Young Lives Survey Design and Sampling in Viet Nam

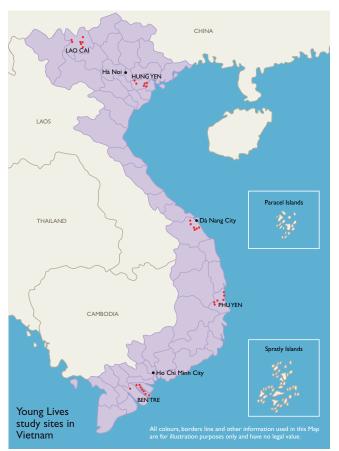


Preliminary Findings from the 2013 Young Lives Survey (Round 4)

This is the first of four fact sheets to describe preliminary results from Round 4 of the Young Lives survey to show the changing outcomes for children in Viet Nam since 2002. The fact sheets do not aim to give a comprehensive overview of all the findings from Young Lives, but rather a broad outline of some of the key indicators and changes that have taken place in the lives of the children in the sample over the eleven years between the first round of data collection in 2002 and the fourth in 2013. This fact sheet describes the survey methods and sample design in Viet Nam, while the other fact sheets present preliminary findings about Education and Learning, Health and Nutrition, and Youth and Development.

In the late 1980s Viet Nam started its transition to a market-oriented economy following its recovery from war during the 1960s and 70s. Since that time, the country has been through financial crisis as well as rapid growth. Living conditions have steadily improved and the number of people living in poverty has fallen substantially. However, the country was badly affected by the global recession in 2009. Food prices increased and exports went down. There are widening gaps between rich and poor: while the number of people living below the official poverty line continues to decline from 16% in 2006 to 11% in 2010, almost half of the ethnic minority population are still poor.

Figure 1. Young Lives study sites in Viet Nam



Over a quarter (28%) of Viet Nam's 92 million population is below the age of 18. The Government has made efforts to improve healthcare services for women and children, and Viet Nam now ranks 83rd in the world for under-5 mortality. Among the under-5s, 5% are underweight, 8% are wasted (thin for their height), and 32% are stunted (short for their age). Enrolment rates at primary school are 97%, although boys are more likely than girls to drop out of secondary school early.

Recently Viet Nam has introduced a number of programmes to support children and young people. In 2011 the Government launched the first ever National Programme on Child Protection (for the period 2011-15), which sets out clear objectives and actions to create a safe and friendly environment for all children. In 2013 the Party Central Committee agreed a comprehensive reform in education to meet the requirements of industrialisation and modernisation, revising the curriculum, simplifying the system of national examinations, and consolidating the linkages between vocational training, tertiary education and the labour market.

About Young Lives

Young Lives is designed as a panel study that is following the lives of 12,000 children in four low and middle-income countries – Ethiopia, India (in the states of Andhra Pradesh and Telangana), Peru and Viet Nam – over 15 years. The sample in each country consists of two cohorts of children: a Younger Cohort who were aged between 6 and 18 months when Round 1 of the survey was carried out in 2002, and an Older Cohort of 1,000 children then aged between 7.5 and 8.5 years.

Through a large-scale household survey of all the children and their primary caregiver, interspersed with more in-depth interviews, group work and case studies with a sub-sample of the children, their caregivers, teachers and community representatives, we are collecting a wealth of information, not only about their material and social circumstances, but also their perspectives on their lives and their aspirations for the future, set against the environmental and social realities of their communities.

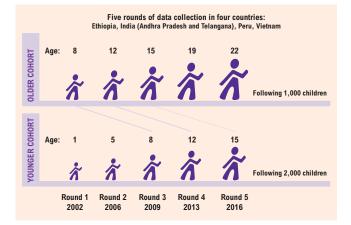
The fact that our work spans 15 years in the lives of these children – covering all ages from early infancy into young adulthood when some will become parents themselves – means that we are also able to examine how children's lives change over time. The five rounds of survey data, supplemented by the nested qualitative case studies make Young lives a unique cross-country longitudinal dataset exploring the causes and consequences of poverty in childhood.

Young Lives cohort study

A cohort study is one which collects information over time on a group of people who share a common characteristic (such as age). It allows us to see how circumstances at an earlier time-point relate to later outcomes.

Four rounds of quantitative surveys of children, households and communities have been conducted in Viet Nam. The first round was carried out in 2002 when the children were aged around 1 year and 8 years. The following surveys were carried out in 2006 (Round 2), 2009 (Round 3), and 2013 (Round 4) – when the children were aged between 11 and 12 years (the Younger Cohort) and between 18 and 19 years (the Older Cohort). The survey rounds have been interspersed with four rounds of qualitative data collection with a sub-sample of 50 of the children, resulting in a series of nested longitudinal case studies.

