

This is the first of four factsheets to describe preliminary results from Round 4 of the Young Lives survey to show the changing outcomes for children in India since 2002. The factsheets 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. 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 factsheets – which cover Education and Learning, Health and Nutrition, and Youth and Development – are divided for 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.

India is home to 1.2 billion people of whom 30% are children. India today is witnessing an economic boom and is now one of the world's most powerful economies. Yet this vast country is characterised by stark disparities between regions and social groups related to wealth and consumption, access to education and welfare programmes, and mobility out of poverty. Given the scale of the poverty (69% of the population lives on less than \$2 per day) and that a quarter of all child deaths globally occur in India, tackling child poverty has global significance. The Young Lives study in India is being carried out in Andhra Pradesh and Telangana, which together have almost 85 million inhabitants, 7% of the Indian population.

Various measures have been introduced by the Indian Government to empower disadvantaged groups and give them better access to opportunities. The Right to Free and Compulsory Education Act of 2009 builds on great strides in education: India now has almost universal enrolment at lower primary level (99.8%) and adult literacy has risen to over 75% (up from 65% in 2001). The Midday Meal scheme, the largest school feeding programme in the world, reaches an estimated 110 million children in over 120,000 schools across the country.

Andhra Pradesh was one of the first Indian states to initiate the reform process for fiscal and institutional restructuring at the state level and was the model for several new poverty reduction initiatives during the 1990s. Thus it is particularly interesting to see what progress has been made in the level of poverty and on individual indicators of child poverty. For this purpose, data on various child-related indicators can be compiled from different sources (such as the Census, the Demographic and Health Survey, National Family Health Survey and state-level Human Development Reports), to serve as a point of comparison with data from Young Lives.

About Young Lives

Young Lives is a cohort study following the lives of approximately 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 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, and their peers 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 change over time, whether growing up in rural or urban contexts, poor or not-so-poor areas, large or small households, or as migrants, as well as taking into account a variety of other factors. The five rounds of survey data, supplemented by nested qualitative case studies from the sub-sample of children, make Young Lives a unique cross-country longitudinal dataset exploring the causes and consequences of poverty in childhood.

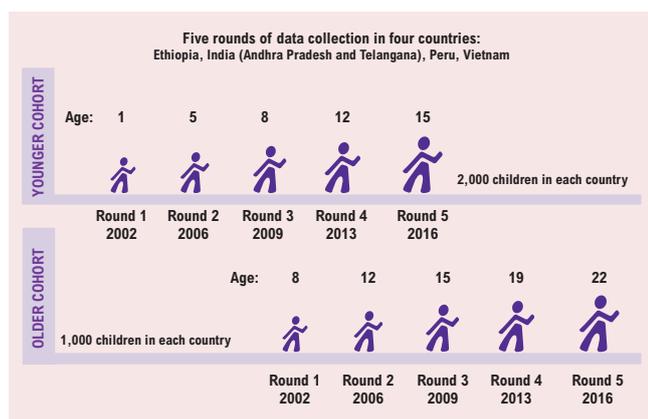
Figure 1. Young Lives study sites



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. The fourth round of Young Lives household and child data was collected between July 2013 and January 2014 with the children now aged between 11 and 12 years (the Younger Cohort) and between 18 and 19 years (the Older Cohort).

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.

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.

The study sites in India were selected in 2001 using a semi-purposive sampling strategy. First the districts and then the 20 sentinel sites from within the chosen districts were selected following a 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).

In India, a sentinel site 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 size of the district. In total, there were 1,125 mandals and around 27,000 villages, with generally between 20 and 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 between two and five associated hamlets. Tribal villages tend to have a large number of dispersed hamlets.

Regions: Andhra Pradesh had three distinct agro-climatic regions: Coastal Andhra, Rayalaseema, and Telangana (which became a separate state in June 2014). 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 representation of the regions
- the selection of one poor and one non-poor district in each region, based on a ranking of development indicators
- consideration was also given to issues that might impact on childhood poverty in poor districts and mandals, including the presence (or not) of the Andhra Pradesh District Poverty Initiative Programme (APDPIP).

Hyderabad district is urban and metropolitan and therefore different selection criteria were applied.

Districts: The next step was to select the districts where sites would be located, so districts were ranked according to their relative level of development based on three categories of indicators: economic (for example per capita income, percentage of urban population), human development (including female literacy, infant mortality, etc.), and infrastructure (e.g. total length of road per 100km², number of hospital beds per 10,000 people). Based on these rankings, a representative group of poor and non-poor districts was selected, and then narrowed down to Srikakulam and West Godavari in Coastal Andhra, Anantapur and Kadapa from Rayalaseema, and Karimnagar and Mahbubnagar in Telangana, plus Hyderabad. In total, the districts selected for sampling covered approximately 28% of the state population and include around 318 of the 1119 mandals (excluding Hyderabad).

