



## Growth and Nutrition:

### Preliminary Findings from the 2016 Young Lives Survey (Round 5): Ethiopia

**This fact sheet presents preliminary findings from the fifth round of the Young Lives survey conducted in Ethiopia in 2016. The data show that indicators of nutrition have improved with decreased levels of stunting, thinness, and household food insecurity, which are probably related to better access to sanitation and drinking water. However, overall rates of stunting and thinness still remain high, and some households moved from being food secure to mildly food insecure, probably as a result of the recent El Niño-driven drought, so that nutrition interventions continue to be important.**

#### Key Findings

- Stunting levels among 15-year-olds have fallen from 32% in 2009 to 27% in 2016 (41% for boys and 12% for girls). Despite an overall improvement, there is a strong socio-economic gradient for stunting in 2016 (33% of children from the poorer families while only 13% of children from better-off families). There is also a higher prevalence of stunting in rural sites (33%) compared to urban sites (15%).
- Thinness levels were higher among 15-year-old children in 2009 (45%) than among 15-year-olds in 2016 (35%). The incidence of thinness, however, remains very high.
- The percentage of households who are severely food insecure is decreasing, although some households are moving from being food-secure to mildly food-insecure.
- Consumption of on average 4 of the 7 food groups daily remains stable.
- Access to sanitation has increased considerably from 37% of households in 2002 to 76% in 2016. The increase is most prominent for the poorest households and in rural sites.
- Access to clean drinking water for Younger Cohort households has increased from 53% in 2002 to 69% in 2016. Access in sites within Tigray, however, decreased from 45% in 2002 to 29% in 2016.

## The Context

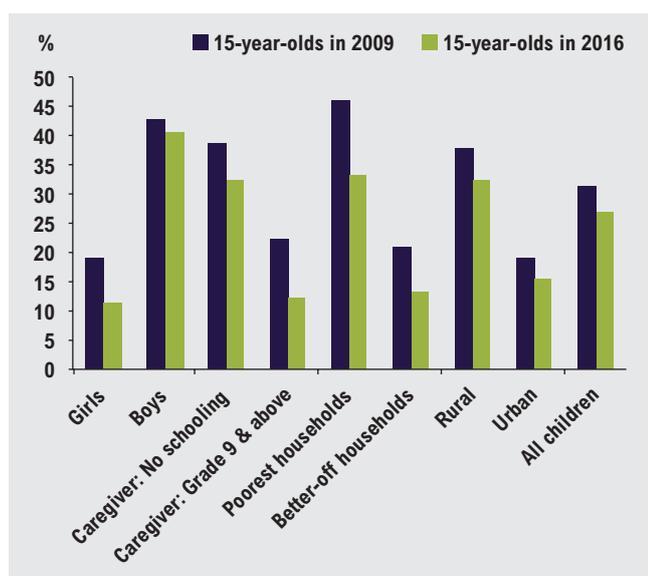
According to the Demographic and Health Survey (DHS) of Ethiopia, national prevalence of chronic infant malnutrition has remained severe despite a reduction from 51% in 2005 to 38% in 2016 (CSA, 2016). The levels of wasting and underweight have also declined over the same period. Nevertheless, the level of malnutrition is far higher than the world average (23%).

In line with the second Sustainable Development Goal (SDG) 'to end hunger, achieve food security and improved nutrition ...' the Ethiopian government has outlined both medium- and long-term goals. The target of the Health Sector Transformation Plan (HSTP: 2015/16–2019/20) is to reduce incidence of stunting in children under 5-years-old from its current level of 38% to 26%; wasting from 9% to 5%, and underweight from 25% to 13% by 2019/20. In the longer term, the Ministry of Health's second National Nutrition Programme commits to ending child malnutrition by 2030.