Figure 1. Young Lives longitudinal and cohort study



Sample design

The children were selected from 20 sentinel sites that we defined specifically in each country. The concept of a sentinel site comes from health surveillance studies and is a form of purposive sampling where the site (or 'cluster' in sampling language) is deemed to represent a certain type of population, and is expected to show typical trends affecting those particular people or areas. For example, monitoring a typical slum of a given city may detect events and trends that will have an impact on most slums in that city.

The study sites in Viet Nam were selected in 2001, using a semipurposive sampling strategy designed to ensure over-sampling of poor communities. In Viet Nam, a sentinel site was defined as commune-based. A commune has a local government office, primary school, commune health centre, post office, and a market. In the event that a commune selected as a sentinel site had insufficient numbers of one-year-old children at the time of the survey, a neighbouring commune with similar socio-economic conditions was also selected in order to reach the quota of children. Therefore, with 20 sentinel sites, 31 communes were included in the study sample. In 2006, an administrative reform took place in Da Nang province, resulting in the creation of several new precincts, so the sample is now spread across 34 communes/precincts.

Principles and methods of the Young Lives sampling approach

- It was decided that a range of children should be sampled, not only the poorest children, although poor families were over-sampled.
- The children were sampled in geographic clusters, which were selected through a semi-purposive approach.
- Within each cluster, children were randomly selected.
- In each country, 2,000 children aged between 6 and 18 months were selected to be followed as they grew up over 15 years. This was considered an appropriate number given the duration and scope of the study. It was also considered to be sufficiently large for statistical analysis in general, allowing for the detection of moderate-sized differences between sub-groups of children.
- A similar sample of 1,000 children per country aged between 7.5 and 8.5 years were selected as an Older Cohort for comparison.

Selection of provinces: In 2001, Viet Nam had 61 provinces and cities which were divided into almost 600 districts and over 10,300 communes. In terms of socio-economic development, Viet Nam can be stratified into eight regions: North-West, North-East, Red River Delta, North Central Coast, South Central Coast, South-East, Central Highlands, and Mekong River Delta. Additionally, the Young Lives team categorised all major urban centres (Hanoi, Ho Chi Minh City, Da Nang, Hai Phong, and Ba Ria-Vung Tau) as another region – a 'Cities' region.

Out of the eight regions plus the Cities, five were selected through a process of iterative consultation with the study's Advisory Committee and other stakeholders (representing 29 government institutions, international donors and national NGOs). From each of these five regions, one province was then selected: Lao Cai (North-East region), Hung Yen (Red River Delta), Da Nang (City), Phu Yen (South Central Coast) and Ben Tre (Mekong Delta).

Selection of sentinel sites: The selection of four sentinel sites in each province was carried out by the provincial governments. Provincial working groups were established for this purpose, and ranked all communes in the province by poverty level: poor, average, better-off, and rich. Criteria used for ranking included: (1) development of infrastructure, (2) percentage of poor households in the commune), and (3) child malnutrition status.

Four sentinel sites were selected (with an over-sampling of poor communes): two communes from the poor group, one from the average, and one from the above-average group (combined betteroff and rich). Other criteria used in the selection were: (1) that the commune should represent common provincial features; (2) commitment from local government for the research; (3) feasibility of research logistics; (4) population size.

Among the 31 communes initially selected, 15 were from the poor group (48%), nine from the average group (29%), and seven (23%) from the above-average group.

Selection of households and children: Within each sentinel site, households were screened to compile a list of eligible children (aged 1 year and 8 years). From within this list of households, a sample of 100 children born between January 2001 and May 2002 and 50 children born between January 1994 and June 1995 was selected

using simple random sampling. Families with twins and triplets were excluded. In households with more than one child of age 1 or age 8, one child was selected using a random sampling technique. Non-response rate (refusals by caregivers) was less than two per cent, and replacement sampling was used.

