

Ethiopian Demography

**Excerpts from the topics
listed in the content page
of this online resource**

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Ethiopian Demography

www.EthioDemographyAndHealth.Org

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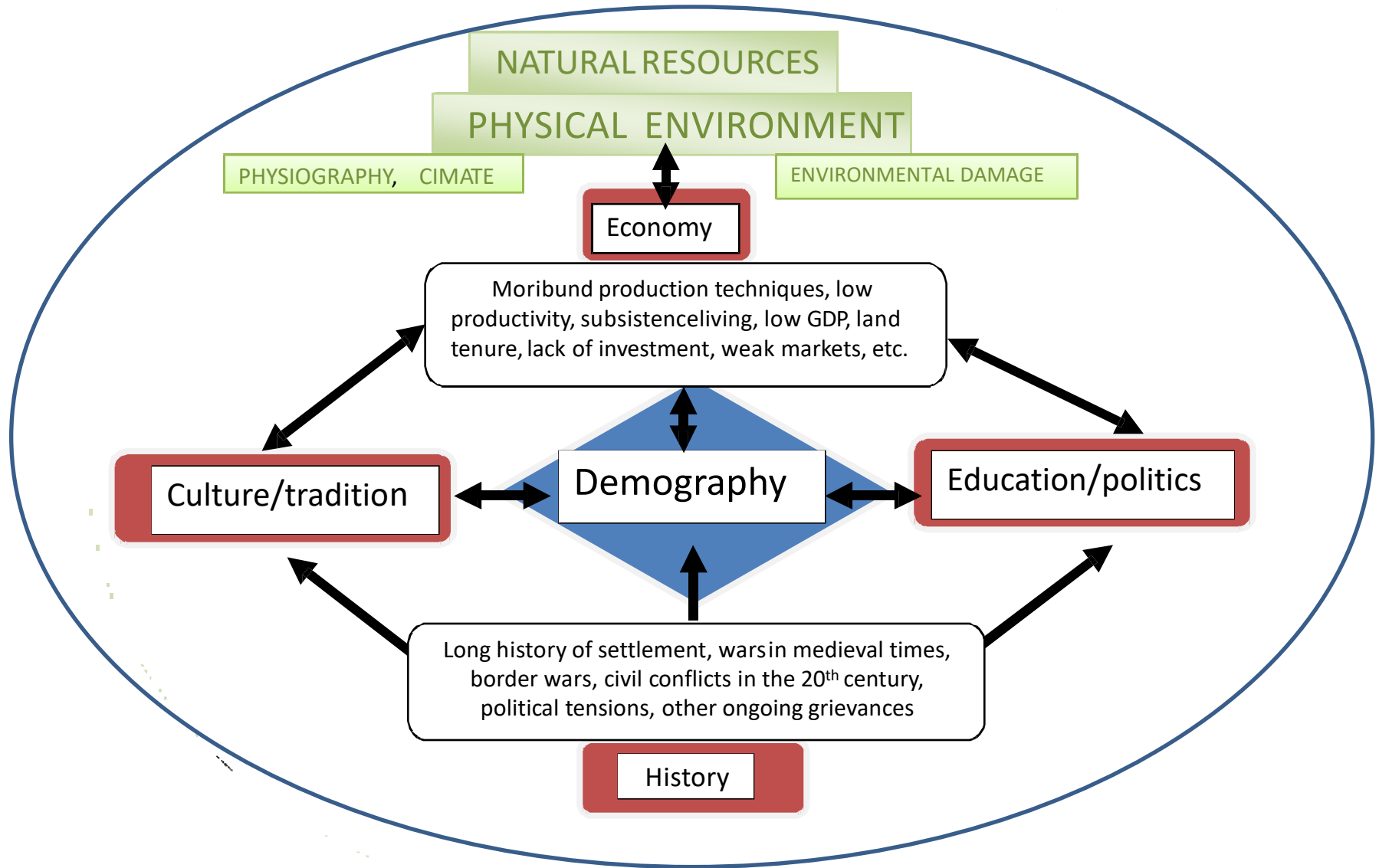
Objectives : WWW.EthioDemographyAndHealth.Org

This is an online equivalent of a “reader”. Single lines to whole paragraphs of text are quoted/copied (with acknowledgement), as needed, to provide a clydescope of materials and view points on Ethiopia’s population and health. Much of the analysis is mine however, as are most of the tables, graphs, and the population density maps. The source codes below graphs and tables refer to the sources of the raw data used. Topics are divided into sections, and are presented as a single file.

I was a young graduate assistant in the Demographic Training and Research Center (DTRC) when this work began - a couple of decades ago. I remember my frustrations as a young aspiring teacher over inability to access data or up-to-date analytical reports on Ethiopian population for the ‘Ethiopian population’ chapter of AAU’s “Introduction to Ethiopian geography” course. I decided to do something about it then and came-up with a summary chapter addition on the population of Ethiopia, and distributed copies to the staff of the geography department.

Twenty years later, I am engaged in the same endeavor but with a 21st century bent. The same subject matter is addressed here with greater detail and a promise of [regular changes](#) and [constant updates](#) reflecting the latest additions to the knowledge of Ethiopian population - its distribution, composition, and dynamics – and health. Aynalem Adugna.

Factors Determining the Demography of Ethiopia



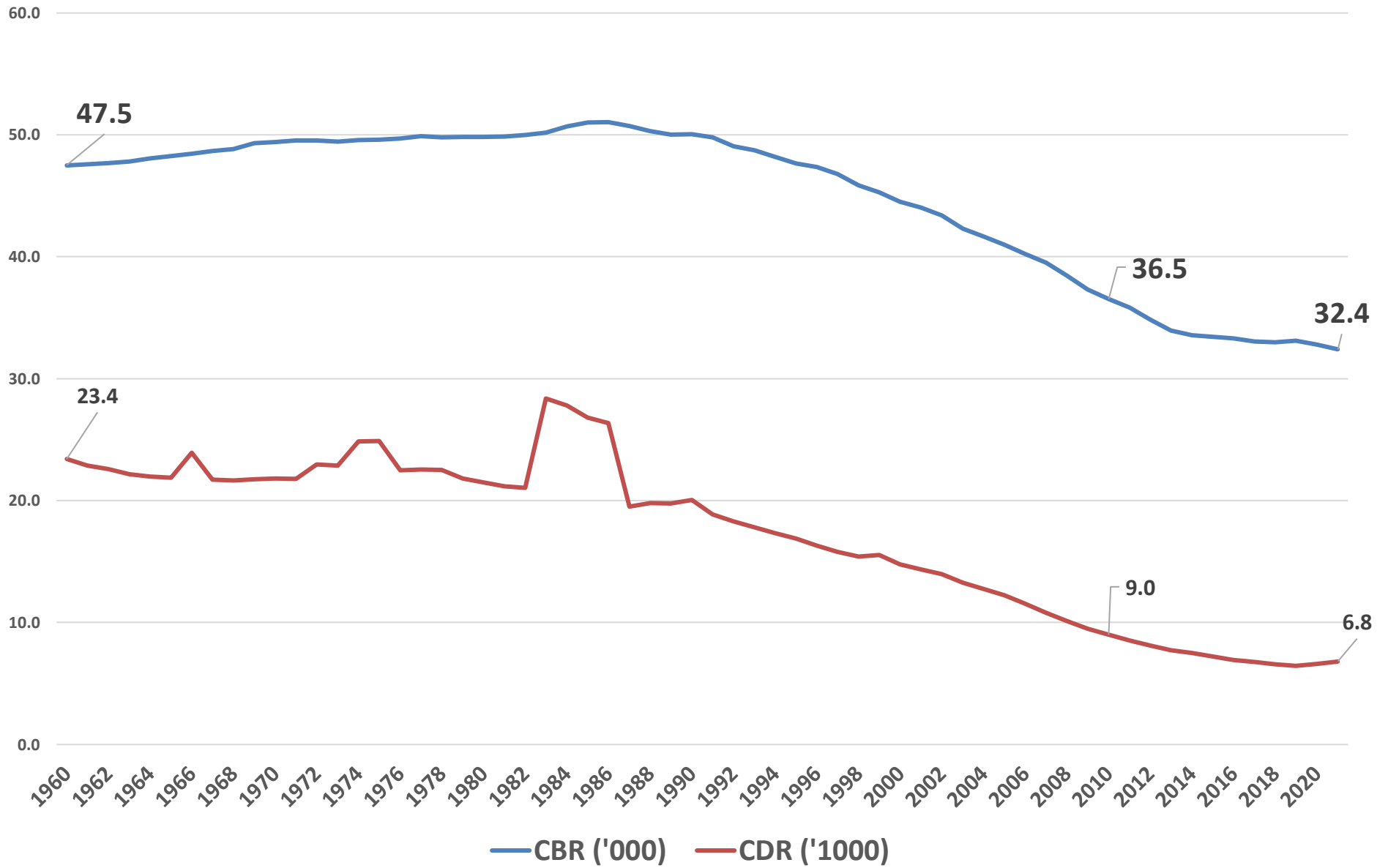
ETHIOPIA: Population History

- Ethiopia's Population size at the start of the 20th century was 12 million.
- It reached 24 million (double) in 1960.
- There has been a rapid acceleration of growth from 1960 to present.
- It then "...increased by more than two and a half times its 1960 size reaching 63.5 million in 2000".
- Now the second largest population in Africa, after Nigeria.
- Projected to reach 140 million in 2030.

The Demographic Transition: Has Ethiopia Achieved it yet?

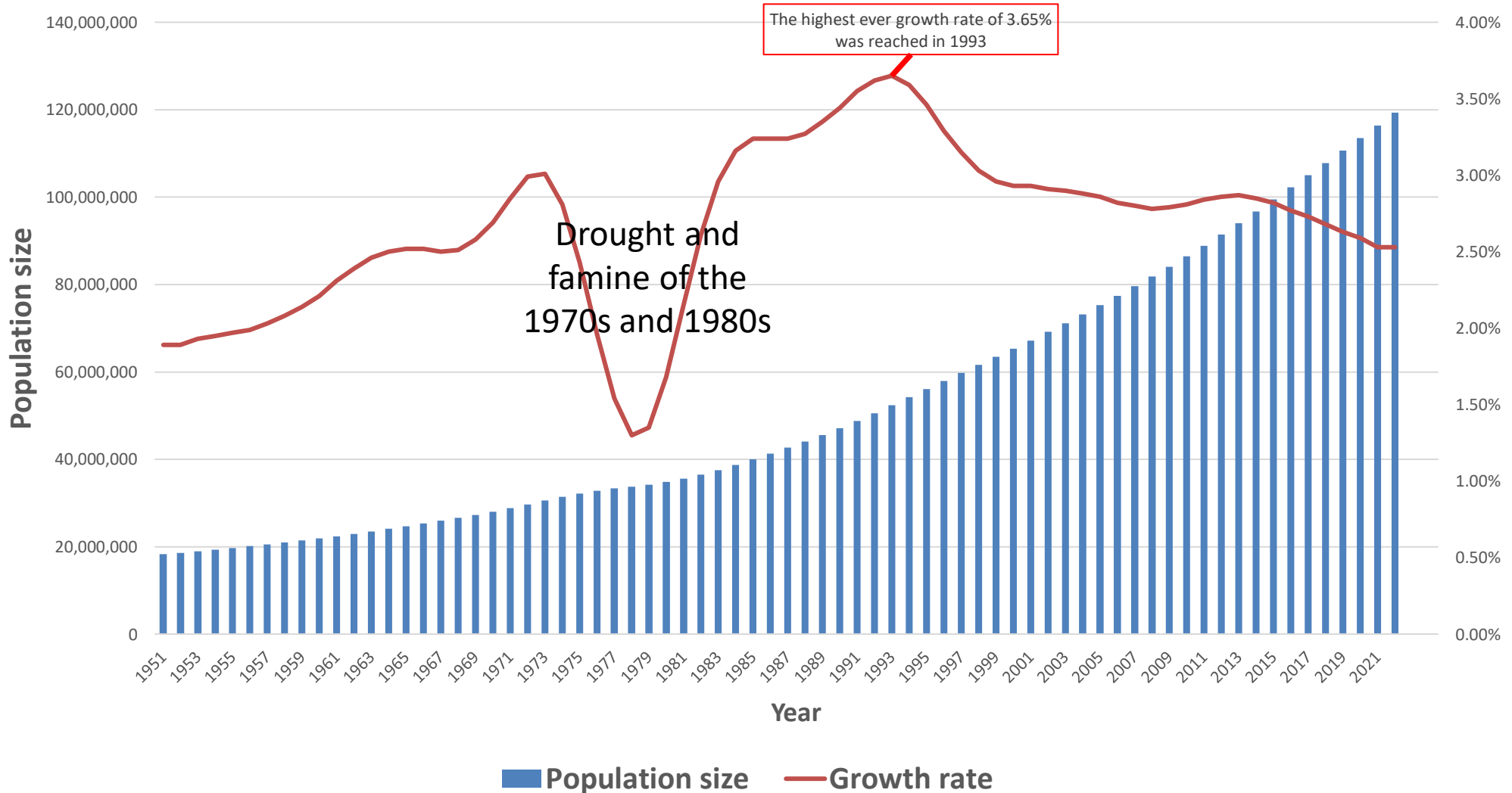
The classic demographic transition theory pegs onsets of its various phases or stages to trends in crude birth and death rates. According to the below figure, the crude birth rate (CBR) fell below 40 in 2006 and the crude death rate (CDR) fell to single digits in 2009. The gap between the two is still high (25.6, or a natural increase of 2.6 percent in 2021) making one wonder if a transition has taken place in Ethiopia at all. But still, if one must choose a reasonable start date for demographic transition in the country, it would be roughly a decade and a half ago around 2008 when the above-stated (estimated) rates in CBR and CDR were documented. The word “estimated” was used to emphasize that CBR and CDR calculations are based on census intercensal data, but that Ethiopia’s last census was in 2007. Notice the CDR rise in the early to mid-1980s; a mortality history of a nation linked to drought and famine which killed over a million citizens. The famine engendered resettlement from northern Ethiopia to the western part of the country setting a stage for ethnic-based forcible relocations, especially out of the former *Wellega Kiflehager*, four decades later

Ethiopia: Crude Birth and Death Rates, 1960 - 2021



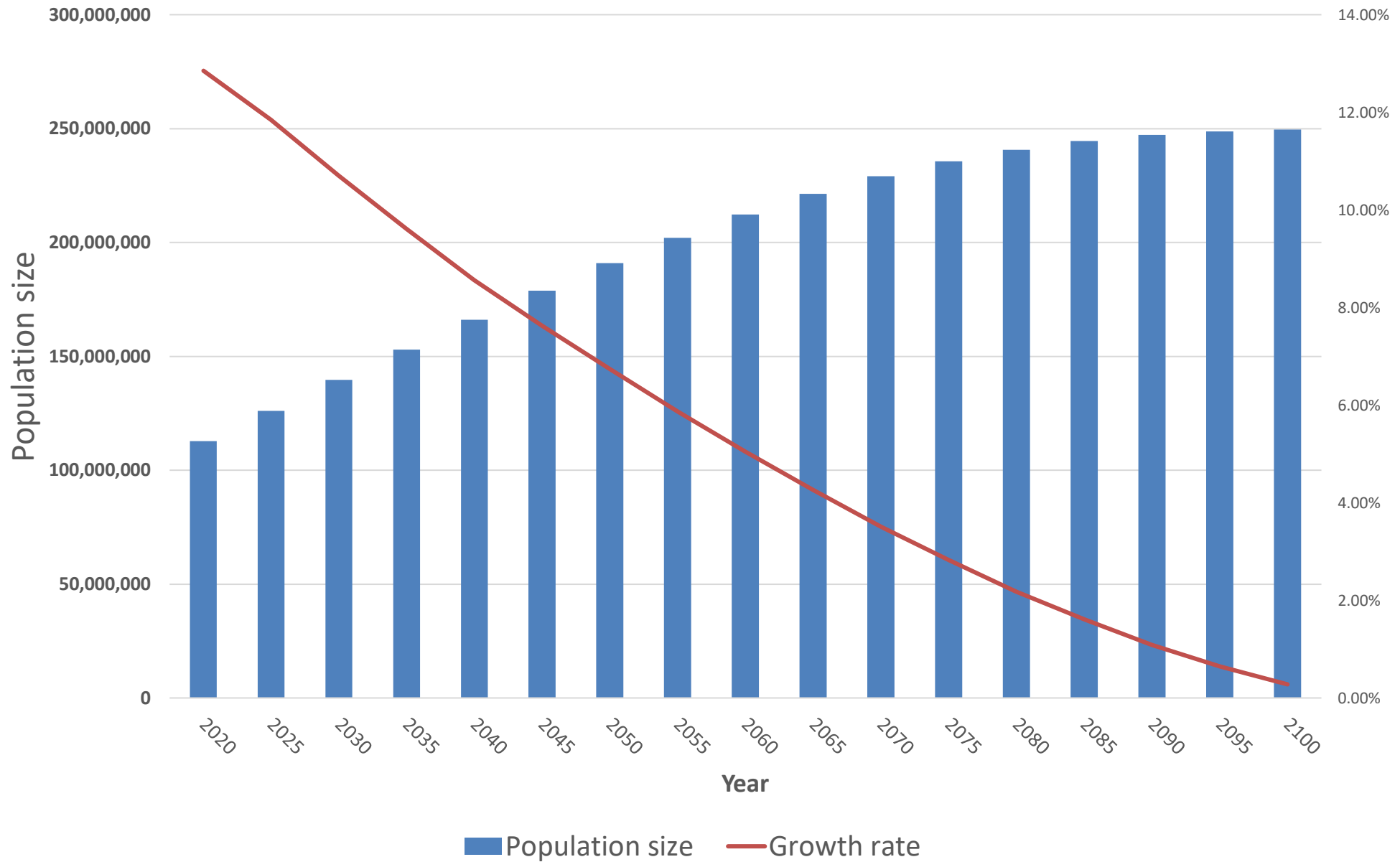
Population of Ethiopia as of January 1, 2022 = 119,346,275

Population of Ethiopia: 1951 - 2021



Source : Based on: <https://countrymeters.info/en/Ethiopia#facts> Retrieved on 01/01/2022

Ethiopia: Population Size and Growth Rate - 2020 to 2100



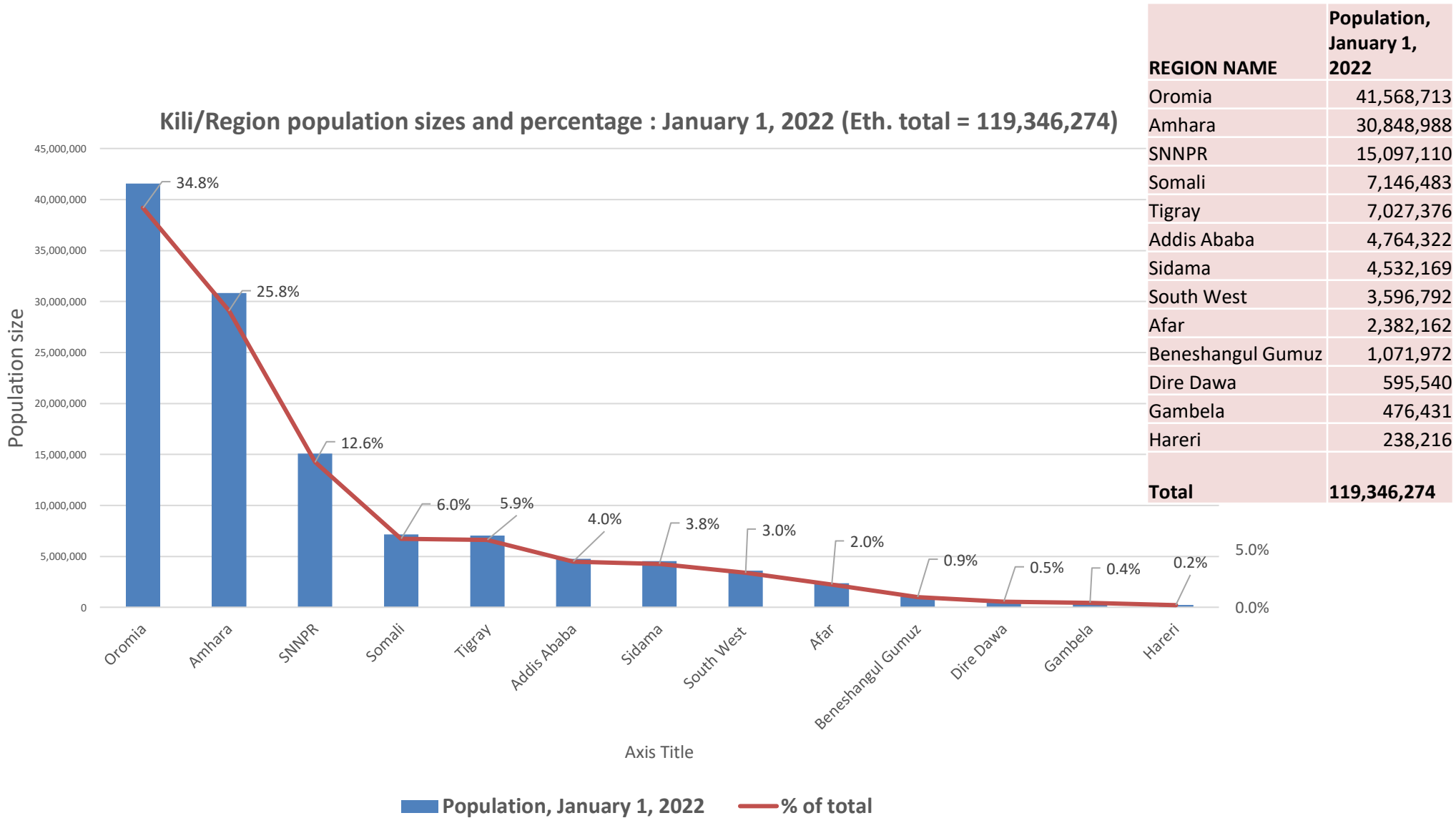
Key Population Figures for 2021

- **Males** : 59,373,272 (as of December 31, 2021)
- **Females**: 59,973,003 (as of December 31, 2021)

- **Live births in 2021: 3,869,180**
- **Deaths in 2021: 909,094**
- **Natural increase in 2021 : 2,960,086 people**

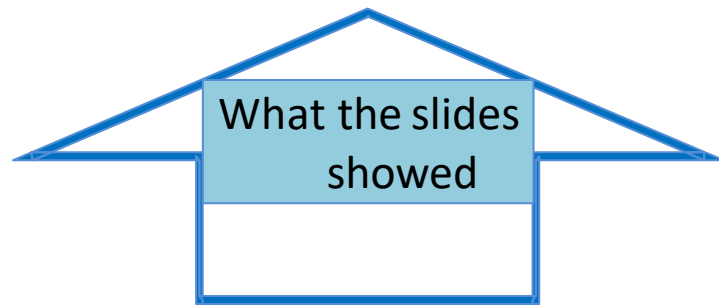
- **Net migration: -15,132 people***

*No reliable estimates exist and the 15,132 figure appears to be a serious under estimate



* Maintains the 1994 census regional percentages

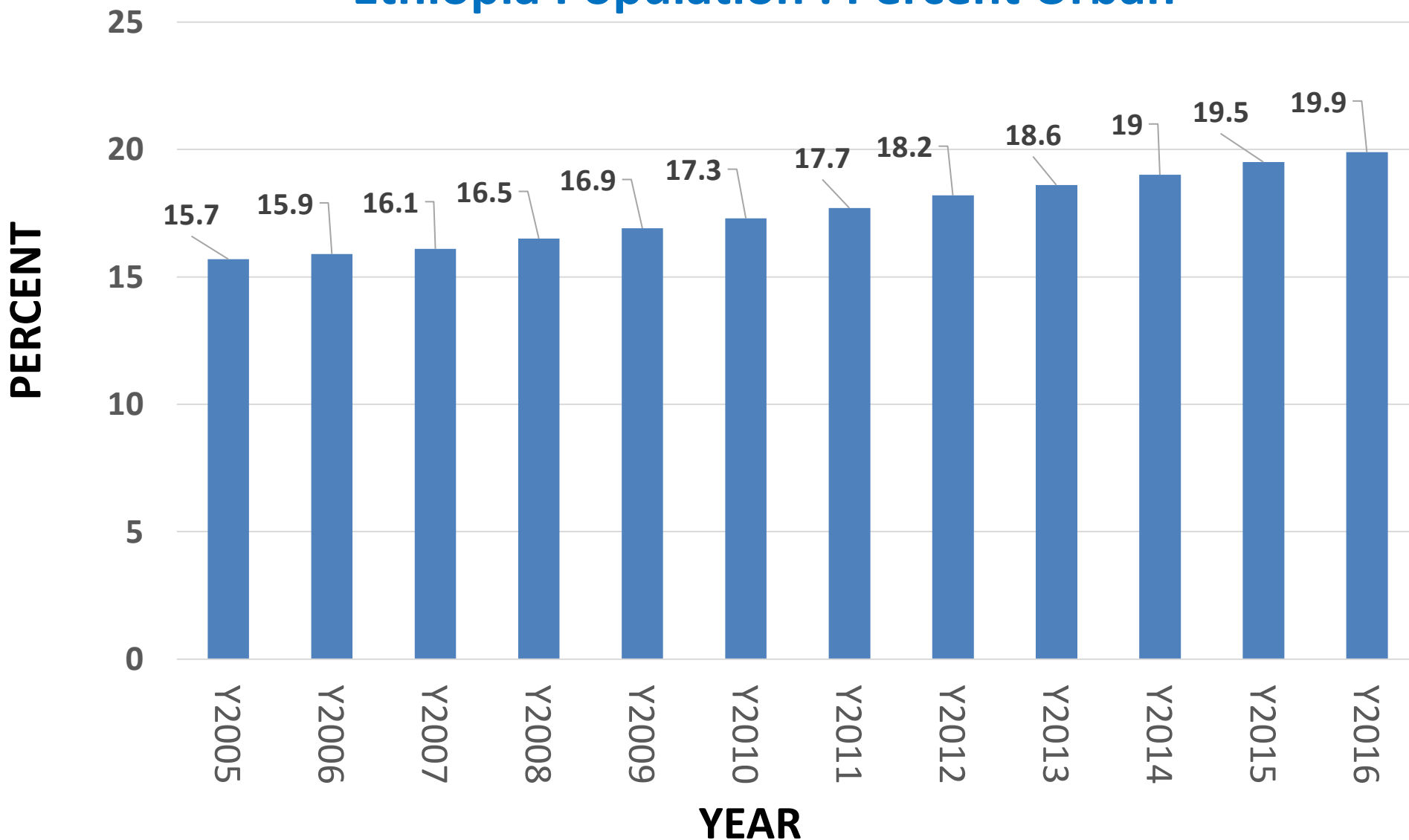
- We did not use regional population percentages from the 2007 census due to lack of confidence in the accuracy of the census count for Amhara Region and Addis Ababa

