OROMIYA

Demography and Health Aynalem Adugna July 2014 www.EthioDemographyAndHealth.Org

	and

With 353,690 square kilometers of land area (32% of the country), Oromiya represents the largest regional State [1]. Its population was estimated at 28,067,000 in mid July 2008 [2]; the largest population size of any region (35.4% of the country's total population). The Oromo represent the majority ethnic group in Oromiya (85%), and in the country at large. Nearly 4 million are residents of urban areas with an urbanization rate of 13.8% - slightly below the national average. The percentage proportion of the Oromo has been estimated variously at 30% to 40% of the country's total but the mid-way estimate above seems closer to the real proportion. Administratively, Oromiya is divided into 17 zones, 245 Weredas, and 36 town administrations with 6500 kebele subdivisions (see map below).

There is an apparent unanimity among authors, that the Oromo had not been part of present-day Ethiopia's settled landscape prior to the 1550s. In the absence of scientific research and accurate historical accounting of their beginnings, the Oromo have often been described as "migrants" who arrived in Ethiopia proper from its southern-most reaches in mid-16th century, and settled amicably among all groups whose lands they had "appropriated". Other labels used in place of migration include invasion, plunder, onslaught, conquest, etc. The source below also described them as aliens, and characterized their historical role as destructive:

"Oromo, settled in far southern Ethiopia, were an egalitarian pastoral people divided into a number of competing segments or groups but sharing a type of age-set system of social organization called the gada system, which was ideally suited for warfare. Their predilection toward warfare, apparently combined with an expanding population of both people and cattle, led to a long-term predatory expansion at the expense of their neighbors after about 1550. Unlike the highland Christians or on occasion the lowland Muslims, the Oromo were not concerned with establishing an empire or imposing a religious system. In a series of massive but uncoordinated movements during the second half of the sixteenth century, they penetrated much of the southern and northern highlands as well as the lowlands to the east, affecting Christians and Muslims equally..... The effect of the Oromo migrations was to leave the Ethiopian state fragmented and much reduced in size, with an alien population in its midst." [3]

The Oromiya regional State extends from the western end of the country in western Wellega to the eastern parts of eastern Harrarge from $34^{\circ}E$ latitude to $43^{\circ}E$ latitude. It's north-south extent stretches from $4^{2}/_{3}^{\circ}N$ orth to $10^{2}/_{3}^{\circ}N$ orth latitude. Topographically and climatically the region is diverse with sharp contrasts. The mid portion is formed by the Great Rift Valley system that divides the regional State roughly into a western third and eastern two-thirds.

Oromia is a region of great physiographic diversity. Its landscape includes high and rugged mountain ranges, plateaus, panoramic gorges, deeply incised river valleys, and rolling plains as well as hills and mountains rising from less than 500 meters above sea level to 4,607 meters (Mt. Batu - the highest peak of the region). Oromia is endowed with varied relief features which in turn accentuate varied and amiable climatic condition and other rich natural resource bases [3].

"Oromia is a remnant part of the high and extensive Afro-Arabian plateau formed from continued uplift, rifting and subsequent volcanic piles. High relief of over 1500m is dominant. The climatic types prevailing in the region may be grouped into 3 major categories: the dry climate, tropical rainy climate and temperate rainy climate. The dry climate is characterized by poor sparse vegetation with annual mean temperature of [27 degree C to 39 degree C], and mean annual rainfall of less than 450 mm. The hot semi-arid climate mean annual temperature varies between [18 degree C and 27 degree C]. It has a mean annual rainfall of 410-820 mm with noticeable variability from year to year. Highlands of Oromiya experience temperate climate of moderate temperature, (mean temperature of the coolest

month is less than [18 degree C]) and ample precipitation (1200-2000mm)"[Awash, Wabe-Shebele, Genale, Gibe, Baro, Dedessa and Guder are major rivers in the region. River Awash, which is the longest river inside Ethiopia is a source of great agroindustrial and hydroelectric power. The crator lakes Green lake (true to its name), Bishoftu, Kuriftu, Bishoftu-Gudo, Hora-Kilole, Horsa Arsedi, and the rift-valley lakes Ziway, Abiyata, Shala, and Langano are found in this region. They have immense potential for recreation and fishery development. ...There are around 800 bird species and more than 100 wild animals in the region. Endemic wild animals such as the mountain Nyala, the Semien Red Fox and Menelik Bushbuck inhabit the Bale mountains national park". [3]

The Awash National Park houses most of the Eeast African plain games except Giraffe and Buffalo. "It is home to the Oryx, Kudu, Caracal, Aardavark, Colobus Monkey, Green Monkeys, Baboons, Leopard, Klipspringer, Hippo, Seemering's Gazelle, Grevy's Zebra and Cheetah".[1]

"The Awash National Park is also a natural sanctuary of numerous bird-species, some of which include Limburger, Wattle Crane, Angur Buzzard, Verreaux Eagle and long eared owls. Water Fowls, Shore Birds and the colorful Ruddy Shelled Duck as well as the endemic Blue-winged Goose are common in the marshy areas of the park". [1].

