

Young Lives Attrition Report: Round 7

María de los Ángeles Molina, Marta Favara, Alan Sánchez, and Amanda Woodman Deza

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Technical Note

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About Young Lives

Young Lives is an international study of poverty and inequality, following the lives of 12,000 children in four countries (Ethiopia, India, Peru and Vietnam) since 2001. **www.younglives.org.uk**

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Summary

Over more than 20 years, Young Lives has followed two cohorts born seven years apart (Favara et al. 2021). This technical note documents the attrition rates from the seventh round of the Young Lives survey carried out in Ethiopia, India (the states of Andhra Pradesh and Telangana) and Peru in 2023–24, when the Younger Cohort were aged 22 and the Older Cohort were 29. It also provides details on the completion rates observed for specific components of Round 7 that required additional informed consent (a self-administered questionnaire, anthropometric measures, reading comprehension, computerised cognitive tasks, and hair samples). In the note, sample attrition is defined as the percentage of participants who could not be located, migrated abroad, have passed away, or have refused to take part in previous rounds, compared to the original sample surveyed in Round 1. Twenty-one years since the Young Lives study began, an average of 81.0% of the original participants remain part of the study across all three countries, with attrition rates of 25.6% in Ethiopia, 11.5% in India and 19.8% in Peru.

Highlights

- 1. Round 7 was conducted in 2023–24, when participants in the Younger Cohort and Older Cohort were around 22 and 29 years old, respectively.
- 2. Over two decades since the study began, an average of 81.0% of the original participants remain part of the study across all three countries, with attrition rates varying from 25.6% in Ethiopia, 11.5% in India and 19.8% in Peru. Common reasons for participants' dropping out in Round 7 included difficulty in locating individuals, international migration, refusal and death.
- 3. During the data collection for Round 7, conflict erupted in some parts of the Amhara region in Ethiopia. The study adapted by conducting phone interviews with a shorter questionnaire, reaching 94.1% of the participants who remained in the conflict zone. In total, 2,038 in-person interviews and 205 phone interviews were conducted, the latter corresponding to 9% of the total interview sample in Ethiopia.
- 4. Five modules were included in Round 7 that required additional consent: a self-administered questionnaire (paper-based in Peru, audio-based in Ethiopia and India); anthropometric measurements (height, weight and abdominal circumference); reading comprehension; a set of computerised cognitive tasks; and hair sample collection. While consent and completion rates were exceedingly high for the audio-computer assisted self-interviews (ACASI) and self-administered questionnaire (SAQ), anthropometric measures and the computerised cognitive tasks (over 90%), the hair sample and reading comprehension modules had a higher attrition, in part due to the exclusion criteria. Challenges involving the collection of hair samples were related to cultural and religious reasons, or participants having too short hair, while illiteracy contributed to lower completion rates in reading comprehension, particularly for Ethiopia.

1. Introduction

Young Lives is a longitudinal, mixed-methods, cohort study that for more than 20 years has followed the lives of 12,000 children – now young adults – and their families in Ethiopia, India (the states of Andhra Pradesh and Telangana), Peru and Vietnam (Favara et al. 2021). The sample in each country consists of two cohorts: a Younger Cohort of approximately 2,000 participants who were 1 year old when the first round of the survey was carried out in 2002, and an Older Cohort of approximately 1,000 participants (700 in Peru) who were then 8 years old. Young Lives aims to improve our understanding of the factors that promote and constrain equality of opportunity, and social mobility, across the first three decades of life, and between generations, in low- and middle-income countries (LMICs).

Young Lives completed its seventh visit (Round 7) to the Younger and Older Cohort participants in 2023–24. This was the sixth visit in person, as Round 6—previously known as Listening to Young Lives at Work: COVID-19 Phone Survey—was administered in 2020–21 as a phone survey due to the COVID-19 pandemic. At the time of the seventh visit, the Younger and Older Cohorts were 22 and 29 years old, respectively. One of the key metrics of a longitudinal study is sample attrition. Here, sample attrition is defined as the percentage of participants who were surveyed in the first round that are either not found, migrated abroad, passed away or refuse to take part in later rounds. Young Lives has implemented several strategies to minimise sample attrition over time, which are discussed in detail later.