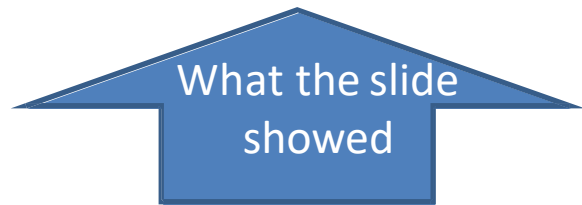


- Caution is called for when interpreting these numbers, as total population is just an estimate and the regional proportions maintain the 1994 census percentages
- The validity the estimate of the **total population** has been decreasing since 1994 as it is merely a projection based on the 1994 Population and Housing Census of Ethiopia
- We did not use the 2007 Population and Housing Census due to lack of confidence in the accuracy of the census count for Amhara Region and Addis Ababa

- The urban population was 19.9% in 2016 (approximately 20.8 million persons)
- The rural population was 81.1% in 2016 (approximately 84.6 million persons)

Ethiopia Population : Percent Urban





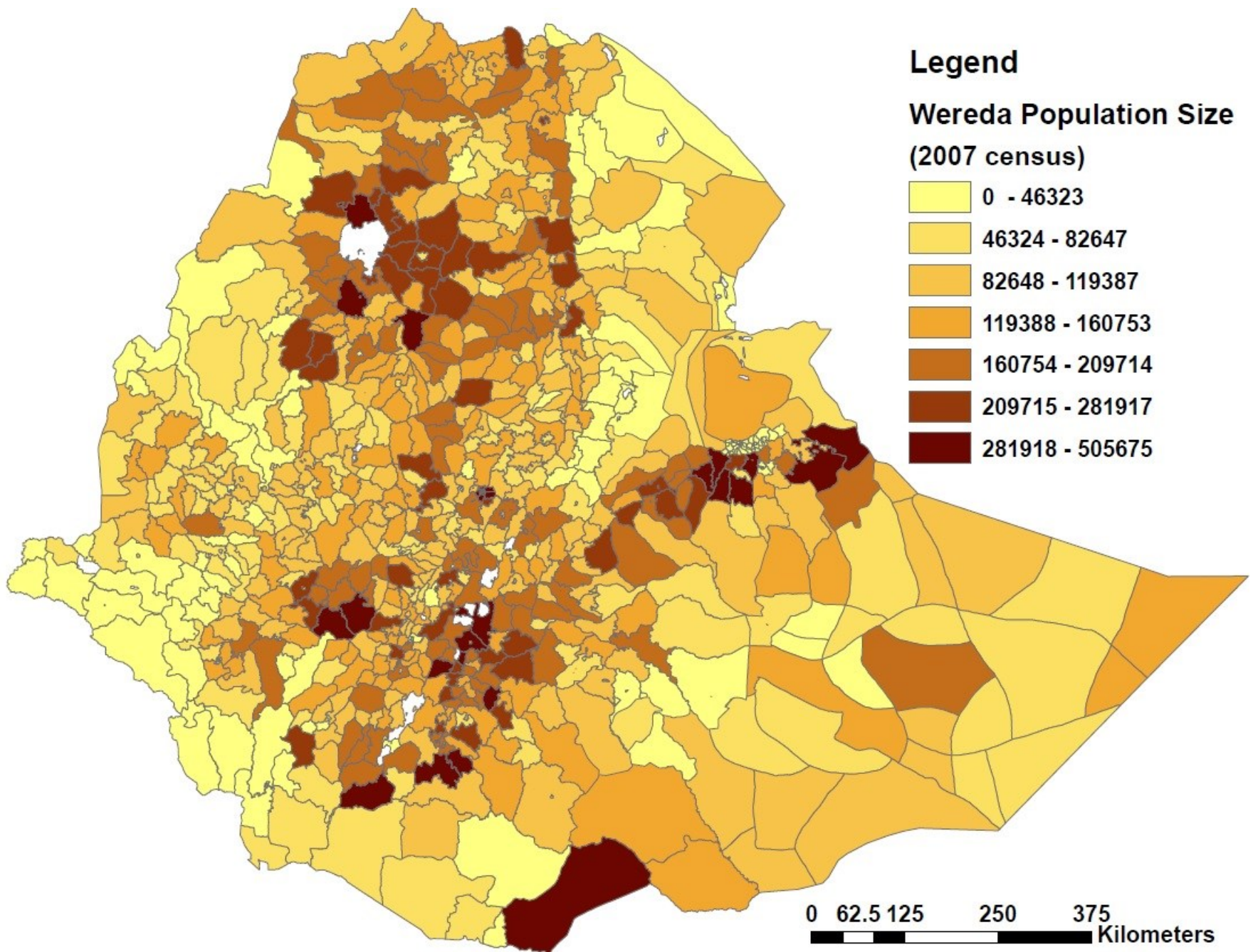
- Oromiya has the largest population size, and Amhara is second
- Of the primarily rural regions, Gambella has by far the lowest population size.
- Of the primarily urban regions, Addis Ababa has the largest population (4% of the country's total)
- Even though SNNPR ranks third on total population count population densities here are among the highest in the country exceeding five hundred persons per square kilometers in a number of Weredas (see the density map below).

Population Distribution

80% of the country's population inhabits only 37% of the total land area, mostly in the highlands.

Altitude plays a major role

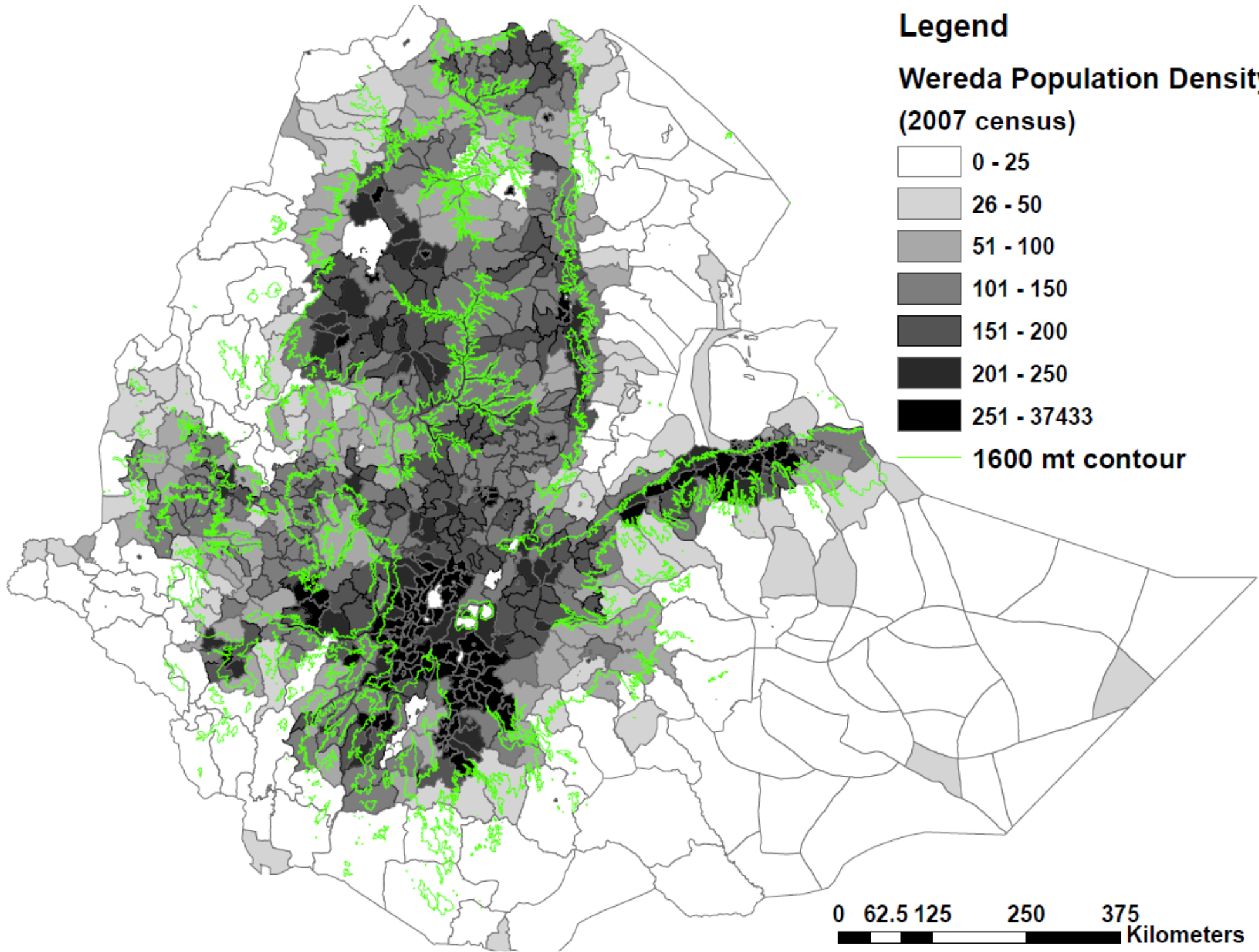
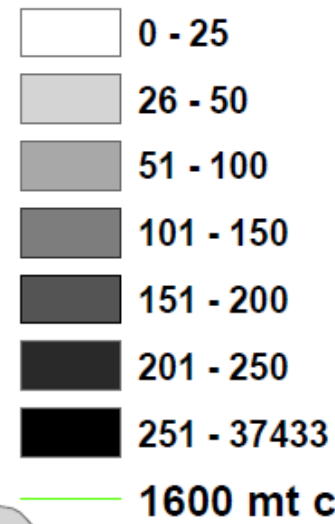
“About 10% of the population lives ... at an altitude of over 2,600 meters above sea level, 39.2% lives between 2,200 meters and 2,600 meters above sea level, 28% between 1,800 meters and 22,200 meters above sea level... The lowlands are very sparsely populated mainly because of malaria and other vector borne diseases.”

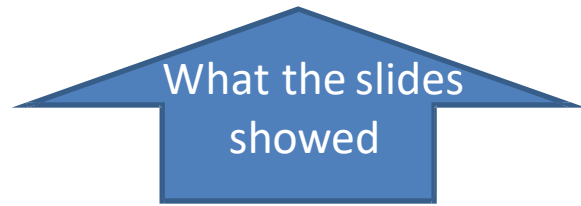


Source : Based on census 2007

Legend

Wereda Population Density (2007 census)





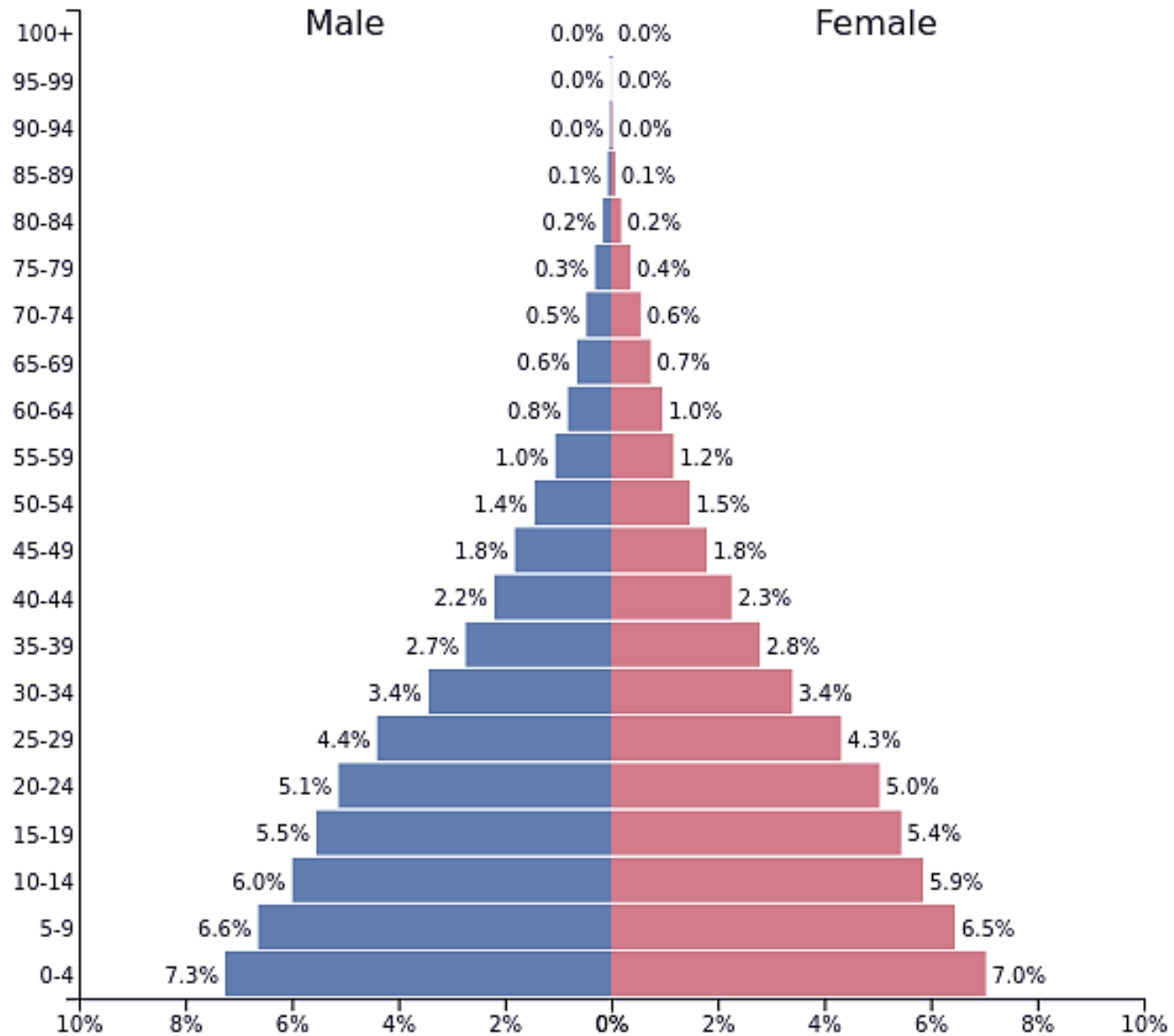
- Much of the Ethiopian population lives in the highlands
- Densities are very low in the “Kolla” areas (low elevations below 1500 meters)
- Factors responsible for this pattern include, climate, soil, physiography, and history
- There has been an ongoing resettlement of highland populations in the lower elevations of western and southwestern Ethiopia.

References for the above slides :

Charles H. Teller, Gebreselassie, and Assefa Hailemariam. The lagging demographic and health transitions in rural Ethiopia: Socio-economic, agro-ecological and health service factors effecting fertility, mortality and nutrition trends. Paper presented at Session 104, Population growth and poverty linkages in Africa, Fifth African Population Conference, Union of African Population Studies (UAPS), Arusha, Tanzania, 10-14 December, 2007

Helmut Kloos, Assefa Hailemariam and Aynalem Adugna. *Population*. in Yemane Berhane, Damen Hailemariam and Helmut Kloos. Eds. The Epidemiology and Ecology of Health and Disease in Ethiopia. Shama Books. Addis Ababa. 2006.

ETHIOPIA: Age Distribution (2022)



Ethiopia - 2022
Population: **120,812,697**

- Ethiopia has a very young age structure with more than two in five of its citizens (39.3%) below age 15
- This points to a huge growth potential down the road, or even an explosive growth if unchecked, due to the built-in momentum.
- The momentum is evidenced by the very high percentages of women in the various reproductive age groups, or soon to be in the reproductive age groups.
- Less than four percent (3.7%) of the population is in the 65+ age category reflecting the very young age structure as well as high fertility and mortality in the past, which now is keeping the age pyramid very wide at the bottom and tapering quickly toward advanced ages.

Ethiopia: 2021 Key Demographic Indicators	Value
Average annual rate of population change, per cent, 2015-2020:	2.6
Population aged 0-14, per cent, 2021:	39.3
Population aged 10-24, per cent, 2021:	33.3
Population aged 15-64, per cent, 2021:	56.9
Population aged 65 and older, per cent, 2021:	3.7
Population aged 10-19, percent, 2021:	23.1
Maternal mortality ratio (deaths per 100,000 live births) ^a , 2017:	401 (95%CI = 298, 573)
Births attended by skilled health personnel, per cent, 2014-2019:	28
Contraceptive prevalence rate women aged 15-49, any method, per cent, 2021	
All women:	29
Married or women in union :	42
Unmet need for family planning rate women aged 15-49, per cent, 2021	
All women:	15
Married or women in union :	21
Proportion of demand satisfied with modern methods, women aged 15-49, per cent, 2021:	66
Life expectancy at birth, years, 2021	
male	65
female	69
Harmful Practices	
Adolescent birth rate per 1,000 girls aged 15-19, 2003-2018:	80
Child marriage by age 18, percent, 2005-2019:	40
Female genital mutilation prevalence among girls aged 15-19, percent, 2004-2018:	47
Intimate partner violence, past 12 months, percent, 2000-2019:	20

Source : <https://www.unfpa.org/data/world-population/ET>

Demographic Characteristics

Source

Demographic and Health Survey 2016
Central Statistical Agency Addis Ababa, Ethiopia

The DHS Program ICF
Rockville, Maryland, USA

July 2017

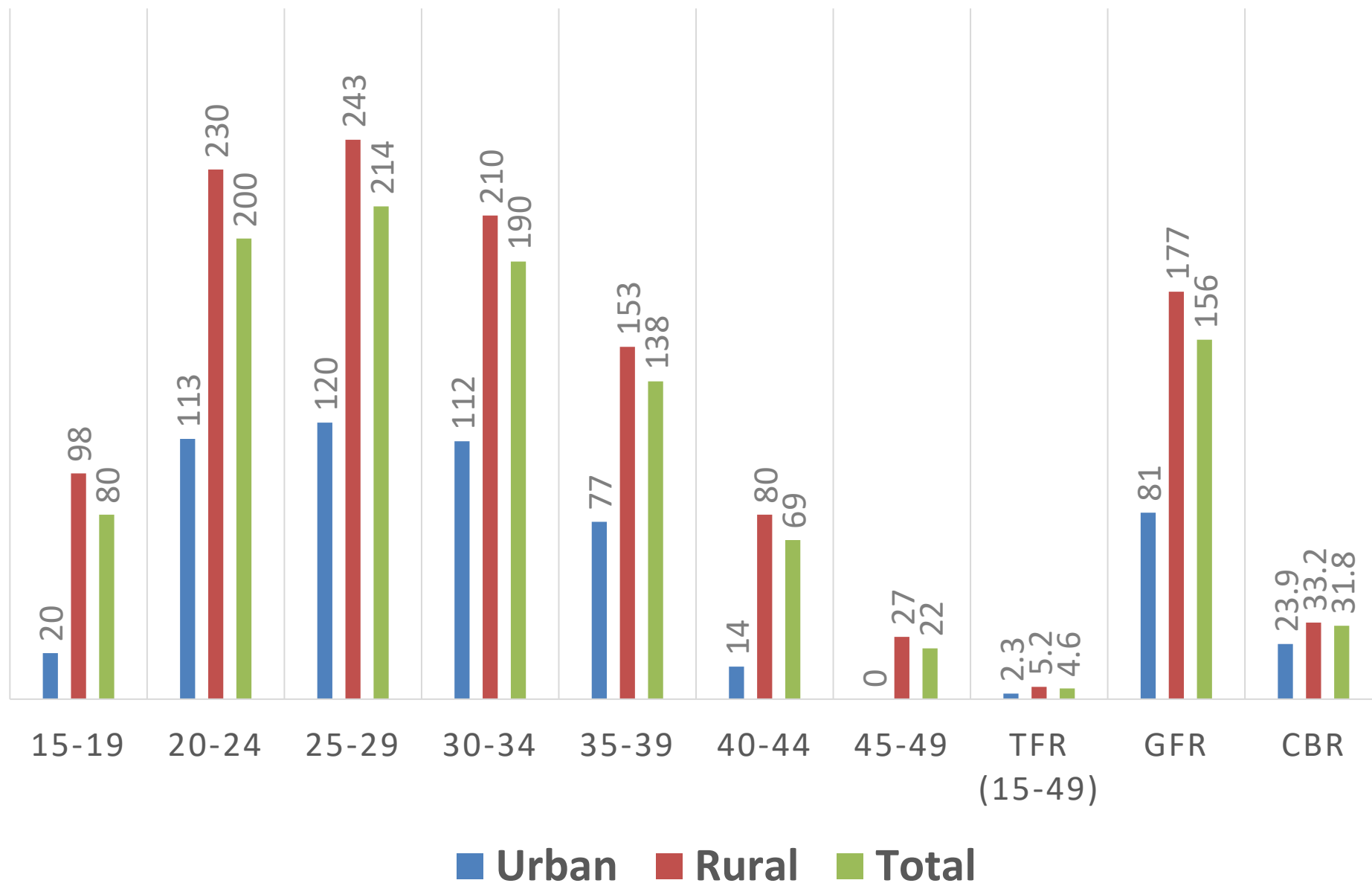
Click **HERE** to access an interactive web
map of results from the four rounds of Ethiopian
Demographic and Health Surveys (read the
instructions first)

MARRIAGE AND SEXUALITY

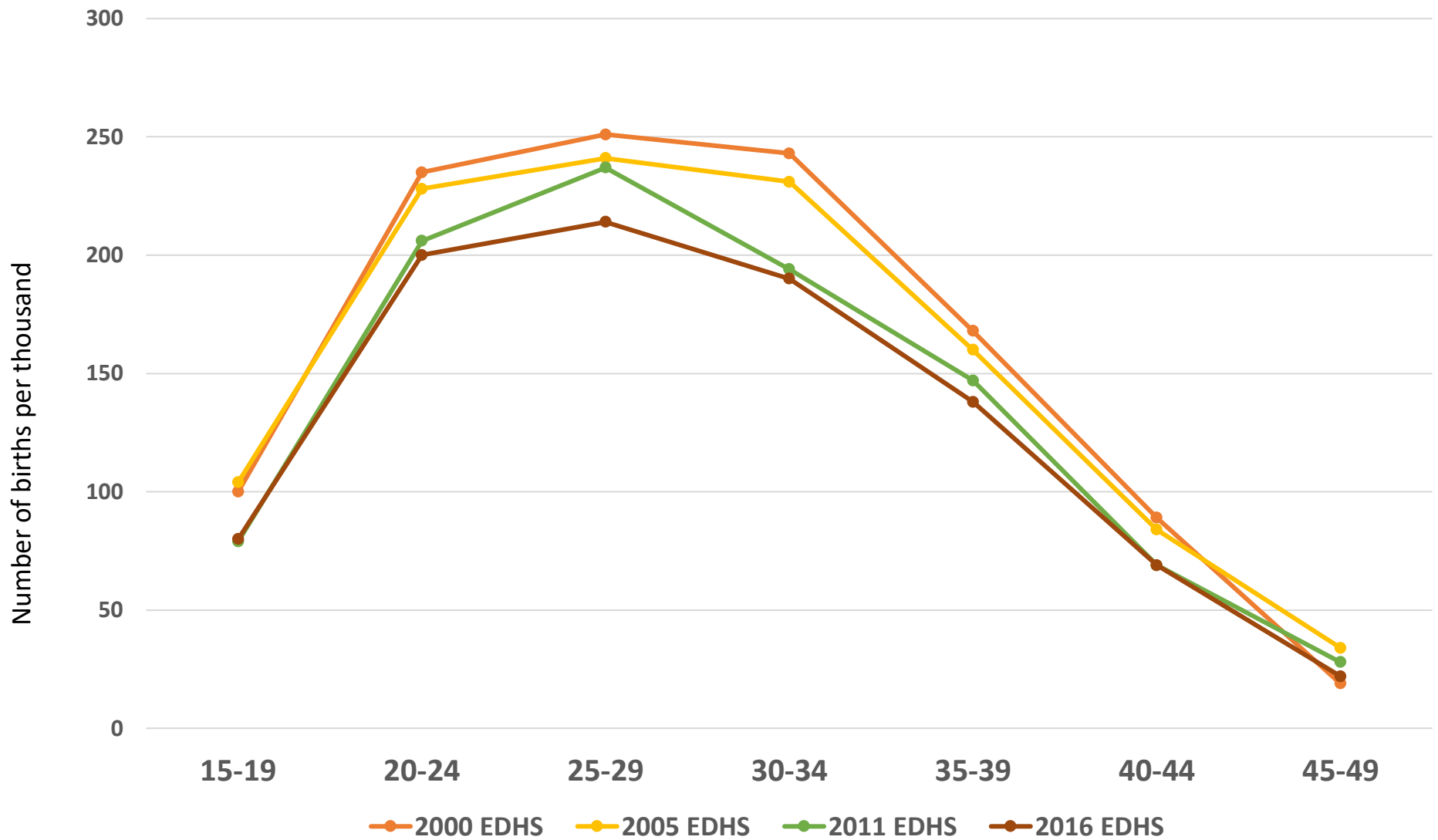
Marriage Trends: Age at first marriage is rising dramatically for women and girls

- About one third of women born in the 1970s married before the age of 15; only one tenth of those born in the nineties are married
- Women marry about 6.6 years earlier than men on average
- The median age at first marriage is 17.1 years among women and 23.7 years among men age 25- 49
- Eleven percent of currently married women report that their husband has multiple wives but the percentages vary from a high of 29% in Somali to 21% in Gambella and Benishangul Gumuz, to 1% in Amhara.
- “In Ethiopia the median age at first sexual intercourse among women age 25-49 is 16.6 years. One in four (24%) women have first sexual intercourse before age 15 and 62% before age 18. By age 20, 76% of women have had sexual intercourse.” Page 67

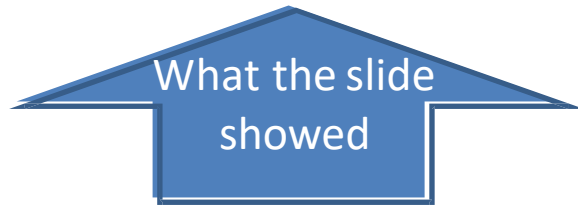
Age -specific fertility rate, ASFR by age group (per 1000 women), General Fertility Rate (GFR) and Total Fertility Rate (TFR) and Crude Birth Rate (CBR) : Eth. DHS 2016



Trends in Age Specific Fertility Rate (2000 - 2016)



Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

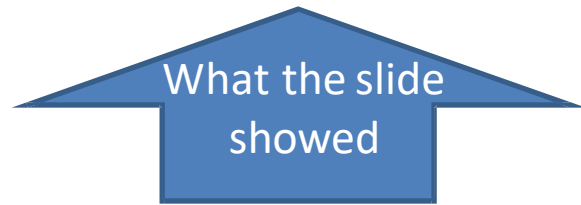


- Ethiopia's age-specific fertility rate is typical of a third world nation with early onset in reproduction, and a continued high fertility regime all the way to age 40.
- Age specific rates peak at about age 30
- There is a sharp contrast between urban and rural age-specific rates with the later showing about half as many births to an individual woman as in rural Ethiopia. The almost two-to-one age-specific fertility gap is very large, and rarely seen in other countries of Sub-Saharan Africa.
- It is difficult to generalize, however, that this national picture would be duplicated at regional levels with similarly large gaps in fertility levels between urban and rural populations.