An online resource developed by the regional government [4] makes a brief mention of: 1) 30 major forest areas distributed within the various agro-ecological zones, 2) the increasing pressure on land resources due to increasing human and animal populations, 3) the gradual depletion of vegetation and soil resources, 4) the increasing demand for agricultural and grazing land as well as for more fuel and construction materials, and 5) the resulting overall environmental damage. Its detailed reports about the region include the following:

Agriculture

"Generally, by virtue of relatively abundant rainfall, suitable soils and other agricultural potentialities, Oromia remains the major crop producing region in the country. Accordingly, Oromia has accounted for 49% of major food crops production 50.8% of cereals, 37% of pulses and 43.56% of oil crops production of total peasant holdings of the country in 1994 E.C. production year (CSA, 1994 E.C)."

On the negative side ".....crop production is characterized by smallholding of just over a hectare and limited use of input such as fertilizers, pesticides, improved seeds and implements. Moreover, heavy dependence on rain fed (limited or no use of irrigation) cultivation practice is another essential feature of smallholding peasant farming in Oromia. Thus, yield per hectare has remained extremely low and growth in production is sluggish with the an average yield of 12.49 quintals per hectare, which is by far below the potential of fifty quintals for wheat and up to eighty quintals for maize with the application of package of inputs."

"Despite the fact that the extension services on the use of fertilizer has started long ago, the level of utilization of this technology by the farmers is still very low. The average fertilizer use during the reference period was below 35 kg per hectare (assuming a standard of 100 kg/ha.) which is the lowest in the world, while that of improved seed is also very low at an average of 1.7 kg per hectare. Generally, only 45% and 3.7% of the total land under cultivation in the region were covered by fertilizer and improved seeds respectively implying low level of input use, contributing to low productivity among other factors. The situation is further aggravated by insufficient supply of other agricultural technologies such as chemicals and farm implements."

"Coffee is the major source of foreign exchange for the country accounting for 50–60% of total exports. Oromia accounted for 77.6 percent of coffee plantation as per the 1988–1992 [Ethiopian Calendar] plan evaluation report and delivered annually about 68% of coffee destined for foreign market. Similarly, out of 53 districts known for Coffee

production in the country 42 (79%) are found in Oromia showing the tremendous resource base the region is endowed with."

"....the land covered by coffee plantation in 1987 and 1992 was estimated to be 209 and 260 thousand hectares respectively, while the annual production for the same years was estimated at 901 and 1190 thousand quintals. The average annual growth rate over these years was 4.47% for land and 5.7% for production. Similarly, the average annual delivery of coffee to the central coffee market was about 835.46 thousand quintals with production range between 662 and 942 thousand quintals in the year 1988 and 1990."

"One of the reasons for low agricultural performance and low income levels in the region is the tendency of traditional focus which is in favor of cereal production in spite of the extremely high agro-ecologic diversities and the resource potentials for production and diversifications into relatively high yielding and high income generating horticultural crops (vegetables and root crops), fruits, flowers, spices and chat. Cereals crop development has been receiving almost the entire attention both in terms of extension interventions and resource allocation in the past years possibly from the stand point of attaining food self-sufficiency and lack of market."

Like all other regions, Oromiya has its share of the recurrent disasters, mostly natural, but with human activity as a major contributor – droughts, food shortages, disease outbreaks, and flooding.

Health Care:

A World Health Organization (WHO) emergency team reported the existence of "29 hospitals, 192 health centers, 895 health stations and 1070 health posts, owned by government, other Gov. and NGOs". It also estimated the number of health professionals at about 8,000 trained at one of the seven health science colleges and 18 centers providing training for midlevel health professionals. "The potential health service coverage is 70.5% and the health service utilization is 27%" [5] There is an urban-rural difference in water sourcing and method of collection. Most urban dwellers use tap water, while rural communities rely on water from a variety of sources, mainly rivers [5]. Sanitation services are not well developed with insufficient number of latrines in the rural areas due to inadequate knowledge of personal hygiene and environmental sanitation. "The communities are practicing poor-disposal of excreta, unhygienic handling of food and utensils and poor domestic waste disposal including animal wastes" [6]

Education:

Literacy rates are significantly higher among Oromo males than females (see the graph below). While 36 percent of all residents of Oromiya were literate in the year 2004 the rural rate was 31 percentage points lower than the urban rate of 72.4% [7]. There is a also significant difference in male-female rates. The female rate (22.8%) is less than half the males rate of 49.4%. Only 17% of female residents of rural Oromiya (85% of them ethnic Oromos) were literate with all of its implication for way of life, health, child bearing and rearing, maternal and child nutrition, and disease prevention [7]. Whether this has led to a high fertility and morbidity regime would will be investigated in the forthcoming paragraphs. On the bright side, nearly two-thirds of urban women were literate at the time of DHS 2005.