## Incidence of stunting and thinness

Despite a reduction in stunting<sup>1</sup> among 15-year-olds from 32% of the Older Cohort in 2009, 27% of the Younger Cohort remain stunted in 2016 (see Table 3). In both cohorts, boys are affected by stunting more than girls (41% for boys and 12% for girls in 2016). This difference may be a function of the differential timing of the pubertal growth spurts in Ethiopia and the timing of the survey at age 15, and the gap may narrow later. Children from the poorest households whose primary caregivers had no schooling and those from rural sites were more likely to be stunted than children of the better-off households and in urban sites both in 2009 and 2016.

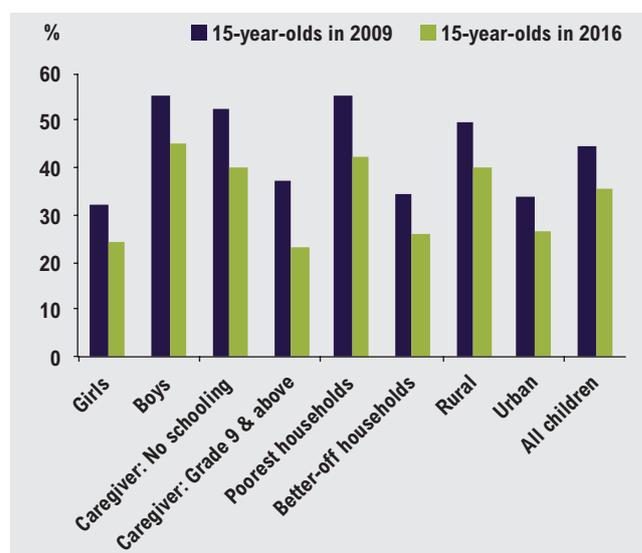
**Figure 1. Prevalence of stunting among 15-year-old children (%)**



Thinness<sup>2</sup> reflects a low body mass relative to age. Despite some improvements in the level of thinness for 15-year-olds from 45% in 2009 to 35% in 2016, thinness remains both widespread and high among Young Lives children compared to the national average of 9% as estimated by the EDHS in 2016. For Young Lives children, about 14% were suffering from both stunting and thinness at the age of 15; this is however down from 23% in 2009.

The correlation of socio-economic status with thinness remains prominent: about 42% of Younger Cohort children from the poorest families compared to 26% from the better-off families in 2016. Children whose primary caregivers had no formal schooling and those from rural sites also experienced greater levels of thinness. A marked gender difference is also observed, with 24% of girls being too thin for their age in 2016 as opposed to 45% of boys. Regionally, children within sites in Amhara (53%) and Tigray (40%) had the two highest rates of thinness, while those within sites in Addis Ababa (22%) had the lowest rates (see Table 3).

**Figure 2. Prevalence of thinness among 15-year-old children (%)**



## Household food security

Household food security and child nutrition are believed to be highly correlated. Food insecurity<sup>3</sup> among households in the sample has decreased, from 38% in 2009 to 33% in 2013 and to 28% in 2016 (Table 1). From 2009 to 2016 food insecurity decreased in all three wealth groups and in both urban and rural sites, but the magnitude of decrease is highest among better-off households and those in urban sites. Regionally while sites within Amhara, Southern Nations, Nationalities and People's (SNNP) and Tigray have seen significant declines in food insecurity between 2009 and 2016, sites within Oromia experienced an increase from 31% in 2009 to 44% in 2016; this increase could be related to the 2015 widespread drought in the eastern part of the region.

<sup>1</sup> Stunting, or prevalence of stunting, is defined as percentage of children having height-for-age z-scores less than <-2 SD from the median height of a reference population of the same age and gender.