Click [HERE](#) to view the interactive web map

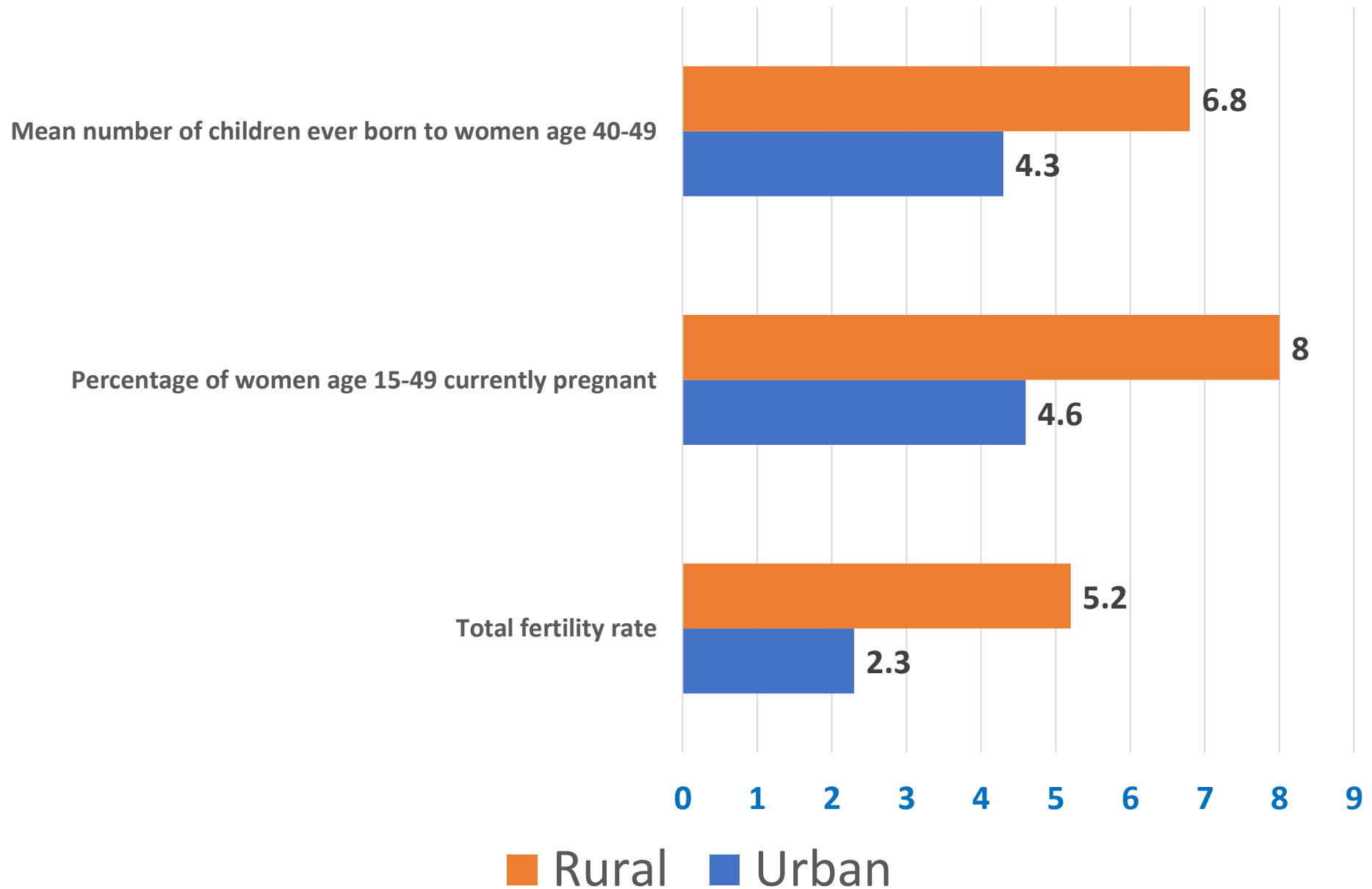
Rural Age-Specific Fertility is Higher than Urban Fertility by a Factor of:

Age Group	Factor
15-19	4.9
20-24	2.0
25-29	2.0
30-34	1.9
35-39	2.0
40-44	5.7
45-49	No data

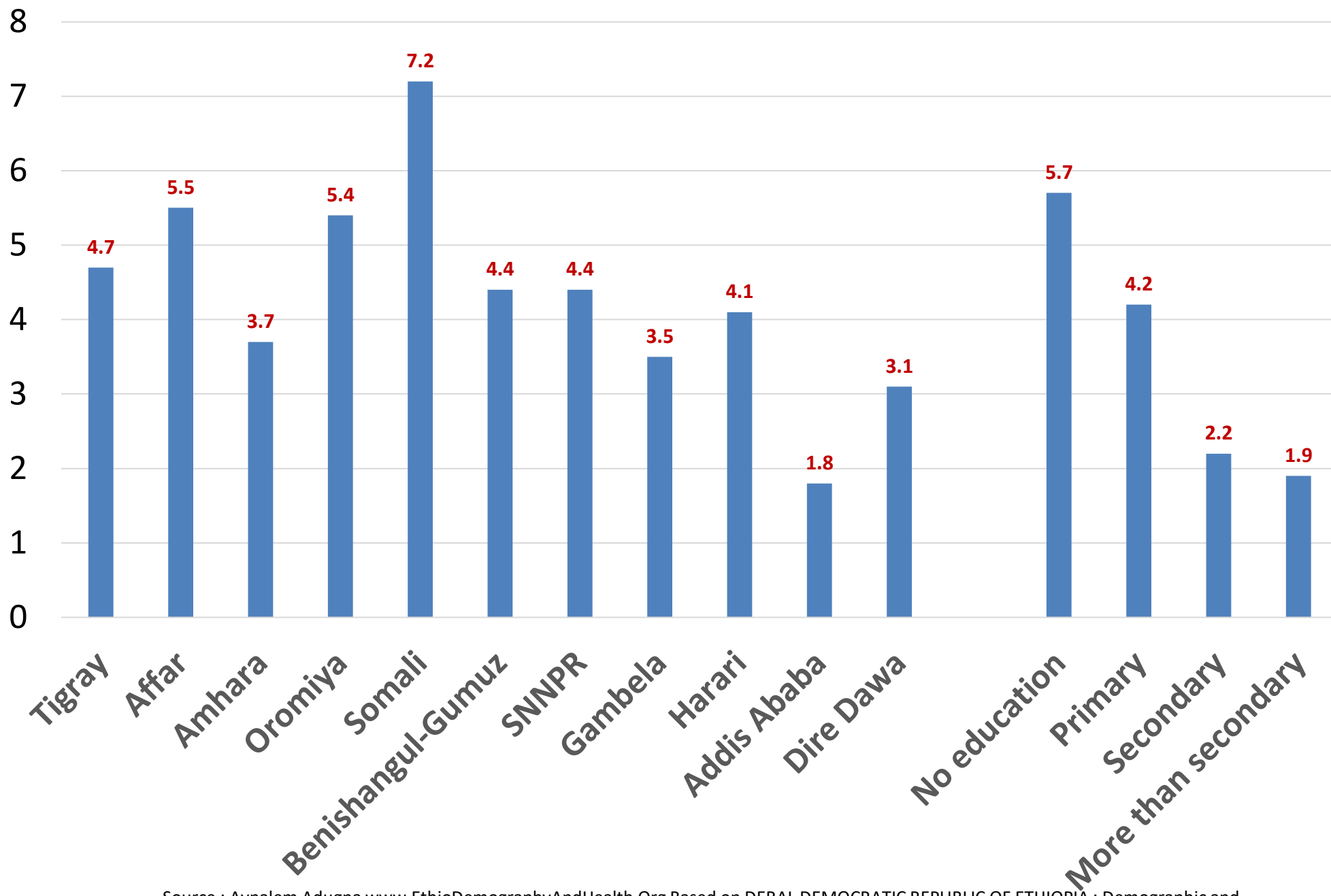


- When broken down by age group of women, the 2016 age-specific fertility rates in rural Ethiopia are higher by a factor of 1.9 to 5.7 than urban age-specific rates.
- The highest differences are in the younger and older reproductive age groups, 15-19 and 40-44 respectively
- The 2016 demographic and survey showed that compared to previous surveys, the gap narrowed slightly for the 15-19 age group and increased moderately for the 40-44 age group.

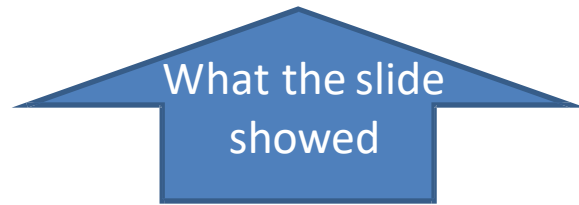
Fertility by Background Characteristics : DHS 2016



TFR by Region and Educational Level : DHS 2017

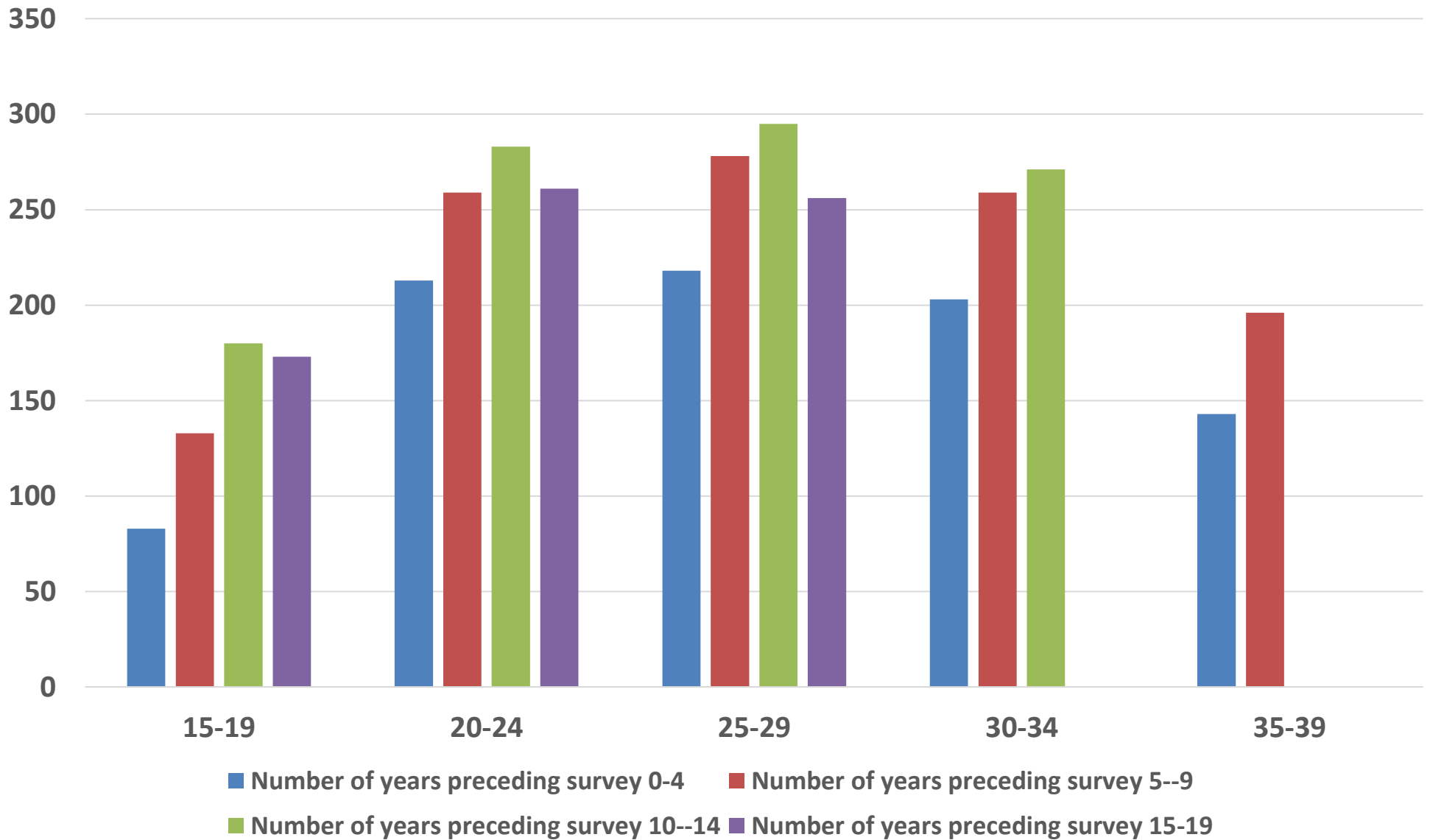


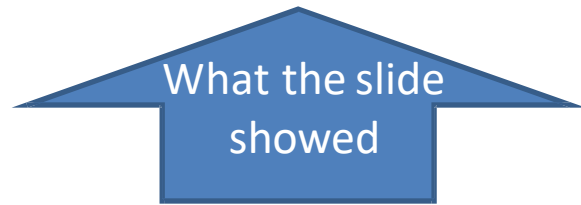
Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017



- The highest average number of children born to an individual Ethiopian woman was recorded in Oromiya (6.2 births per woman), and the lowest in Addis Ababa (1.4 births per woman)
- Given the harsh physical environment, scarce resources, and socio-economic as well as political difficulties, the second place position for the Somali region (6 births per woman) is difficult to understand. More thorough fertility studies can shed light on underlying factors placing an up-ward pressure on fertility in the region.
- Overall, the numbers mark a decline in fertility in Ethiopia in recent years, with the national average TFR (total number of children born to a woman) now estimated to be 5.4

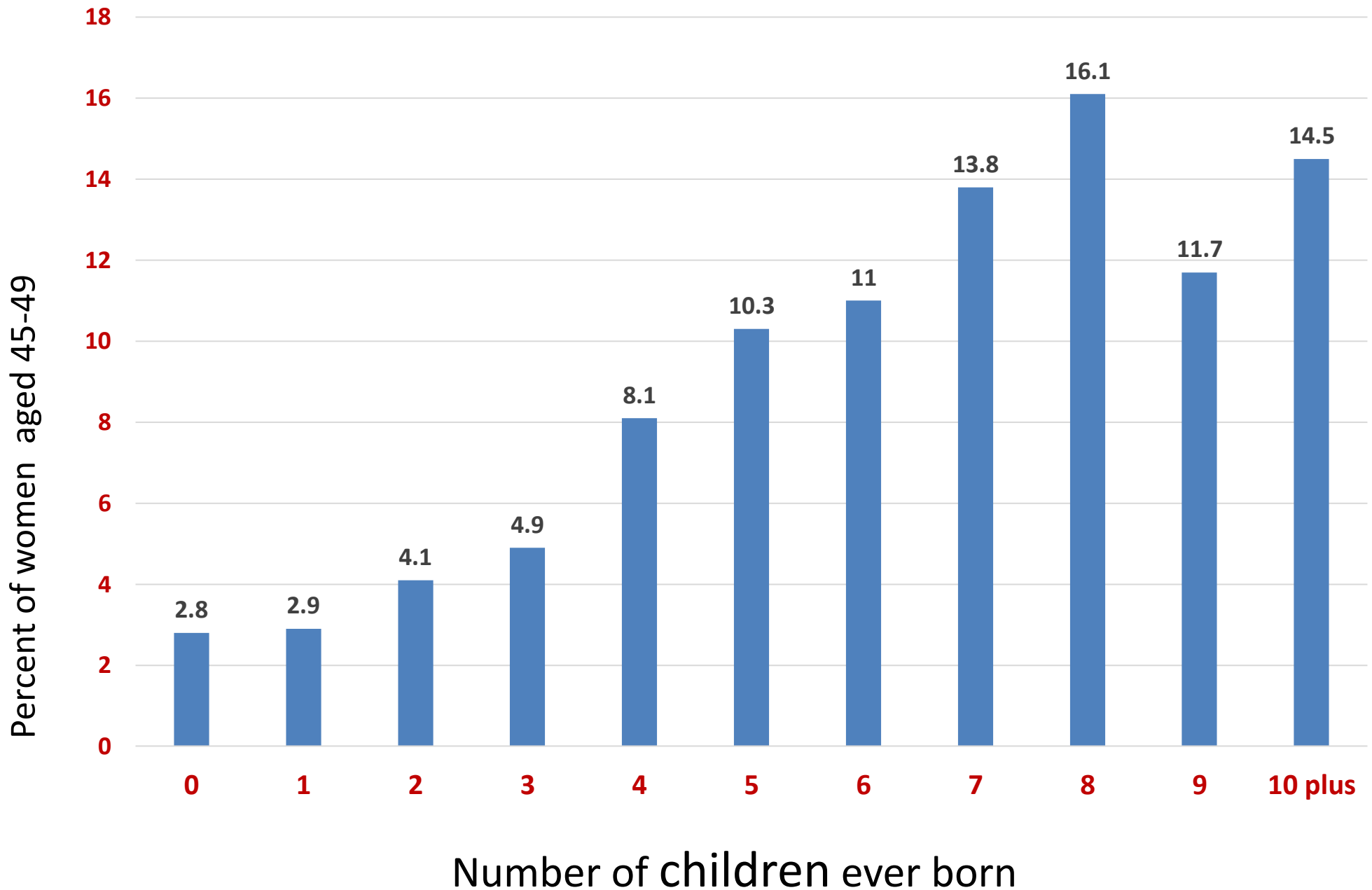
Trends in Age Specific Fertility Rate





- The length of the bars represents the amount of fertility decline among the five-year age cohort of women in Ethiopia in the 15 years preceding the 2016 Demographic and Health Survey.
- The good news for those advocating restraints in population growth in Ethiopia (myself included) is that fertility rates are on a decline in ALL age groups from young to old.
- It is especially reassuring to note the decline among the beginner cohort (age 15 – 19). It appears that the reproductive engine of the youngest age group of Ethiopian females is not putting out as much power (as measured in terms of numbers of births) as that of the 15-19-year-olds before them. Same goes for the next higher age groups.

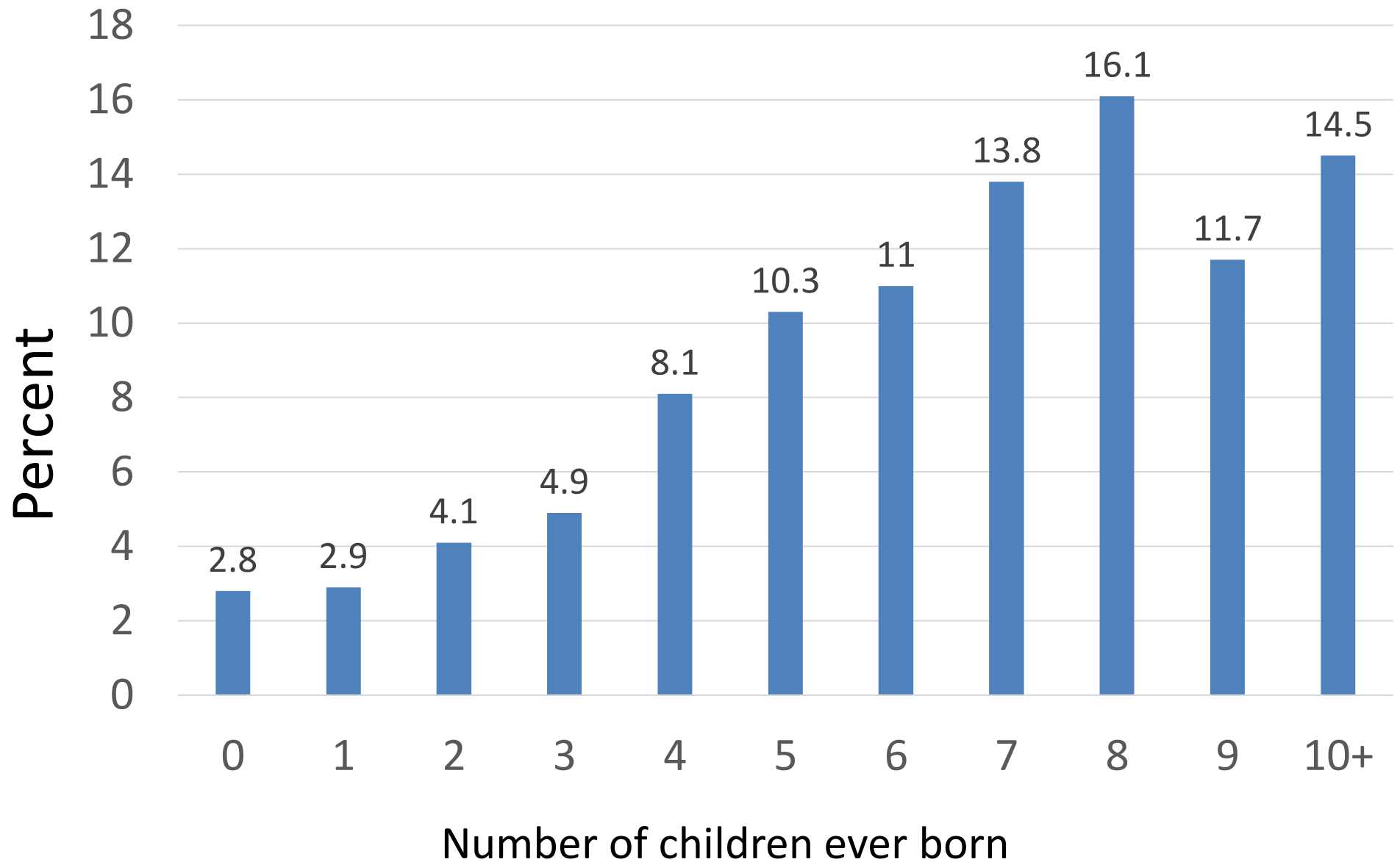
Percent of Women Aged 45-49 in 2016 by the Number of Children Ever Born

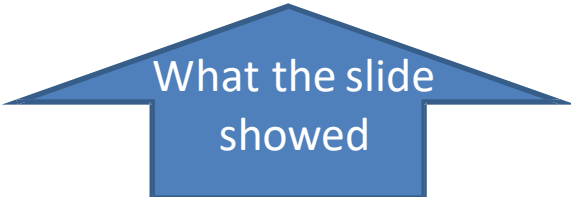


Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

- Fertility has fallen by more than two children during the past three decades, from 6.9 children per woman to 4.6 in the 2016 Ethiopian Demographic and Health Survey
- Fertility has declined in both rural and urban areas, in all regions, at all educational levels, and for all wealth quintiles

Percentage of women aged 45-49 at DHS 2016 by the Number of Children Ever Born

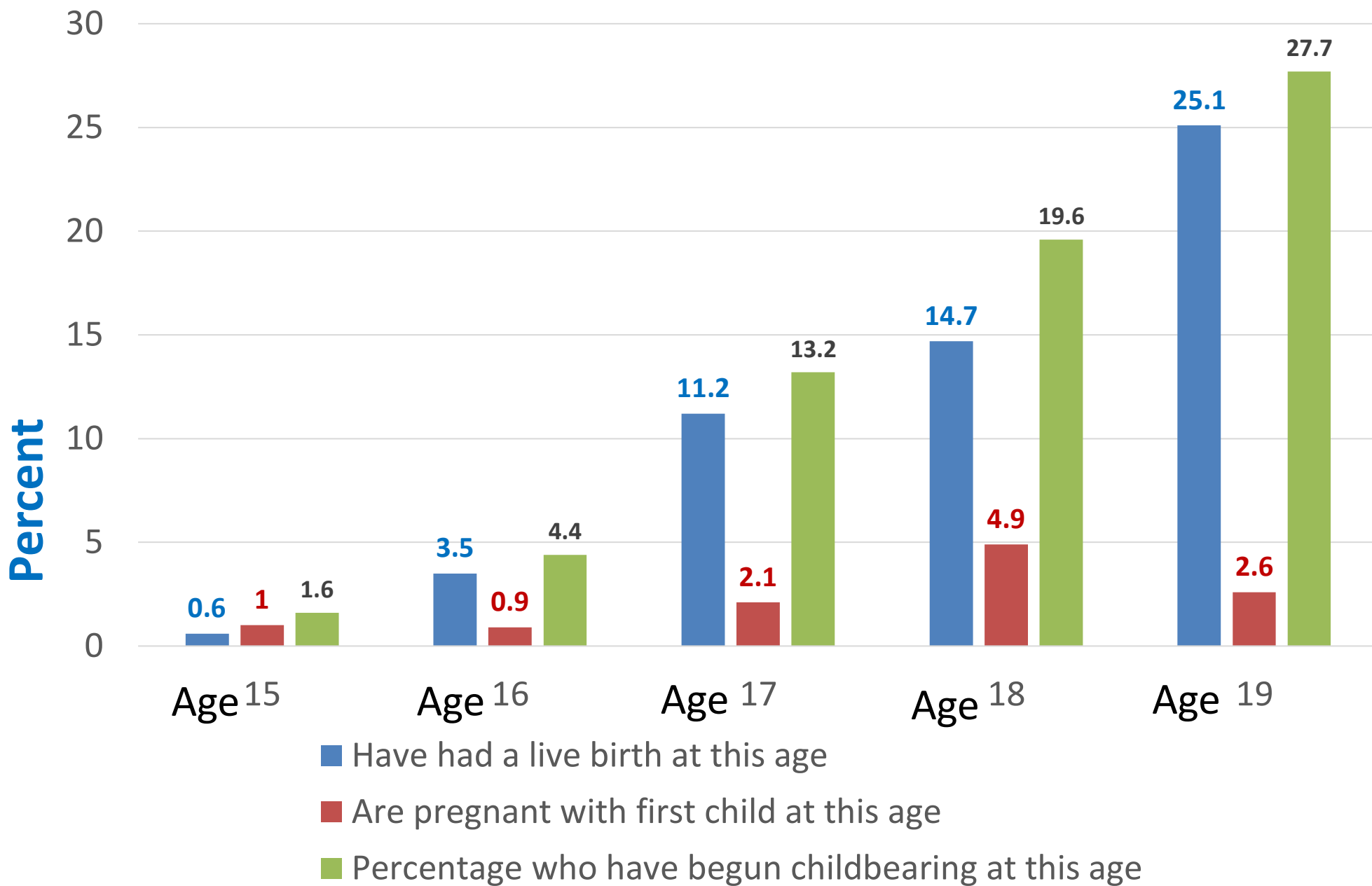




What the slide
showed

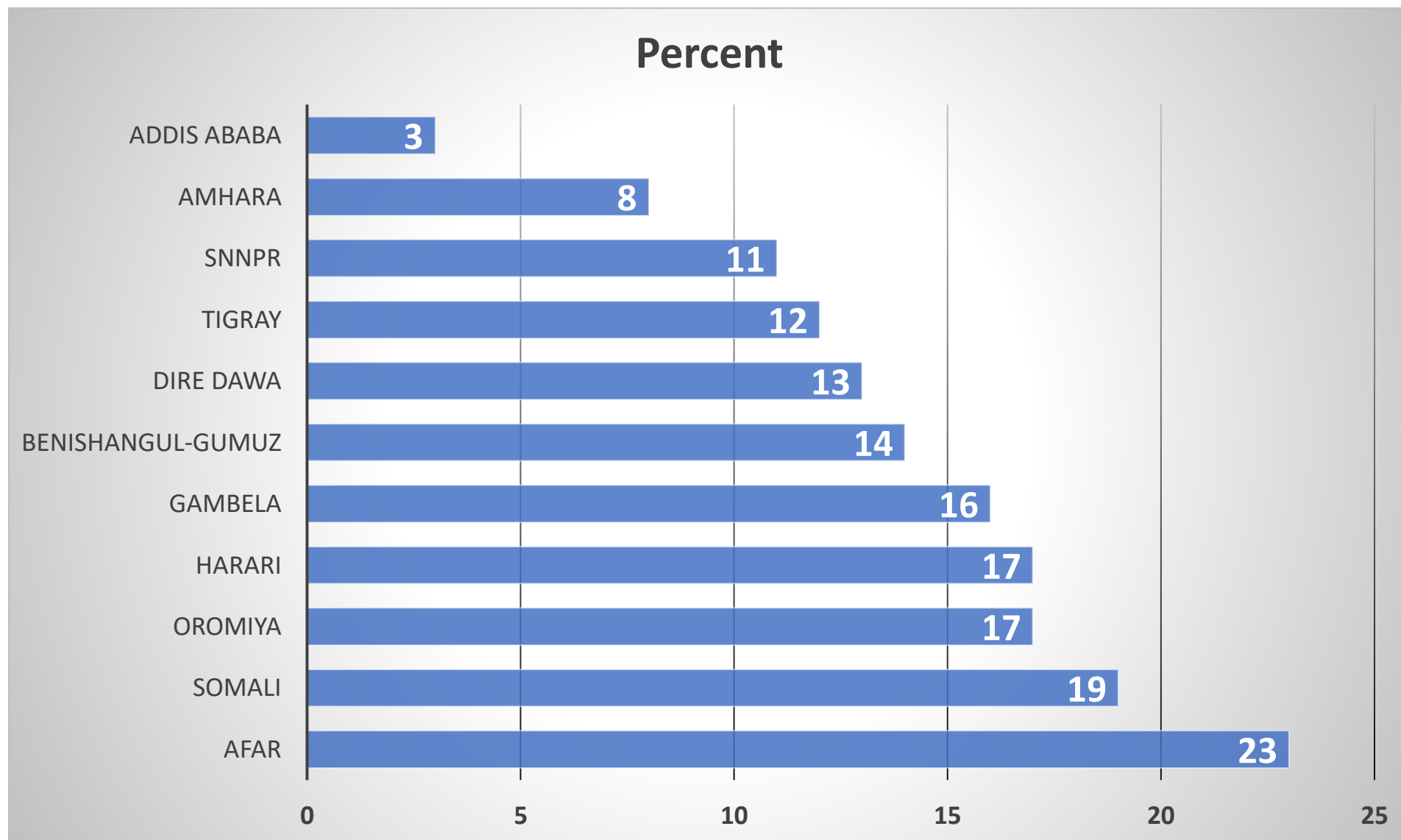
- Childlessness – whether biological or by choice – is very low in Ethiopia; less than 2% of Ethiopian women who have completed their reproduction or were about to do so at the time of the survey, reported themselves as childless.
- Three-quarters of Ethiopian women aged 45-50 at the time of the survey have had 6 or more births, confirming the high fertility history of the country's demographic past.
- Nearly 15% of women who have completed their reproductive years have double-digit number of births – ten or more.
- Since the projected trend (based on current ASFR) suggests a completed TFR of 4.6 for 100% of the women now starting their reproductive life, the current percentages with five births or more show just how high fertility has been in the past.

