued declining and reached 4.6 children per woman in 2016 (Figure 2).

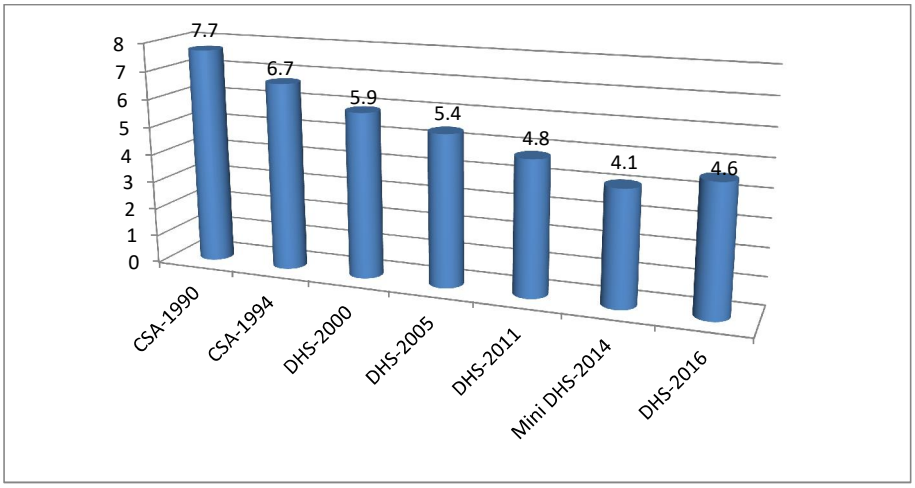

Figure 2. Trends of reduction in fertility

Source: CSA (1993, 1994) and CSA and ICF International (2000; 2005; 2011; 2015; 2016)

3.4. Family Planning

Family planning (FP) programs emerged after World War II (Seltzer, 2002). Family planning helps to decide the number and spacing of children, through the use of contraception. It is an indispensable tool for the improvement of the health and well-being of mothers and their children (Nortman, 1985). Family planning is one of the major strategies of harmonizing population growth with socio-economic development through balancing family size with individual economic capacity (Nortman & Hofstatter, 1980).Family planning is measured by contraceptive prevalence rate (CPR) that provides information on the coverage of contraceptives utilization in an area which is an indication of the proportion of women who have a lower risk of conception at a given time. Contraception is a good indicator of the extent to which couples have access to reproductive health services. In Ethiopia in 1990, only 3.9% of all women (4.8% currently married) of childbearing age were using modern methods of family planning. In Ethiopia, comparison of results from the past CSA and ICF International surveys revealed that the country level of CPR has shown remarkable increment from 8.1 percent in 2000 to14.7 in 2005 and further to 28.6 percent in 2011. It showed 13.9 and 20.5 percentage point increments in the period 2005 to 2011 and 2000 to 2011,

respectively. And in 2016 it reached 36 percent (Figure 3).Thus, both knowledge and use of family planning methods have increased significantly since the inception of the population policy in 1993.

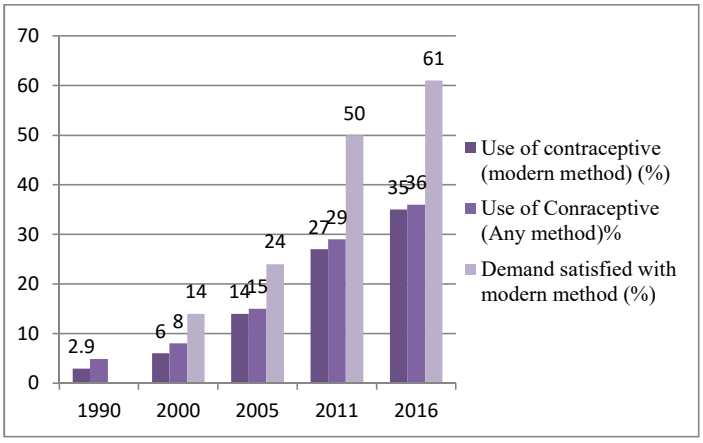

Figure 3. Trends in the percentage of contraceptive use and demand satisfied with modern methods

Source: CSA and ICF International (2000; 2005; 2011; 2015; 2016)

3.5 . Reducing Maternal, Infant and Child Mortality Rate

The pace of mortality decline is related to economic progress, political progress, and the health system of a nation (Gaj & Gottret, 2007). However, countries with similar geography, wealth, under-five mortality and maternal mortality levels have shown wide differences in health progress over the last 40 years (Verguet & Jamison, 2014). However, the direct relationship from maternal and child health improvements to the alleviation of poverty has long been recognized (Gaj & Gottret, 2007; Farag et al., 2013). One of the goals of Sustainable Development Goals is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and to end preventable deaths of newborns and children under five years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-five mortality to at least as low as 25 per 1000 live births (Gakidou et al., 2010). To achieve this goal, health policies and impacts of health interventions and social and environmental determinants on mortality have changed over time in Ethiopia.