This report first documents the attrition rates observed in Round 7 across country samples and cohorts and identifies the main reasons of attrition; and then reports the completion rates obtained for selected components of the survey that required additional consent. Round 7 took place in the Young Lives study sites in Ethiopia, India and Peru. On this occasion, data was not collected in Vietnam due to a change in governmental procedures for the international transfer of personal data.

2. Sample design

Young Lives was initially established as a longitudinal study of child poverty. The sample design followed two stages. In the first stage, 20 sentinel sites were 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') is deemed to represent a certain type of population and is expected to show typical trends affecting those people or areas. In the second stage, a random area was chosen within each cluster. Households in the area were contacted until approximately 100 families with a child aged 6 to 18 months (Younger Cohort) or 7–8 years old (Older Cohort) agreed to participate in the study.

The selection of 20 clusters in each country was a key component of the sample design.¹ In line with the study's objectives, poor households in each country were intentionally oversampled. While samples were not required to be nationally representative, they had to be representative of the diversity of living conditions in each country, excluding the richest households. To achieve this, Young Lives proceeded as follows:

- In Ethiopia, 20 woredas (districts) were purposively selected from the states of Amhara, Oromia, the Southern Nations, Nationalities and People's Region (SNNP), Tigray and Addis Ababa, oversampling food-insecure woredas. This included a mix of geographic settings, development levels, urban/rural balance and ethnicity.
- In India, districts in the states of Andhra Pradesh and Telangana were initially selected to
 ensure uniform geographic distribution across regions and the inclusion of both poor and
 non-poor districts, defined by economic, human development and infrastructure
 indicators. From these districts, 20 *mandals* were chosen: one from the urban slums of
 Hyderabad (capital of the former combined Andhra Pradesh state) and 19 from the six
 identified districts. Each sentinel site was divided into four contiguous geographical areas,
 with one village randomly selected from each area. This ensured that the four selected
 villages had a sufficient population to include 100 one-year-old and 50 eight-year-old
 children, based on data from the 1991 India Census.
- In Peru, the Young Lives sample originally comprised children from 74 communities across 20 districts, randomly chosen from the poverty map of the 1,818 districts in Peru available at that time, excluding the wealthiest 5% of districts (FONCODES 2001). The sample represents about 95% of Peruvian children aged 6 to 18 months in 2002, covering urban and rural areas, including the coast, highlands (altiplano) and jungle regions.

¹ More details about the sampling design in Ethiopia, India and Peru can be found in Escobal and Flores (2008), Kumra (2008) and Outes-Leon and Sánchez (2008), respectively.

3. Round 7: main survey modules and additional components

In Round 7, Young Lives administered an individual questionnaire to the participants that included questions about their education, work, time use, health, nutrition, well-being and family lives, among other aspects. The questionnaire was administered face-to-face. Due to the participants' age, this questionnaire was a blended version of the household and child questionnaires from previous rounds. On this occasion, study participants were asked to answer household-related questions, unlike earlier rounds where their caregivers typically responded. The questionnaires for the Younger Cohort and Older Cohort were primarily the same, with some exceptions as noted below.

Five additional modules were administered as part of the Round 7:

- 1. A reading comprehension test, adapted from the test included in previous rounds (for the Younger Cohort only) (Leon 2020; Revollo and Scott 2022).
- 2. A set of computerised cognitive tasks (in Ethiopia and Peru, for the Younger Cohort only) (Behrman et al. 2022).
- A self-administered questionnaire (paper-based self-administered questionnaire (SAQ) in Peru and audio-computer assisted self-interviews (ACASI) in India and Ethiopia) including questions about sensitive topics such as sexual and reproductive health, drug and alcohol use, exposure to various forms of violence, and conflict experiences.
- 4. Anthropometric measurements: height (for the Younger Cohort only), weight and waist circumference.
- 5. Collection of hair samples to measure cortisol levels.

Section 5 gives more information about these components. As in all previous rounds, participants were required to provide informed consent to answer the questionnaire. Additional informed consent was also requested for each of the additional components.