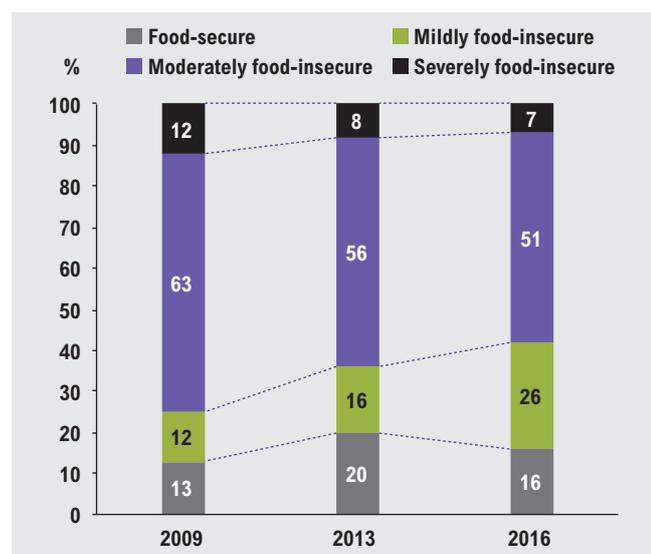
<sup>2</sup> Thinness is defined by low body mass index (BMI) relative to the chronological age of the child. Incidence of thinness is defined as the percentage of children who have a BMI-for-age z-scores <-2 SD from the reference population of the same age group (WHO 2017).

<sup>3</sup> Based on households self-reporting, not being able to eat enough sometimes or frequently.

**Table 1. Household food insecurity for the Younger Cohort households (%)**

	8 years old	12 years old	15 years old
	2009	2013	2016
<b>Caregiver education</b>			
None	42.7	37.1	32.4
1 to 4 years	41.6	35.8	31.0
4 to 8 years	27.9	26.5	19.1
More than 8 years	16.6	13.5	12.3
<b>Wealth index</b>			
Bottom tercile	43.9	36.7	36.0
Middle tercile	39.9	37.4	31.6
Top tercile	29.7	25.5	16.6
<b>Location</b>			
Rural	40.2	34.3	32.5
Urban	32.9	30.4	19.8
<b>Sites in region</b>			
Addis Ababa	24.2	37.3	23.8
Amhara	31.5	44.8	25.4
Oromia	31.2	38.4	43.7
SNNP	51.2	21.1	28.4
Tigray	42.7	28.1	18.7
<b>Average of all children</b>	37.8	33	28.2
<b>Number of children</b>	1779	1779	1778

The incidence of severe food insecurity<sup>4</sup> is decreasing over time (Figure 3). The intensity of food insecurity has also declined over time on average from 2009 to 2016. However, a high percentage of households are consistently clustered in the moderately food-insecure category (63% in 2009, 51% in 2016). It also seems that some households who were food-secure in 2013 have moved into the mildly food-insecure category in 2016. This decline in the percentage of food-secure households between the 2013 and 2016 surveys could also be related to the 2015 drought that drastically affected many parts of the country.

**Figure 3. Household-Level food insecurity over time, Younger Cohort (%)**

## Food diversity and nutrition

Young Lives children consume on average 4 of the 7 food groups daily, a finding that has been relatively stable over time (Table 3). However, 15-year-olds in 2009 consumed more pulses and legumes; meat, poultry and fish, but less milk and milk products than 15-year-olds in 2016. The Younger Cohort children themselves were consuming less pulses and legumes, and virtually the same amounts of meat, poultry, milk and milk products in 2016 as in 2013.

## Access to water and sanitation

The Young Lives data show that access to sanitation<sup>5</sup> has increased considerably from 37% of households in 2002 to 76% in 2016. The increase in access to sanitation during the period is most prominent among households where the caregiver had no education (from 24% in 2002 to 71% in 2016) and in the rural sites (from 19% in 2002 to 69% in 2016). Sites in Addis Ababa have very high access to sanitation (94%). Access to clean drinking water for the households of the Younger Cohort has also increased during the period (from 53% in 2002 to 69% in 2016). While sites within most regions experienced this increase, sites within Tigray have seen a decline in access from 45% in 2002 to 29% in 2016; the cause may be ageing infrastructure and the high cost of digging new wells.