Source: [2]

Population Distribution

The table below shows Weredas in Oromiya with the highest and lowest populations in July 2008. Chiro in Mirab Harerge and Seka chekorsa in Illubabor have the highest and second higehest populations respectively. Kersa (also in Illubabor) and Dedo, in the same administrative zone have the third and fourth largest populations. Only Chiro had an estimated population over 400,000 in July 2008. With a population numbering less than a tenth of the most populous Weredas, Nono (Mirab Shewa) and Guaradamole (Bale zone) have the lowest populations in Oromiya. Twenty three Weredas had a population of 200,000 or more but 31 Weredas had a population of less than 100,000 in mid 2008.

MIRAB WELLEGA		MISRAK WELLEGA		MIRAB SHEWA	
Wereda	Population	Wereda Population		Wereda	Population
					- openeder
Begi	202,088	Gutu Wayu	254,543	Ambo	276,697
Mana Sibu	192,666	Jimm a Horo	177,510	Densi	270,285
Sayo	171,234			Kofele	265,437
Gawo Dale	164,541	Gidan Kiremu	153,244	Hitosa	262,687
Nejo	157,666	Delga Leka	147,911	Cheliya	253,499
Nole Kaba	157,477	Mimu	132,140	Bekoji	248,078
Gimbi	157,072	Amuru Jarte	108,429	Munesa	218,783
Dale Lalo	139,656	Sibu Sire	103,479	Ginde Beret	215,176
Jimma Gidami	131,191	Wama Bonaya	103,316	Jeldu	212,881
Boji	121,318	Bela Seyo	101,888	Tiyo	195,704
Arya Guliso	120,674	, Jimma Arjo	98,754	, Alem Gena	182,492
, Hawa Welele	119,632	Nunu Kumsa	66,536	Gedeb	179,489
Jarso	115,438	Sasiga	66,069	Robe	177,654
Yubdo	102,383	Jimma Rare	59,933	Walmara	171,728
Lalo Asabi	87,677	Abo Dongro	56,894	Gololcha	171,385
Anfilo	83,192	Abay Chomen	54,095	Sherka	166,210
Haru	78,733	Ibantu	37,220	Dodotana Sire	165,738
				Sude	164,860
ILLUBABOR ZONE		JIMMA ZONE		Digeluna Tijo	154,290
				Bako Tiba	141,916
Metu	164,578	Goma	372,021	Adda Berga	137,157
Metu Bedele	164,578 147,613	Goma Omonada	372,021 367,962	Adda Berga Tena	137,157 136,485
	164,578 147,613 139,549		372,021 367,962 354,046		136,485
Bedele	147,613	Omonada	367,962 354,046	Tena	136,485 135,915
Bedele Darimu Chora	147,613 139,549	Omonada Seka Chekorsa	367,962	Tena Nono	136,485
Bedele Darimu	147,613 139,549 124,954	Omonada Seka Chekorsa Kersa	367,962 354,046 354,029	Tena Nono Kersana Kondal	136,485 135,915 134,365 130,965
Bedele Darimu Chora Yayu	147,613 139,549 124,954 124,861	Omonada Seka Chekorsa Kersa Dedo	367,962 354,046 354,029 324,602	Tena Nono Kersana Kondal Jeju	136,485 135,915 134,365
Bedele Darimu Chora Yayu Ale	147,613 139,549 124,954 124,861 123,155	Omonada Seka Chekorsa Kersa Dedo Limu Kosa	367,962 354,046 354,029 324,602 268,804	Tena Nono Kersana Kondal Jeju Amaya	136,485 135,915 134,365 130,965 127,957
Bedele Darimu Chora Yayu Ale Supena Sodo	147,613 139,549 124,954 124,861 123,155 110,341	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana	367,962 354,046 354,029 324,602 268,804 168,496	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda	136,485 135,915 134,365 130,965 127,957 126,433
Bedele Darimu Chora Yayu Ale Supena Sodo Bure	147,613 139,549 124,954 124,861 123,155 110,341 87,172	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru	367,962 354,046 354,029 324,602 268,804 168,496 166,478	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru	136,485 135,915 134,365 130,965 127,957 126,433 118,250
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega Dedesa	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000 65,992	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta Setema	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304 123,436	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole Wonchi	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871 114,146
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega Dedesa	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000 65,992	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta Setema Gera	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304 123,436 109,708	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole Wonchi Ejerie (Addis Alem)	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871 114,146 104,484
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega Dedesa Nono	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000 65,992	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta Setema Gera	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304 123,436 109,708 105,250	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole Wonchi Ejerie (Addis Alem) Tikur	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871 114,146 104,484 102,774
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega Dedesa Nono	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000 65,992	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta Setema Gera Segma	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304 123,436 109,708 105,250	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole Wonchi Ejerie (Addis Alem) Tikur Aseko	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871 114,146 104,484 102,774 89,373
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega Dedesa Nono BALE ZONE	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000 65,992 27,040	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta Setema Gera Segma	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304 123,436 109,708 105,250 GE	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole Wonchi Ejerie (Addis Alem) Tikur Aseko Dano Dawo	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871 114,146 104,484 102,774 89,373 86,925
Bedele Darimu Chora Yayu Ale Supena Sodo Bure Dega Dedesa Dedesa Nono BALE ZONE	147,613 139,549 124,954 124,861 123,155 110,341 87,172 67,000 65,992 27,040	Omonada Seka Chekorsa Kersa Dedo Limu Kosa Mana Sokoru Tiro Afeta Setema Gera Segma MISRAK HARER	367,962 354,046 354,029 324,602 268,804 168,496 166,478 137,304 123,436 109,708 105,250	Tena Nono Kersana Kondal Jeju Amaya Ziway Dugda Seru Chole Wonchi Ejerie (Addis Alem) Tikur Aseko Dano	136,485 135,915 134,365 130,965 127,957 126,433 118,250 117,871 114,146 104,484 102,774 89,373 86,925 84,721

