Nutrition and Health: Round 4 Preliminary Findings



Preliminary Findings from the 2013 Young Lives Survey (Round 4) in Viet Nam

This fact sheet presents preliminary findings from the fourth round of the Young Lives survey in Viet Nam in 2013. It focuses on some of the changes that have taken place in key nutrition indicators for the sample children over the eleven years since the first round of data collection in 2002. We find that stunting has fallen among children at the age of 12 (from 33% in 2006 to 20% in 2013), although levels remain high among some disadvantaged groups. The prevalence of underweight (thinness) has also fallen, but with little improvement among the poorest children. Most of the Young Lives children regularly consume four of the seven food groups considered important for healthy development, although children from the poorest households and ethnic minority children have access to only 3.3 food groups per week on average. Infrastructure and access to services have improved steadily since 2002, especially in poor communities. Nearly every household in urban areas has access to sanitation, but 30% of rural households and 50% of poor households do not. Similarly, access to safe drinking water is almost universal in urban areas, but almost a quarter of children in rural areas still do not have access to clean water.

Policy for addressing child malnutrition in Viet Nam

As a result of sustained economic growth over the last 20 years, living standards have significantly improved for the overwhelming majority of households in Viet Nam and steady progress has been made in improving child nutrition and reducing stunting (a sign of chronic under-nutrition). Between 1995 and 2010 the average rate of reduction was 1.3 percentage points per year. Data from the most recent general nutrition survey show that the prevalence of stunting among children under 5 was 29.3% and the prevalence of low weight-for-age among pre-school children was 17.5%.

A study by the National Institute of Nutrition (NIN) shows that among children aged 2 to 5 years, food consumption provided an average energy intake of 97% of the NIN-recommended standard. However, energy intake deficit still exists in poor communes in remote and mountainous areas, and the incidence is more prevalent among ethnic minority children. The report also highlights iron deficiency anaemia as a contributing factor to children's poor health, affecting 29.2% of children under 5 (NIN 2012).

For some time, health debates in Viet Nam have focused on the fact that adults in Viet Nam (both men and women) are shorter than in neighbouring countries. In February 2012 the Prime Minister ratified the National Nutrition Strategy for 2011-2020, which aims to enhance physical and mental well-being as well as to improve people's living conditions by ensuring appropriate and balanced nutrition. The document sets out six main objectives, including improving the quality and amount of food available for daily consumption, improving maternal and child nutrition, and improving micro-nutrient status.

The development of infrastructure in poor districts is another important item on the government's agenda. Phase 3 of the Rural Water Supply and Sanitation (RWSS) National Targeted Programme sets a number of targets to be achieved by the end of 2015, including that 85% of the rural population should have access to clean water, 65% of rural households have access to sanitation, 45% of farming households to have hygienic livestock pens, and 100% of kindergartens, schools, and commune health stations to have access to clean water and toilet facilities.

Key findings

- We found that at age 12, almost 20% of the Young Lives children were stunted (with little difference between boys and girls). This is a considerable improvement since 2006, when 30% of the Older Cohort children were stunted at age 12.
- However, there are notable differences between different groups of children with stunting increasingly concentrated among the poorest: only 9% of children from better-off households are stunted, compared with 31% of children from poorer households, and only 14% of Kinh children compared with 52% of ethnic minority children within the Younger Cohort.
- The prevalence of thinness is lower among the Younger Cohort at age 12 (14%) than the Older Cohort at the same age in 2006 (17%). However, the greatest changes have come for children in better-off households and urban areas.
- Both boys and girls have similar levels of dietary diversity, and this has not changed significantly since 2006, despite the international food price crisis but there are differences between children from better-off and the poorest households.
- Access to sanitation increased from 50% of Younger Cohort households in 2002 to 75% in 2013. Almost all children in urban areas now have access to sanitation and the progress in rural areas is also impressive (up from 44% in 2002 to 70% in 2013). The gap in access to sanitation between better-off and poorer households is large but narrowing over time.
- Similarly, much progress has been made in access to safe drinking water, particularly for disadvantaged groups. In 2002, few of the ethnic minority households in the Young Lives sample had access to safe drinking water, but this increased to 64% by 2013.

Stunting among Young Lives children

Stunting (low height-for-age, measured against World Health Organization reference standards) is a consequence of and taken as a proxy for under-nutrition. It is also commonly used as a proxy indicator for development, as it is highly correlated with poverty and UNICEF estimates that about one-third of under-5 mortality worldwide is attributable to under-nutrition. 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 later in life.

In 2013 we found that 20% of the Young Lives children were stunted at age 12 (with little difference between girls and boys). However, there are notable differences depending on children's socio-economic backgrounds: only 9% of children from better-off households are stunted, compared with 31% of children from poorer households, and only 14% of Kinh children compared with 52% of ethnic minority children within the Young Lives sample, illustrating how, with rising general living standards in Vietnam, under-nutrition is increasingly concentrated among the poorest children.