4. Round 7 fieldwork dates and overall attrition

Round 7 was conducted between mid-2023 and early 2024 in the three countries, when the Younger Cohort were approximately 22 years old and the Older Cohort were 29 years old. The exact dates for each country are as follows:

	Ethiopia	India	Peru
Fieldwork started	13 October 2023	2 August 2023	20 June 2023
Fieldwork ended	30 April 2024	22 January 2024	31 January 2024

Data collection was executed by Young Lives' long-term partners in each country: the Policy Studies Institute (PSI) in Ethiopia; Grupo de Analisis para el Desarrollo (GRADE) and Instituto de Investigacion Nutricional (INN) in Peru; and the Centre for Economic and Social Sciences (CESS) in India. In each country, the partners' target was to reach all Young Lives participants who had been contacted in 2016 during Round 5 (the last in-person survey) or Round 6 (Listening to Young Lives at Work COVID-19 phone surveys: any participant who consented to any of the five calls between 2020–21). This constituted the target sample for Round 7. Participants excluded from Round 7 were those who had previously withdrawn from the study, those who had migrated abroad (or to other states within India), and those who were deceased. During Round 6, participants were given the option to withdraw, and anyone who chose to do so was not contacted this time. In line with study guidelines, partners in each study country only track participants within national borders, or within the states of Andhra Pradesh and Telangana in India. Detailed records of deceased participants are kept and their families are not contacted.

Table 1 presents the number of completed interviews over the target sample in the three study countries, along with the main reasons for attrition in Round 7 and attrition rates based on the original Round 1 sample. Interview completion rates against the target sample correspond to 82.5% in Ethiopia, 94.2% in India and 85.3% in Peru. Reasons for non-participation include death, refusal, international migration and inability to locate participants. As shown in Table 2, the primary cause of attrition in Round 7 across all three countries was participants not being found: 6.6% in Ethiopia, 3.1% in India and 8.8% in Peru. In Ethiopia, migrating abroad was the second-most common reason for attrition (5.4%), while migration rates were lower in the other two countries: 0.6% in India and 2.4% in Peru. Refusals are the second-most common reason for attrition in India and Peru, with rates of 1.4% and 3.2% respectively, whereas in Ethiopia refusals ranked third at 4.3%. Deaths were relatively low across the study countries: 1.1% in Ethiopia, 0.7% in India and 0.3% in Peru.

Country	Cohort	Round 7 target sample (N)	Completed interviews (N)	Round 7 target completed (%)	Round 1 sample (N)	Round 1 target completed (%)	Attrition rate (% of Round 1 sample)
Ethiopia*	Younger Cohort	1,832	1,535	83.8	1,999	76.8	23.2
	Older Cohort	871	696	79.9	1,000	69.6	30.4
	Total	2,703	2,231	82.5	2,999	74.4	25.6
India	Younger Cohort	1,911	1,826	95.6	2,011	90.8	9.2
	Older Cohort	927	847	91.4	1,008	84.0	16.0
	Total	2,838	2,673	94.2	3,019	88.5	11.5
Peru	Younger Cohort	1,952	1,702	87.2	2,052	82.9	17.1
	Older Cohort	650	517	79.5	714	72.4	27.6
	Total	2,602	2,219	85.3	2,766	80.2	19.8

Table 1.Completion rates and attrition rates in Round 7

Note: * The Ethiopia sample comprises interviews conducted both in person and via phone.

Table 2.Key reasons for non-completion of interviews in Round 7

Country	Cohort	Round 7	Uncompleted	Round 7		Unal	ole to comp	olete (% o	ver Round 7	target sa	mple)	
		target sample (N)	interviews (N)	uncompleted (%)	Died (N)	%	Refused (N)	%	Migrated abroad (N)	%	Not found** (N)	%
Ethiopia*	Younger Cohort	1,832	297	16.2	20	1.1	62	3.4	101	5.5	114	6.2
	Older Cohort	871	175	20.1	11	1.3	53	6.1	46	5.3	65	7.5
	Total	2,703	472	17.5	31	1.1	115	4.3	147	5.4	179	6.6
India	Younger Cohort	1,911	85	4.4	11	0.6	18	0.9	6	0.3	50	2.6
	Older Cohort	927	79	8.5	8	0.9	23	2.5	11	1.2	37	4.0
	Total	2,838	164	5.8	19	0.7	41	1.4	17	0.6	87	3.1
Peru	Younger Cohort	1,952	250	12.8	4	0.2	45	2.3	44	2.3	157	8.0
	Older Cohort	650	133	20.5	3	0.5	38	5.8	19	2.9	73	11.2
	Total	2,602	383	14.7	7	0.3	83	3.2	63	2.4	230	8.8

Notes: * The Ethiopia sample comprises interviews conducted both in person and via phone. ** 'Not found' refers to participants who have either moved, not answered, could not be traced, were unreachable, were in the army or could not be interviewed due to security reasons.

