Young Lives

October 2017

Young Lives Survey Design and Sampling (Round 5)

United Andhra Pradesh

For the purposes of this fact sheet, which describes the survey methods, we describe the sample design in the former United Andhra Pradesh before bifurcation of the state in June 2014.

Data in the other fact sheets – which cover *Education and Learning*, *Growth and Nutrition*, *Youth Transitions: Skills, Work and Family Formation*, and *Poverty and Intergenerational Change* – are drawn from the Young Lives sample in new Andhra Pradesh and the newly formed state of Telangana, where approximately one third of the Young Lives sample children live.

About Young Lives

Young Lives is designed as a cohort study 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 Vietnam – over 15 years. The sample in each country consists of two age-groups: a Younger Cohort of 2,000 children who were aged one when the first round of the survey was carried out in 2002, and an Older Cohort of 1,000 children then aged eight.

Young Lives is collecting a wealth of information through a large-scale household survey of all the children and their primary caregivers, bolstered by in-depth interviews, group work and case-studies with a sub-sample of the children and their caregivers, teachers and community representatives. This not only tracks the material and social circumstances of the Young Lives sample, but also captures their perspectives on life 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 have become parents themselves – means that we are able to examine how the lives of children, living in different circumstances and in diverse contexts, change over time. The five rounds of survey data, supplemented by four rounds of nested qualitative case studies, affords Young Lives a unique cross-country longitudinal dataset exploring the causes and consequences of poverty in childhood.

Figure 1. *Young Lives longitudinal and cohort study*

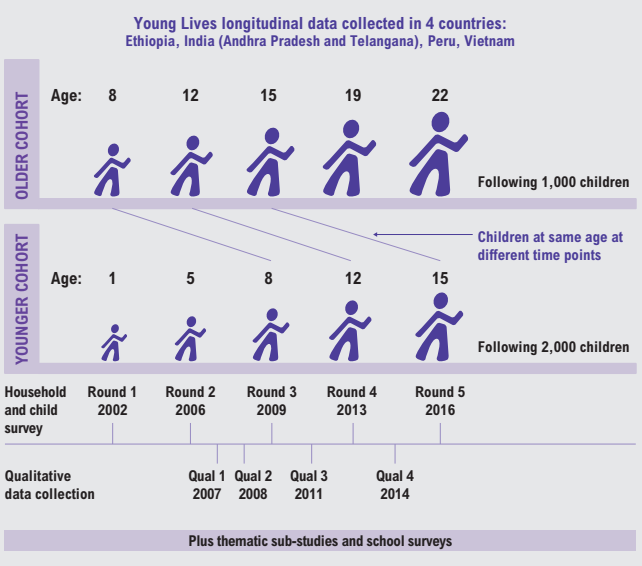

Figure 2. *Young Lives study sites in Peru*

Young Lives in India

Five rounds of quantitative surveys of children, households and communities have been conducted in India. The fifth round of Young Lives household and child data was collected between August 2016 and January 2017 (canvassing of migrated households was completed in February 2017) with the children now aged approximately 15 years (the Younger Cohort) and 22 years (the Older Cohort).

Sample design

The children were selected from 20 sentinel sites that were specifically designed 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 people or areas.

The study sites in India were selected in 2001 using a semi-purposive sampling strategy. The districts were selected first, then 20 sentinel sites within these were appointed according to an agreed set of criteria. In each sentinel site, 100 households with a child born in 2001-02 and 50 households with a child born in 1994-95 were randomly selected. If a selected family had both 1-year-old and 8-year-old children, the younger child was included since a greater number needed to be enrolled for that group.

In 2001, a sentinel site in United Andhra Pradesh was defined as a *mandal*. The old state of Andhra Pradesh was divided into 23 administrative districts, each sub-divided into a number of mandals, depending on the district size. In total, there were 1,125 mandals and around 27,000 villages, with generally between 20-40 villages in a mandal, although in tribal mandals there can be as many as 200 villages. Villages are normally composed of a main village site with 2-5 associated hamlets. Tribal villages tend to have a large number of dispersed hamlets.

Regions: Undivided Andhra Pradesh had three distinct agro-climatic regions: Coastal Andhra, Rayalaseema, and Telangana. The sampling scheme adopted was designed to identify regional variations with the following priorities:

- a uniform distribution of sample districts across the three regions to ensure full regional representation
- the selection of one poor and one non-poor district in each region, based on a ranking of development indicators
- considering issues that might impact on childhood poverty in poor districts and mandals, including presence of the Andhra Pradesh District Poverty Initiative Programme (APDPIP).