Teenage pregnancy and childbirth : DHS 2016

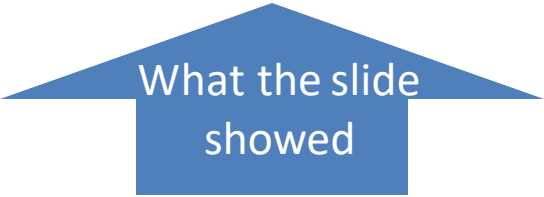


Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

Teenage pregnancy and motherhood by region (DHS 2016) : *Percentage of women age 15-19 who have begun childbearing*



Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

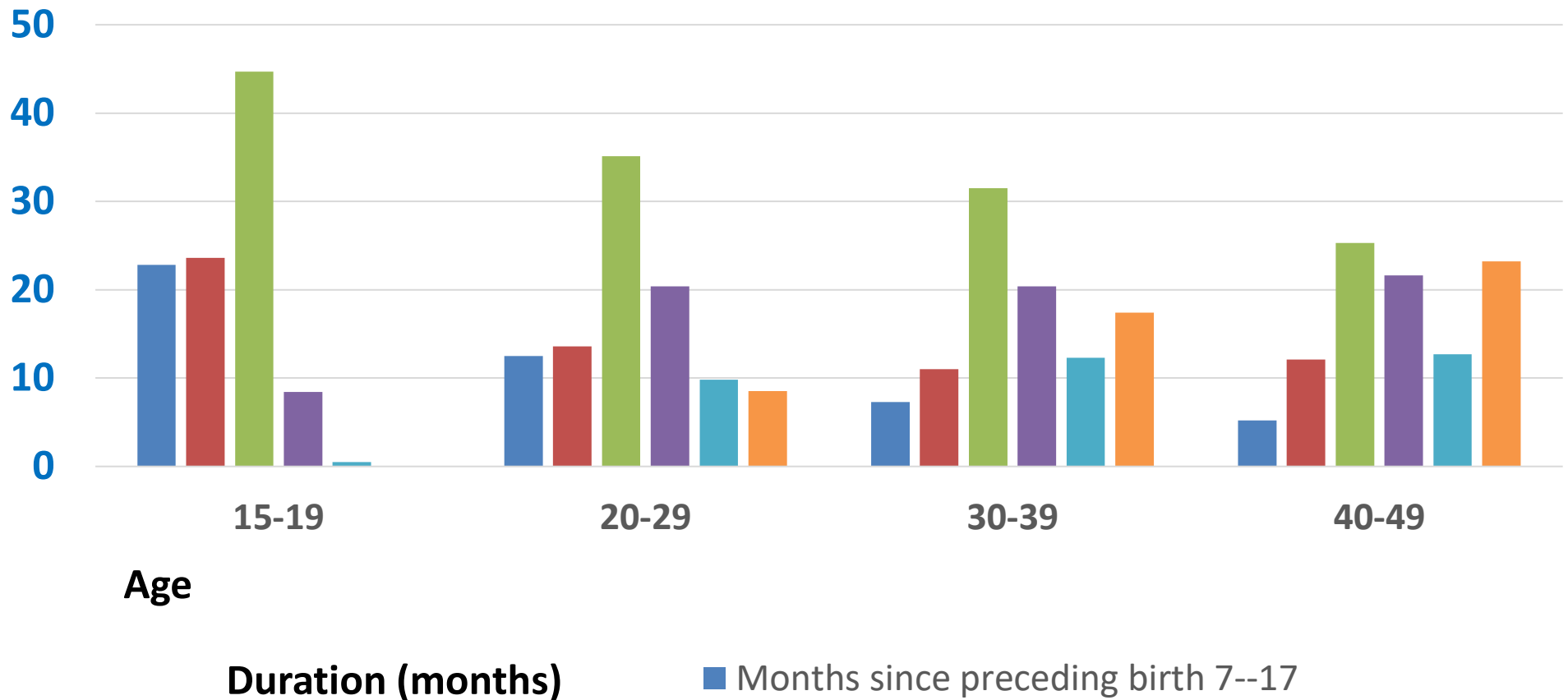


What the slide
showed

- Pregnancy and child-birth starts very early in Ethiopia with a wide regional variation in percentage of teenage girls who have begun childbearing
- Afar has the highest percentage (23%) and Addis Ababa has the lowest (2%)
- Rural teenage are three times more likely to have begun childbearing than their urban peers
- Teenage childbearing decreases with increasing education with percentages decreasing from 28% among those with no education to 12% among those with primary education and 3% among those with more than secondary education.

- “Teenagers in rural areas are three times more likely to have begun childbearing than their urban peers: 15% of rural teenagers have had a live birth or are pregnant, as compared with 5% of urban teenagers.”
-
- “By region, teenage childbearing is highest in Affar (23%) and Somali (19%) and lowest in Addis Ababa (3%) and Amhara (8%)”
-
- “Teenage childbearing decreases with increasing education. The percentage of teenagers who have begun childbearing rises from 3% among those with more than a secondary education to 12% among those with a primary education and 28% among those with no education.”
- “Teenage childbearing is less common in the wealthiest households: 6% of women age 15-19 from the highest wealth quintile have begun childbearing, as compared with 24% of those from the lowest quintile.”

Birth Interval, DHS 2016 : Months since preceding Birth by Age Group of Women



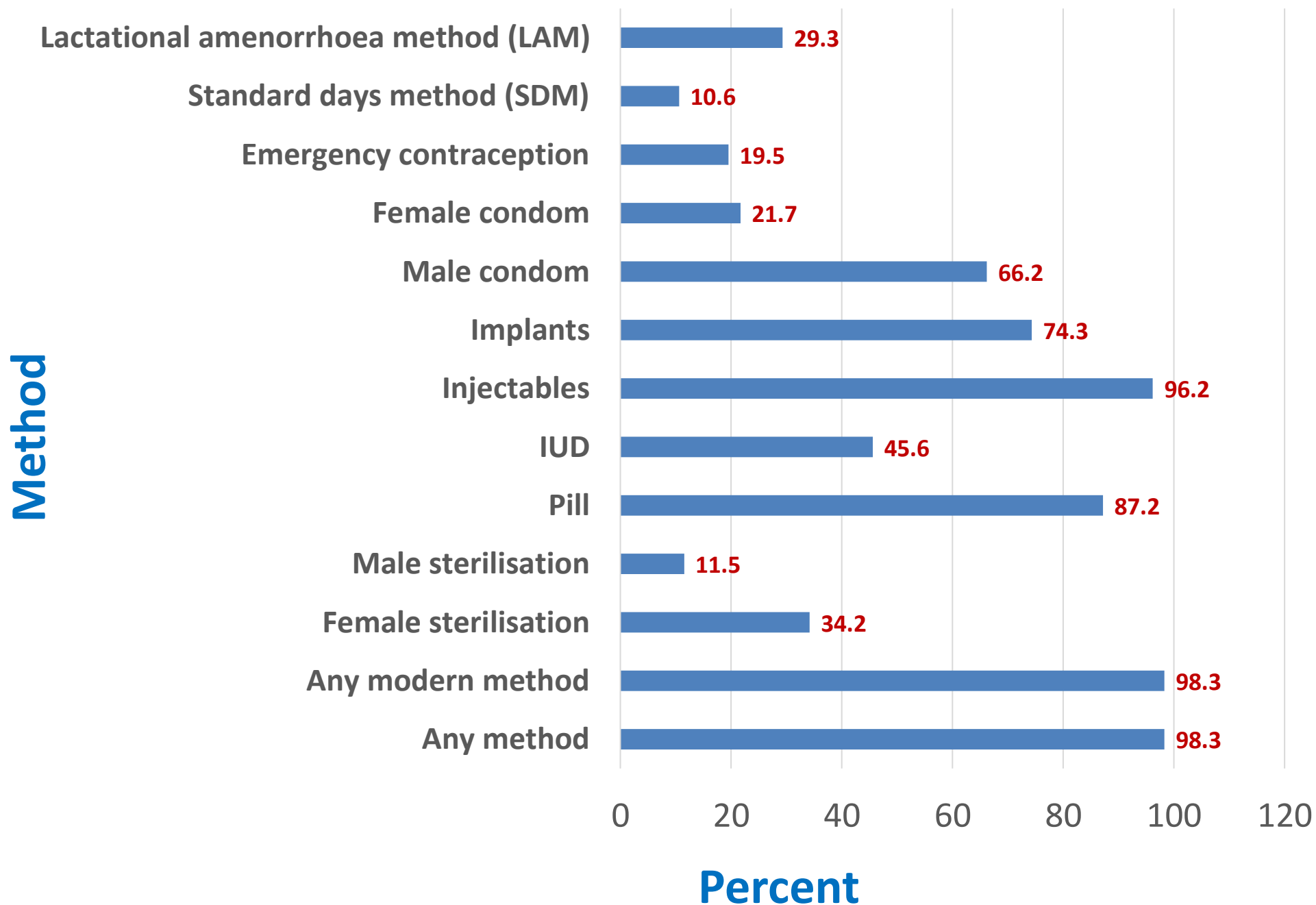
Short birth intervals, especially those below 24 months, place mothers and their newborns at increased health risk. The median birth interval in Ethiopia is 34.5 months which means that half of non-first births occur within 3 years after the first birth. Nearly a third of all births (32%) occur within 24-35 months of the previous birth, and just over a fifth (21%) occur within at least 3 years after the previous birth. Page 79

Family Planning DHS 2016

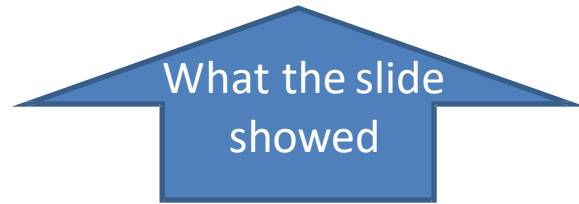
Click **HERE** to access an interactive web map of results from the four rounds of Ethiopian Demographic and Health Surveys (read the instructions first)

- **Modern contraceptive use:** Modern contraceptive use by currently married Ethiopian women has steadily increased over the last 15 years, jumping from 6% of women using modern contraceptive method in 2000 to 35% in 2016.
- **Methods used:** By method, the largest growth has been in injectables use, which expanded from use by 3% of women in 2000 to 23% in 2016, followed by growth in implant use, from less than 1% of women using in 2000 to 8% in 2016.
- **Sources of modern methods:** The most popular sources of modern contraception are public sector sources (84%); only 14% get their modern methods from private sector sources.
- **Unmet need for family planning:** Twenty-two percent of currently married women have an unmet need for family planning
- **Percentage of demand for family planning satisfied:** Overall, about 6 in 10 currently married women age 15- 49 have their demand for family planning satisfied.
- DHS 2016, direct quote, page 103

Knowledge of a Family Planning Method: All women (DHS 2016)

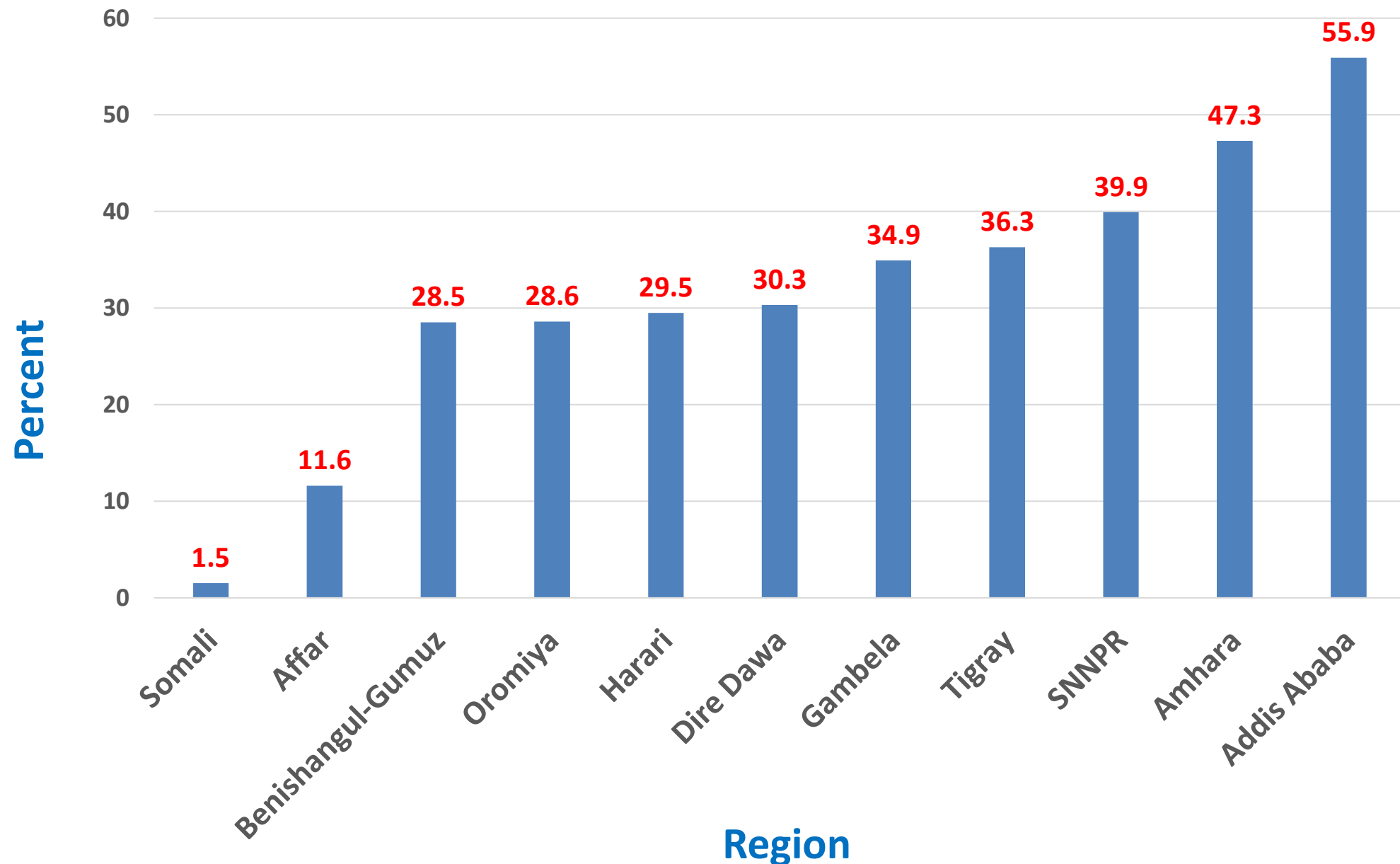


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- Injectables and the pill are the most widely used birth control methods in Ethiopia.
- More than four in five women who used any modern method used these two methods (each)
- At 46% the condom is the third most widely used method of birth control in the country.

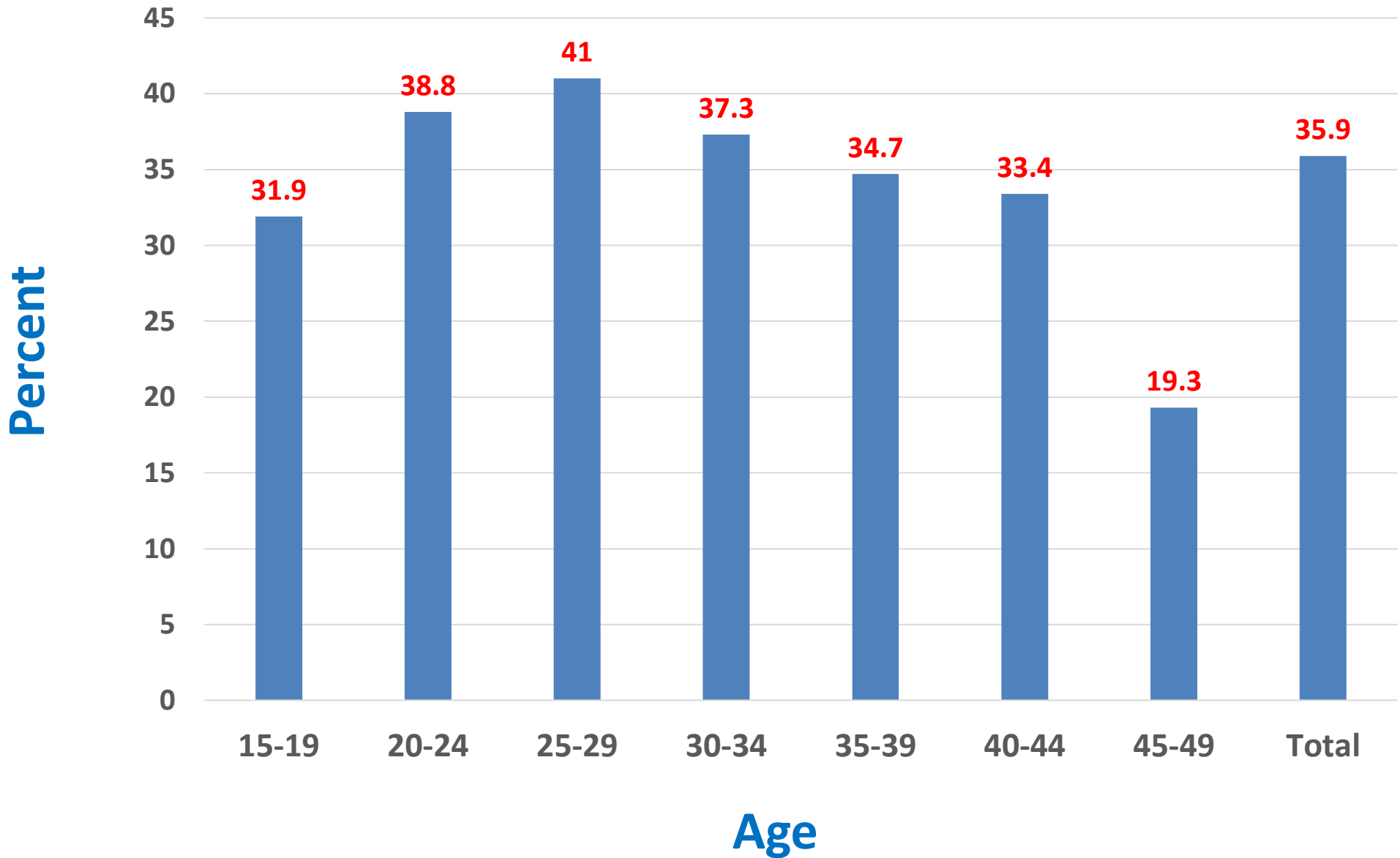
Current Use of Contraceptives by Region : DHS 2016



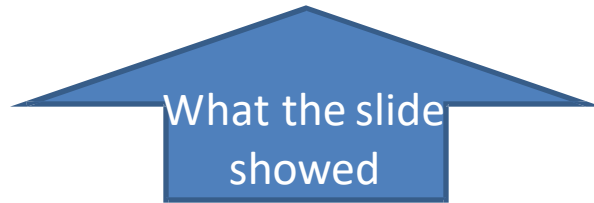
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- Current use of modern contraception for married women is lower in rural areas (32%) than in urban areas (50%).
- Regionally, currently married women Addis Ababa have the highest use of modern contraception (50%) and Amhara women are second (47%). Currently married women in Somali have the lowest use of modern contraception (1%), followed by Affar (12%).
- Education has a big role : modern contraceptive use among currently married women increases with educational achievement from 31% for women with no education to 51% for women with secondary education or higher.
- And wealth makes a big difference as use of modern contraception rises sharply with wealth, ranging from 20% for women in the lowest wealth quintile to 47% for women in the highest wealth quintile

Current Use of Contraceptives by Age (all women) : DHS 2016



Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017



- The low percentage of women in the 45 – 49 age group using any method of contraception reflects the recency of adoption of the technique by the 20% or so Ethiopian women in this age group who are now using birth control methods. It is worth noting that the percentage is higher in this DHS than in previous ones for this age group and for all other age groups.
- The rate for youngest age group (15-19) has shown a significant rise from previous DHS reflecting greater propensities to engage in sexual activity in recent years coupled with greater awareness of and access to contraceptives.

Exposure to Media Messages and Family Planning Decision Making: DHS 2016

- The most often cited source of information on family planning messages reported by women and men age 15-49 in the few months prior to DHS 2016 is community event or conversation (38% and 37%, respectively)
- Another main reported by 24% of women and 33% of men is radio. Television is mentioned by 18% of women and 23% for men
- Printed materials including newspapers, magazines, and pamphlets, posters, or, leaflets are cited as sources of family planning messages were reported by 5-6% of women

Media and decision making....contd.

Women's exposure to family planning messages through new technologies, such as mobile phones is limited; two percent and three percent respectively.

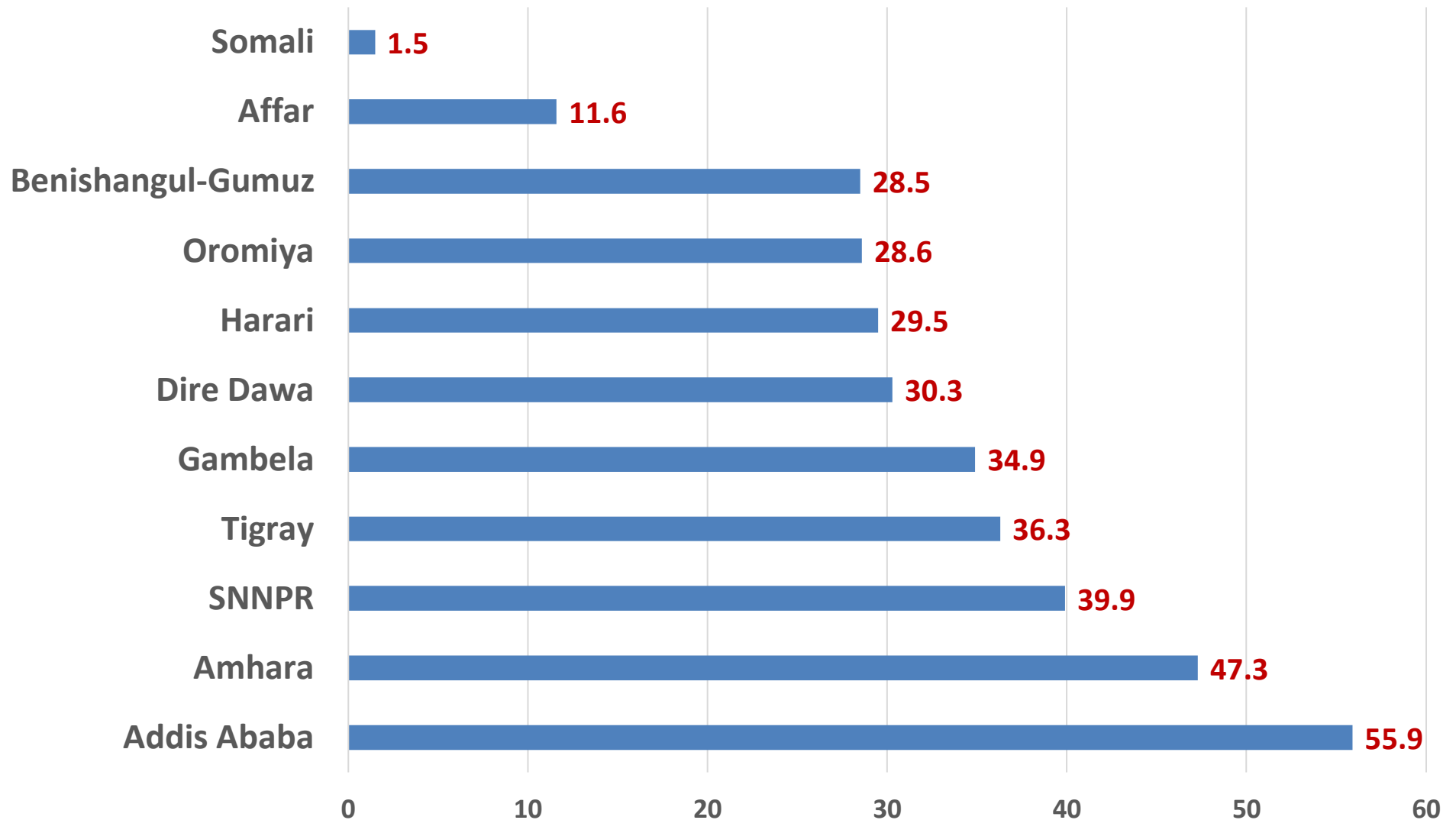
Overall, 46% of women and 40% of men age 15-49 have no exposure to family planning messages through any of these above mass media means."