Over 20 years since Round 1, an average of 81.0% of the original Young Lives participants remain part of the study across all three countries. Attrition rates calculated against the original sample are 25.6% for Ethiopia, 11.5% in India and 19.8% in Peru. Attrition is generally higher for the Older Cohort across all countries (Table 1). Given participants' ages, some attrition is expected due to life changes such as household moves (making tracking more challenging), marriage (where in-laws may not wish them to participate) and work commitments (as working hours or patterns may not allow them to participate). Young Lives has taken extensive efforts to minimise attrition, with four primary strategies:

- 1. Each country conducts a preliminary tracking round before fieldwork to locate participants, update contact details and inform participants about the upcoming data collection round.
- 2. Fieldwork teams strive to retain the same enumerators and supervisors each round to maintain stable and trustful relationships with participants and their families.
- 3. Fieldworkers provide scheduling flexibility so participants can complete interviews at times that are convenient for them (and in multiple visits if needed).
- 4. As a form of reciprocity, all participants receive a consultation guide and a small economic compensation for their time, similar in value to the gift they received in Round 5 (adjusted by inflation).

However, some factors that may affect attrition rates are beyond the study's control. During this survey round, armed conflict erupted in areas close to the study sites in the Amhara region in Ethiopia, making it unsafe for fieldworkers to conduct in-person interviews. A contingency plan was created to reach the 205 participants living in conflict-affected zones. The team designed a modified and shorted version of the questionnaire to be administered over the phone. Table 3 shows how data collection worked in Ethiopia. Of the participants in conflict-affected areas of the Amhara region, 94.1% were reached via the phone survey. This rate demonstrates that the strategy adopted was successful in ensuring that participants were not left out due to safety concerns. When comparing by cohort, the phone survey reached a slightly higher percentage of Younger Cohort participants (95.5%) than Older Cohort participants (93.5%). The main reason for non-completion of the phone survey was the inability to locate the participant (4.4%) (Table 4).

Interviews	Cohort	Round 7 target sample (N)	Completed interviews (N)	Round 7 target completed (%)
In person	Younger Cohort	1,694	1,406	83.0
	Older Cohort	804	632	78.6
	Total	2,498	2,038	81.6
Via phone	Younger Cohort	138	129	93.5
	Older Cohort	67	64	95.5
	Total	205	193	94.1
All	Younger Cohort	1,832	1,535	83.8
	Older Cohort	871	696	79.9
	Total	2,703	2,231	82.5

Table 3. Completion rates and attrition rates in Round 7 in Ethiopia

Interviews	Cohort	Round 7		Round 7		Unat	ole to comple	ete (% ove	er Round 7 ta	arget sa	mple)	
		target sample (N)	Uncompleted (N)	uncompleted (%)	Died (N)	%	Refused (N)	%	Migrated abroad (N)	%	Not found** (N)	Died (N)
In person	Younger Cohort	1,694	288	17.0	20	1.2	61	3.6	101	6.0	106	6.3
	Older Cohort	804	172	21.4	11	1.4	51	6.3	46	5.7	64	8.0
	Total	2,498	460	18.4	31	1.2	112	4.5	147	5.9	170	6.8
Via phone	Younger Cohort	138	9	6.5	0	0.0	1	0.7	0	0.0	8	5.8
	Older Cohort	67	3	4.5	0	0.0	2	3.0	0	0.0	1	1.5
	Total	205	12	5.9	0	0.0	3	1.5	0	0.0	9	4.4
All	Younger Cohort	1,832	297	16.2	20	1.1	62	3.4	101	5.5	114	6.2
	Older Cohort	871	175	20.1	11	1.3	53	6.1	46	5.3	65	7.5
	Total	2,703	472	17.5	31	1.1	115	4.3	147	5.4	179	6.6

Table 4. Key reasons for interview non-completion in Round 7 in Ethiopia

Note: ** 'Not found' refers to participants who have either moved, not answered, could not be traced, were unreachable, were in the army or could not be interviewed due to security reasons.