Population Size of Weredas in Oromiya (July, 2008)

Adaba	146,092	Meta	253,090		
Kokosa	129,209	Haro Maya	250,179	MIRAB HARERGE	
Mennana H. B.	121,122	Gursum	233,077		
Goro	105,159	Fedis	218,248	Chiro	435,677
Agarfa	100,009	Melka Babo	180,678	Guba Koricha	202,986
Goba	99,851	Mersa	178,513	Habro	187,111
Meda Welabu	90,139	Goro Gutu	154,883	Tulu	175,962
Mensebo	70,929	Jarso	129,986	Kuni	169,892
Berbere	56,368	Kombolcha	122,381	Darelebu	164,182
Legehida	55,299	Babille	77,256	Mesela	162,634
Seweyna	51,940	Gola Odana M.	66,321	Mieso	145,775
Raytu	45,534	Kufa Chele	57,110	Doba	133,386
Guradamole	27,636			Boke	109,258

The table below ranks Wereda's in Oromiya in decreasing order of density (persons per square kilometer). Weredas with the highest densities (over 200 persons per square meter) are shown on the left, and those with lowest densities - below 20 persons per square kilometers are shown on the right. Deder (Misrak Harerge) has the highest density followed by Haro Maya (also in Misrak Harerge). Tulo (Mirab Haregrge) is a close third - the only other Wereda in Oromiya with a population density of over 400 persons per square kilometer. Weredas with the lowest densities (below 20) are listed on the right. Guaradamole (Bale zone) has the lowest density in Oromia. Other Weredas in Oromiya with very low densities (less than 10 persons per square kilometer) include Seweyena, Raytu, Gola Odana Meyumulke, Nono, and Legehida (see the density map below the table).

Weredas with high population density		Weredas with low population density		
Wereda	Desnsity (persons/sq. km.)	Wereda	Density (persons/sq. km.)	
Deder	488.8	Menana H.B.	18.1	
Haro Maya	454.9	Babile	15.1	
Turo	413.3	Meda Welabu	10.3	
Meta	385.2	Legehida	9.5	
Mersa	384.9	Nono	9.4	
Kersa	361.8	Gola Odana M.	7.4	
Mana	351.8	Rayitu	6.5	
Тіуо	306.5	Seweyna	6.4	
Goma	302.4	Guradamole	4.3	
Goro Gutu	288.5	Seru	50.1	
Kombolcha	277.4	Mensebo	42.0	
Jarso	257.6	Berebere	41.8	
Habro	256.2	Ibantu	40.1	
Gursum	254.5	Jimma Gidami	38.4	
Wonchi	249.5	Darolebu	37.4	
Chiro	243.8	Boke	31.6	
Bedeno	242.2	Goro	30.0	
Mesela	236.9			
Walmara	233.0			
Lalo Asabi	232.8			
Elu	225.8			
Kofele	223.6			
Bako Tiba	222.7			
Seka Chekorsa	220.2			
Kurfa Chele	219.9			
Hitosa	216.1			
Alem Gena	208.5			
Dedo	206.5			
Kokosa	202.9			

Population Density in Oromiya (July, 2008)



Socio Economic Characteristics:

Family structure (DHS, 2005)

Oromiya has the fourth largest percentage of children living with both parents; Somali has the highest such percentage, Afar is second and SNNP third. All of the graphs below are based on data from the 2005 DHS [7].