On decision making about family planning, 73% of currently married women age 15-49 who are using a family planning method reported that the decision to use it was made jointly with their husband

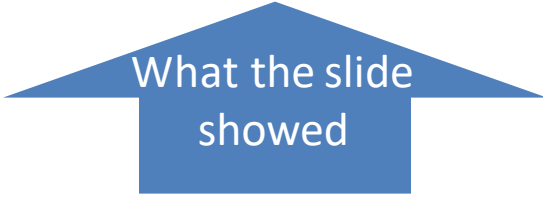
For 22% of the women the decision was made mainly by themselves, and for 5% the husband was mainly responsible for the decision.

"Among currently married women age 15- 49 who are not using a family planning method, 58% made the decision not to use family planning jointly with their husband, 30% decided themselves, and for 10% the husband decided."

Percent of Women 15-49 Using Any Contraceptive Method by Region : DHS 2016



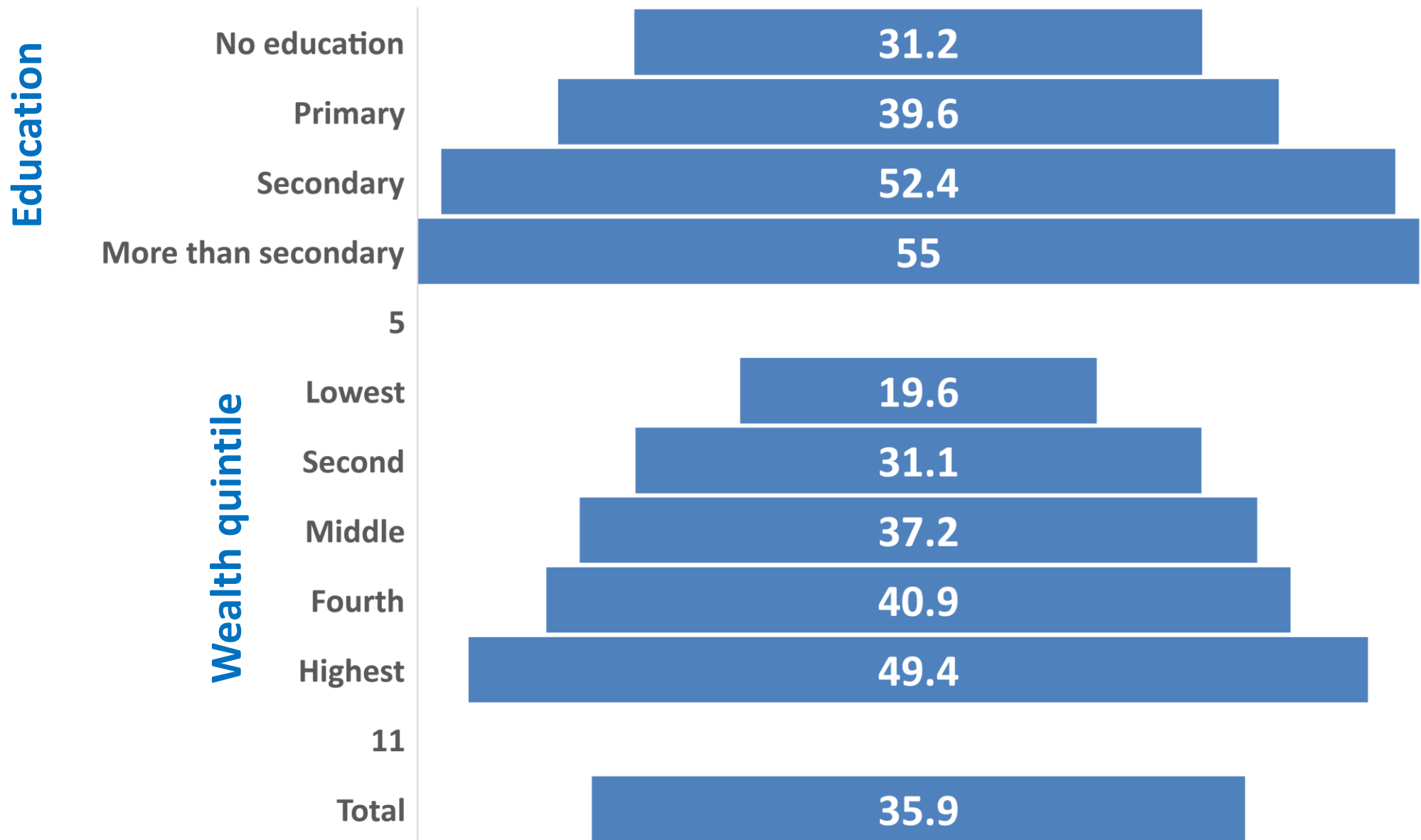
Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

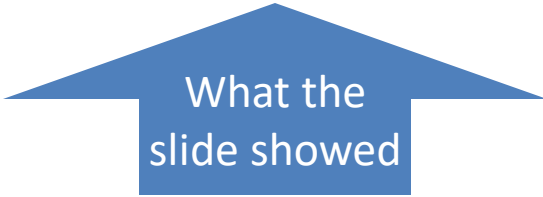


What the slide
showed

- The adoption of family planning in urban Ethiopia has gained momentum in recent years. This is reflected by the 46.7% adoption rate. The rate in rural Ethiopia is a dismal 10% but a significant improvement from the late 1980s when it was one to two percent.
- Of the primarily rural regions, Amhara has the highest contraceptive prevalence (47.3%) followed by SNNPR (39.0%) and Tigray (36.3). Somali has the lowest rate (1.5%).
- Given that they are urban places, it appears that the cities of Dire Dawa and Harari are performing below their potential even though they have made marked progress since the last DHS.

Contraceptive Use by Socioeconomic Background : Women 15-49, DHS 2016

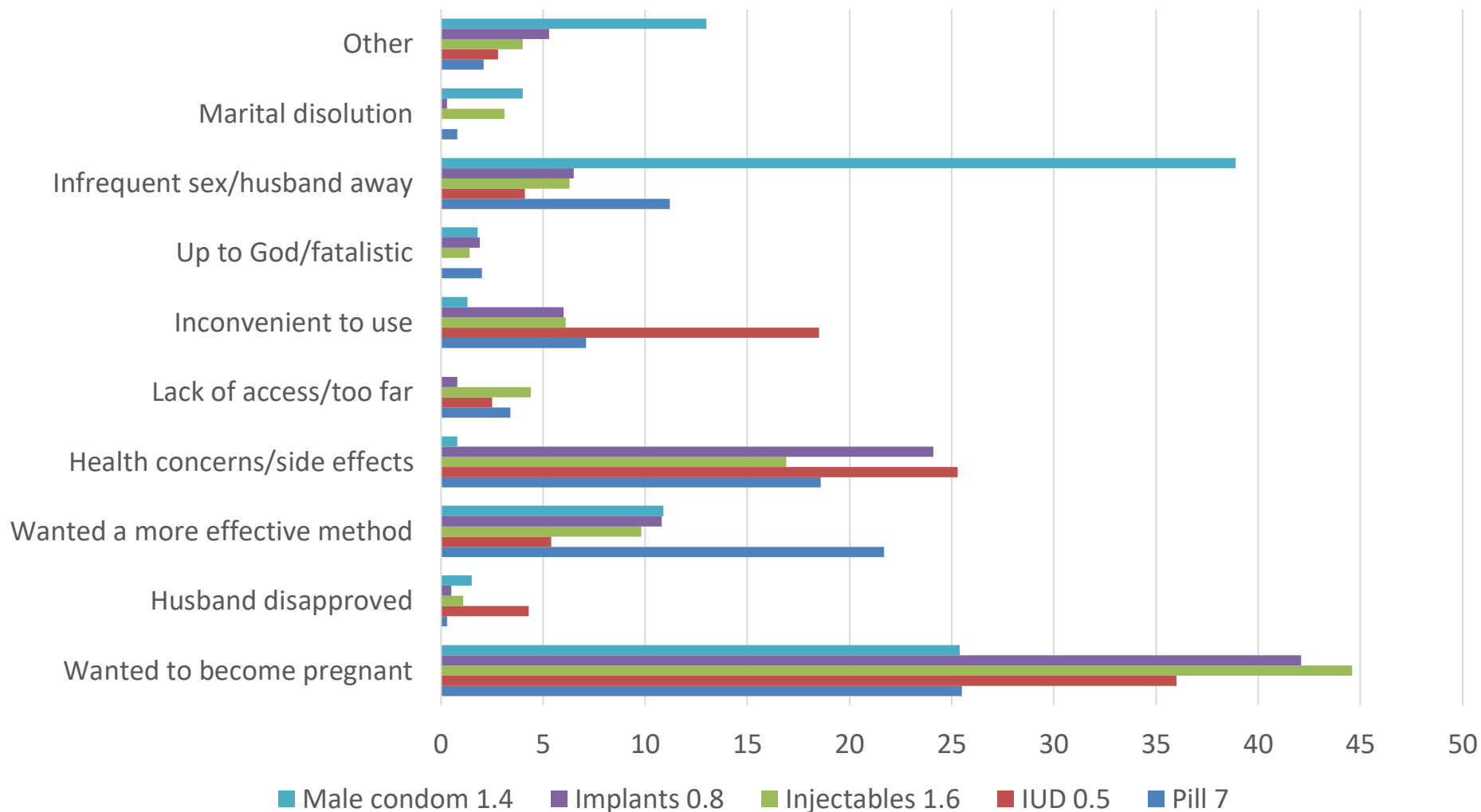




What the
slide showed

- As is the case elsewhere in Africa, Asia, and Latin America, the educational level of an individual woman is the single most important determinant of contraceptive use in Ethiopia
- Compared to a woman with no education, completing just a primary level education provides tangible advantages to an individual woman in terms of desire to use contraception, seeking information about it, knowing where to go to access services, and eventual use
- Completing a high school provides a nearly two-to-one advantage as measure by differences in percentage prevalence
- Wealth is also a very important determinant. The rate for women in the highest wealth quintile is more than twice that for women in the lowest wealth quintile

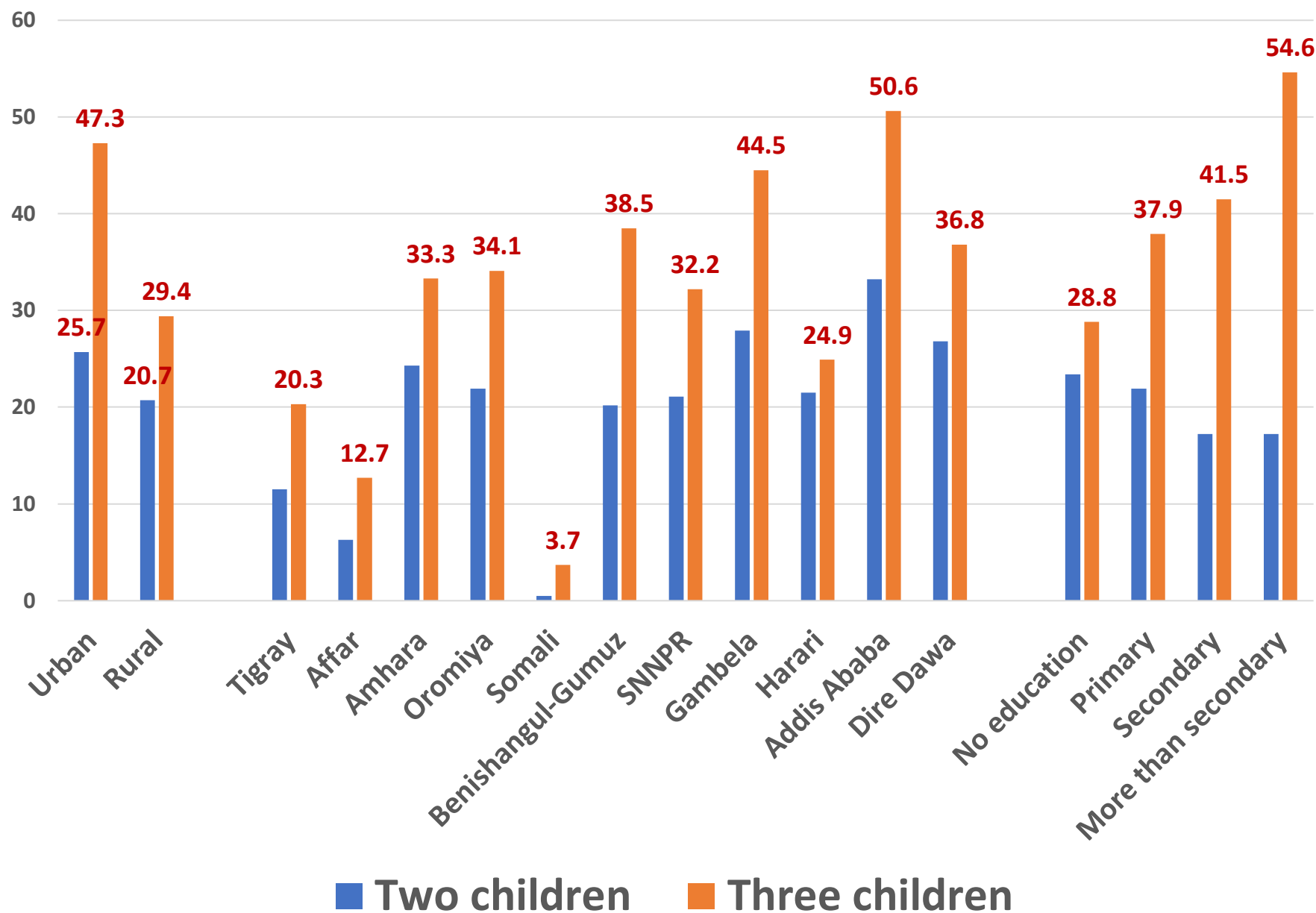
Percent Discontinuation of Contraceptive Discontinuation Within 5 Years Before the 2016 DHS by Method

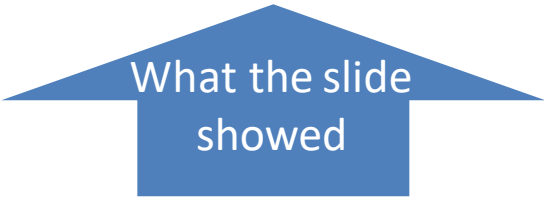


Contraceptive discontinuation

More than one-third of all contraceptive users (35%) discontinued use within 12 months in the 5 years preceding the survey more the most common reasons being the desire to become pregnant (42%) and method-related health concerns or side effects (18%). Page 107

Percentage of Women who Have Two or Three Children and Want No More, By Residence, Region, and Education : DHS 2016



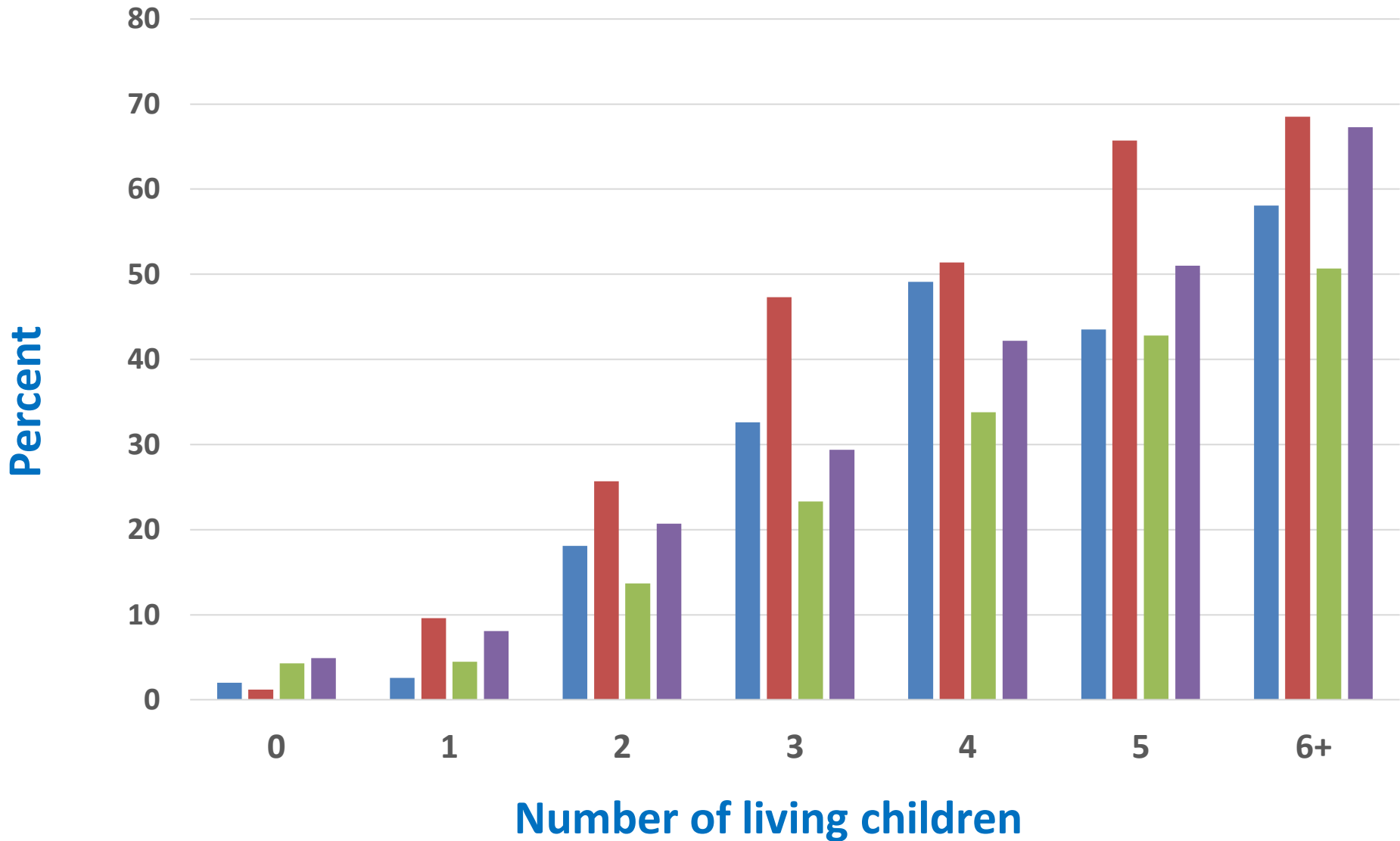


What the slide
showed

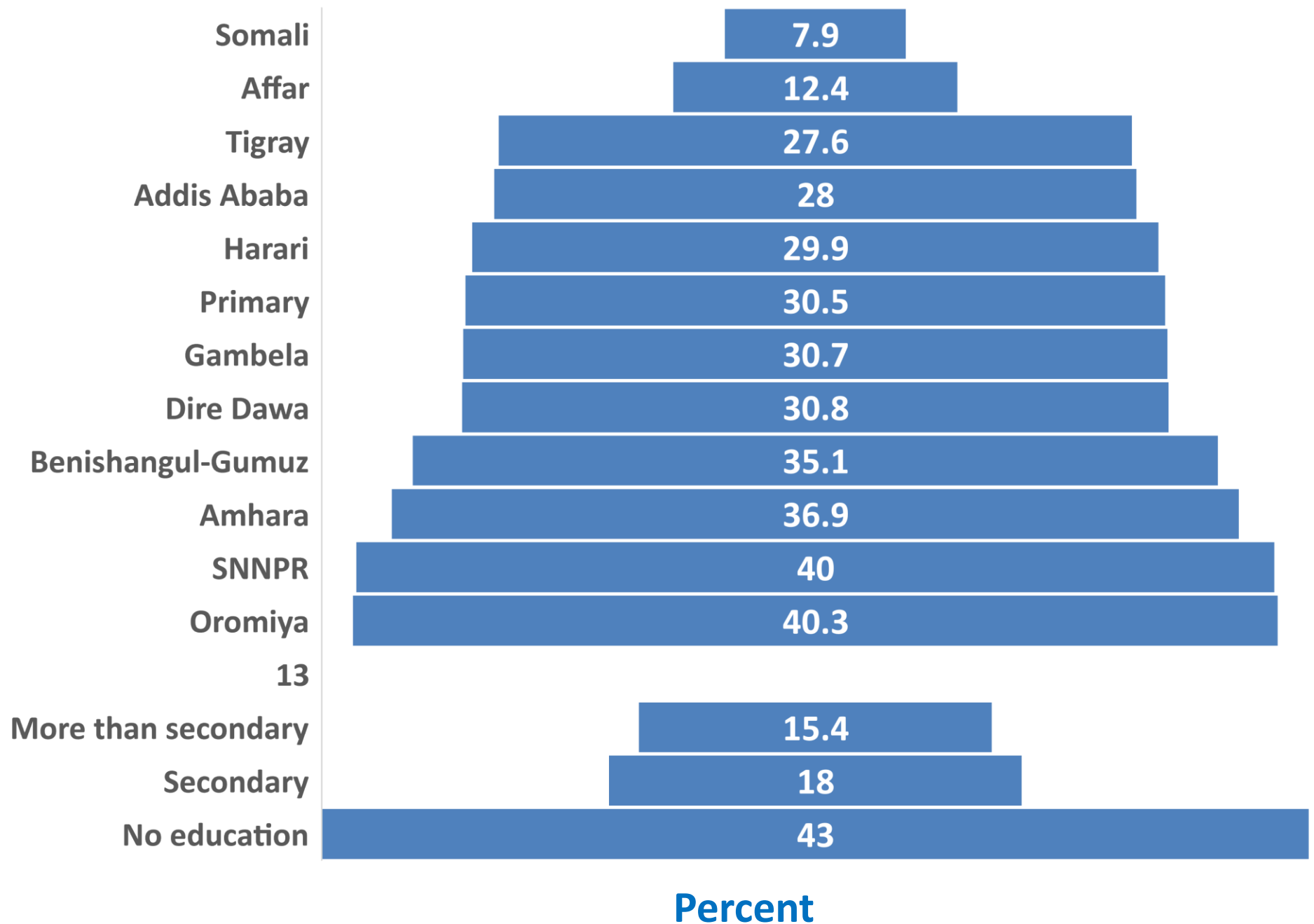
- Only half of the women in Addis Ababa who have had 3 births want more children. The other half don't. A comparable group is women with above secondary education. Gambella tops the primarily rural regions with 44.5%
- In Somali, 96% of such women want more children; 83 percent in Afar. The urban-rural difference is also worth noting
- “In Ethiopia, 2% of currently married women age 45-49 have never given birth. Since voluntary childlessness is rare, this is often viewed as a measure of primary sterility”. P79

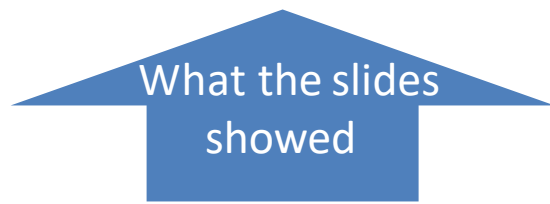
Percentage of Women who do not Want and More Births by Current Number of Living Children : DHS 2016

Urban men Urban women Rural men Rural women



The Percentage of Women who Want no More Births by Region and Educational Level : DHS 2016





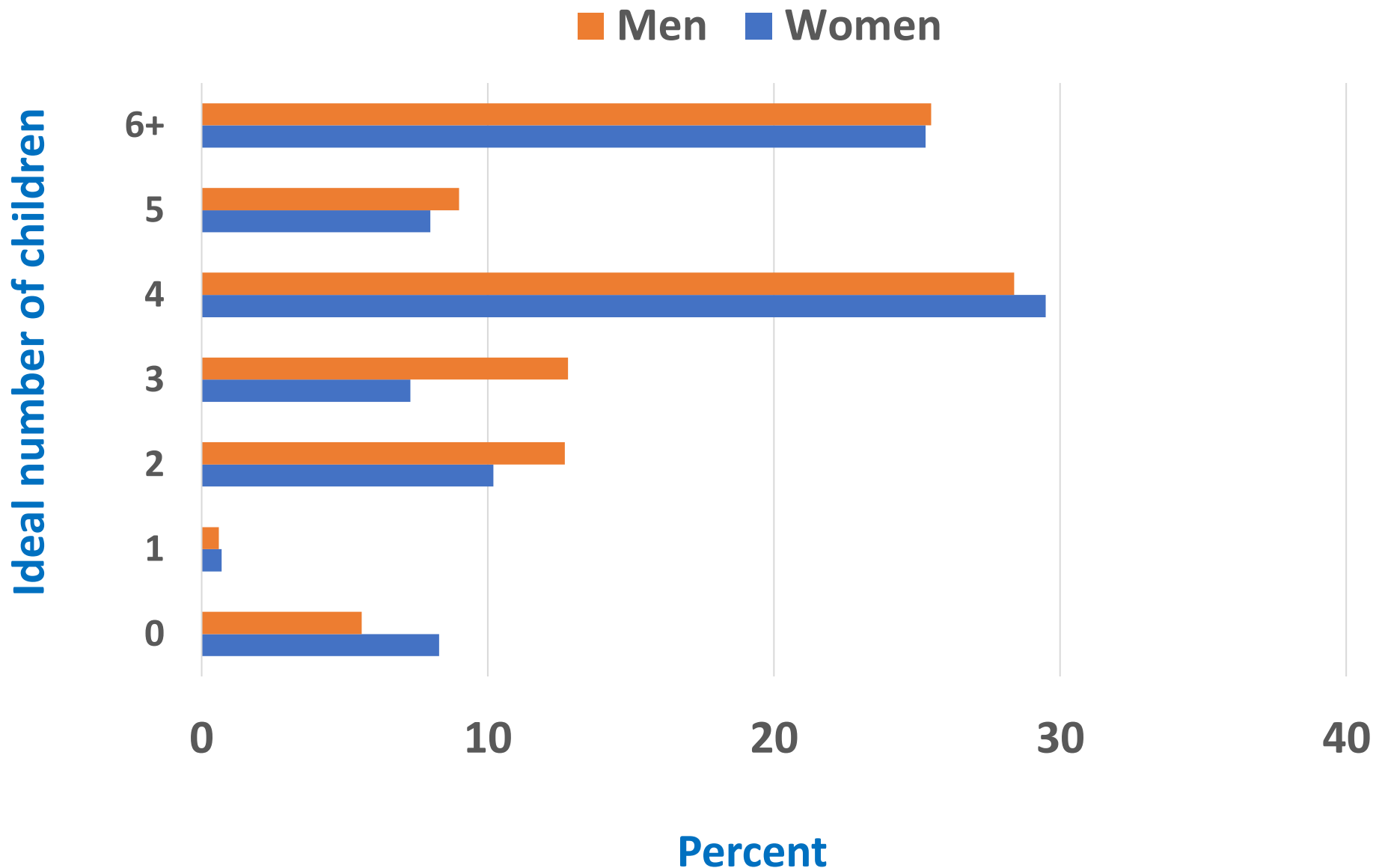
➤ Half of rural women with 6+ children still want more; two thirds of urban women don't

However, there is a strong spatial component . The fifty-fifty split (national level) fails to hold at regional levels. For example, 96% of Somali women (urban and rural combined) with 6+ births want more; 93% in Afar.