Table 1. Young Lives sentinel sites

Cluster ID	Province	Anonymised name*	Short description
1	Phu Yen	Dan Chu	An inland flood-prone rural community with a high rate of poverty in 2002 but has improved since and is now not so poor
2	Phu Yen	Dong Tam	A coastal community in Phu Yen province with an average rate of poverty
3	Phu Yen	Van Lam	A very poor mountainous community with mostly ethnic minority groups
4	Phu Yen	My Duc	A relatively prosperous coastal community in Phu Yen province, with shrimp farming
5	Ben Tre	Hai Loc	A poor flood-prone coastal area with difficult transport links
6	Ben Tre	Dong Thanh	A inland area on the Mekong Delta with a slightly above- average poverty rate
7	Ben Tre	Ly Hoa	A inland flood-prone area in the Mekong Delta, with difficult transportation but a relatively low poverty rate
8	Ben Tre	Duc Lap	A relatively prosperous inland area in the Mekong Delta with good transport links
9	Lao Cai	Lang Hoi	Among the poorest mountainous communities in Lao Cai province, with mostly ethnic minority groups, very difficult transportation and little infrastructure
10	Lao Cai	Ke Dang	A very poor mountainous area in Lao Cai province, with mostly ethnic minority groups and underdeveloped infrastructure
11	Lao Cai	Tay Doai	A poor mountainous area in Lao Cai province with mixed ethnic groups
12	Lao Cai	Gian Son	A very poor mountainous area in Lao Cai province, with mixed ethnic groups and underdeveloped infrastructure
13	Hung Yen	Van Tri	A prosperous rural area in the Red River Delta, with high population density and good infrastructure
14	Hung Yen	Da Giang	A poor rural area in the Red River Delta, near a major city and with good infrastructure
15	Hung Yen	Phu Thuong	A rural rice-producing community in the Red River Delta, with good infrastructure
16	Hung Yen	Cao Ky	A poor rural area in the Red River Delta, with a high population density and good transport infrastructure
17	Da Nang	Nghia Tan	An urban neighbourhood in Da Nang, with mostly blue-collar labour and average infrastructure
18	Da Nang	Nhan Trung	A mostly prosperous urban area in Da Nang with very good access to services
19	Da Nang	Truong Son	A relatively poor suburb in Da Nang, with quite poor environmental conditions and transportation
20	Da Nang	Hai Thanh Dong	A newly developed urban and fishing community, with average infrastructure and poor environmental conditions

*Note: Pseudonyms are used for all site names in order to protect the children's anonymity.

1 Viet Nam is a multi-ethnic country with over 50 distinct groups totalling about 14% of the population. Resources do not allow us to achieve absolutely proportional representation of all minority groups, none of which constitute more than 2% of the population. In the Young Lives sample, the second biggest ethnic group is the H'Mong with 156 children in the study (5% of the sample). The next largest ethnic group is the Dao with 64 children. All the others total less than 50 children. Nationally, neither the H'Mong nor the Dao is among the five largest ethnic groups.

Comparing Young Lives to other datasets

Young Lives is not intended to be a nationally representative survey such as the Demographic and Health Survey (DHS) or Viet Nam Household Living Standards Survey (VHLSS). Rather, as a longitudinal study, it is intended to show changes over time and the impact of earlier circumstances on children's later outcomes.

Due to the non-random sampling procedure and purposive oversampling of poor sites, the sample is not nationally representative. The urban sector is under-represented with regards both to the total population share and the level of development. The chosen city, Da Nang, is less social, culturally and economically developed than other cities such as Hanoi or Ho Chi Minh City. However, the Young Lives sample represents the national distribution of different ethnic groups¹ and gender.

A comparison to the DHS 2002 and VHLSS 2002, indicates that the Young Lives sample includes households with on average less access to basic services and which are on average slightly poorer than the average in Viet Nam. These differences reflect the propoor sampling within Young Lives. Despite these biases in terms of average characteristics, it is shown that the Young Lives sample covers the diversity of children in the country. Therefore while not suited for simple monitoring of outcome indicators, the Young Lives sample is an appropriate and valuable instrument in analysing causal relations and examining child welfare and its dynamics over time (Nguyen 2008).

Tracking and attrition

Sample attrition occurs when children who were interviewed in the first round of a survey are either not found or refuse to take part in later rounds. Young Lives, like all longitudinal surveys, is concerned to minimise attrition bias since if we were to lose touch with some types of children more than others (such as children from poorer families or from particular ethnic groups), this could bias results. We take care to ensure that we can track as many children as possible between the survey rounds to minimise the risk of drop-out.

Attrition rates for Viet Nam are low: 3.6% for the Younger Cohort and 11.3% for the Older Cohort since the start of the study. The attrition rate in Viet Nam is low compared to other longitudinal studies but slightly higher than in the other study countries. The main reasons for attrition are migration (internal mostly), children moving for tertiary schooling, and army service (for the Older Cohort). Working with the same field supervisors since Round 1 has enabled us to build stable relationships with the families, helping to minimise attrition.