Educational Characteristics of Respondents (DHS, 2005)

The gender difference in educational attainment is very clear from the graph below. Nearly 40% more females above the age of six were reported as having no education than men. Just over a quarter of females completed some primary schooling while more than a third of the men have. Very few had gone beyond this stage, with only 4.5% of males and 1.8% of females reporting themselves as having completed primary school in 2005; only 4.3% of females and 8% of males had reached a secondary level of schooling; a much lower percentage completed this level.



Percentage of Males and Females in Oromiya by Level of Education, DHS 2005

Household "wealth"

The graph below compares families in various wealth quintiles. Somali is chosen to provide a contrast due to its location as a neighboring region but with a population engaged in economic activities (pastoralism and nomadic hearding) that are very different from the economic activity the majority of Oromiya residents engaged in (settled agriculture). The graph is a reminder that with nearly three-quarters of Somalis in the lowest wealth quintile nomadic hearding is much less likely to lead to high income and family wealth (even by Ethiopian standards) than settled agriculture. Less than a fifth of Oromiya residents are in this category. In addition, nearly 5 times as many and 6 times as many families in Oromiya than Somali are in the middle and fourth wealth quintiles respectively.



Percentage Distribution by Wealth Quintimes, Oromiya and Somali (DHS, 2005)

Exposure to media

A neighboring administrative Region - Amhara – provides a useful comparative evaluation of access to media among the populations in the biggest and second biggest regions of the country. Exposure to media can facilitate social and economic progress by allowing informed choice. A highly informed population is better prepared and capable of adopting new innovative approaches to understanding the prevailing economic, social, or demographic environments. For example, a woman accessing health information from print- or broadcast-media is better able to seek preventive care and treatment regimes that could help protect her children from ill health or help them recover after illness.

According data presented in the graph below Amhara women are the least informed (least exposed to media) of the four comparison groups and Oromiya men are the best informed. Twice as many males than females in Oromiya listen to the radio at least once a week. This might be an indirect indicator of the amount of leisure time available to the two gender groups with males enjoying the lion's share of it. Not surprisingly, the lowest percentage is noted in the "reads news paper" category indicating both the lack of access to print-media and the low level of literacy,

especially among females. The low percentage of TV viewing is most likely a reflection of the higher cost of television sets and its restriction to a limited number of urban viewers. The radio, it appears, is the most accessible medium.



Oromiya and Amhara (DHS, 2005): Percentage of Households Exposed to Media at least Once a Week by Type of Media and Gender

Demographic Characteristics (DHS, 2005)

Fertility

Oromiya region has the highest fertility in the country. The total fertility rate (see graph below) indicate that Oromiya women currently in their reproductive years will have one child more than Amhara women at the conclusion of their reproductive years. Since the total fertility rate - TFR - is calculated on the basis of whether or not women had a birth in the 12 months prior to the 2005 survey the rates are subject to change and are sensitive to errors resulting from memory lapse and intentional concealment of births that have taken place within the stated period.

Comparison of the number of children ever born (CEB) to women the end of their reproductive years (age 40-49) proves that the Oromiya-Amahara fertility difference resulted from a much recent decline in fertility in the Amhara region (see graph below). CEB numbers relate to the cumulative fertility experience stretching several decades and show that, in the past, Oromiya and Amhara women reproduced at rates that were much less dissimilar, and that the difference in

the reproductively younger women is at the root of the difference in total fertility (TFR) between the two regions. The difference in percentages of Amhara and Oromiya women who were reported to be currently pregnant (see graph below) seems to provide additional evidence that current fertility (as opposed to lifetime fertility) is lower in Amhara than in Oromiya.



Fertility among Women in Oromiya and Amhara, DHS

DETERMINANTS OF FERTILITY IN OROMIYA

Birth interval

In the absence of contraception and continuous exposure through intercourse, the shorter the interval of time between births the more children a woman would bear during her reproductive life time. Here too, there is a clear contrast between women in Oromiya and Amhara with the numbers suggesting that the fertility difference is real, and not an artifact of data errors. The median birth interval among Amhara women between the "current birth" and the preceding birth is 37 months. Among Oromiya women it is 31 months. More than half of Amhara women (55%) had waited three years or more; just over a third (37%) of Oromiya women waited that long (see graph below). The left and right halves of the graph tell contrasting stories with higher percentage of Oromiya women in the higher birth interval classes (left half) and a higher percentage of Amhara women in the higher birth interval classes (right half).



Percentage of Amhara and Oromiya Women by Birth Intervals (months) Between the Current and Preceding Births, 2005

Age at marriage

Continued comparison between Oromiya and Amhara women (see graph below) will help explain better the determinants of fertility differences between different population groups in Ethiopia whether small or large. One such factor is age at first marriage. Given the cultural restrictions against sex before marriage, age at marriage becomes one of the major determinants of exposure to pregnancy and child birth. The graph below shows a lower median age at marriage for Amhara than Oromiya women. This would suggest a higher fertility among Amhara women. However, this is counteracted by the countervailing fertility impacts (among Amhara women) of other influences such as longer birth intervals, longer breastfeeding, instability of marriage and outmigration of young females, etc. The cohorts of 25-29, 30-34, 35-39, 40-44, and 45-49-year-old Amhara women married at least a year younger than their counterparts in Oromiya. The gap is long enough to result in a one-child "fertility advantage" due to the intervening factors which have limited reproductively.