➤ The overall percentage of women who want no more children regardless of the current number of living children is highest (>40%) in Oromiya and SNNPR, and for women with no education

➤ It is not surprising that the percentage of women who want no more children is lower in the urban regions of Addis Ababa, Dire Dawa, Harari than in Oromiya and SNNPR, as the birth rates are low and these women would like to make

Percentage of Women and Men 15-49 by the Ideal Number of Children : DHS 2016



- The modal ideal numbers of children for both men and women are four and six (see above slide)
- The male-female difference in the ideal family size is insignificant (see above slide)
- “Mean ideal number of children decreases as women’s level of education increases. Women with no education want 5.2 children, while those with more than a secondary education want 3.6 children.”
- “Mean ideal number of children also decreases with increasing wealth. Women in the lowest wealth quintile prefer 5.5 children, while women in the highest quintile prefer 3.9 children.”

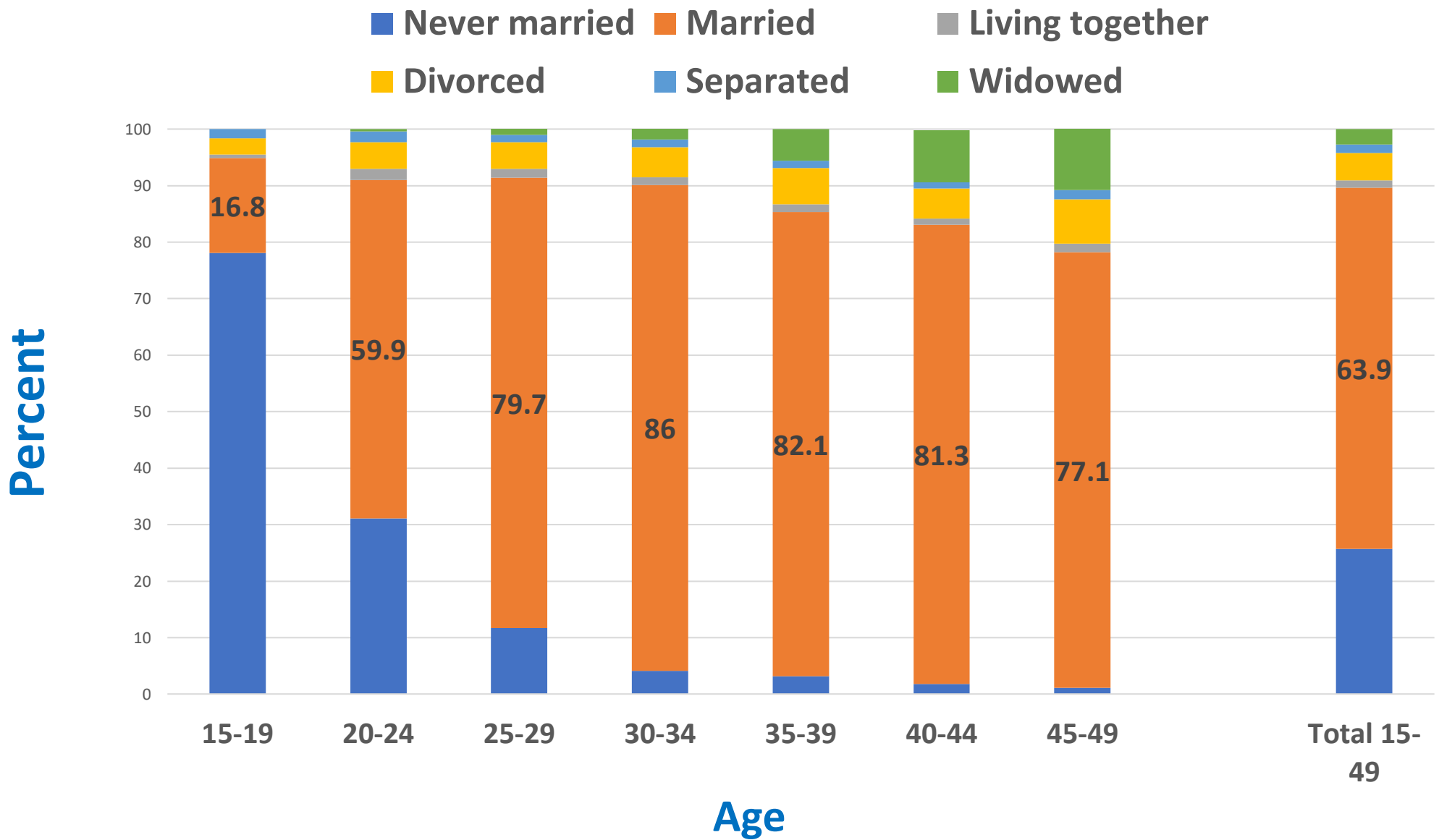
Proximate Determinants of Fertility

Marriage

Click **HERE** to access an interactive web
map of results from the four rounds of Ethiopian
Demographic and Health Surveys (read the
instructions first)

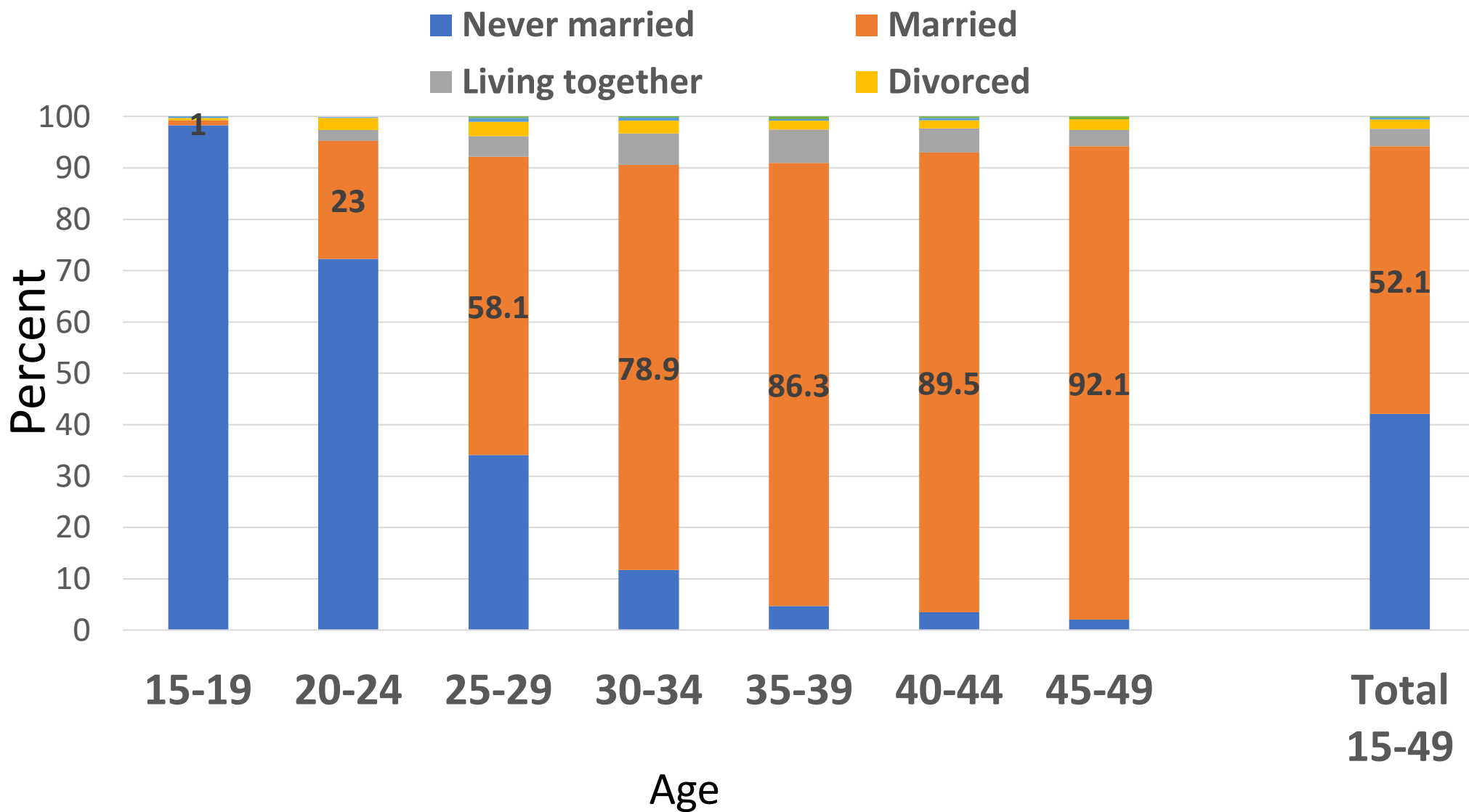
- ***Current marital status:*** Sixty-five percent of women and 56% of men in Ethiopia are currently in a union.
- ***Polygyny:*** Eleven percent of currently married women report that their husband has multiple wives.
- ***Age at first marriage:*** Marriage is nearly universal in Ethiopia, although women marry about 6.6 years earlier than men on average. Median age at first marriage is 17.1 years among women and 23.7 years among men age 25- 49.
- ***Sexual initiation:*** The median age at first sexual intercourse is 0.5 years earlier than the median age at first marriage for women and 2.5 years earlier for men; this indicates that both women and men engage in sex before marriage.
- ***Trends:*** Age at first marriage has dramatically changed for women and girls. More than 30% of women born in the seventies married before age 15, while for those born in the nineties, this indicator is around 10 percent.

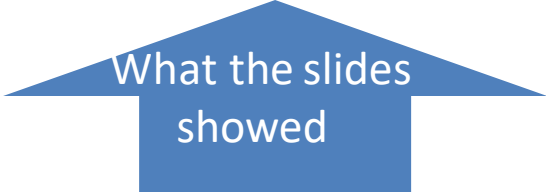
Percentage of Women 15-49 by Marital Status DHS 2016



Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

Percentage of Men 15-49 by Marital Status DHS 2016



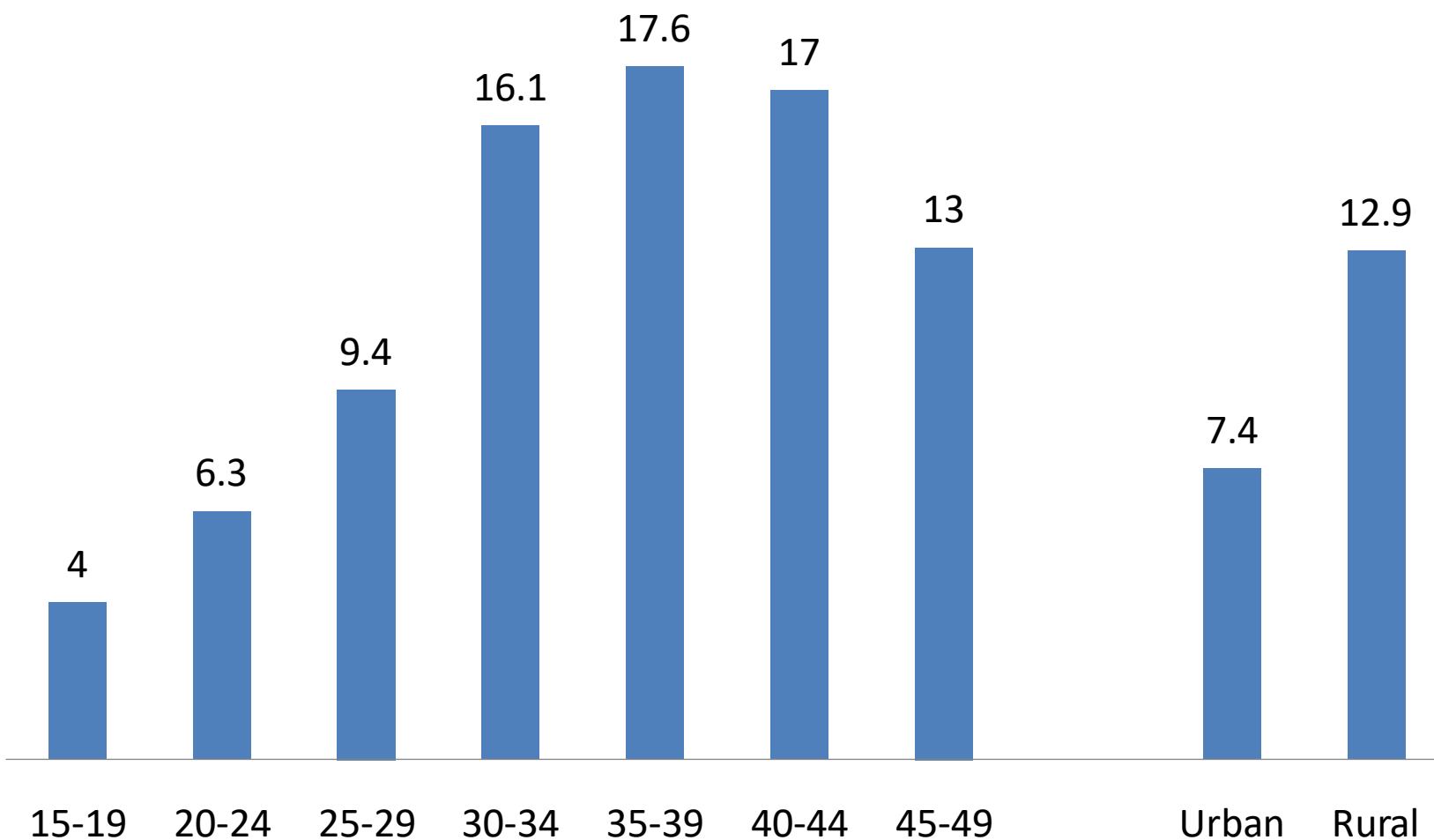


What the slides
showed

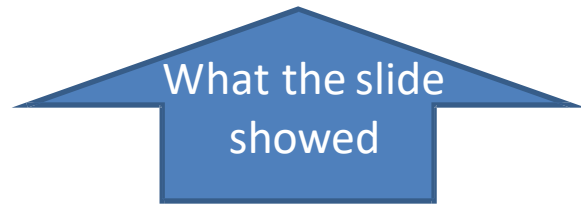
- Nearly 17% of girls and young women marry while still in their teen years and close to two-thirds marry before age 25.
- Men's proportions in the "married" group do not take off until the age group 25-29.
- The male-female age difference at marriage suggests that men in the 25-34 age group are marrying the age groups 20-24 and 25-30 (a five to ten year age gap).
- The percentage of married women decreases after the age group 30-34 as divorce and separation rates spike and women, especially those married to much older males, become widows. Widowhood is rare for men; they simply remarry.

Polygyny

Percentage of Women whose Husbands have at least one other Wife,
by Age group and Urban-Rural Residence , 2005

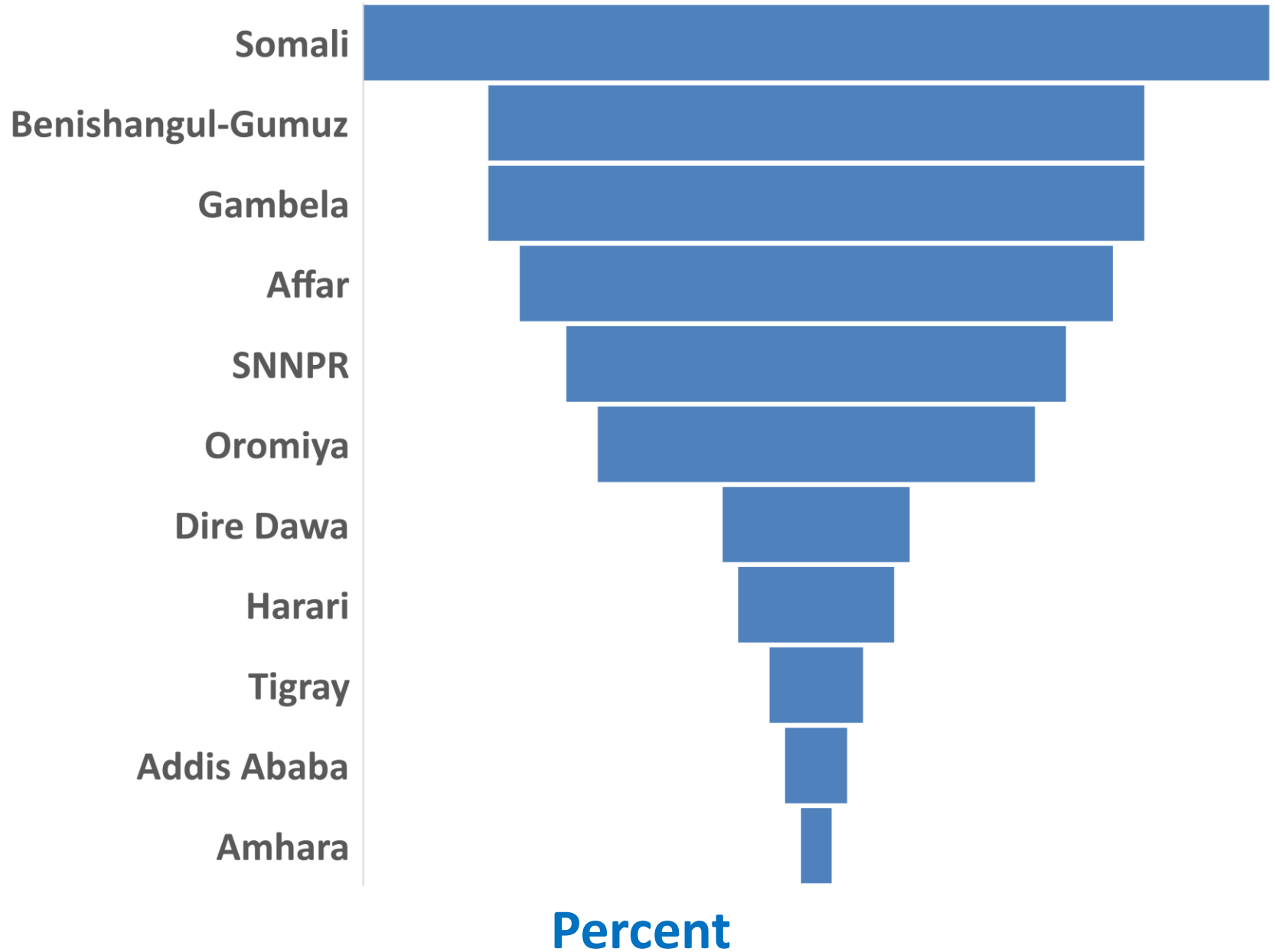


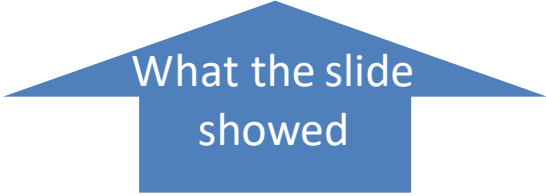
Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2005, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017



- Husbands begin to take second or third wives at appreciable rates when the first wife reaches age 30.
- Sociological studies can reveal whether this is done partly at the urging of the first wife, who may have 5 or more children by now, to lessen the crushing burden of child-rearing, caring for the entire family, and farming duties.
- There is a significant urban-rural difference in polygyny.

Percent of Women 15-49 in Polygynous Union by Region : DHS 2016





What the slide
showed

➤ More than a quarter of husbands in Somali and one in five in Gambella, Benishangul Gumuz, and Afar have two or more wives; more than a fifth in Afar.

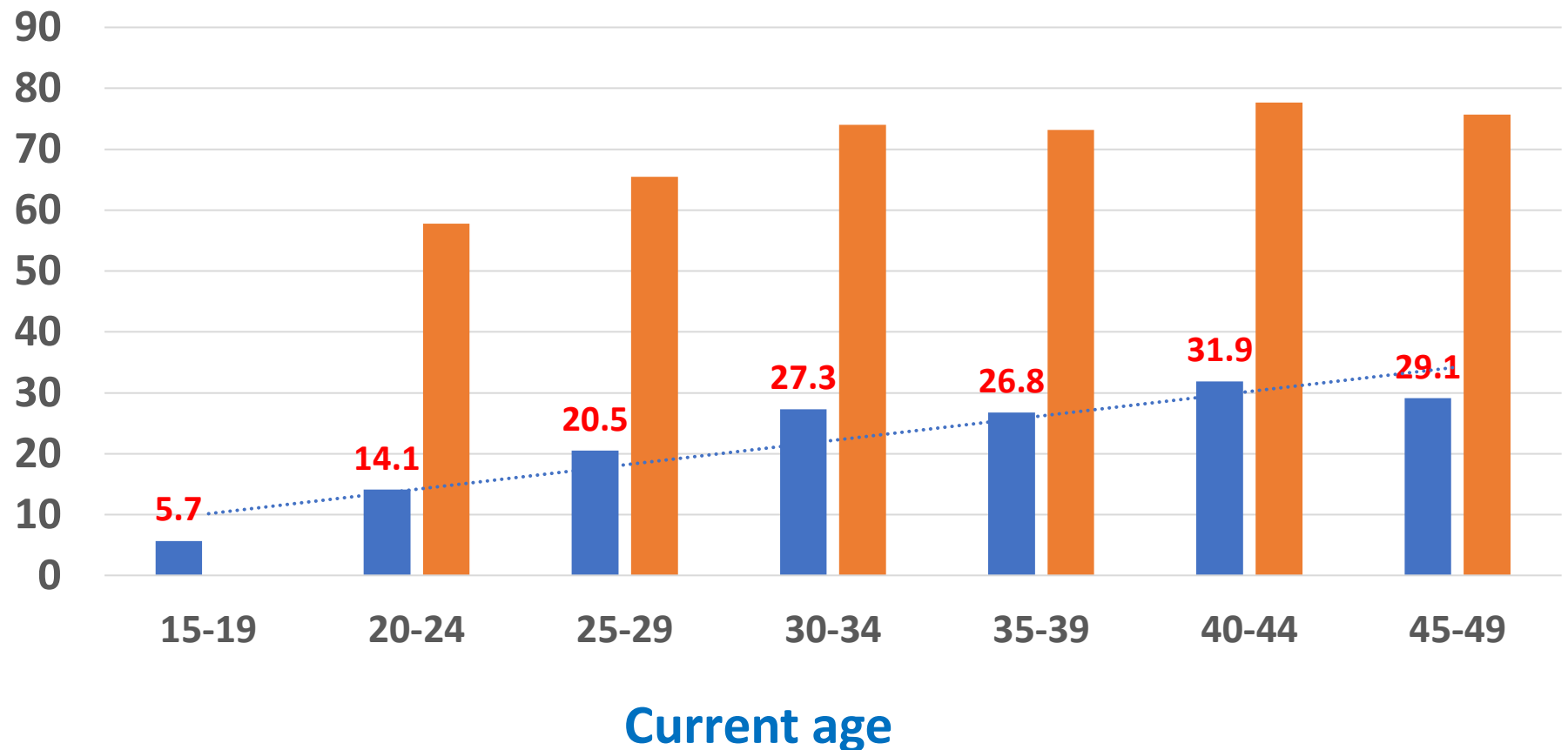
➤ The Amhara region is the most monogamous region in Ethiopia. However, given the reported high divorce rates in the region, one is tempted to ask whether or not this is a case of serial monogamy whereby couples marry, divorce or separate, marry another, divorce again...e.t.c.

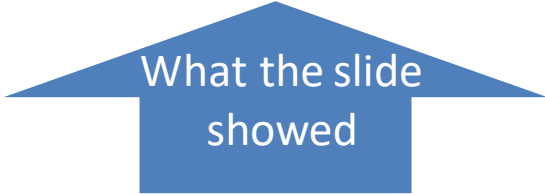
- **Polygynycontd.**

- **Age is a factor** : In general, older women are much more likely than younger women to have co-wives with percentages ranging from 4% among those age 15-19 to 18% among those age 45-49
- **Rural-urban residence** : Rural women are more likely to report having co-wives (12%) than urban women (5%)
- **Education matters** : “Women with no education are much more likely to have co-wives (14%) than women who have attended school (7% or less)”

Percentage of Women who Married at Exact Age Fifteen or Twenty by Current Age : DHS 2016

■ Percentage first married by exact age: Fifteen



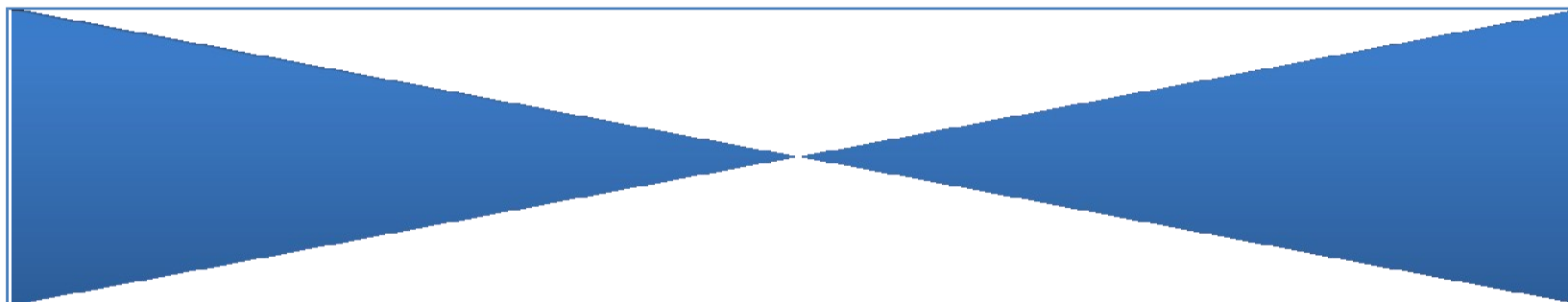


What the slide
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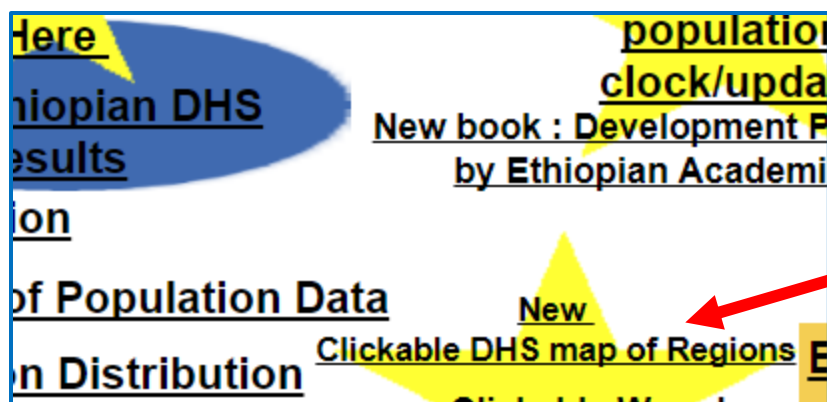
➤ The age at marriage has been increasing sharply in Ethiopia as shown by the precipitous decline in the percentage of women marrying at age 15 from the older cohorts (40- 44/45-49) to the younger cohort (25-29/30-34), and even more sharply among the youngest cohorts (20-24 and 15-19)

- Marriage marks the point in a woman's life when sexual activity and childbearing becomes socially acceptable. However, there appears to be a widening gap between age at marriage and age at first sexual intercourse.
- Among women age 25-49, the median age at first intercourse is 0.5 years younger than the median age at first marriage (16.6 years versus 17.1 years) (DHS, 2016).
- This indicates that many women engage in sexual activity before marriage.
- In other words, women may be exposed to the risk of pregnancy and childbearing at an even earlier age than is indicated by the median age at first marriage.