Hyderabad district is urban and metropolitan (and is considered because of State capital city context) and therefore different selection criteria were applied.

Districts: Districts were ranked according to their relative level of development based on three categories of indicators: economic, human development, and infrastructure. Based on these rankings, a representative group of poor and non-poor districts was selected, and then narrowed down to six:
• Srikakulam and West Godavari in Coastal Andhra;
• Anantapur and Kadapa in Rayalaseema;
• Karimnagar, Mahabubnagar and Hyderabad in Telengana.
The districts selected for sampling covered around 28% of the undivided state population and included 318 of the 1,119 mandals (excluding Hyderabad). Since Telangana was formed in 2014, it has been sub-divided into 31 districts meaning the Young Lives sentinel sites are now located in six of these districts: Mahabubnagar, Karimnagar, Jogulamba, Nagarkurnool, Jayashankar, and Hyderabad (see Table 1).

Mandals: The next step was to select mandals to be sentinel sites. Since there are relatively few urban mandals, the district capital was invariably chosen in urban areas, and one site was chosen from the urban slums of Hyderabad. The remaining sentinel sites were selected by ranking mandals within the six selected districts, again using development indicators.

Villages: Each mandal/sentinel site was divided into four contiguous geographical areas and one village was randomly selected from each area. Additional villages were included wherever the number of eligible households was below the sample targets. In urban areas, municipal wards were defined as communities and identified using Census codes. In Hyderabad, three slum areas in different parts of the city were selected, including neighbourhoods with an ethnic and religious composition representative of the cultural diversity of the city.

Table 1. *Young Lives sentinel sites in Andhra Pradesh and Telangana*

Cluster ID	District	Anonymised name*	Short description
Andhra Pradesh			
1	West Godavari	Sagar	An urban area in a well-developed coastal region
2	West Godavari	Raipur	A tribal mandal in a well-developed coastal district
3	Srikakulam	Patna	A town in north coastal Andhra Pradesh
4	Srikakulam	Manipur	A tribal mandal in north coastal Andhra Pradesh
5	Srikakulam	Puri	A rural mandal in north coastal Andhra Pradesh
6	Srikakulam	Chandipur	A rural mandal in north coastal Andhra Pradesh
7	Srikakulam	Angul	A rural mandal with a mix of tribes and non-tribes in north coastal Andhra Pradesh
8	Kadapa	Bolangir	A rural mandal in the heart of the Rayalaseema region where agriculture is the main occupation
9	Kadapa	Kalahandi	A remote rural mandal in a forested part of the Rayalaseema region
10	Anantapur	Mayurbhanj	An urban site in the Rayalaseema region, which is a district headquarter
11	Anantapur	Katur	A poor rural mandal in Rayalaseema region affected by Naxalite movements
12	Anantapur	Sivakasi	A poor rural area spread across hilly areas and affected by Naxalite movements
13	Anantapur	Tondi	A rural mandal in the Rayalaseema region bordering the neighbouring state
Telangana			
14	Karimnagar	Dharmapuri	A medium-sized town in northern Telangana with people of mixed religion
15	Jayashankar	Kotagiri	A rural area in northern Telangana affected by Naxalite movements
16	Nagarkurnool	Perambalur	A rural tribal mandal in the forest areas of southern Telangana
17	Mahabubnagar	Nagore	A rural mandal in the southern Telangana region with people moving in seasonal migration
18	Mahabubnagar	Bhavara	A rural mandal in the southern Telangana region with a high incidence of child labour and seasonal migration
19	Jogulamba	Poompuhar	A very poor mandal in southern Telangana
State capital			
20	Hyderabad	Polur	A densely crowded area in the state capital of Andhra Pradesh and Telangana

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

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). Rather, as a longitudinal study, it is intended to show changes for individuals over time and the impact of earlier circumstances on children's later outcomes. A comparison to the DHS 1998/9 (the year closest to Round 1 of Young Lives in 2002), indicates that the Young Lives sample includes households with better access to services, greater ownership of assets, and slightly wealthier than the average household in Andhra Pradesh and thus includes some biases. Despite these biases, it is shown that the Young Lives sample covers the diversity of children in poor households in Andhra Pradesh appropriate to analysing causal relations and examining child welfare and its dynamics over time.

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. We make sure to track as many children as possible between survey rounds to minimise the risk of drop-out.

