Cohort Profile: The Young Lives Study

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How did the study come about?

Young Lives is an international longitudinal study investigating the changing nature of childhood poverty in four developing countries over a 15-year period. The time frame over which the Young Lives study is being conducted, corresponds to the period set to assess the progress towards the United Nations Millennium Development Goals (MDGs).[1] The Young Lives study grew out of a need to improve understanding of the causes and consequences of childhood poverty, and aims to provide evidence to support the development of effective policies. Since the mid 20th century large-scale child cohort studies have been running in the UK, USA and other high-income countries and more recently in a few low-income countries.[2-4] However, no such research has previously been conducted across different low-income countries and Young Lives is the first multi-country study. Ethiopia, India (Andhra Pradesh), Peru and Vietnam, were selected to represent the key regions in the developing world and to reflect a wide range of cultural, political, geographical and social contexts. Young Lives is co-ordinated by the University of Oxford's Department of International Development with partners from leading national research institutes, government statistics departments and Save the Children. It is core-funded by UK aid from the Department for International Development (DFID) from 2001 to 2017 and co-funded from 2010 to 2014 by the Netherlands Ministry of Foreign Affairs. Sub-studies are currently funded by the Bernard van Leer Foundation and the Oak Foundation.

What does the study cover?

From the outset, Young Lives was planned as a multidisciplinary policy-relevant study aiming to examine multiple and interlinked dimensions of childhood poverty. Since 2002, the study has been tracking child welfare outcomes including physical health, growth, nutritional status, cognitive development, social and emotional well-being and life skill development (e.g. educational progress). In order to study interrelations and pathways the Young Lives study has also collected a wide variety of explanatory variables for each outcome at the individual, household and community level. Additional to the core data, each country included country-specific modules to investigate specific policies and social protection programmes. For example, in Ethiopia data was collected on the Productive Safety Net Programme (a cash or food for work scheme), in Peru on Juntos (a conditional cash transfer programme) and in India on the National Rural Employment Guarantee Scheme (a programme that entitles rural households to 100 days waged employment in a year). To elaborate and expand on the quantitative data, longitudinal qualitative research with a sub-sample of 50 children in each of the countries has complemented the surveys since 2007. In 2010 we also added a new school component to the existing survey to get a better understanding of children's experience of school. Core to the Young Lives study is a commitment to engage with policy concerns at national and international level, to increase the uptake of research evidence and to inform future policy-relevant research questions.

Who is in the sample?

In each of the four study countries, 2000 children aged between 6 and 18 months (younger cohort) and up to 1000 children aged between 7 and 8 years (older cohort) were recruited in 2002. It was decided not to select a birth cohort, as attrition rates among pregnant women and those with children in early infancy were expected to be high due to high infant mortality rates and mobility of mothers for the birth.[5] Moreover, the costs and time required to recruit

birth cohorts would have exceeded the available budget and would have made it necessary to focus on well-populated areas only rather than including children from a wide spectrum of the population. Table 1 and 2 present the characteristics of the samples at baseline. The sample selection for a longitudinal study in a less developed country can be challenging because of incomplete or unavailable population data, geographical or social infrastructure factors, and high mobility of populations.[5-7] After consideration of the overall aims of the study, national priorities related to poverty, available budget and logistics, the study employed a sentinel site sampling approach whereby each country team selected 20 sites with oversampling of sites covering poor areas.[5] The sites represent a range of regions, urban and rural areas, policy contexts, and living conditions and reflect the ethnic and religious diversity of the countries. Within each site, 150 children (100 for the younger cohort and up to 50 for the older cohort) were randomly selected; the exact sampling procedures varied between sites because of topographical and administrative differences within and between countries, but were carefully documented.[5] Comparisons were made between the study samples and nationally representative samples, using the Demographic and Health Survey (DHS) 2000 and the Welfare Monitoring Survey (WMS) 2000 in Ethiopia, the DHS 1998/99 in India, the Living Standard Measurement Survey (LSMS) 2001 and the DHS 2000 in Peru, and the LSMS 2002 and the DHS 2002 in Vietnam.[8-11] The comparisons showed that the samples in Young Lives were similar to nationally representative samples in Peru, slightly poorer in Vietnam and slightly better off in Ethiopia and India. These differences might be partly explained by differences in the years in which the nationally representative surveys were conducted and in case of India and Ethiopia substantial decrease in national poverty rates.

Table 1 here

Table 2 here

How often have they been followed up?

The country teams recruited the child cohorts in 2002. The first data collection took place shortly afterwards, using questionnaires for the children (in Round 1 and 2 for the older cohort only) and the primary caregiver. Additionally, a community questionnaire was administered to key informants such as community leaders, teachers and health workers in each study community. The second round of data collection took place in 2006/7 and the third in 2009/10. The qualitative research was carried out in 2007, 2008 and 2010/2011. Additional qualitative sub-studies were conducted around social protection programmes in India and Ethiopia in 2009 and the new school component started in 2010. In each round informed consent was taken from the caregivers and the children themselves.[12] All study participants including children were compensated for their time. For further details on the research ethics in Young Lives see our website (www.younglives.org.uk).

What are the major health measures?

