

Nutrition and Health: Round 4 Preliminary Findings

Preliminary Findings from the 2013 Young Lives Survey (Round 4): Ethiopia

This fact sheet presents preliminary findings from the fourth round of the Young Lives survey of children in Ethiopia in 2013. It reports on some of the changes that have taken place in key nutrition indicators for our sample children since the first round of data collection in 2002. We see how children's growth trajectories develop over time: around 30% of the Young Lives children continue to show signs of stunting (chronic malnutrition) with higher rates among the poorest children and in rural areas. We also see that thinness (another indicator of under-nutrition) is experienced by 40% of the children at age 12. In terms of food diversity, children are consuming on average 4 of the possible 7 food groups, and food insecurity has fallen slightly among Young Lives households. Access to safe sanitation has increased considerably, from 22% in 2002 to 63% of households in 2013, although access to safe drinking water has fallen from 53% to 45% over the same period mainly due to ageing infrastructure.

Policy context

Globally about 13 million infants each year are born with low birth weight, and malnutrition is an underlying cause in the death of more than 3.5 million children under the age of 5. Ethiopia has made encouraging progress in reducing malnutrition over the past decade. The 2011 Ethiopian Demography and Rural Household Survey (EDHS) estimated the national prevalence of stunting among children under 5 at 44.4% and the prevalence of underweight at 28.7%. Levels of chronic malnutrition among women are also relatively high, with 27% of women either thin or under-nourished, and with a high prevalence of anaemia among women aged 15 to 49 (17%) (CSA, 2012).

Micronutrient deficiencies, particularly iron, iodine and vitamin-A deficiencies, are significant public health problems in Ethiopia. The prevalence of anaemia among children under 5 has fallen from 54% in 2005 to 44% in 2011, but the World Health Organization has estimated that salt iodisation would need to reach 90% if Ethiopia is to be on track to eliminate iodine deficiency. Levels of stunting, thinness and underweight and micronutrient deficiencies remain high but the trends are improving. According to the 2011 EDHS, underweight and stunting among children under 5 declined from 32% in 2000 to 23% in 2011. However, the EDHS report also indicated that only half of children under age 2 and living with their mothers are exclusively breastfed, only 4.3% children consumed the recommended four food groups, and just 13% of children under 2 consumed iron-rich foods.

The Government has demonstrated its commitment to reducing malnutrition by developing a National Nutrition Strategy (NNS) and a National Nutrition Programme (NNP). The core performance indicators and targets of the NNP are: to reduce the prevalence of stunting to 30% by 2015; to reduce the prevalence of thinness to 3% by 2015; and to reduce the prevalence of chronic under-nutrition in women of reproductive age to 19%.

Key findings

- Overall we see some improvement in stunting levels among 12-year-olds, which although high, have fallen to 29% (27% among boys and 31% among girls).
- Stunting is highest among children from poorer families (38% compared with only 16% among their better-off peers) and children in rural areas (34%) compared to urban areas (21%).
- Levels of thinness (a sign of shorter-term under-nutrition) are higher among the Younger Cohort age 12 in 2013 (41%) than among the Older Cohort at the same age in 2006 (36%). Children from rural areas and those from the poorest families are more likely to be thin.
- In terms of food diversity, the Young Lives children were consuming on average about four of the seven food groups. All children regularly eat grains, roots or tubers, and most children (71%) regularly eat pulses and legumes. Meat, poultry, eggs and milk products are regularly eaten by far fewer children.
- Food insecurity fell slightly among the Young Lives households (from 37% in 2009 to 33% in 2013), irrespective of wealth, caregiver education level, and rural/urban residence.
- Access to safe sanitation has increased considerably, from 22% of households in 2002 to 63% in 2013, due in large part to the expansion of the health extension system.
- However, we also observed a fall in access to safe drinking water from 53% to 45% mainly due to ageing infrastructure.