Table 2. *Attrition between Round 1 and Round 5*[1]

	Younger Cohort	Older Cohort
Initial Sample Round 1 (2002)	2,011	1,008
Refused	3	4
Untraceable	7	6
Living Abroad	0	14
Interviewed in Round 5 (2016)	**1,891**	**914**
Attrition Round 1 - Round 5*	3.7%	7.6%

* Attrition happens when both the household and child were not interviewed.

The attrition rate is low compared to other longitudinal studies and in India is slightly lower than in the other study countries: 3.7% for the Younger Cohort and 8.1% for the Older Cohort since the start of the study[2]. Attrition has been minimised by working with the same field supervisors across all survey rounds, so enabling us to build crucial and stable relationships with Young Lives families.

1 Note that attrition rates do not include deaths of which there were 47 (2.3%) in Younger Cohort and 17 (1.7%) in the Older Cohort.

2 See Appendix A in Outes-Leon and Dercon (2008)

Table 3. *General characteristics of the Young Lives Sample in Round 1 and Round 5*

	Younger Cohort				Older Cohort			
	Round 1 – 2002		Round 5 – 2016		Round 1 – 2002		Round 5 – 2016	
	Number	%	Number	%	Number	%	Number	%
Gender								
Male	1,081	53.8	1,015	53.7	491	48.7	442	48.4
Female	930	46.2	876	46.3	517	51.3	471	51.5
Caste								
Scheduled Castes	370	18.4	347	18.4	212	21.0	196	21.4
Scheduled Tribes	293	14.6	281	14.9	109	10.8	104	11.4
Backward Classes	924	45.9	879	46.5	468	46.4	426	46.6
Other Castes	424	21.1	384	20.3	219	21.7	187	20.5
Maternal education								
None	1,030	51.2	968	51.2	591	58.6	541	59.2
1 to 5 years	348	17.3	335	17.7	177	17.6	163	17.8
6 to 10 years	499	24.8	468	24.7	178	17.7	159	17.4
More than 10 years	68	3.4	64	3.4	19	1.9	17	1.9
Wealth Index								
Bottom tercile	670	33.3	636	33.6	342	33.9	320	35.0
Middle tercile	678	33.7	643	34.0	330	32.7	300	32.8
Top tercile	658	32.7	607	32.1	336	33.3	293	32.1
Location								
Urban	508	25.3	456	24.1	251	24.9	213	23.3
Rural	1,503	74.7	1,435	75.9	757	75.1	700	76.6
States								
New Andhra Pradesh	1,306	64.9	1,228	64.9	657	65.2	591	64.7
Telangana	705	35.1	663	35.1	351	34.8	322	35.2
Total sample size	**2,011**	**100.0**	**1,891**	**100.0**	**1,008**	**100.0**	**914**	**100.0**

FURTHER READING AND REFERENCES

Wilson, Ian, Sharon R.A. Huttly and Bridget Fenn (2006) 'A Case Study of Sample Design for Longitudinal Research: Young Lives' *International Journal of Social Research Methodology*, 9:351–365.

Wilson, Ian, Galab, S., Ravi C. and P. Prudhvikar Reddy (2002) *Young Lives Sampling Approach: Selection of Sentinel Sites and Communities in Andhra Pradesh*. Unpublished report, Oxford: Young Lives.

Kumra, Neha (2008) *An Assessment of the Young Lives Sampling Approach in India*. Technical Note 2, Oxford: Young Lives.

Outes-Leon, I. and S. Dercon (2008) *Survey Attrition and Attrition Bias in Young Lives*. Young Lives Technical Note 5, Oxford: Young Lives.

Young Lives (2017) *Young Lives Methods Guide*, available at: www.younglives.org.uk/what-we-do/research-methods/methods-guide

ACKNOWLEDGEMENTS AND CREDITS

This *Young Lives Survey Design and Sampling* fact sheet supports a series of fact sheets which give an overview of preliminary findings emerging from Round of the Young Lives household and child survey. These fact sheets; *Education and Learning*; *Health and Nutrition*; *Youth Transitions: Skills, Work and Family Formation, and Poverty and Intergenerational Change.*

We thank the Young Lives participants and their families for their willingness to be part of our sample and answer our many questions. Prudhvikar Reddy coordinated the survey fieldwork and we would like to thank our fieldwork teams (particularly the fieldwork supervisors) for their efforts in minimizing attrition, K.T. Shyamsunder our Lives Data Manager.

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

UKaid from the British people

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