Similarly, during the past two decades, Ethiopia has taken great strides in reducing mortality, particularly for infants and children. As a result, the country has been able to trigger a demographic shift whereby more children survive to adulthood, initiating the first step of its demographic transition. Infant and under-five mortality began declining during the period 1985-90, but a more pronounced and much faster decline began after 1995. Infant mortality rate declined from 114 deaths per 1000 live births in 1990-95 to 97 in 2000 and to 77 in 2005 (Figure 4). It continued declining and reached 48 children per woman in 2016 (CSA & ICF International, 2000, 2005, 2011, 2016). Likewise, mortality of children under the age of five has shown significant and progressive decline during the same period. The data illustrate the downward trend in infant, child and maternal mortality. This rate is often used as an important indicator of the status of health in a country. Maternal mortality ratio was estimated at about 1400 maternal deaths per 100,000 live births in 1980-85 and about 1350 deaths per 100,000 live births in 1985-90. Since then, however, it has been declining steadily and for 2016 it was estimated at 412/100,000 (Figure 5). The Health Extension Program (HEP), an innovative community-based program introduced in 2003 with the aim of creating healthy environment and healthy living, has almost certainly contributed to the decline in Ethiopia's annual maternal mortality rate (Karim et al, 2013, Gebrehiwot, 2015).

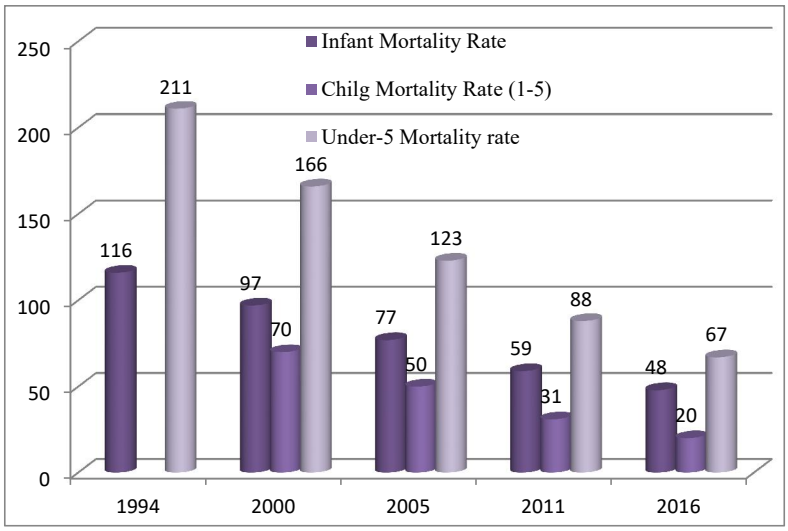

Figure 4. Trends of infant and child mortality rate

Source: CSA and ICF International (2000; 2005; 2011; 2015; 2016) and CSA (1994)

	Seven years preceding the DHS-2000 (1993-2000)	Seven years preceding the DHS-2005 (1998-2005)	Seven years preceding the DHS-2011 (2004-2011)	Seven years preceding the DHS-2016 (2009-2016)
High	1039	799	810	551
Low	703	548	541	273
▲Close	871	673	676	412

Figure 5. Maternal Mortality Rate per 100,000 live births

Source: CSA and ICF International (2000; 2005; 2011; 2015; 2016)

3.6 Actions Taken for Population Change Achievements

3.6.1 Increasing Female Participation at all Levels of the Education System

Studies have shown that the level of education of the mother is a crucial element in the success of activities aimed at reducing fertility rates, improving health and reducing mortality, particularly infant and child mortality (Cleland, 1987). In addition, it has also been shown that greater participation of women in non-traditional roles of economic activity, greater access to health care and the subsequent decline in infant and child death rates influence the level of birth rates, and have played a part in their declines (Vavrus& Larsen, 2003). Studies from various countries show that fertility declines following periods of active family planning programs (Sackey, 2005).In Ethiopia, many girls, especially those who come from poor families or live in rural or remote areas are not able to attend school. Following the launching of the Education and Training Policy (ETP) in 1994 with the goal of cultivation of citizens with an all-round education, girls' enrolment has increased (TGE, 1993).Within the framework of ETP, the first years of Education Sector Development Program I (ESDP-I), intended as the first part of a twenty-year plan, was adopted in 1997. The main thrust of ESDP is to improve quality, relevance, equity, efficiency and to expand access with emphasis on primary education in rural and underserved areas, as well as to promote education for girls (FDRE, 1996).