Infant and Child Mortality



Demographic and Health Survey, DHS 216



Use this link on the main page for instructions on how to use a **CLICKABLE** web map of Ethiopia's demographic and health survey results

“One of the targets of the millennium development goal is a two-third reduction in infant and child mortality by 2015, to be achieved through upgrading the proportion of births attended by skilled health personnel, increasing immunization against the six vaccine preventable diseases, and upgrading the status of women through education and enhancing their participation in the labour force.”

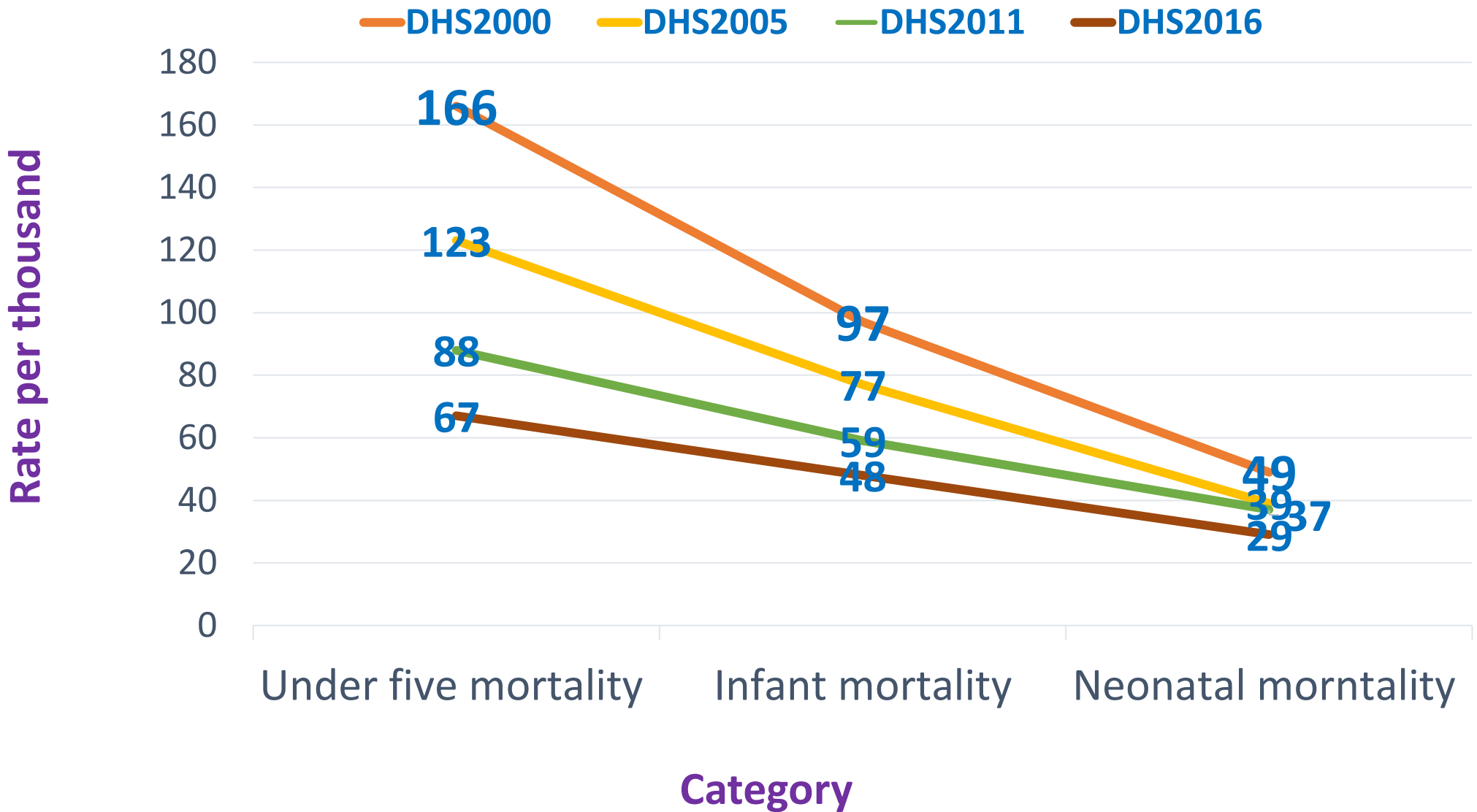
KEY FINDINGS, DHS 2016

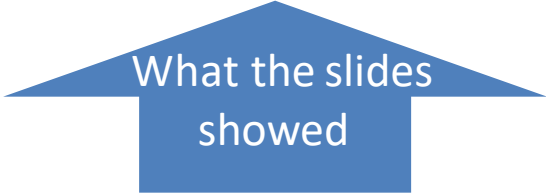
- **Current levels:** For the 5-year period preceding the survey, the under-5 mortality rate is 67 deaths per 1,000 live births, and the infant mortality rate is 48 deaths per 1,000 live births. This means that 1 in 15 children in Ethiopia dies before reaching age 5, and 7 in 10 of the deaths occur during infancy.
- **Trends:** Childhood mortality has declined substantially since 2000. However, the change in neonatal mortality is not as significant as the change in post-neonatal and child mortality.
- **Regional differences:** Regions show large variations in childhood mortality. Under-5 mortality ranges from a low of 39 deaths per 1,000 live births in Addis Ababa to a high of 125 deaths per 1,000 live births in Affar.
- **High-risk fertility behaviour:** Seventy-seven percent of currently married women have the potential for a high-risk birth. Sixty-two percent of births have high mortality risks that are avoidable; 38% fall into a single high-risk category and 24% are in a multiple high-risk category. Only 24% of births are not in any high-risk category.

DEFINITION

- **Neonatal mortality:** The probability of dying within the first month of life
- **Post neonatal mortality:** The probability of dying between one month and the first birthday (computed as the difference between infant and neonatal mortality)
- **Infant mortality:** The probability of dying between birth and the first birthday
- **Child mortality:** The probability of dying between the first and the fifth birthday
- **Under-5 mortality:** The probability of dying between birth and the fifth birthday

Deaths Per Thousand Live Births in the 5- Year Period Before the Survey

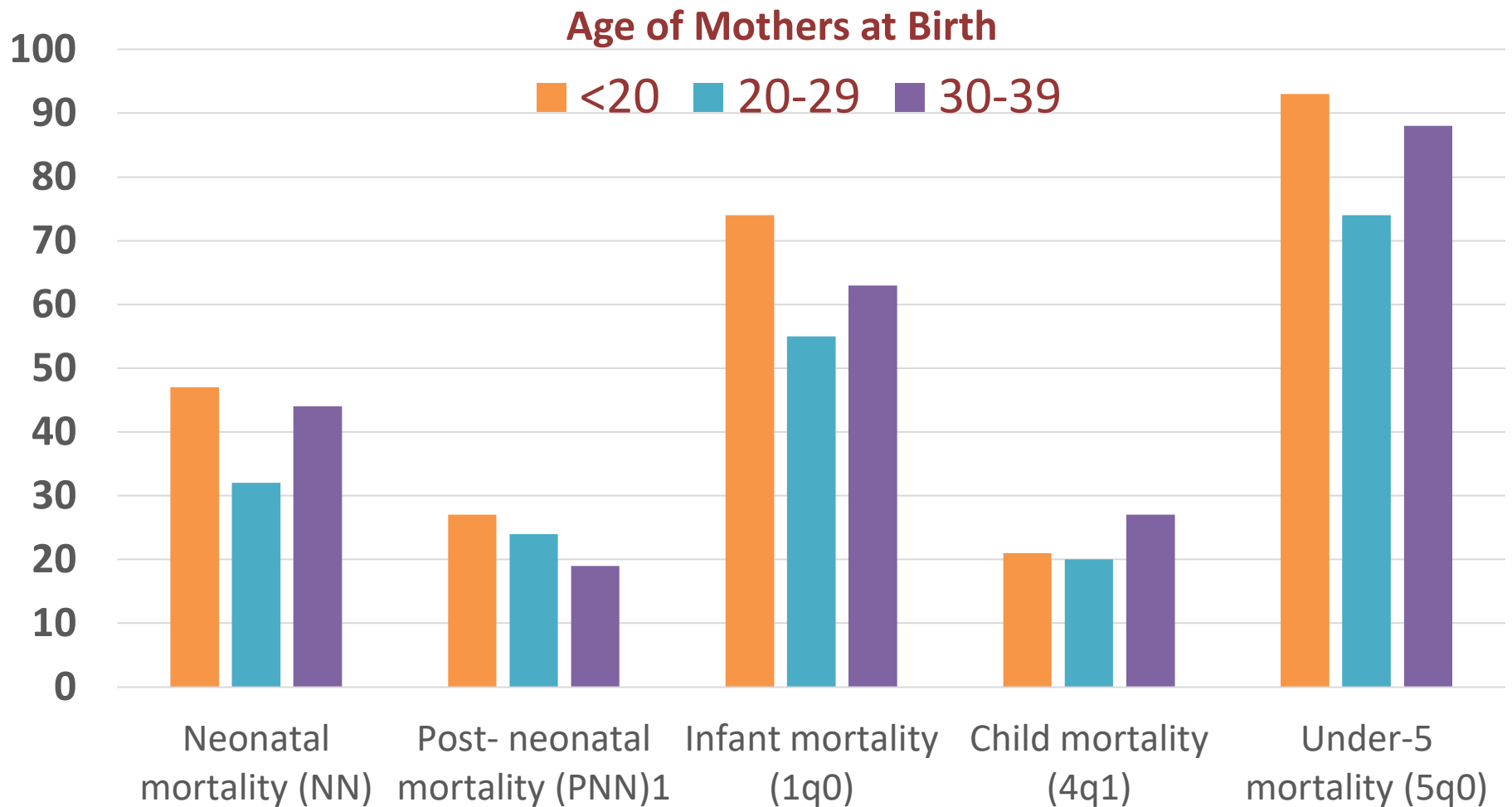




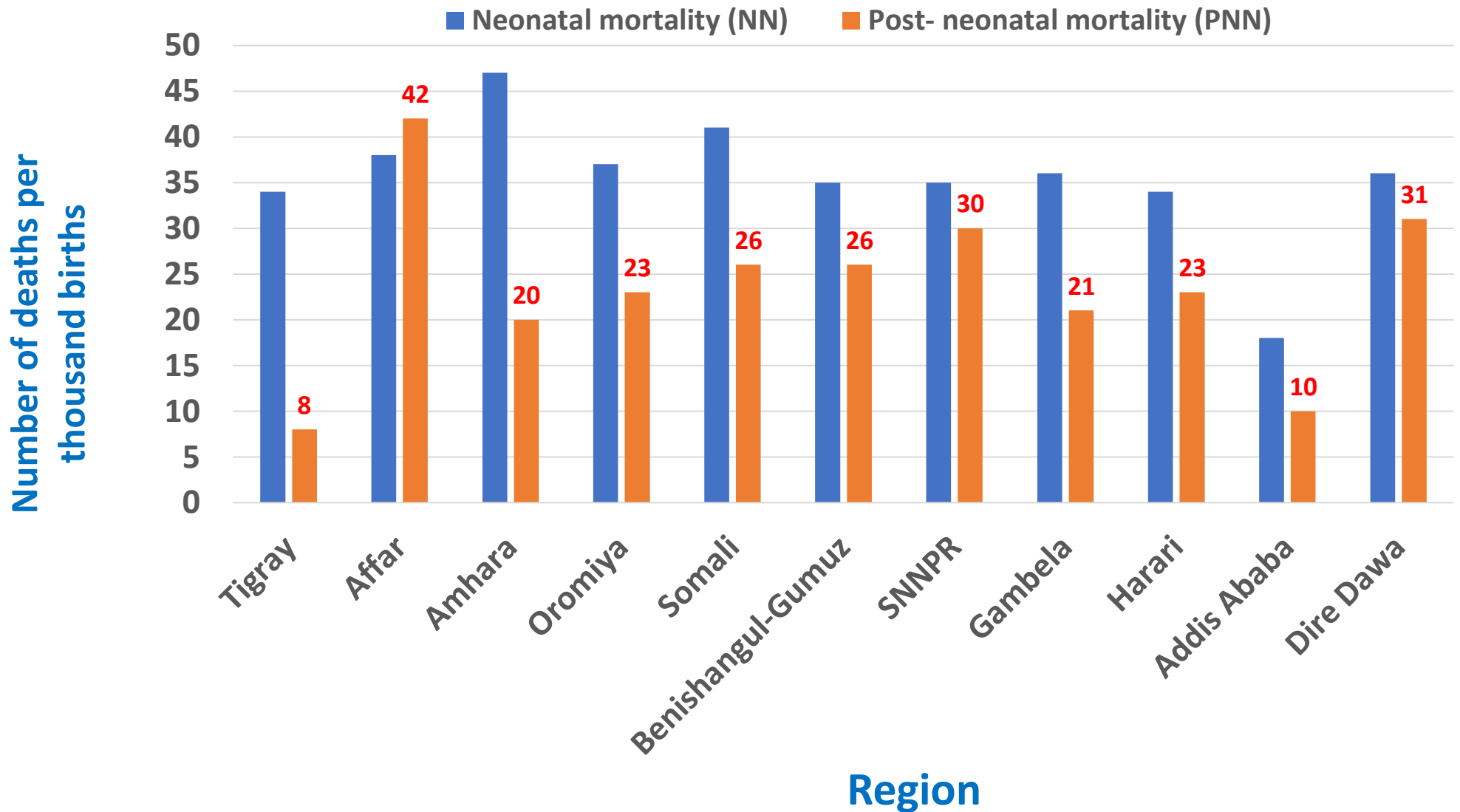
What the slides
showed

- Under-5 mortality declined from 166 deaths per 1,000 live births in 2000 to 67 deaths per 1,000 live births in 2016 . This represents a 60 percent decrease in under-5 mortality in 16 years
- Infant mortality declined from 97 deaths per 1,000 live births in 2000 to 48 deaths per 1,000 live births in 2016 - about 50 percent reduction in the last 16 years.
- Neonatal mortality declined from 49 deaths per 1,000 live births in 2000 to 29 deaths per 1,000 births in 2016, a 41 percent reduction over the past 16 years.

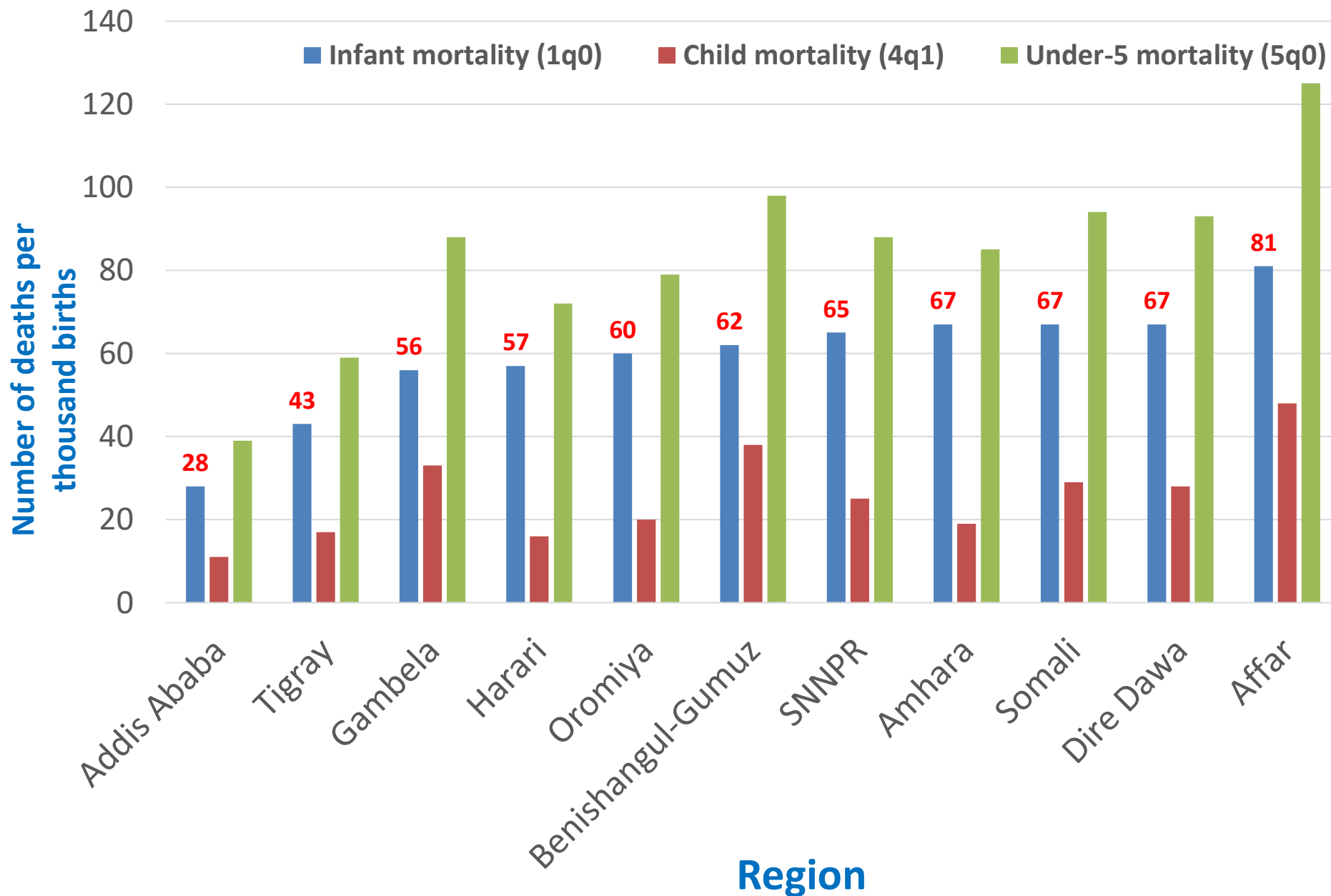
Mortality of Children Under Five by Age of Mothers at Birth : DHS 2016



Neonatal (NN) and Post-neonatal (PNN) Mortality by Region : DHS 2016

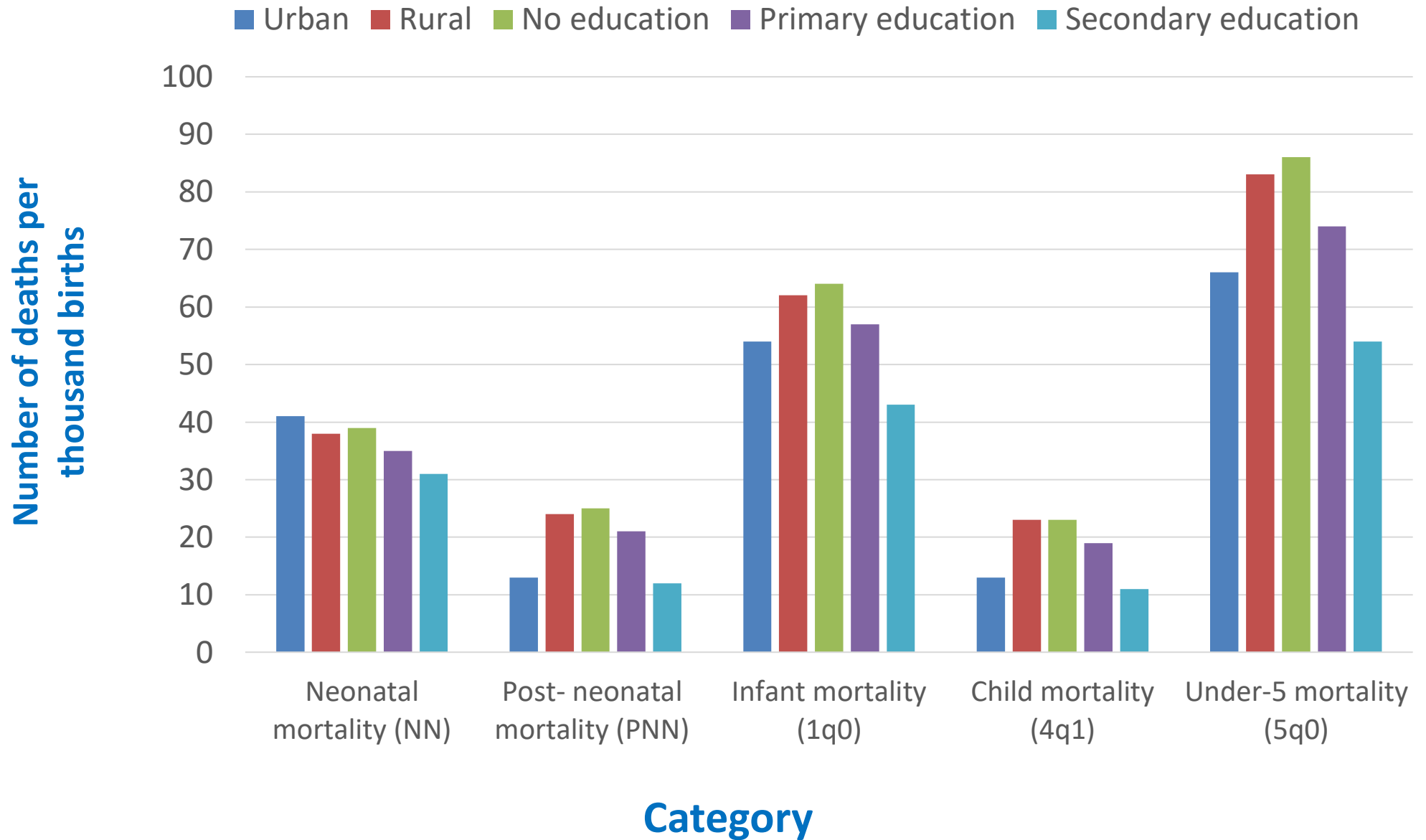


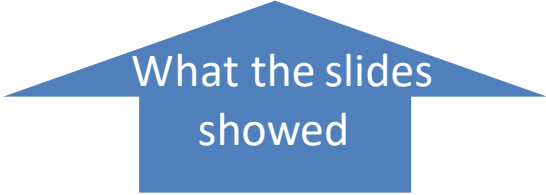
Infant Mortality, Child Mortality and Under-five Mortality by Region : DHS 2016



Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

Mortality rate by Educational Level of Mothers and Urban Rural Residence : DHS 2016



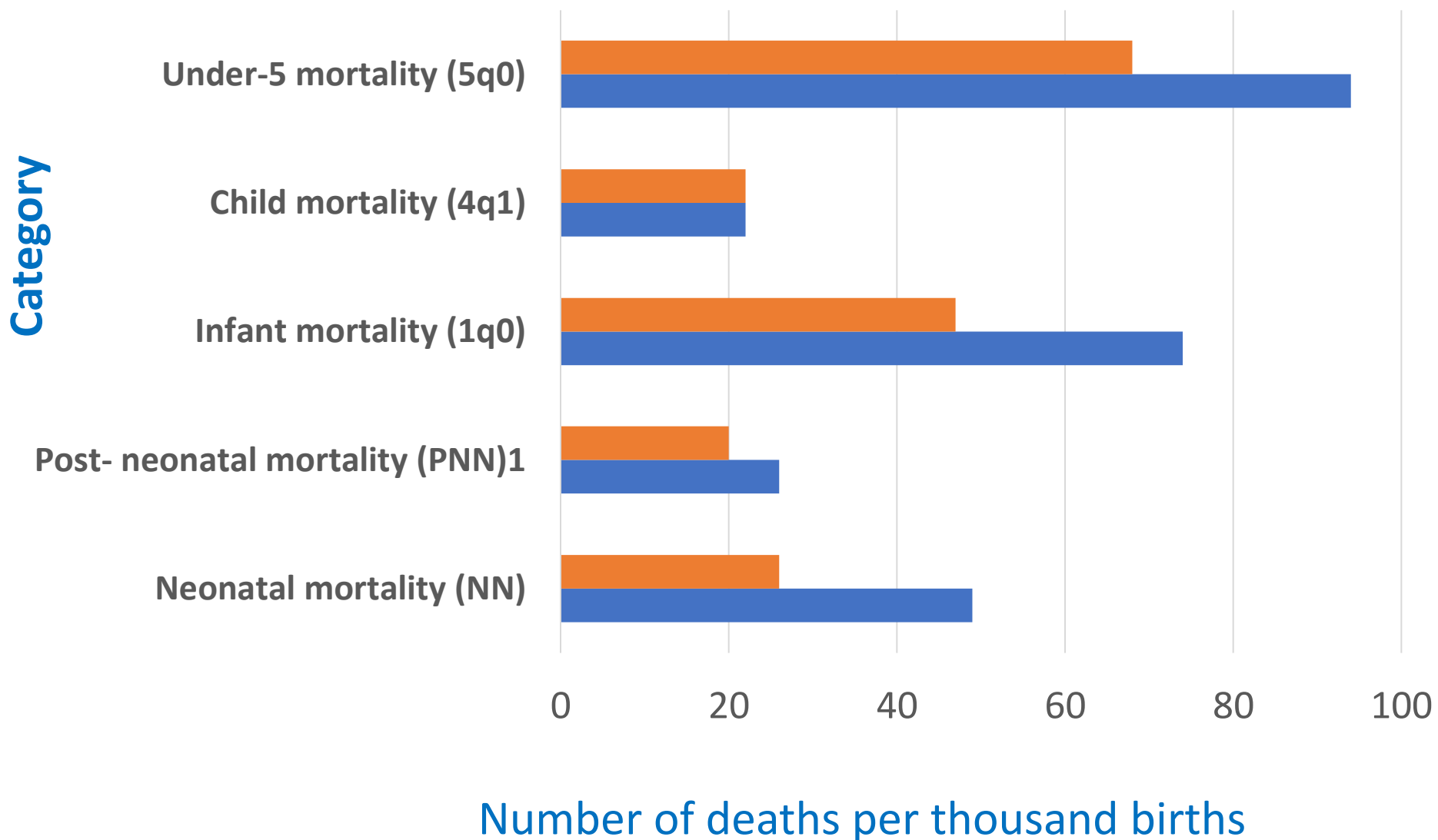


What the slides
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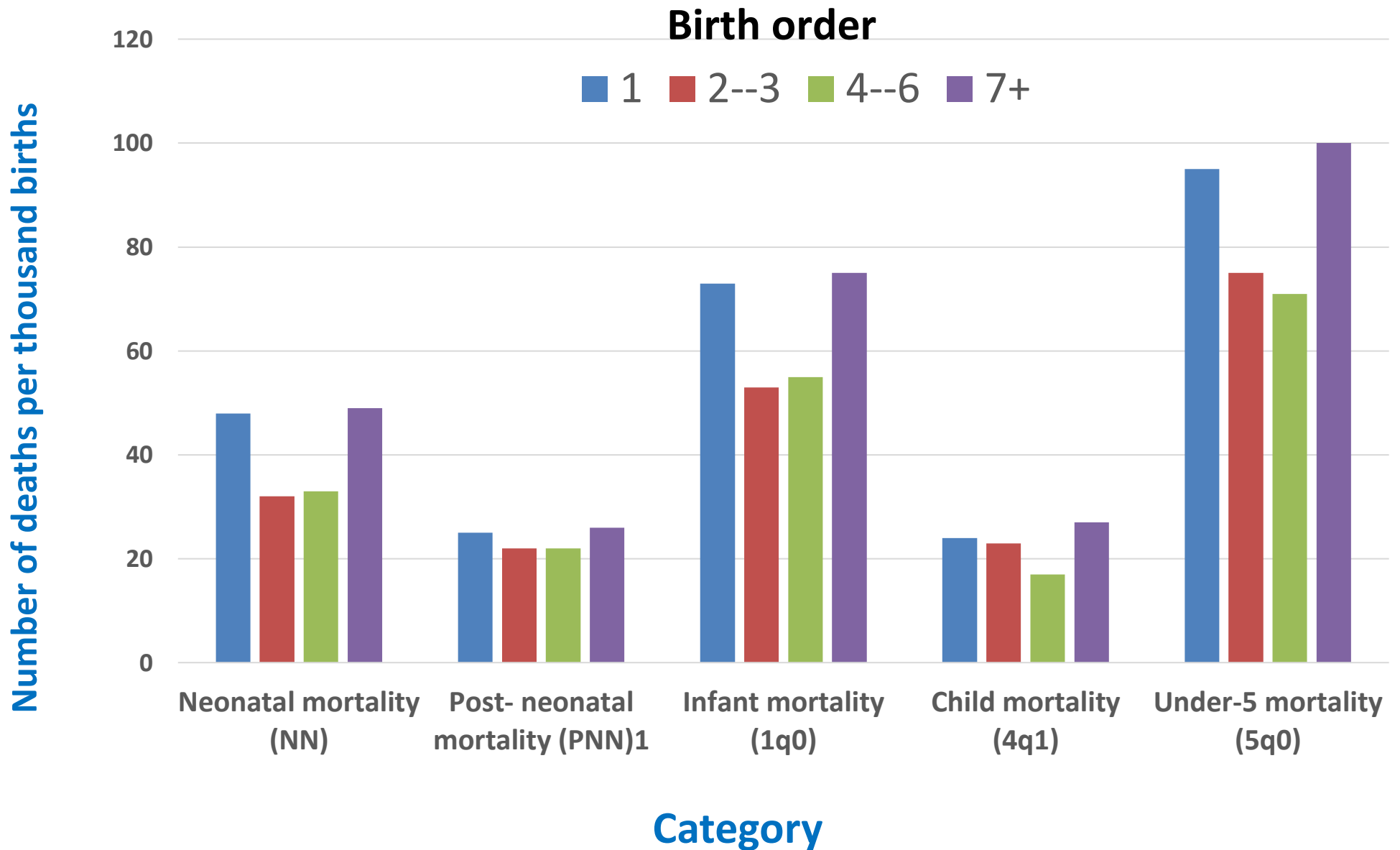
- Mortality among Ethiopia's children is higher in rural areas than in urban areas. For example under-5 mortality is much higher in rural areas than in urban areas - 83 versus 66 deaths per 1,000 live births
- By region mortality among children is highest in Afar, Benishangul Gumuz, and Somali and lowest in Addis Ababa. For example under-5 mortality rate is highest in Affar (125 deaths per 1,000 live births) and lowest in Addis Ababa (39 deaths per 1,000 live births)
- Mortality among Ethiopian children declines with increases in the mother's education. For example, Infant mortality decreases from 64 deaths per 1,000 live births among children whose mothers have no education to 35 deaths per 1,000 live births among children whose mothers have more than secondary education