Mandals: The third 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 randomly selected from each area, ensuring that the four villages selected had threshold population sufficient to include 100 1-year-old and 50 8-year-old children (based on data from the 1991 India Census). Where sufficient children were not identified from the selected sample villages, additional villages were included. In urban areas,

municipal wards were defined as communities and identified using the 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 characteristic of the city.

Table 1. Young Lives sentinel sites

Cluster ID	District	Anonymised name*	Short description
Coastal Andhra			
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
Rayalaseema			
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	Karimnagar	Kotagiri	A rural area in northern Telangana affected by Naxalite movements
16	Mababubnagar	Perambalur	A rural tribal mandal in the forest areas of southern Telangana
17	Mababubnagar	Nagore	A rural mandal in the southern Telangana region with people moving in seasonal migration
18	Mababubnagar	Bhavara	A rural mandal in the southern Telangana region with a high incidence of child labour and seasonal migration
19	Mababubnagar	Poompohar	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.

Longitudinal qualitative research is also being undertaken in four of these communities with a sub-sample of about 50 children covering both age cohorts to produce nested case studies across a seven-year period from 2007 to 2014.

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 and more ownership of assets and thus includes some biases. A comparison on the wealth index scores reveals that the Young Lives households seem to be slightly wealthier than the average household in Andhra Pradesh. These differences could be accounted for in part by the earlier data collection year of the DHS. Despite these biases, it is shown that the Young Lives sample covers the diversity of children in poor households in Andhra Pradesh. Therefore while not suited for simple monitoring of child 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.

Tracking and attrition

Sample attrition occurs when children who were surveyed 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 since if we were to lose touch with some 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.

The attrition rate is low compared to other longitudinal studies: 2.6% for the Younger Cohort and 4.3% for the Older Cohort since the start of the study. The main reasons for attrition are migration (internal or abroad), household moves, marriage (of some Older Cohort whose in-laws may not wish them to participate), and the feeling that the study has not brought any tangible benefits. 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)	2011		1008	
Died	45	2.2%	13	1.3%
Refused	14	0.7%	20	2.0%
Untraceable	36	1.8%	19	1.9%
Living abroad	1	0.0%	4	0.4%
Interviewed in Round 4 (2013)	1915	95.2%	952	94.4%
Attrition*		2.6%		4.3%

*Note: we do not include deaths within attrition.

Topics covered by the 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 and 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 non-food consumption and expenditure; Social capital; Economic changes and recent life history; Socio-economic status; 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 (Telugu reading comprehension; English; 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, Telugu reading comprehension; English; Maths, Sibling Maths test).
- **Community Questionnaire:** includes sections on General characteristics of the locality; Social environment; Access to services; Economy; Local prices; Educational services; Health services; Primary health care facility.

Table 3. General characteristics of the Young Lives sample

Round 4 (2013)	Younger Cohort		Older Cohort		Total	
	Number	%	Number	%	Number	%
Gender						
Male	1030	53.8	465	48.8	1495	52.1
Female	885	46.2	487	51.2	1372	47.9
Total	1915		952		2867	
Location						
Urban	532	27.8	279	29.3	811	28.3
Rural	1383	72.2	673	70.7	2056	71.7
Region*						
Coastal Andhra	671	35	331	34.8	1002	34.9
Rayalaseema	577	30.1	283	29.7	860	30
Telangana	667	34.8	338	35.5	1005	35.1
Maternal education**						
No education	984	51.4	572	60.3	1556	54.3
Up to 5 years	343	17.9	174	18.3	517	18.1
6 to 10 years	470	24.5	163	17.2	633	22.1
More than 10 years	118	6.2	40	4.2	158	5.5
Religion of child*						
Christian	91	4.8	48	5	139	4.8
Muslim	130	6.8	64	6.7	194	6.8
Buddhist	13	0.7	8	0.8	21	0.7
Hindu	1680	87.7	831	87.3	2511	87.6
Sikh	0	0	1	0.1	1	0
None	1	0.1	0	0	1	0
Ethnicity of child						
Scheduled Castes	352	18.4	204	21.4	556	19.4
Scheduled Tribes	283	14.8	106	11.1	389	13.6
Backward Classes	892	46.6	439	46.1	1331	46.4
Other Castes	388	20.3	203	21.3	591	20.6

* Region and Child's religion and ethnicity taken from the Round 1 Survey data.

** Data on Maternal education taken from the Round 2 survey data

FURTHER READING

Ian Wilson, Sharon Huttly and Bridget Fenn (2006) 'A Case Study of Sample Design for Longitudinal Research', *International Journal of Social Research Methodology* 9.5: 351-365.

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S. Galab, S. Vijay Kumar, P. Prudhvikar Reddy, Renu Singh and Uma Vennam (2011) *The Impact of Growth on Childhood Poverty: Initial Findings from India*, Young Lives Round 3 Survey Report, Oxford: Young Lives.

Young Lives (2012) *Young Lives Methods Guide*, available at: <http://www.younglives.org.uk/what-we-do/research-methods/methods-guide>

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This is the first of a series of factsheets 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 Professor S. Galab, P. Prudhvikar Reddy and Renu Singh.

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