Girls' education especially at the secondary level often contributes to fertility decline and to economic growth because it prepares women for nontraditional roles outside the home. More-educated women also have a better chance of obtaining loans and financial support to grow small businesses (Currie &Moretti, 2003).The Gender Parity Index (GPI) is the ratio of female to male Gross Enrolment Rate (GER). Gender parity indices in Ethiopia were 0.84, 0.90 and 0.94 at primary level, and 0.7, 0.63 and 0.76 at secondary level, in 2005, 2007 and 2011, respectively (Appleton,1996). As countries experience a demographic dividend, they will need to adapt education policies in response to their changing labor market needs. Gross Enrollment Ratio (GER) is the number of pupils (irrespective of age) enrolled at a particular grade level as a percentage of the corresponding school age population officially belonging to that particular school level. Accordingly, gross primary school enrollment is the percentage of total enrolment in primary schools, irrespective of age, from the corresponding primary school age population, officially categorized as primary, aged 7-14 years. The primary school enrollment ratio for Ethiopian girls depicts an increasing trend (Figure 6).

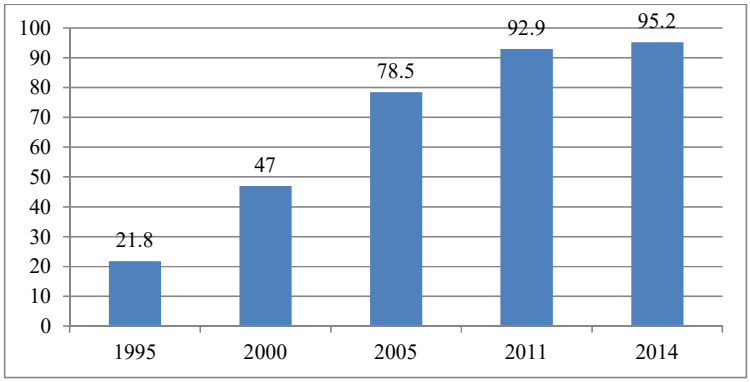

Figure 6. Trends and levels in primary Gross Enrollment Rate (GER) of Ethiopian girls by year

Source: MoE (2011), Educational Abstract Annual Abstracts CSA and ICF International (2000; 2005; 2011; 2014)

3.6.2. Increase in Minimum Age at Marriage

Early marriage contributes to higher total fertility as women marrying earlier tend to both have children earlier and bear more children over their lifetime than if they had married later (Kim, 2010). In 1990, in Ethiopia, among married women aged 15-49, 34.1% had married before age 15, and the proportion married before age 18 was 75.5% (CSA, 1993).The family law increased age at first marriage to 18 years to reduce TFR (FDRE, 2000). In addition,

several local as well as international NGOs have been working to bring behavioral change and forestall the practice of early marriage. Because of these efforts, the proportion of married women who got married before age 15 decreased by only 15.5% points between 1990 and 2016 and those married between ages 15-17 years decreased by only 5.2 points from 41.4% to 38.4%. The proportion of those who got married after age 18 increased by 20.1 points from 24.5% to 44.6 % in 2016. The median age at first marriage increased from 15 years in 1990 to 16 years in 2000 and it has not shown any change since then (Figure 7). Before age 15, and the proportion married before age 18 was 75.5% (CSA, 1993).The family law increased age at first marriage to 18 years to reduce TFR (FDRE, 2000). In addition, several local as well as international NGOs have been working to bring behavioral change and forestall the practice of early marriage. Because of these efforts, the proportion of married women who got married before age 15 decreased by only 15.5% points between 1990 and 2016 and those married between ages 15-17 years decreased by only 5.2 points from 41.4% to 38.4%. The proportion of those who got married after age 18 increased by 20.1 points from 24.5% to 44.6% in 2016. The median age at first marriage increased from 15 years in 1990 to 16 years in 2000 and it has not shown any change since then (Figure 7).