Table 2. Attrition between Round 1 and Round 4

	Younger	Cohort	Older Cohort	
Initial sample in Round 1 (2002)	2000		1000	100%
Died	12	0.6%	4	0.4%
Refused	11	0.6%	4	0.4%
Untraceable	31	1.6%	52	5.2%
Abroad	11	0.6%	6	0.7%
Other (e.g. ill, army)	7	0.4%	47	4.7%
Interviewed in R4	1928	96.4%	887	88.7%
Attrition		3.6%		11.3%

Note: we do not include deaths within attrition

Topics covered by Round 4 survey

The survey is based on a core questionnaire for each child and a questionnaire for his or her primary caregiver that focuses on household circumstances. There is also a questionnaire for community representatives, to gather information about the local economy and environment, access to services, and other issues affecting child well-being within the community.

- Household Questionnaire (both cohorts): includes sections on Parental background; Household and child education; Livelihoods and asset framework; Household food and nonfood consumption and expenditure; Social capital; Economic changes and recent life history; Socio-economic status. For the Younger Cohort only, there are also sections on Child health; Anthropometry; Caregiver perceptions and attitudes.
- Older Cohort Child Questionnaire (age 19): includes sections on Parents and Caregiver's update; Mobility; Subjective well-being; Education; Employment, earnings, and time-use; Feelings and attitudes; Household decision-making; Marital and living arrangements; Fertility; Anthropometry; Health and nutrition; Cognitive tests (reading in Vietnamese; Maths; Self-Administered Questions).
- Younger Cohort Child Questionnaire (age 12): includes sections on Schooling; Time-use; Health; Social networks; Feelings and attitudes; Cognitive tests (Peabody Picture Vocabulary Test; reading in Vietnamese; Maths; Sibling PPVT test).
- **Community Questionnaire:** includes sections on General characteristics of the locality; Social environment; Access to services; Economy; Local prices; Social protection; Educational services; Health services; Migration.

Table 3. General characteristics of the Young Lives samplein Viet Nam (2013)

Round 4 (2013)	Younger Cohort		Older Cohort		Total Sample	
	Number	%	Number	%	Number	%
Gender						
Male	992	51.5	425	47.9	1,417	50.3
Female	936	48.5	462	52.1	1,398	49.7
Total	1928		887		2815	
Location						
Urban	392	20.4	168	19.1	560	20
Rural	1,529	79.6	712	80.9	2,241	80
Gender of household	head					
Male	1,630	85.6	732	85	2,362	85.4
Female	274	14.4	129	15	403	14.6
Average household size	4.5		4.2		4.4	
Caregiver's education						
None	207	10.8	89	10.1	296	10.6
0-4 years	282	14.8	156	17.7	438	15.7
5-8 years	669	35	264	29.9	933	33.4
9 years plus	753	39.4	373	42.3	1,126	40.3
Ethnicity groups						
Majority Kinh	1,652	85.7	767	86.5	2,419	85.9
Minority ethnic group	276	14.3	120	13.5	396	14.1
Region*						
Northern Uplands	384	19.9	188	21.2	572	20.3
Red River Delta	391	20.3	178	20.1	569	20.2
Central Coastal urban	365	18.9	165	18.6	530	18.8
Central Coastal rural	395	20.5	172	19.4	567	20.1
Mekong River Delta	393	20.4	184	20.7	577	20.5

* Corresponds to original region of residence (in Round 1).

Note: not all categories add up to 1928 (Younger Cohort) or 887 (Older Cohort) due to missing data for some variables.

FURTHER READING

Ian Wilson, Sharon Huttley and Bridget Fenn (2004) A Case Study of Sample Design for Longitudinal Research: Young Lives, *International Journal of Social Research Methodology* 9.5: 351-365.

Ngoc P. Nguyen (2008) An Assessment of the Young Lives Sampling Approach in Vietnam, Technical Note 4, Oxford: Young Lives.

Le Thuc Duc, Nguyen Thang, Nguyen Van Tien, Mai Thuy Hang and Vu Thi Thu Thuy (2011) *How Do Children Fare in the New Millennium? Initial Findings from Vietnam*, Young Lives Round 3 Survey Report, Oxford: Young Lives.

ACKNOWLEDGEMENTS AND CREDITS

This is the first of a series of fact sheets giving a preliminary overview of some of the key data emerging from Round 4 of the Young Lives household and child survey. The factsheets – which cover Young Lives Survey Design and Sampling; Education and Learning; Health and Nutrition; and Youth and Development – were written by Le Thuc Duc and Nguyen Thang with support from Nguyen Thu Thu Hang and Caroline Knowles. We would like to thank our fieldwork teams and Vu Thu Thuy who coordinated the survey fieldwork, the Young Lives Data Manager Nguyen Van Tien, and Patricia Espinoza Revollo 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.

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