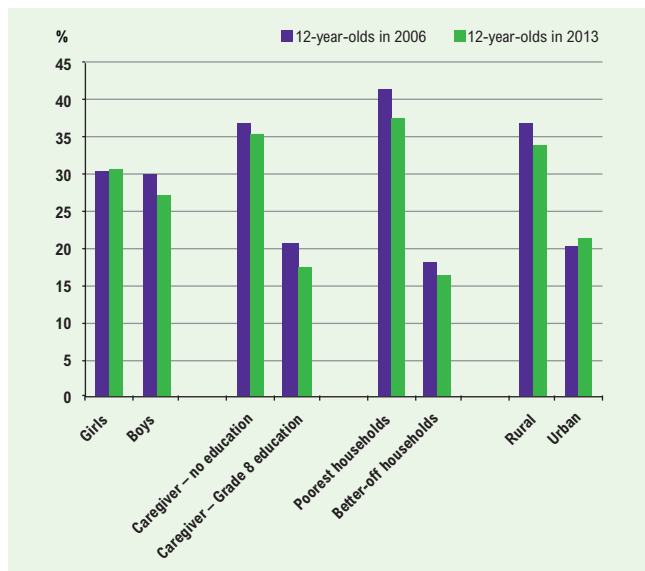
Stunting among Young Lives children in Ethiopia

Stunting (low height-for-age, measured against World Health Organization reference standards) is a consequence of and taken as a proxy for malnutrition. It is also commonly used as a proxy indicator for development, as it is highly correlated with poverty. Stunting not only has negative implications for the child, but for society as a whole, as it is associated with reduced learning ability which can lead to decreased productivity in later years (EHNRI 2010). When we first visited the Young Lives families in 2002 (Round 1), we found that 41% of the Younger Cohort children were stunted (at age 1, between 6 and 18 months). By 2013 (age 12), the prevalence of stunting had fallen to 29% (27% among boys and 31% among girls).

There is great variation across the social groups and the incidence of malnutrition at age 12 is highest among children from poorer families (38% compared with only 16% among children from better-off households) and children in rural areas (34%) compared to children in urban areas (21%) (Figure 1). This is consistent with the EDHS results. There are also differences by region: only 14% of Young Lives children in Addis Ababa were stunted, but 38% in Amhara, and almost a third of children in SNNPR and Tigray (Table 3).

Although stunting levels remain high, we are seeing a small decline between the cohorts at the same age (the Younger Cohort age 12 in 2013 compared with the Older Cohort when they were age 12 in 2006. See Table 3).

Figure 1. Prevalence of stunting among 12-year-old children



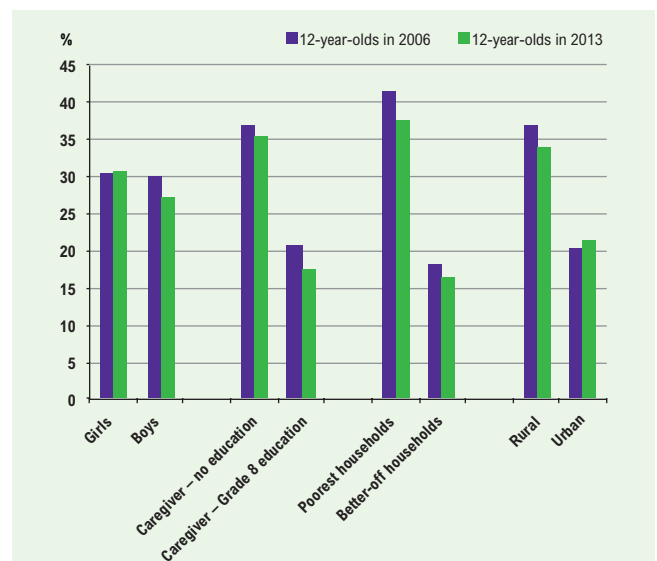
Thinness

Thinness is another indicator of (shorter-term) under-nutrition (caused by insufficient food quantity, poor food quality, or poor health) and is often the result of recent food insecurity or infection/illness, such as diarrhoea. It is often used to assess the severity of an emergency situation, with severe thinness being highly correlated with mortality.

The prevalence of thinness has increased every round for both cohorts (except for a small reduction between age 1 and age 5 among the Younger Cohort), with a dramatic increase from 21% to 41% among the Younger Cohort between age 8 and age 12. Levels of thinness are higher among the Younger Cohort than the Older Cohort at age 12 (36%). Children from rural areas and those from the poorest families are more likely to be thin (in all survey rounds and both cohorts).

The highest levels of thinness were recorded in Amhara and Tigray (for both cohorts at age 12). In addition, the increase in thinness levels among the Younger Cohort between age 8 and age 12 are high in those regions (from 33% to 60% in Amhara and from 29% to 48% in Tigray).