To provide context, we compare Round 7 attrition rates to those from previous rounds, including the Listening to Young Lives at Work: COVID-19 Phone Survey (Round 6). Table A1 in the Appendix shows the sample sizes for each survey round, along with their corresponding attrition rates, broken down by the four study countries and cohorts. Up until Round 3, the Older Cohort had an attrition rate similar to, or even smaller than, the Younger Cohort (Figure 2). However, from Round 4 onwards, as participants aged and gained more independence and became legally adults, attrition rates between the cohorts began to diverge, with the Older Cohort experiencing a higher attrition rate. This trend has persisted and the gap between the cohorts has not narrowed.

Figure 1 displays the attrition rate over time and Figure 2 displays the attrition rate over time disaggregated by cohort. As time has passed, the challenges of locating the original sample have become more pronounced, resulting in an expected increase in attrition with each round. Overall, Round 7 presents the highest attrition rate when comparing with the past rounds. The Round 6 attrition rate was estimated including all participants who were interviewed in at least one of the five calls. However, if attrition rates are broken down by individual calls, as shown in the attrition report for Round 6 [https://www.younglives.org.uk/sites/default/files/2025-02/Attrition_Report_Round_6.pdf], higher attrition rates than Round 7 are seen for all countries except India.

In Peru and Vietnam, attrition rates during the initial calls of Round 6 were particularly high, outlining the challenges of locating participants due to large internal migration from urban to rural areas as a result of the COVID-19 pandemic, together with very limited phone and internet connectivity. The Peruvian team made considerable efforts to reduce attrition in the subsequent calls, including outreach via social media. In Ethiopia, the start of the conflict in the Tigray region hampered attempts to contact any participants in all four affected clusters. Consequently, attrition rates for Calls 4 and 5 were particularly high.



Figure 1. Young Lives study sample and attrition, Rounds 1–7

Notes: Figure 1 shows the attrition rate for the Younger Cohort and Older Cohort combined across the four countries from Round 1 to Round 7. The average attrition represents the simple average attrition for the Young Lives sample. In Round 7, no data was collected for Vietnam.





Notes: The figure on the left displays the attrition rate for the Older Cohort, while the figure on the right shows the attrition rate for the Younger Cohort. Both figures include the attrition rates for each country and round, as well as the simple average attrition rate for each round. In Round 7, no data was collected for Vietnam.

5. Round 7 completion rates of specific components

Table 5 provides an overview of the methods used to collect data from Young Lives participants beyond the main questionnaire. While instruments from previous rounds were readministered, new and innovative data collection methods were also introduced, such as hair sample collection in all countries and ACASI in India and Ethiopia. However, in Ethiopia, these five components were not administered to the participants interviewed over the phone.

Participants were required to provide additional informed consent for each component. Furthermore, specific eligibility criteria were established to ensure data validity and quality. Participants with visual impairments or cognitive disabilities were ineligible for the selfadministered questionnaire, the computerised cognitive tasks, and reading comprehension assessments; illiterate participants were also excluded from the reading test (but not from the computerised cognitive tasks). For the hair sample collection, participants needed to have at least 2–3cm of hair (inclusion criteria) and not have a diagnosis of hypo- or hypercortisolism (exclusion criteria) to be eligible. In addition, they were asked to reaffirm consent before providing the sample.