**Table 2. Access to sanitation and clean water among the Younger Cohort, 2002 and 2016**

	Access to sanitation		Access to clean water	
	2002	2016	2002	2016
<b>Caregiver education</b>				
None	23.5	71.4	42.5	58.0
1 to 4 years	34.3	76.4	52.7	73.2
4 to 8 years	56.3	83.5	66.8	83.5
More than 8 years	89.6	89.0	90.7	97.5
<b>Location</b>				
Rural	19.2	68.9	37.0	55.1
Urban	72.7	86.4	84.5	89.2
<b>Sites in region</b>				
Addis Ababa	87.7	93.7	87.1	96.2
Amhara	18.9	74.8	60.3	79.7
Oromia	26.2	62.8	53.5	72.9
SNNP	35.3	82.6	34.6	75.7
Tigray	34.1	71.2	45.1	28.5
<b>Average of all children</b>	37.1	76.0	52.9	69
<b>Number of children</b>	1779	1778	1774	1778

4 Incidence of severe food insecurity is measured using nine 'frequency-of-occurrence' questions of the Household Food Insecurity Access Scale (HFIAS).

5 The definition used in computing the tables is: 'Safe sanitation is ... when a household has access to any of the following: flush toilet, septic tank in dwelling, household pit latrine, or communal pit latrine.' Communal pit latrine was added in the definition to make 2002 and 2016 values comparable.

## Conclusions

Despite improvement in the nutritional status of the Young Lives children between 2009 and 2016, rates of chronic malnutrition remain very high. The level of thinness remains a cause for concern, as about 35% of the Younger Cohort children are still experiencing wasting, compared to a global average of 7.7% in 2016 (UNICEF/WHO/World Bank, 2017). Because poverty is known to play an important role in the nutritional status of children, policy measures that are directed towards improving households' livelihoods may have a further impact on improving child health and, consequently, on their overall growth.

**Table 3. Nutritional status of 15-year-old children in Ethiopia**

	Stunting (%)		Thinness (%)		Stunting and thinness (%)		Total number of food groups eaten out of 7 food items (n)	
	2009	2016	2009	2016	2009	2016	2009	2016
<b>Gender</b>								
Female	18.9	11.3	32.3	24.4	12.2	3.6	3.8	4.0
Male	42.8	40.5	55.3	45.3	31.8	23.9	3.8	4.4
<b>Caregiver education</b>								
None	38.8	32.4	52.3	40.1	29.9	17.9	3.7	3.9
1 to 4 years	26.7	24.8	40.5	34.1	15.7	13.4	3.9	3.9
4 to 8 years	21.4	19.5	29.5	28.7	15.5	8.5	4.0	4.1
More than 8 years	22.2	12.4	37.0	23.0	15.1	6.8	4.3	4.2
<b>Wealth index</b>								
Bottom tercile	45.8	33.2	55.3	42.2	35.9	18.9	3.7	4.0
Middle tercile	27.4	33.3	43.5	38.2	17.8	17.7	3.8	3.9
Top tercile	20.9	13.4	34.3	26.1	13.4	6.3	4.0	4.1
<b>Location</b>								
Rural	37.7	32.5	49.7	40.1	27.7	17.9	3.8	4.0
Urban	19.0	15.3	33.7	26.3	12.0	7.3	4.0	4.0
<b>Sites in region</b>								
Addis Ababa	9.1	8.6	34.0	22.2	3.0	2.1	4.1	4.1
Amhara	36.6	32.0	58.3	52.7	31.5	23.2	3.4	3.6
Oromia	28.7	30.4	30.8	23.7	17.3	12.0	4.2	4.0
SNNP	32.1	24.2	35.3	34.4	20.6	13.8	4.0	4.2
Tigray	42.7	33.2	61.4	40.3	33.1	16.9	3.6	3.9
<b>Average of all children</b>	31.6	26.8	44.5	35.4	22.5	14.4	3.8	4.0
<b>Number of children</b>	767	1774	767	1769	763	1769	773	1775

## REFERENCES AND FURTHER READING

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Photo credit: © Young Lives / Antonio Fiorente. The images throughout our publications are of children living in circumstances and communities similar to the children within our study sample.



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Young Lives is an international study of childhood poverty, following the lives of 12,000 children in four countries (Ethiopia, India, Peru and Vietnam). In Ethiopia, Young Lives is in partnership with the Ethiopian Development Research Institute (EDRI) and Pankhurst Development Research and Consulting Plc.