Median Age at Marriage Among Amhara and Oromiya Women by Age at DHS 2005

Fertility in the early years of child bearing (teenage fertility)

In developed countries teenage pregnancy is considered one of the ills society should confront due to its detrimental effects on the educational and career prospects of young mothers. In Ethiopia, however, school attendance rates are so low among girls especially in rural areas where over four-fifths of the women live, and cultural dictates requiring virginity at the time of marriage are so strong that early marriage, pregnancy, and child-bearing among teens is not considered a social ill at all.

Oromiya's percentages of teenage girls in the two categories graphed ("pregnant" and "with a child") is not high. It is roughly the same as the national average which is itself weighed down by the low percentages in urban areas, especially Addis Ababa. Gambela has the highest percentage of both pregnant teens and teens that have given birth - 20.8% and 6.4% respectively - followed by Benishangul and Gumuz. This contradicts the finding above that Gambella has the lowest fertility of any region in the country. For one reason or another, the early start in childbearing in Gambella does not translate into a higher current fertility (TFR). However,

Gambella women might still end up with a high number of children ever born (CEB) at the conclusion of their reproductively than the TFR predicted. This provides a good example of the "period" effects vs. "quantum" effects discussed in the fertility chapter.



Percentage of Teenage Girls who Were Pregnant or had Already Given Birth at the Time of DHS 2005

Contraceptive use

About 15% of Ethiopian women use contraceptives. This is a very low percentage. Contraceptive use rates have climbed in a number of African countries in recent years including Ethiopia itself where the rates were hovering in the low single digits not too long ago. It is 39% in Kenya [8]. The rate in Ethiopia is similar to rates in other East African counties including Djibouti, Rwanda and Mozambique where the level of use has reached 17% [8].

The rate of contraceptive use in Oromiya (13.6%) is lower than the national average and less than a quarter of the rate Addis Ababa. We have added the percentages of women who use injectables in the graph below. Only the urban regions of Addis Ababa, Dire Dawa, and Harari show a significant difference between the percentages using any method and those using

injectables, suggesting that almost all of the women in the other regions who use a modern method rely on injectables as a favored contraceptive method. Women in the predominantly nomadic regions of Somai and Afar have the lowest contraceptive use of any region

Percentage of Women Using Any Method of Contraception and Injectables by Region, 2005



Injectables Any method

Number of co-wives

A traditional custom allowing co-wives raises the number of children born to a man (male fertility rates), but can lower the number of children born to a woman (female fertility rate). Popygyny is, therefore, a very useful subject to study. Fortunately, the 2005 DHS included questions that generated data used in the making of the graph below. Gambella has the highest polygyny rate with over a quarter of wives sharing their husbands with at least one other wife. In this region, the percentage sharing a male spouse with two or more other wives is actually larger than those sharing a male spouse with just one other co-wife. One could conclude that after postpartum abstinence (Gambella has by far the longest duration), widespread polygyny is perhaps one of the candidate variables underlying Gamella's TFR of 4.0 - the lowest in the country. The nomadic regions of Afar and Somali have roughly identical levels of polygyny and pattern of the number of co-wives (one, or two, or more) shows similar distributions. These two regions are joined by Benishangul and Gumuz for the number 2 status in the prevalence of polygyny in Ethiopia. Long-held traditions favoring marriage between one man and one woman



(and a subsequent marriage upon divorce or widowhood) have kept polygyny in Amhara and Tigray at very low levels, even lower than the urban regions of Harari and Dire Dawa.

Postpartum insusceptibility

"The duration of amenorrhoea is much shorter among urban women than among rural women, and is lower among women age 15-29, women with secondary and higher education, women in the highest wealth quintile and women residing in Addis Ababa" [7]. The median duration of postpartum amenorrhoea among women in Oromyia is 14. 5 months, one of the lowest in the country and less than the national average of 15.8 months. The overall median duration of postpartum insusceptibility resulting from postpartum amenorrhoea and abstinence from sex in Oromiya is 15 months. This too is a shorter duration than the national average of 16.7 months. Gambella has the longest median duration of postpartum insusceptibility, a significant contributor being the median duration of abstinence from sex –the longest in the entire country (11 months) subsequent to 17 months of postpartum amenorrhoea. This may be the biggest contributor to the lowest TFR of 4.0. Only Addis Ababa has TFR lower than 4.0. Dire Dawa, and Harari. Amhara and Tigrean women are a close second to Gambella with median duration of postpartum insusceptibility of over 21 months. The lowest median duration of postpartum amenorhoea were in the predominantly urban regions of Addis Ababa, Dire Dawa, and Harari.