However, when we compare the two cohorts of children (born 7 years apart), both in Round 3 at age 8 and Round 4 at age 12, the average height-for-age z-scores for the Younger Cohort (born in 2001-02) are higher than those for the Older Cohort (born in 1994-95). This is true across all population groups, regardless of gender, location (urban or rural), ethnicity, wealth level or caregiver education level.

As we have already seen the prevalence of stunting among ethnic minority children remains high at over 50%. The findings are equally bad among children whose caregivers had no schooling, who are likely to have lower and less stable incomes. For these children, the difference between the two cohorts at age 12 was small, meaning that little progress has been made to decrease stunting from 1995 to 2001. These patterns of increased concentration and persistence of stunting among the poorest children give a clear steer for where effort are most needed to improve support for children's nutrition.

Figure 1. Prevalence of stunting (%)



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 or illness, such as diarrhoea. The prevalence of thinness is lower among the Younger Cohort (14%) than among the Older Cohort at age 12 (17%). However, we also see that the greatest changes have come for children in betteroff households and urban areas (Figure 2). Although for most groups, rates of thinness went down, both ethnic minority children and those whose caregivers had no formal schooling appear to see an increase. While these results need to be treated with caution because the sample sizes are small and the findings may not be statistically significant, they point however to a wider truth about limited gains for poorer children.

Figure 2. Prevalence of thinness (%)



Food diversity and nutrition

There is a direct link between nutrition and food diversity. Undernutrition, with its two constituents of macro-nutrient deficiencies (protein-energy malnutrition) and micro-nutrient deficiencies (also known as 'hidden hunger'), continues to be a health burden for the poorest children in Viet Nam.

Food diversity (measured by the number of food groups that children eat),¹ indicates that the Young Lives children, boys and girls in Viet Nam have an average level of dietary diversity which has not changed significantly since Round 2 (2006). Likewise, there is no great difference between the cohorts in the dietary diversity of their households. However, there are quite considerable differences by socio-economic status – between children from better-off households and the poorest households as well as between the Kinh majority and ethnic minority children.

Table 1. Household dietary diversity: average number of food groups consumed

	Yo	unger Coh	ort	Older Cohort						
	Age 5 (2006)		Age 12 (2013)	Age 12 (2006)	Age 15 (2009)	Age 19 (2013)				
Location										
Urban	5.1	4.6	4.3	4.6	4.4	4.4				
Rural	4.1	4.0	3.9	3.9	4.0	4.0				
Household wealth level										
Poorest households	3.8	3.7	3.6	3.5	3.7	3.7				
Middle	4.2	4.2	4.0	4.0	4.1	4.1				
Better-off households	4.9	4.6	4.3	4.5	4.3	4.4				
Ethnic groups										
Majority Kinh	4.5	4.3	4.1	4.2	4.2	4.2				
Ethnic minority groups	3.3	3.2	3.3	3.1	3.3	3.5				
Region										
Northern Uplands	3.5	3.6	3.5	3.3	3.7	3.6				
Red River Delta	4.2	4.0	4.1	3.9	4.0	4.1				
Central Coastal Urban	5.2	4.6	4.3	4.6	4.4	4.5				
Central Coastal Rural	4.2	4.1	3.9	4.2	4.0	4.2				
Mekong River Delta	4.4	4.4	3.9	4.1	4.1	4.0				

Food groups 3 and 2, which consist of meat, poultry, fish, seafood, Vitamin A-rich plant foods, fruits and vegetables are very important for children's nutrition. The food group that varies across different population groups is milk and milk products. While two-thirds of the Younger Cohort children in urban areas have access to milk and milk products, only a third of the children in rural areas do. The consumption of dairy products among the ethnic minority children is consistently below 10%, while among the ethnic majority children it varies from 41% to 54%. Generally, the level of access to milk and milk products by the Young Lives children increases with caregiver education levels (linked to better and more stable incomes).

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 improved sanitation is steadily improving for the Younger Cohort households. In total, access increased from under 50% in 2002 to over 75% in 2013. Almost all children in urban areas now have access to sanitation and the progress made in rural areas is also impressive (up from under 40% in 2002 to 70% in 2013). The gap in access to sanitation between better-off and poorer households is large but narrowing over time.

Similarly, much progress has been made in access to safe drinking water since 2002, particularly for the disadvantaged groups, such as ethnic minority children and poorer households. In 2002, few of the ethnic minority households in the Young Lives sample had access to safe drinking water, but this increased to 64% by 2013. At a result, the gap between urban and rural children as well as between better-off and poorer households decreased steadily (Table 2).