Component	Definition	Sample	Eligibility criteria
Reading comprehension test	Simplified version of the reading comprehension test administered in previous round, focused on text comprehension. The test consisted of two texts and 12 questions, and was administered in Spanish in Peru, in Telugu in India and in one of the three local languages (Amarigna, Oromiffa and Tigrigna) in Ethiopia.	Younger Cohort	Participants had to give their consent. Participants with visual impairment, cognitive disability or who were illiterate were not eligible for this section.
Self Administered questionnaire (SAQ)	Since Round 3, Young Lives has collected sensitive information – such as risky behaviours, sexual and reproductive health, and personal experiences with different types of violence – through a self-administered questionnaire (SAQ) in Peru. In Round 7, this method was continued in Peru. In India and Ethiopia, audio-computer assisted self-interviews (ACASI) were employed for the first time, where participants privately listened to pre-recorded questions via headphones with gender-matched speakers and responded by touching coloured shapes on the tablet screen. These were administered in three languages in Ethiopia (Amharic, Tigrinya and Oromo) and in Telugu in India. In Ethiopia, Young Lives also gathered highly sensitive data on the impact of the conflict. The approach used has been designed to minimise distress when recalling traumatic events or sensitive topics and to eliminate the risk of anyone overhearing the answers (von Russdorf et al. 2024).	Younger Cohort and Older Cohort	Participants had to give their consent. Participants with visual or hearing impairment, cognitive disability or without a minimum proficiency in the administered language were not eligible for this section.

Table 5. List of additional components administered in Round 7

Component	Definition	Sample	Eligibility criteria
Hair sample	For the first time, Young Lives collected hair samples to examine cortisol levels in all three countries. Hair cortisol has been proven to be an objective and reliable non-invasive measure of medium and long-term stress.	Younger Cohort and Older Cohort	Participants had to give their written consent. The hair had to be at least 2–3cm long and not be diagnosed with hypo- or hypercortisolism. After checking these two eligibility criteria, consent was reconfirmed by participants.
Computerised cognitive tasks (RACER)	In Round 4, Young Lives introduced a series of computer-based tasks for participants in Ethiopia and Peru. These tasks were part of RACER (Rapid Assessment of Cognitive and Emotional Regulation), a tablet-based application featuring five brief visual cognitive tasks designed to assess foundational cognitive skills (Behrman et al. 2022). In Round 7, the first two tasks, which measure executive function, were re-administered to the Younger Cohort in Ethiopia and Peru.	Younger Cohort in Ethiopia and Peru	Participants had to give their consent. Participants with visual impairment or cognitive disability were not eligible for this section.
Anthropometrics	As in the previous rounds, Young Lives measured participants' weight, height, and waist circumference. For each of these measurements, two readings are taken, with a third measurement taken if a difference arose.	Younger Cohort – all three measurements Older Cohort – weight, waist circumference	Participants had to give their consent.

Table 6 presents the completion rates for each additional survey component, defined as the proportion of participants who completed a specific section relative to those who completed the main survey.

The completion rates for the self-administered questionnaires (SAQ or ACASI) were consistently high across all countries and cohorts. In Ethiopia, 95.8% of the total sample (both Younger and Older Cohorts) completed the ACASI. In India, the completion rate was 97.8%, and in Peru, 98.6% of the Younger and Older Cohort completed the SAQ. Across the three countries, most participants provided their consent. Language barriers, particularly insufficient proficiency in Telugu for India, and in Tigrigna, Oromo and Amharic for Ethiopia, were the most common reasons for no-completion. In Peru, low literacy levels hindered participants with limited reading skills from completing the written SAQ. Similarly, the completion rate for the computerised cognitive tasks was high, with 98.3% completion in Ethiopia and 98.9% in Peru.

In contrast, the completion rate for the reading comprehension test was lower, particularly in Ethiopia and India. Despite around 95% of participants in both countries providing consent, only 81.2% of the Younger Cohort in Ethiopia completed the test, compared to 91.3% in India. In Peru, 99% of participants consented, with 98.5% completing the test. In Ethiopia, 8% of the sample could not complete the test due to illiteracy, while another 4% lacked fluency in the three available languages. These differences in completion rates between the computerised cognitive tasks and the reading comprehension test highlight the importance of using data collection tools that do not heavily depend on literacy skills, particularly in contexts with high illiteracy rates, where a significant portion of the sample might otherwise be excluded. Moreover, the computerised cognitive task (RACER) enables the assessment of cognitive development in a larger proportion of participants, irrespective of literacy, numeracy and language barriers (Behrman et al. 2022).

Anthropometric measurements, including height (for the Younger Cohort only), weight and waist circumference (for both cohorts), were collected for nearly 100% of the sample across all three countries, indicating the robustness of the data collection process.