Desire for more children

Once again we will use the neighboring region of Amhara for comparative purposes to show preferences among Oromiya women for more children, or lack thereof, based on the number of children they already have (parity). The word parity refers to the number of children a woman already has. At every paritity level, greater percentage of Amhara women than Oromiya women wished to end childbearing altogether; 15.2 percent of Amhara women would like to remain childless. Only 5.3 percent of childless Oromiya women wished to remain in that state. Expectedly, for both Amhara and Oromiya the desire to have no more children gets stronger with increasing number of children the women have already had. Both in Oromiya an Amhara, there appears to be a significant shift in attitude toward future child bearing from parity 3 (women with 3 children) to parity 4. Two-thirds as many women who already had four children expressed a desire not to have another child as women with three children.



Percentage of Oromiya and Amhara Women who Want No More Children , by The Number of Children Already Born, 2005

Unmet need for family planning

With 41.4 of respondents reporting unmet needs for contraceptive use, Oromiya has the highest unmet need for family planning. A quarter of Oromiya women would like to have full control over the spacing of births (birth intervals) and another 16% would like to stop having children all together. SNNP is a close second, and Amhara and Benishangul-Gumuz third. Nationally, a fifth of the women in their reproductive ages have an unmet need to space births, and 13.7 have an unmet need to stop child-bearing altogether. Given that Oromiya has the highest TFR, it is not surprising that it has the highest unmet need for family planning. When asked about the ideal number of children they would like to have Oromiya women preferred four children (the regional average is 4.2) which was two children lower than the actual completed fertility (TFR) in 2005. "The gap between wanted and observed fertility rates is greater among women living in rural than in urban areas. The difference in the two rates is largest in Oromiya (a two-child difference) and smallest in Addis Ababa" [7].



Percentage of women with Unmet Family Planning Need for Spacing Births and for Limiting Births, by region (2005)

Childhood Mortality

The graph below compares childhood mortality in Oromiya with Amaha and the nation. Amhara has a higher mortality in Amhara than the national average. Oromiya's rates are lower than the national average in all childhood mortality measures (refer to the mortality chapter for definition of terms such as neonatal and postneonatal). For every 1000 babies born in Amhara, 50 die within 30 days from birth (10 more than in Oromiya), 44 die between the second and twelfth month (8 more than in Oromiya). This equates to an infant mortality 94 per thousand in Amhara (18 more than in Oromiya). The under-five mortality of 154 per thousand in Amhara and 122 in Oromiya equates to 32 additional deaths per thousand among children under five in Amhara. Given that childhood health indicators are among the best predictors of societal wellbeing, a better showing in Oromiya than Amhara contradicts allegations of past socioeconomic advantages enjoyed by the latter. On the plus side, Amhara children's survival chances have improved over the years and all indications are that childhood mortality will continue to decline everywhere in the country including in Amhara Region.



Childhood Mortality Rates: Oromiya, Amhara, and Ethiopia (National Average), DHS 2005

MATERNAL HEALTH

Antenatal care

Antenatal care refers to the care women should receive to ensure a successful outcome at the end of a pregnancy term. However, a substantial percentage fail receive it in countries like Ethiopia (see the graph below) before the birth of a child and after. Care before delivery ideally consists of [9]:

- Pre-conception counseling
- Assessment of risk factors (including maternal health)
- Ongoing assessment of fetal well-being
- Ongoing assessment of complications
- Education about normal discomforts of pregnancy, emotional aspects (including post-
- natal depression), local antenatal classes, reducing risk of SIDS, parenting issues
- (including child-proofing the house and coping with crying infants)
- Discussion of birthing care options



Percentage of Women who had a Live Birth in the Five Years Prior to the 2005 DHS and and Received Antenatal Care (by region)

Very few Ethiopian mothers, if any, receive a comprehensive care inclusive of all of these components. Those who manage to access antenatal care clinics often receive a subset of the services listed above. In Ethiopia:

"Twenty-eight percent of mothers received antenatal care from health professionals (doctor, nurse, midwife) for their most recent birth in the five years preceding the survey, and less than 1 percent of mothers received antenatal care from a traditional birth attendant (trained or untrained). More than seven in ten mothers (72 percent) received no antenatal care for births in the preceding five years. Differences in antenatal care by women's age at birth are not large. Differences by birth order however are more pronounced. Mothers are more likely to receive care from a health professional for first births (34 percent) than for births of order six and higher (22 percent). The use of antenatal care services is strongly related to the mother's level of education. Women with at least secondary education are more likely to receive antenatal care from a health professional (81 percent) than women with primary education (39 percent) and those with no education (22 percent)."