The targets set by the RWSS National Target Programme for access to clean water and sanitation by 2015 have been achieved among the Young Lives sample households, which we hope is indicative of the wider population.² However, despite significant overall progress, the number of children who do not have access to safe drinking water remains as high (36% of ethnic minority children and 27% of the poorest households) in 2013.

Conclusion

Good nutrition is fundamental for child survival, healthy growth and children's cognitive development and achievement. There is no better investment that government can make than in the nutrition and health of children, which will have long-term benefits for continued economic growth and societal development.

Overall, the health and nutrition findings from the latest Young Lives survey in Vietnam are encouraging. Although economic growth has slowed in recent years, the continued development of infrastructure has resulted in substantial improvements in access to services, particularly clean water and sanitation. Progress in poverty reduction means that we see encouraging reductions in the prevalence of stunting and thinness, although the levels remain high among ethnic minority children and the poorest groups. The challenge now is to ensure that such improvements benefit all children and do not lead to increasing inequalities if progress is more significant for children from better-off households but under-nutrition and poor health, with all its consequences, persists among children from disadvantaged groups.

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 We note that the definitions Young Lives uses are not exactly the same as those used in the RWSS strategy. Access to improved sanitation is defined by Young Lives as: flush toilet, septic tank in dwelling; pit latrine in household. Access to safe drinking water is defined as: piped or tubewell in dwelling/yard/plot; public standpipe/tap or public well; bought water (delivery or bottled); piped into neighbour or relative's dwelling/ yard/plot; protected spring water, well, or rain water from protected tanks.

	Stunting (%)		Thinness (%)		Average number of food groups eaten in last 24 hours		Household access to sanitation (%)		Household access to clean water (%)		Number of children	
	0C in 2006	YC in 2013	0C in 2006	YC in 2013	0C in 2006	YC in 2013	YC in 2006	YC in 2013	YC in 2006	YC in 2013	0C in 2006	YC in 2013
Gender												
Boys	36.1	20.3	19.9	13.9	4.0	4.0	-	-	-	-	418	984
Girls	30.3	19.0	14.9	13.7	3.9	4.0	-	-	-	-	462	929
Location												
Urban	18.1	8.1	11.4	8.1	4.6	4.3	94.3	96.9	99.2	99.5	168	387
Rural	36.6	22.6	18.6	15.2	3.9	3.9	44.1	69.7	75.8	84.7	712	1526
Household wealth level (using Young Lives wealth index)												
Bottom	40.4	30.6	16.6	15.4	3.5	3.6	20.1	50.8	59.6	73.1	277	658
Middle	37.7	19.2	18.4	15.5	4.0	4.0	55.3	79.5	86.3	93.4	316	620
Тор	20.6	8.7	16.4	10.4	4.5	4.3	88.7	96.4	96.7	97.2	286	635
Caregiver education level												
No education	57.3	53.2	5.6	14.6	3.0	3.2	10.1	30.0	60.9	60.9	89	207
0-4 years	34.8	24.4	20.0	17.6	4.0	3.8	31.8	62.9	66.8	83.6	155	280
5-8 years	36.4	16.4	17.8	16.2	3.9	4.1	48.1	76.0	80.2	88.6	264	667
More than 9 years	24.3	11.6	18.3	10.1	4.3	4.2	80.5	91.7	91.6	96.0	371	750
Ethnic groups												
Majority group	27.9	14.1	18.7	14.1	4.2	4.1	60.6	80.6	83.7	91.7	760	1637
Minority group	65.8	52.4	8.3	11.7	3.1	3.3	16.7	43.1	62.0	63.8	120	276
Region												
Northern Uplands	48.9	40.1	10.8	9.5	3.3	3.5	38.0	66.9	61.7	71.9	186	384
Red River Delta	33.5	13.5	19.9	12.7	3.9	4.1	87.9	96.2	98.5	97.7	176	390
Central Coastal Urban	18.5	8.7	11.1	8.7	4.6	4.3	96.7	97.8	99.4	99.4	162	360
Central Coastal Rural	43.0	27.0	22.7	21.6	4.2	3.9	29.2	62.1	98.7	100.0	172	390
Mekong River Delta	20.1	8.5	21.7	16.0	4.1	3.9	22.4	54.8	45.5	69.9	184	389
Average of all children	33.1	19.7	17.3	13.8	4.0	4.0	54.3	75.2	80.6	87.7		
Sample size	880	1,892	880	1,892	880	1,913	1,913	1,913	1,913	1,913	880	1,913

Table 2. Nutritional status of 12-year-old children in Viet Nam

Data are from the Older Cohort children age 12 in 2006 (Round 2) and the Younger Cohort children age 12 in 2013 (Round 4 of the household and child survey). Estimations are for children whose information was collected in all 4 survey rounds (panel children).

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