The lowest completion rates were observed in hair sample collection, reflecting the challenges involved. In Ethiopia, 70% of participants consented to provide a hair sample, with lower consent rates among the Older Cohort (65.3%) than the Younger Cohort (72.6%). However, the actual collection rate dropped to 49.3% due to participants being ineligible, primarily because of short hair. Consent rates in India and Peru were higher, with 89% of participants in India and 94.1% in Peru agreeing to provide a hair sample, particularly among the Younger Cohort. Actual collection rates were slightly lower, at 85.6% in India and 88% in Peru, again due to short hair. Across all three countries, women were less likely to consent to hair sample collection due to mistrust regarding the sample's use, religious and cultural reasons, traditional superstitions, or family opposition. Among men, although consent was high, short hair or religious tonsuring contributed to lower collection rates.

Table 6.Completion rates of additional components in Round 7

Country	Cohort	Main survey	AC	ASI			Antl	hropom	etry				Read compret	ling nension	Computerised cognitive tasks			
		Interviewed in Round 7	N	%	Height	%	Weight	%	Abdominal circumference	%	Consent**	%	Sample collected***	%	N	%	N	%
Ethiopia*	Younger Cohort	1,406	1,341	95.4	1,404	99.9	1,401	99.6	1,396	99.3	1,021	72.6	739	52.6	1,141	81.2	1,382	98.3
	Older Cohort	632	612	96.8			629	99.5	622	98.4	413	65.3	266	42.1				
	Total	2,038	1,953	95.8	1,404	99.9	2,030	99.6	2,018	99.0	1,434	70.4	1,005	49.3	1,141	81.2	1,382	98.3
India	Younger Cohort	1,826	1,777	97.3	1,825	99.9	1,826	100.0	1,826	100.0	1,651	90.4	1,594	87.3	1,668	91.3		
	Older Cohort	847	838	98.9			847	100.0	847	100.0	727	85.8	696	82.2				
	Total	2,673	2,615	97.8	1,825	99.9	2,673	100.0	2,673	100.0	2,378	89.0	2,290	85.7	1,668	91.3		
Peru	Younger Cohort	1,702	1,678	98.6	1,691	99.4	1,691	99.4	1,691	99.4	1,612	94.7	1,526	89.7	1,676	98.5	1683	98.9
	Older Cohort	517	509	98.5			514	99.4	514	99.4	477	92.3	427	82.6				
	Total	2,219	2,187	98.6	1,691	99.4	2,205	99.4	2,205	99.4	2,089	94.1	1,953	88.0	1676	98.5	1683	98.9

Notes: * The number of completed interviews in Ethiopia does not include telephone interviews. ** Respondents who consent are those who affirmed but were not eligible and those who affirmed, were eligible and then reaffirmed their consent. *** Eligible participants are those who gave their consent (twice) and do not have hypercortisolism or very short hair.

6. Concluding remarks

Attrition is inevitable and minimising it the primary goal of every longitudinal study. As Young Lives reaches the third decade of our participants' lives, it is a challenge to keep track of a group of young people who have adopted diverse lifestyles and are now widely dispersed and mobile. Household moves and international migration were the main causes of attrition in Round 7, with most participants not located due to them moving to new addresses without means for further tracing.

Nevertheless, Young Lives continues to make every effort to keep attrition rates low and to avoid bias within the sample. Attrition bias occurs when sample attrition is non-random. When studying attrition rates up to Round 5, there is suggestive evidence of bias, partly driven by child mortality. Therefore, it was recommended to control for socio-economic household characteristics in statistical analysis (Sánchez and Escobal 2020). In the future, it will be important to examine the characteristics of participants who have dropped out of the study to assess the extent of non-random attrition.

Round 7 presented the additional challenge of conducting fieldwork during a period of conflict, which led to the adaptation to a phone survey to minimise the risks for both participants and fieldworkers while ensuring that those in conflict-affected areas could still participate. Moreover, additional survey components introduced a range of different methods that added dynamism into the survey and helped in keeping participants engaged. However, it is necessary to keep in mind that extra elements also increase administration time and that participants may experience survey fatigue, potentially increasing the number of refusals in subsequent survey rounds.