Roughly a quarter of women in Oromiya (24.8%) had received antenatal care from a professional care provider - higher than in Somali and Afar, but similar to the rate in Benishangul Gumz. Women in all other regions reported a higher attendance rate. Expectedly the predominantly urban regions - Addis Ababa (88%), Dire Dawa (52.9%) and Harari (40.7%) - had reasonably

high attendance rates due to better access to both educational media about the value of the care, as well as shorter distances and better access to service clinics.

Only 3.7% of Oromiya women delivered at a professional health care facility. Over 95% delivered at home (with all the attendant risks and potential complications) assisted only by traditional birth attendants (32.5%) and relatives (57.7%).

Ethiopian is known to be among countries with very high maternal mortality rates. Even though specific data are lacking, it would not be a stretch to assume that it would be high in Oromiya as well.

Just over 10 percent of Oromiya women who visited the antenatal clinics received iron tables. 5.3% took intestinal parasitic drugs, 26.1% were informed of signs of pregnancy complications, 75.1% were weighed, 62% had blood pressure measurements taken, 26% gave urine samples, and 26.3% gave blood samples [7].

Place of delivery:

Only 3.7% of Oromiya women delivered at a professional health care facility. Over 95% delivered at home (with all of the attendant risks and potential complications) assisted only by traditional birth attendants (32.5%) and relatives (57.7%). Ethiopian is known to be among the countries with high maternal mortality rate. Even though specific data on Oromiya are lacking, it would not be a stretch to assume that the finding would apply to this region as well.

The graph below shows percentage distribution of live births in the five years preceding 2005 Demographic and Health Survey (DHS) by category of persons providing assistance during delivery. The lingering effects of culture and tradition are evident in the eight non-urban regions - Amhara, Oromiya, Tigray, Gambella, Somali, and Benishangul-Gumuz. By a ratio of 6:1 Tigrean women chose a relative's hand in help over traditional birth attendants. The ratio is 3:1 in Somali in the opposite direction with women preferring traditional birth attendants to relatives. Urbanism has distorted the picture in the predominantly urban regions of Addis Ababa, Dire Dawa, and Harari, and has diluted the impacts of culture and tradition but still 73% of women in Dire Dawa, and 62% in Harari used traditional birth attendants. More than three in five births were delivered by traditional birth attendants in Somali, Harari, and Dire Dawa Regions. Expectedly, the capital city, Addis Ababa has by far the largest proportion of women delivering their babies in a modern health care facility.



Percentage Distribution of Live Births in the Five Years Preceding the 2005 DHS by Persons Proving Assisstance During Delivery

Child health

The 2005 DH study in Oromiya also covered treatment practices and face-to-face contact with health services among children. The three most important childhood illnesses (acute respiratory infection, fever, and diarrhea) and help in the assessment of national programes aimed at reducing the mortality impact of these illnesses were assessed. Information was also sought on the prevalence and treatment of acute respiratory infections (ARI) and its treatment with antibiotics as well as the prevalence of fever and its treatment with antimalarial drugs and antibiotics [7]. The survey included questions regarding the treatment of diarrhea disease which ideally involved oral rehydration therapy (including increased fluids), and the assessment of programes that recommend such treatment was part of the study design. "Because appropriate sanitary practices can help prevent and reduce the severity of diarrhea disease, information is also provided on the manner of disposing of children's faecal matter [7]." Data was also collected regarding a child's weight at birth because "a child's birth weight or size at birth is an important indicator of the child's vulnerability to the risk of childhood illnesses and the chances of survival." [7] Three quarters of Oromiya women described their new-born baby as having average or above average weight. Just over 14% of Oromiya children under five were described as suffering from acute respiratory infections - ARI in the two weeks preceding the 2005 survey, 19% had fever, and 17.7% had diarrhea.

Prevention in the form of vaccines has revolutionized child survival chances in the developed world but only 20.2 of Oromiya children under-five years of age had received all of the required vaccinations at the time of the 2005 DHS. Over a quarter of the children received no vaccination at all. The national averages of children who received all of the required vaccines and those who received none were 20.4 and 20 percent respectively.

References:

- 1. http://www.ethiopar.net/type/English/basinfo/infoormy.htm#area
- 2. http://www.csa.gov.et/text_files/national_statistics.htm
- 3. http://countrystudies.us/ethiopia/11.htm
- 4. http://www.oromiagov.org/CropProduction.asp
- 5. WHO Emergency Humanitarian Action (EHA), Ethiopia Programme. Report on Field Trip to Provide Technical Support in Emergency Preparedness and Response to Oromiya Regional State. 2007.
- 6. Central Statistical Authority, Statistical Abstract. 2001 pp. 26-45
- 7. Ethiopia Demographic and Health Survey 2006 Central Statistical Agency, Addis Ababa, Ethiopia, RC Macro, Calverton, Maryland, USA, September 2006
- 8. http://www.prb.org
- 9. http://www.medicineau.net.au/clinical/womenshealth/Antenatal.html