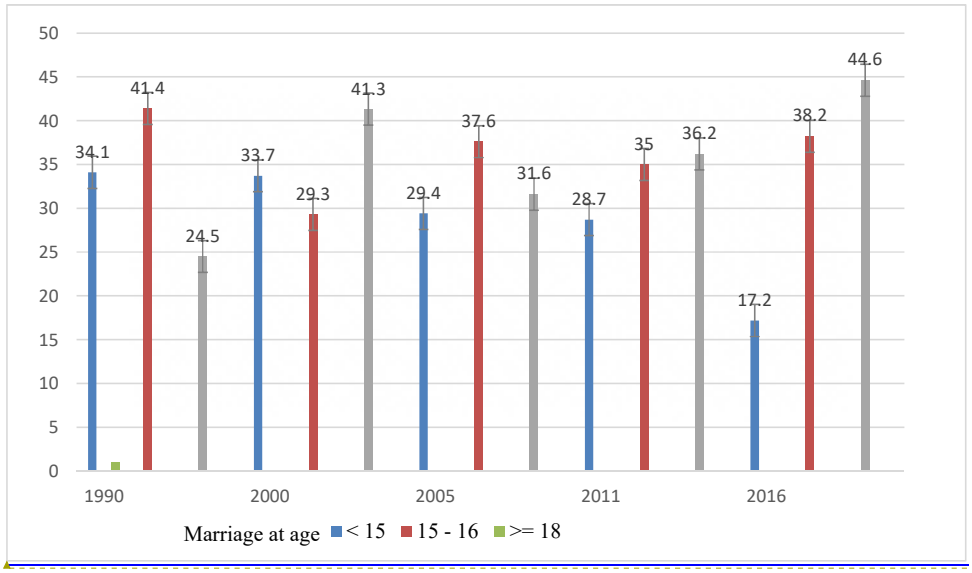

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Figure 7: Percentage distribution of ever married women by age at marriage

Source: CSA (1993), CSA and ICF International (2000; 2005, 2011and 2016

Gender Equity, Equality and the Empowerment of Women

Gender equality, equity and the empowerment of women is a fundamental prerequisite for the attainment of sustainable development and fertility decline (Women UN, 2014). In order to tackle practices that militate against gender equity, equality and women empowerment; extensive law revision exercises were taken over the years that brought the country's laws in conformity with its international and regional commitments. The revised labor law protects women's rights in employment both within the public and private sectors and provides measures ranging from maternity leave and occupational safety to affirmative action during recruitment and promotion and increased women's bargaining power in employment. The revised penal code forbids different forms of violence and harmful traditional practices including child marriage, abduction and female genital mutilation/cutting (CSA & ICF International, 2011). A National Action Plan on gender equality was developed, institutional structures were established and initiatives were taken by the Ethiopian government to create women's associations at various levels, all with the objective of protecting and promoting the rights of women and ensuring their independence and wide participation in social, economic and political spheres. Steps were taken to encourage the formation of women's associations in various platforms such as trade unions and professional associations with a view to creating a critical mass of women leaders. As a result of all these initiatives, significant progress has been made in improving female participation in education, increasing representation in parliament, facilitating access to sexual and reproductive health services, and in reducing the prevalence of harmful practices such as female circumcision and adduction.

As a consequence of this mobilization, the percentage of circumcised women dropped from a high of 80% in 2000 to 74% in 2005. A study carried out in 2011 found that 23% of girls aged 0-14 years had been circumcised (CSA and ICF International, 2016). Similar studies also confirmed that women abduction declined from 23.3% in 1997 to 12.7% in 2009. Similarly, women's access to political power and decision making improved significantly and the representation in parliament increased from 2.7% in 1995 to 7.7% in 2000 and to 27.8% in 2010. The key domain in which little significant progress has been made over the years is female participation in the formal labor force. Female participation increased from 66.5% in 1994 to 67.3% in 2007, less than one percentage point increase over a period of 13 years and the ratio of female to male labor force participation increased from 0.74 to 0.81 (FDRE, 2013).

3.6.4. Increased Family Planning/Reproductive Health Services

Demographic dividend needs a healthy population investment in child survival and plays a key role in sustaining lower fertility; as the child survival improves, the desire for smaller planning will increase. Families will choose to have fewer children when they know that each child has a better chance of surviving. Health facility-based approaches were the main means of delivering family planning service delivery until the launching of the population policy. Due to the fact that the distribution of health facilities is easily available to urban dwellers, rural communities were seriously disadvantaged (FDRE, 2013). However, after the policy was launched, different service delivery approaches were introduced by NGOs and the private sector such as community-based approaches, marketplace-based approaches and workplace-based approaches. As a result, services are being extended to previously underserved and marginalized communities. After the population policy was launched in 1993, however, not only FGAE's service delivery points increased dramatically but also several NGOs not previously involved in family planning/reproductive health services had reoriented their programs and included these services as a major component of their programs (TGE, 1993). Some of these NGOs are providing RH services integrated with other development activities. and others are providing RH services only.

4. Conclusion

Since the 1960s, Ethiopia's population has grown at an average of 2.5% annually, increasing from 22 million people in 1960 to just over 102 million in 2016. Over the course of the demographic transition, decline in fertility and mortality causes important changes in a population's age composition. This decline has important economic consequences because it creates a so-called 'demographic dividend', which boosts economic growth by increasing the size of the labor force relative to dependents and by stimulating savings. The amount of care time invested, the exposure to health risks, and the opportunities forgone are greater for women than for men. Infant, under-five and maternal mortality as well as fertility have declined significantly in Ethiopia. Female participation in education and labor force increased. A range of legal, policy and institutional frameworks have been developed and implemented on gender equity, equality and the empowerment of women. Legislative measures were also taken to remove harmful traditional practices. Despite the progress made,

yet further work is required to match Ethiopian population growth with economic development and environmental sustainability.

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