The data collected in Round 7 is a valuable source of information to understand the access to opportunities and social mobility of our participants across their first three decades of life. Combined with data collected in past rounds, it offers a unique dual cohort multi-country longitudinal dataset exploring the causes and long-term consequences of poverty in childhood.

Appendix

Country	Cohort	Round 1 (2002)	Rou (20	ind 2)05)	Round 3 (2009)		Rou (20	nd 4 13)	Rou (20	nd 5 16)	OVID-19 Phone Survey (Round 6)*		Rou (20	nd 7 (24)	
		Sample (N)	Sample (N)	Attrition rate (%)	Sample (N)	Attrition rate (%)	Sample (N)	Attrition rate (%)	Sample (N)	Attrition rate (%)	Sample (N)	Attrition rate (%)	Sample (N)	Attrition rate (%)	
Ethiopia	Younger Cohort	1,999	1,912	4.4	1,885	5.7	1,875	6.2	1,812	9.4	1,690	15.5	1,535	23.2	
	Older Cohort	1,000	979	2.1	974	2.6	908	9.2	814	18.6	776	22.4	696	30.4	
	Total	2,999	2,891	3.6	2,859	4.7	2,783	7.2	2,626	12.4	2,466	17.8	2,231	25.6	
India	Younger Cohort	2,011	1,950	3.0	1,931	4.0	1,915	4.8	1,900	5.5	1,873	6.9	1,826	9.2	
	Older Cohort	1,008	994	1.4	977	3.1	952	5.6	922	8.5	890	11.7	847	16.0	
	Total	3,019	2,944	2.5	2,908	3.7	2,867	5.0	2,822	6.5	2,763	8.5	2,673	11.5	
Peru	Younger Cohort	2,052	1,963	4.3	1,943	5.3	1,902	7.3	1,860	9.4	1,762	14.1	1,702	17.1	
	Older Cohort	714	685	4.1	678	5.0	635	11.1	608	14.8	552	22.7	517	27.6	
	Total	2,766	2,648	4.3	2,621	5.2	2,537	8.3	2,468	10.8	2,314	16.3	2,219	19.8	
Vietnam**	Younger Cohort	2,000	1,970	1.5	1,961	2.0	1,932	3.4	1,938	3.1	1,742	12.9			
	Older Cohort	1,000	1,000	0.0	976	2.4	887	11.3	910	9.0	853	14.7			
	Total	3,000	2,970	1.0	2,937	2.1	2,819	6.0	2,848	5.1	2,595	13.5			
Total sample (without Vietnam)	Total	8,784	8,483	3.4	8,388	4.5	8,187	6.8	7,916	9.9	7,543	14.1	7,123	18.9	
Total sample	Total	11,784	11,453	2.8	11,325	3.9	11,006	6.6	10,764	8.7	10,138	14.0	7,123	18.9	

Table A.1: Young Lives Attrition Rates over time.

Notes:

* Round 6 competition rates include all participants interviewed in at least one of the five calls. Moreover, we only considered participants who consented to the children's questionnaire when they were old enough. We excluded cases where the family may have consented, but the child did not. ** In Round 7, no data was collected for Vietnam. *** Unlike other Young Lives reports on sampling and attrition, we do not exclude deaths in the estimation of

attrition rates.

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A Longitudinal Study of Poverty & Inequality

About Young Lives

Young Lives is an international study of poverty and inequality, following the lives of 12,000 children in four countries (Ethiopia, India, Peru and Vietnam). Young Lives is a collaborative research programme led by a team in the Department of International Development at the University of Oxford in association with research and policy partners in the four study countries.

Through researching different aspects of children's lives across time, we seek to improve policies and programmes for children and young people.

Young Lives Research and Policy Partners

Ethiopia

- Policy Studies Institute
- Pankhurst Development Research and Consulting plc

India (Andhra Pradesh and Telangana)

 Centre for Economic and Social Studies, Hyderabad (CESS)

Peru

- Grupo de Análisis para el Desarollo (GRADE)
- Instituto de Investigación Nutricional (IIN)

Vietnam

- Centre for Analysis and Forecast, Viet Nam Academy of Social Sciences (CAF-VASS)
- General Statistics Office of Viet Nam (GSO)





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