Figure 2. Prevalence of thinness among 12-year-old children



Food diversity and nutrition

There is a direct link between nutrition and food diversity. Malnutrition, with its two constituents of macronutrient (protein-energy malnutrition) and micronutrient deficiencies (also known as ‘hidden hunger’), continues to be a major health burden in Ethiopia.

Food diversity (measured by the number of food groups that children eat),¹ indicates that the average number of groups of food children in Ethiopia eat has slightly increased for both cohorts in every round for which data is available. By Round 4, children were consuming on average about four of the seven food groups, with relative stability over time. Grains, roots and tubers have been consistently consumed by 99% of children, as well as pulses and legumes in a high and steady proportion (around 71% of both cohorts). Food groups which have remained stable but with a lower percentage of children accessing them are meat and poultry (12% of the Younger Cohort and 18% of the Older Cohort); eggs (8% of the Younger Cohort and 10% of the Older Cohort); and milk/milk products (about 23% for both cohorts).

We have also seen an increase in the percentage of children accessing the two remaining groups: the number of children consuming fruit and vegetables increased almost 20 percentage points between 2009 and 2013 to over 90% for both cohorts, and consumption of foods cooked in oil or fat group increased by about 12% (from under 80% to over 90%) for both cohorts.

However, within these averages, we do see some inequalities emerging, not between boys and girls but across wealth levels, with children from poorer households half as likely to regularly eat meat or eggs as children from better-off families. There is a clear relationship between household wealth and whether children had regular access to fruit and vegetables, meat and poultry, eggs or foods cooked in oil and fat, although milk products are accessible to a majority of rural households.

Household food security

There are strong associations between food insecurity and decreased dietary intake, child feeding practices and poor health outcomes that are all linked to poor nutrition. Table 1 summarises the incidence of perceived (self-reported) food insecurity for Young Lives households. Food insecurity decreased slightly among Younger Cohort households from 37% in 2009 to 33% in 2013, irrespective of wealth, caregiver education level, or rural/urban residence.

However, there are mixed trends across regions (results which require further analysis). Food insecurity has declined in SNNPR and in Tigray but has increased in Addis Ababa (from 26% to 36%), in Amhara (44%) and in Oromia (38%).

Table 1. Food insecurity among Younger Cohort households (%)

	2009	2013
Gender of child		
Boys	34%	31%
Girls	41%	34%
Location		
Rural	39%	37%
Urban	34%	27%
Household wealth level (Young Lives wealth index)		
Bottom tercile	45%	36%
Top tercile	27%	24%
Caregiver's education		
No education	42%	37%
Lower primary (grades 1-4)	42%	35%
Upper primary (grades 5-8)	27%	26%
More than 8 grade	16%	13%
Average of all children	37%	33%
Sample size	1862	1872

In order to measure the extent of food insecurity, we used the Household Food Insecurity Access Scale (HFIAS) provided by Coates et al. (2007) which categorises households into four levels of food insecurity (see Table 2). Using this scale we found that more households were food secure (20%) or mildly food insecure (16%) in 2013 compared to 2009. However, a high percentage is consistently clustered in the moderately food insecure category (62% in 2009, 56% in 2013), which means households eat limited or unwanted kinds of food either sometimes or often, and/or experience insufficient food intake (limiting portion size or number of meals) either rarely or sometimes. Although the food insecurity level is high in both rounds, the number of households reporting moderate insecurity decreased by 6% from 2009 to 2013, implying some improvement in food security (in line with the self-reported household food insecurity above).

Table 2. Household-level food insecurity (Younger Cohort households)

	Food secure		Mildly food insecure		Moderately food insecure		Severely food insecure	
	2009	2013	2009	2013	2009	2013	2009	2013
Average (%)	12.6	19.9	12.3	16	62.4	56	12.8	8.1
Sample size	234	373	229	299	1,161	1,048	238	152

Access to water and sanitation

Access to basic services, such as clean water and sanitation, has important implications for children's health and nutrition and their well-being. Access to safe sanitation² has increased considerably, from 22% of households in 2002 to 63% in 2013, due in large part to the establishment of health posts in all rural and urban kebeles and expansion of the health extension system, which also provides information and training to women about disease prevention and control, hygiene, solid and liquid waste disposal and water supply and safety measures.

However, we have also observed a fall in access to safe drinking water from 53% to 45% over the same period. While the government has been working hard to increase access to safe drinking water recently, many of the established safer drinking water sources such as water wells are ageing and timely maintenance remains a problem.