Mortality under Age 5 by Sex of the Child : DHS 2016

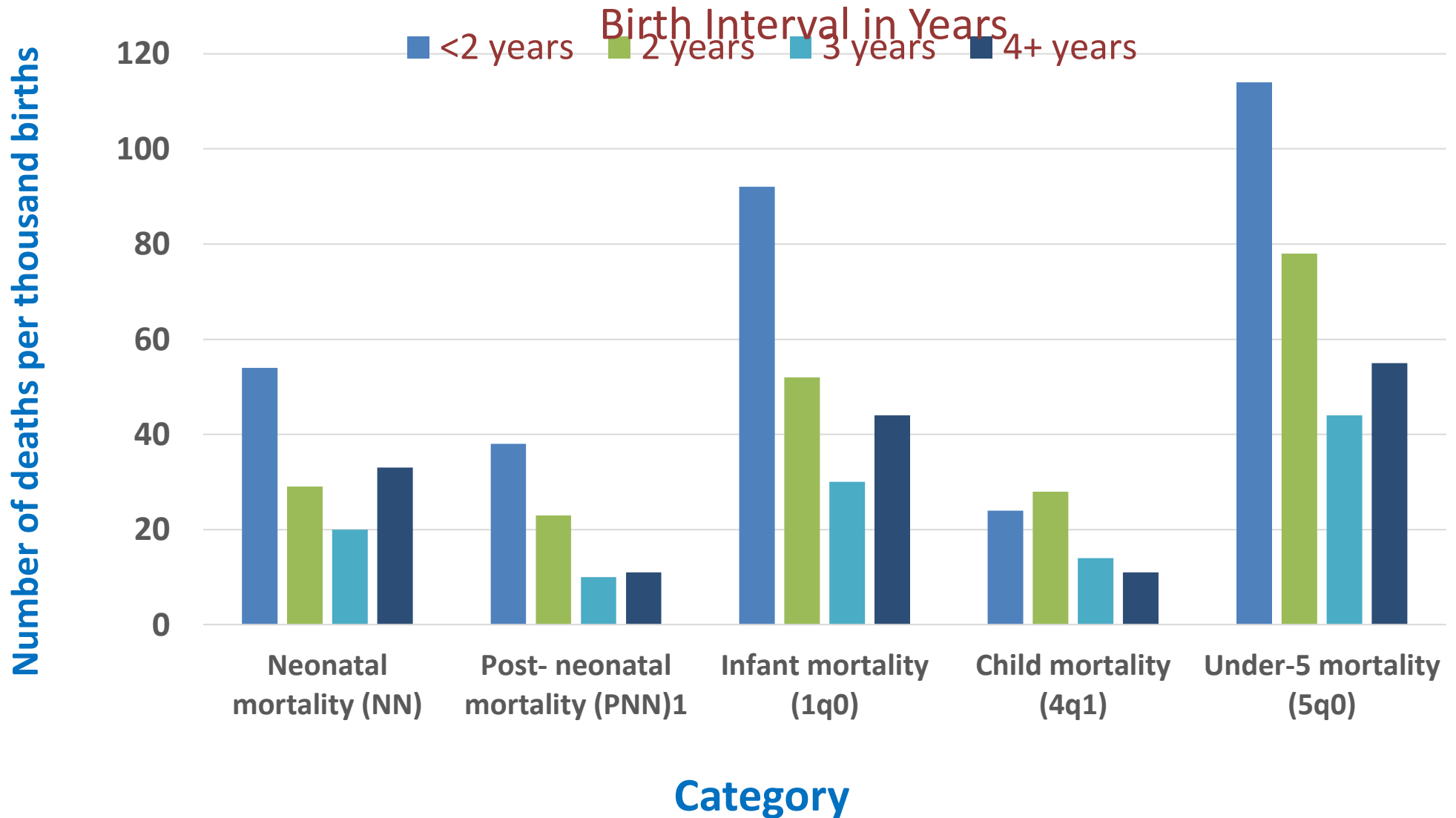
Female Male

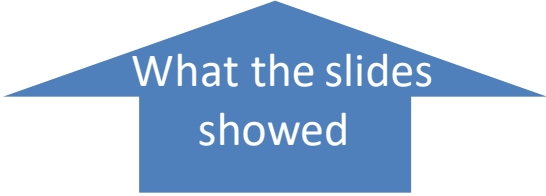


Mortality Under Age Five by Birth Order : DHS 2016



Mortality of Children Under Five by Birth Interval (Years) : DHS 2016





What the slides
showed

- The probability of a child dying in infancy is much greater among children born to mothers who are too young (under age 18) or too old (over age 34)
- Children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children).
- The risk is elevated when a child is born to a mother who has a combination of these risk characteristics.
- Boys are more likely to die in childhood than girls



- Shorter birth intervals are associated with higher mortality. For example, the under-5 mortality rate for children born less than 2 years after the preceding birth is more than twice that of children born 4 or more years after their preceding sibling (114 deaths per 1,000 live births compared with 55 deaths per 1,000 live births).
- This is also true of infant mortality rate which is 92 deaths per 1,000 live births for a birth interval less than 2 years and 44 deaths per 1,000 live births for children born 4 or more years after the preceding birth
- Additionally, Children reported to be small or very small at birth are more likely to die than children reported to be average or larger at birth. For example, infant mortality for children who were reported to be small or very small at birth is 56 deaths per 1,000 live births compared with 43 deaths per 1,000 live births for children who were reported to be average or larger at birth.

Perinatal mortality

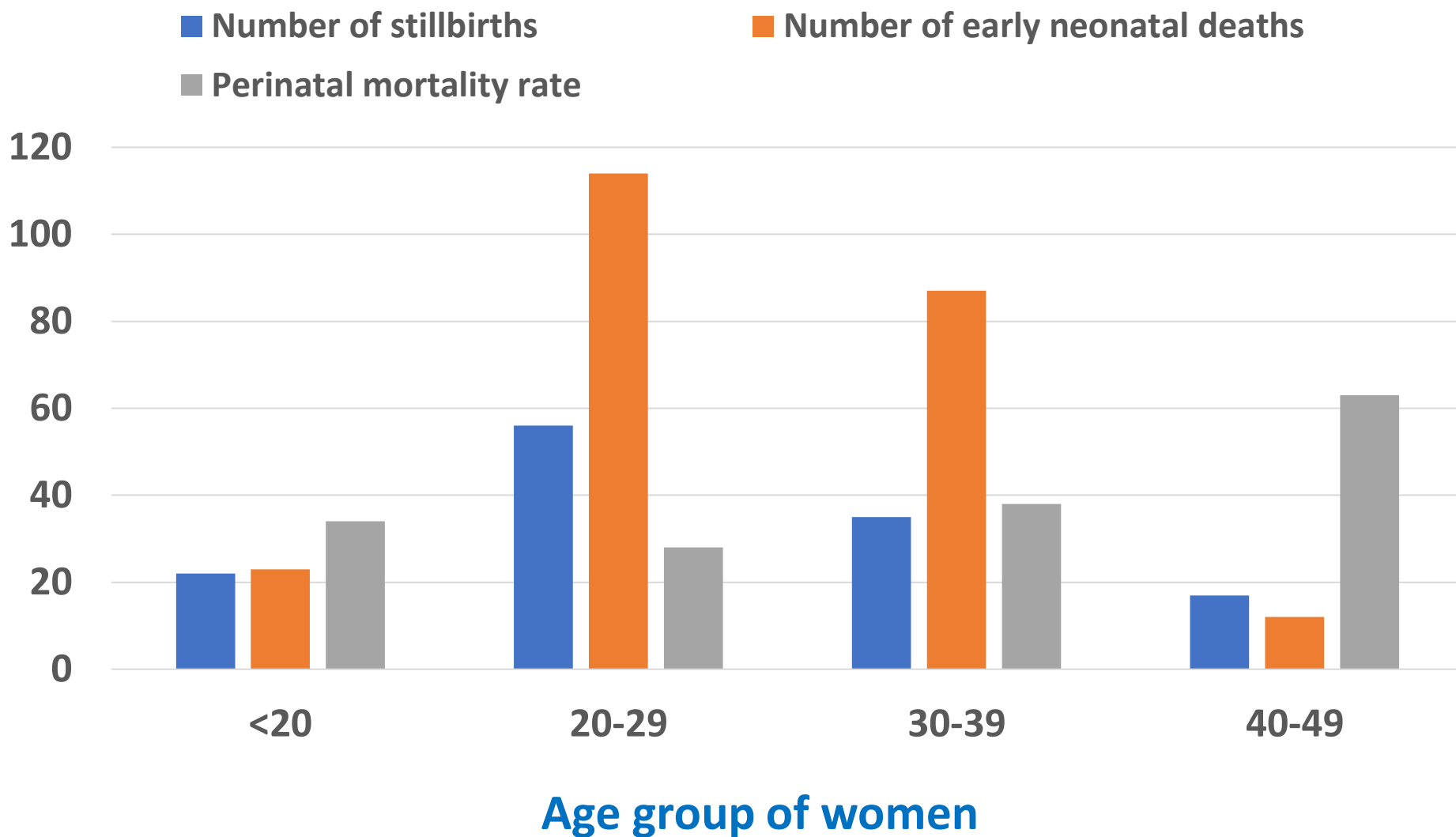
Definition : Perinatal mortality rate

“Perinatal deaths comprise stillbirths (pregnancy loss that occurs after 7 months of gestation) and early neonatal deaths (deaths of live births within the first 7 days of life). The perinatal mortality rate is calculated as the number of perinatal deaths per 1,000 pregnancies of 7 or more months’ duration.”

Direct quote : DHS 2016 page 126

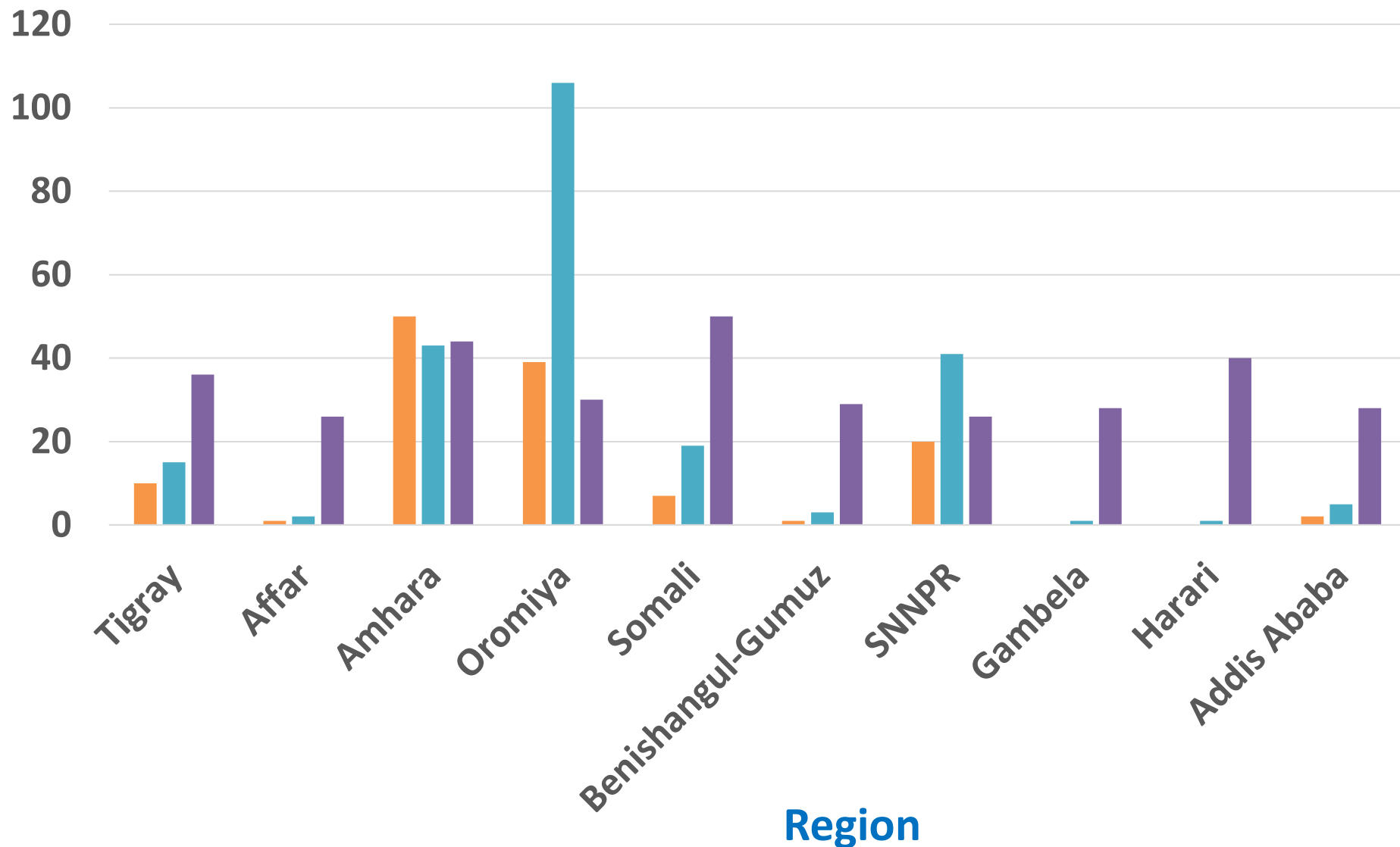
Still births and early neonatal deaths per 1000 pregnancies

Perinatal Mortality Rate by Age Group of Women DHS 2016



Perinatal Mortality by Region : DHS 2016

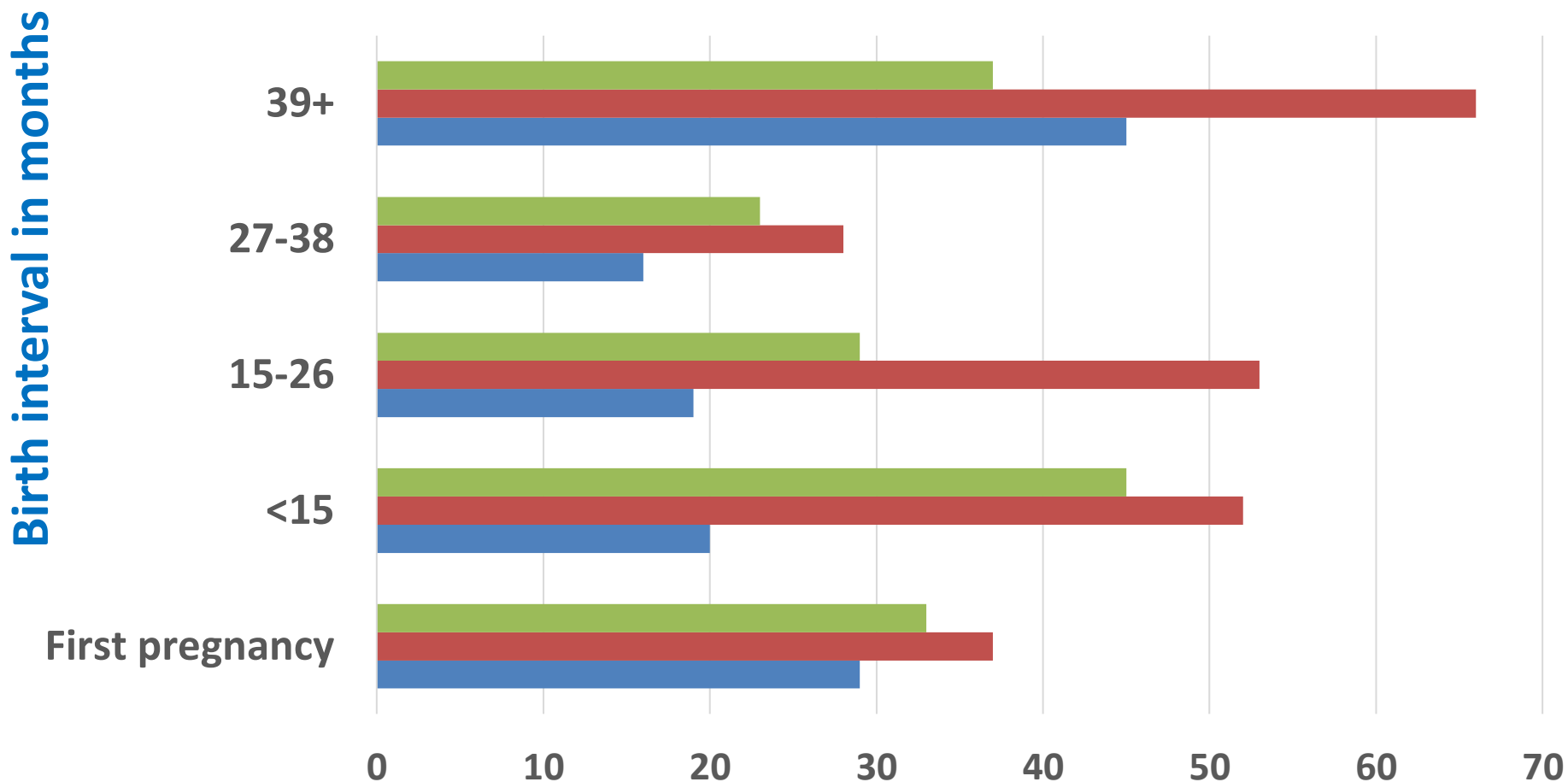
■ Number of stillbirths
 ■ Number of early neonatal deaths
 ■ Perinatal mortality rate



Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

Perinatal Mortality by Previous Birth Interval in Months : 2016

■ Perinatal mortality rate ■ Number of early neonatal deaths ■ Number of stillbirths

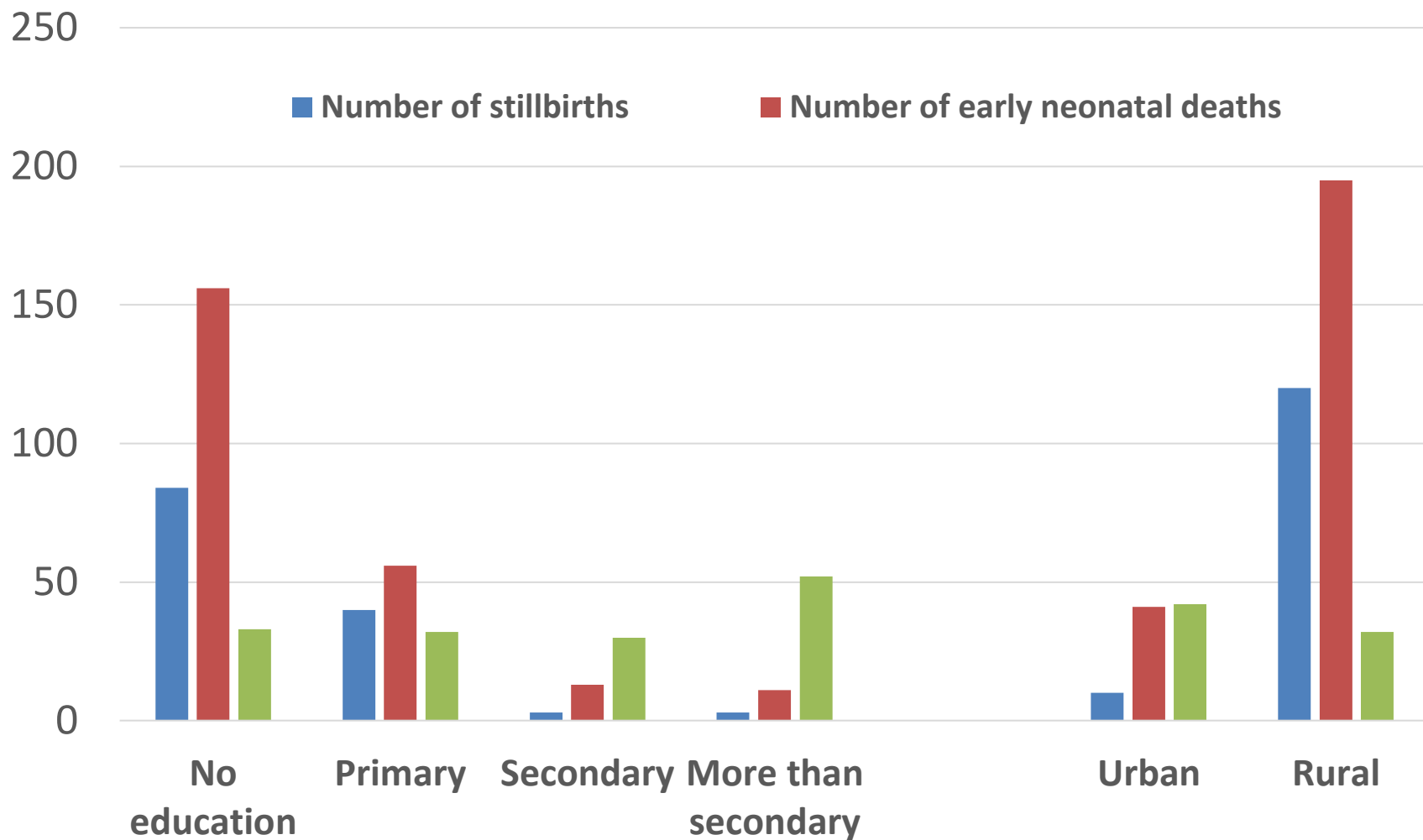


Still births and early neonatal deaths per 1000 pregnancies

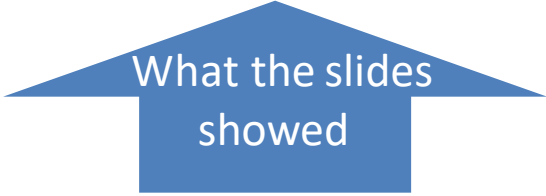
Source : Aynalem Adugna www.EthioDemographyAndHealth.Org Based on DERAL DEMOCRATIC REPUBLIC OF ETHIOPIA : Demographic and Health Survey 2016, Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF, Rockville, Maryland, USA, July 2017

Perinatal Mortality by Education and Urban-Rural Residence of Mothers : DHS 2016

Still births and early neonatal deaths per 1000 pregnancies



Educational status and residence



What the slides
showed

- Perinatal mortality increases with mother's age at birth, from 28 deaths per 1,000 pregnancies for women age 20-29 to 63 deaths per 1,000 pregnancies for women age 40-49. This shows that perinatal mortality among children born to women age 40-49 is more than twice as high as for women age 20- 29
-
- The perinatal mortality rate is relatively high for first pregnancies (33 deaths per 1,000 pregnancies) and among women with a pregnancy interval of less than 15 months (45 deaths per 1,000 pregnancies).
-
- The perinatal mortality rate is higher in urban than in rural areas (42 versus 32 deaths per 1,000 pregnancies, respectively).
- The perinatal mortality rate is highest in Somali (50 deaths per 1,000 pregnancies) and lowest in Affar and SNNPR (26 deaths per 1,000 pregnancies for each region).
- The perinatal mortality rate is highest among pregnancies to women with more than secondary education (52 deaths per 1,000 pregnancies) compared with pregnancies to women with no education

Interactive map of the 2000, 2005, 2011 and 2016 Demographic and Health Survey Results

Click **HERE** to access an interactive web
map of results from the four rounds of Ethiopian
Demographic and Health Surveys (read the
instructions first)