Table 3 outlines the data collected in the three survey rounds. Topics covered reflected the different life stages of the children in each round. In Round 1, we focused on the social and economic context of the households and on topics around early childhood health and nutrition for the younger cohort. For the older cohort, schooling and cognitive development, mental health and children's daily activities were emphasised. In Round 2, the survey instruments were expanded and pre-school education and childcare, child growth and development and access to healthcare services were explored in the younger cohort. For the older cohort, schooling, work and time use became more important. In Round 3, children of the younger cohort had reached the same age as children in the older cohort at the beginning of the study (8 years). Consequently, similar topics covered in Round 1 for the older cohort were stressed. A comprehensive model on unintentional injuries and a new component on access to and quality of healthcare were added for both the younger and older cohort. In Andhra Pradesh,

Peru and Vietnam data on health insurance schemes was also collected. Another new area of interest for the older cohort was adolescent health behaviours including reproductive health, substance abuse, violence and emotional well-being. In all rounds detailed demographic, social and economic data were collected which can be used to contextualise the information about child health. Anthropometric measurements were carried out for all children in all rounds, and for the biological mothers in Rounds 2 and 3. In Peru maternal anthropometry was assessed in all three rounds and paternal anthropometry in Round 2 and 3.

Table 3 here

What is the attrition like?

Attrition is a major concern for longitudinal studies. In developing country contexts attrition is often increased by high population mobility and lack of formal addresses.[6] To reduce attrition, the country teams employed various retention strategies including provision of contact information for the local study teams and collection of contact details of key friends and neighbours of participants, regular tracking between rounds and coordination with local authorities. The country teams also organised regular local activities to maintain interest and awareness of the study and motivate the population by providing feedback. As a result, attrition rates could be kept at very low levels ranging from 2.3% attrition from Round 1 to Round 3 in Vietnam to 5.7% in Ethiopia. See Table 4 and 5 for a detailed presentation of the attrition rates by country. Most attrition was due to household mobility and only few households decided to drop out. Attrition due to mortality was very low in the older cohort (n=18 across all four countries). In the younger cohort 72 children died between Round 1 and 3 in Ethiopia, 36 in India, 20 in Peru and 11 in Vietnam.

Table 4 here

Table 5 here

What has been found?

With over 100 publications in academic journals and as part of the study's own working paper series, the Young Lives study has made an important contribution to the understanding of the interlinks between poverty and health among children. A complete list of publications and working papers is available on the Young Lives website (www.younglives.org.uk). The key findings in health to date relate to the following topics.

S*ocial capital and health*

Early studies examined the association between maternal social capital and children's nutritional status,[13, 14] physical health[15] and maternal mental health[16]. Higher levels of social support and cognitive social capital were associated with reduced risk of child morbidity and better child nutrition and mental health.

Nutrition and poverty

Several studies have investigated the relation between poverty and childhood undernutrition. A comparison of longitudinal data found a strong association between low household wealth and child undernutrition in all four countries.[17] Linear growth deficits and underweight in early childhood were related to low maternal education[18] but also education of the broader family and community.[19] The increasing prevalence of maternal overweight in coexistence with child undernutrition and the association with area of residence was investigated across all four countries in one paper.[20] In a mixed method study an adaptation of the USDA's Food Insecurity and Hunger Module was developed and tested in Peru.[21]

Factors affecting cognitive development

Poor nutrition in early childhood was consistently associated with lower cognitive achievement at the age of 5 years.[22,23] However, longitudinal analyses of children in Peru who recovered from linear growth deficits in early childhood and experienced catch-up growth, found no significantly different cognitive achievement scores (based on verbal vocabulary and mathematical test scores).[24] Other papers examined the association between cognitive achievement and psychosocial[25] and socio-demographic variables.[26]

Social protection policy and child health

A growing number of papers have examined the impact of social protection policies on children's well-being. Papers include analysis of intended and unintended effects of the Midday Meal Scheme in India,[27] a early child development programme (Wawa Wasi) in Peru [28] and the Productive Safety Net Programme in Ethiopia[29].

What are the main strengths and weaknesses of the study?

The main strengths of the Young Lives study are the prospective, multidisciplinary nature of the data and the quantitative-qualitative design. The prospective design facilitates analysis of changes over time while the combination of quantitative and qualitative methods enables a more in-depth understanding of the nuances behind the numbers. The broad geographical base and the spectrum of the population included in each country also make this cohort study unique. The data on country-specific policies and social protection programmes allow the examination of the implications on health and well-being. The innovative sampling approach, the meticulous survey design and the careful changes and improvements made between survey rounds without compromising the overall integrity of the longitudinal data also need to be mentioned.

The main weakness of the Young Lives study is that the sample is not nationally representative. However, the Young Lives' samples were not selected to be nationally representative but to reflect the breath of the population and to allow the examination of the complex interrelations of childhood poverty. Another weakness is the diversity of factors covered in the survey – arguably at the cost of in detail coverage of any one. Nevertheless, such diversity can be, and has been, used to provide the baseline from which more in-depth studies can be designed. The enrolment of children aged 6 to 18 months rather than at birth prohibits some analyses on the long-term effects of early child nutrition and health. Moreover, the issue around the translation and construct validity of the survey instruments (e.g. psychosocial measures) provide a challenge, as well as an opportunity to advance the field in validating measures otherwise limited to developed country contexts.

Can I get hold of the data? Where can I find out more?

The Young Lives datasets from Round 1, 2 and 3 are publicly archived in the International section of the Economic and Social Data Service (ESDS) that is part of the UK Public Data Archive. Data are also available on CD-Rom in our study countries, on request from the Principal Investigator. The Young Lives study is interested in collaborations with other research institutes, stakeholders and policymakers. The initial contact point for collaborations is the Young Lives team in Oxford (younglives@younglives.org.uk). Further information can also be found on the study website (www.younglives.org.uk).

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