1 Food groups: items were classified into 7 groups: (1) Grains, roots and tubers; (2) Vitamin A, fruit and vegetables; (3) Meat, poultry and fish; (4) Eggs; (5) Pulses and legumes; (6) Milk and milk products; (7) Foods cooked in oil or fat.

2 Basic sanitation is counted as safe when a household has its own access to a flush toilet, septic tank in dwelling or pit latrine (within the household).

Table 3. Nutritional status of 12-year-old children in Ethiopia

	Stunting (%)		Thinness (%)		Number of food groups eaten		Access to sanitation		Access to water	
	2006	2013	2006	2013	2006	2013	2002*	2013	2002*	2013
Gender										
Male	30.1	27.1	36.5	41.1	3.5	4.0	21.4	63.9	51.8	42.2
Female	30.5	30.9	35.8	41.0	3.7	4.0	22.6	61.8	55.1	48.8
Location										
Urban	20.4	21.4	31.0	34.2	3.8	4.1	35	52.4	84.3	63.0
Rural	36.9	34.1	39.7	45.8	3.4	3.9	15.1	70.2	37.0	33.1
Household wealth level (Young Lives wealth index)										
Bottom Tercile	41.4	37.5	42.4	44.6	3.3	3.9	1.5	67.7	13.4	37.9
Top Tercile	18.1	16.5	33.7	32.5	3.9	4.1	45.6	53.7	88.6	64.5
Caregiver's education										
No education	36.9	35.6	41.0	45.6	3.4	3.9	15.0	65.8	42.7	34.5
Lower primary (grades 1-4)	27.8	25.0	31.8	39.2	3.6	3.9	18.7	62.6	53.2	49.7
Upper primary (grades 5-8)	17.3	19.4	28.3	36.7	4.0	4.1	31.5	56.7	66.3	60.2
More than 8 grade	20.8	17.6	37.0	28.6	4.1	4.3	51.9	57.9	90.1	68.3
Region										
Addis Ababa	10.0	14.3	26.8	27.4	3.8	4.0	18.0	25.4	86.6	59.2
Amhara	43.2	38.1	58.0	59.5	3.3	3.5	13.7	66.8	61.6	49.1
Oromia	25.9	25.4	22.3	33.6	4.2	4.0	25.9	69.3	54.0	65.8
SNNPR	23.9	29.9	26.7	34.9	3.3	4.0	23.1	66.3	34.3	38.3
Tigray	44.2	32.7	46.7	47.9	3.6	4.2	27.7	75.4	44.9	19.8
Average of all children	30.3	28.9	36.2	41.1	3.6	4.0	22	62.9	53.4	45.3
Sample size (No. of children)	967	1868	970	1863	903	1869	1873	1871	1868	1871

*Data is from the Older Cohort children who were age 12 in 2006 (Round 2) and Younger Cohort age 12 in 2013 (Round 4). Access to services compares data for the Younger Cohort in 2002 (Round 1) and 2013 (Round 4)

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ACKNOWLEDGEMENTS AND CREDITS

This is the third in a series of fact sheets giving a preliminary overview of some of the key dates emerging from Round 4 of the Young Lives household and child survey carried out in Ethiopia between October 2013 and February 2014. The fact sheets – which cover *Survey Design and Sampling; Education and Learning; Health and Nutrition*; and *Youth and Development* – were written by Tassew Woldehanna and Alula Pankhurst. We would like to thank our fieldwork teams and Chanie Ejigu who coordinated the survey fieldwork, Tirsit Asresse, the Young Lives Data Manager, and Maria Ogando Portela for support with initial data analysis. In particular, we thank the Young Lives children and their families for their willingness to be part of our sample and answer our many questions.

In Ethiopia, Young Lives is a partnership between the Ethiopian Development Research Institute (EDRI), Pankhurst Development Research and Consulting plc, and Save the Children. Young Lives is funded by UK aid from the Department for International Development (DFID) and co-funded from 2010 to 2014 by the Netherlands Ministry of Foreign Affairs and from 2014 to 2015 by Irish Aid. In Ethiopia, the Oak Foundation is funding a sub-study of research into practice. The views expressed are those of the author(s). They are not necessarily those of, or endorsed by, Young Lives, the University of Oxford, DFID or other funders.

Funded by



Ministry of Foreign Affairs of the Netherlands



Irish Aid

An Roinn Gnóthai Eachtracha agus Trádála
Department of Foreign Affairs and Trade

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