

# Challenges and strengths of a longitudinal cohort study:

# Young Lives findings from infancy to young adulthood

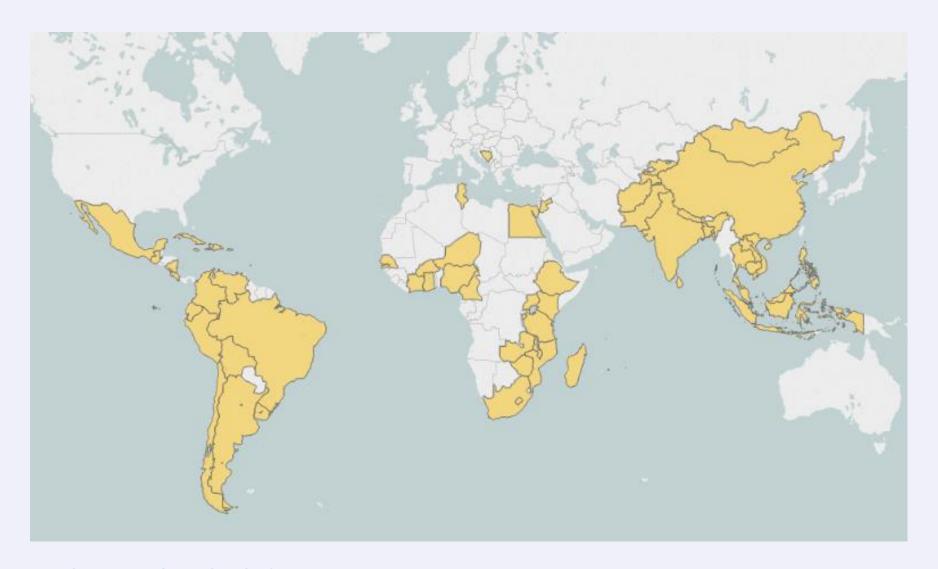
Marta Favara
University of Oxford

JA Kids conference, May 31th



University of West Indies

# Longitudinal studies, scarce but not inexistent!



Source: IFS LMIC LPS Directory



# Birth cohort studies are fewer





# Outline



- ☐ What is Young Lives?
- ☐ Challenges and achievements of a multicohorts, multi-countries longitudinal survey
- ☐ Key research areas and key findings
  - Nutrition
  - Education and skills development
  - Youth and family formation
  - Youth and transition to the labor market



# Young Lives in pills



- Interdisciplinary, mixed methods, comparative, cohort-sequential study
- ☐ Established in 2001 with a 15-years horizon
  - partners in each study country
  - core-funded by UK Department of International Development
- Objectives:
  - Improving understanding of childhood poverty
  - Providing evidence to improve policies & practices
  - Monitoring progress of the MDGs
- ☐ Following nearly 12,000 children in 4 countries: Ethiopia; India (Andhra Pradesh & Telangana); Peru and Vietnam, over 15 years



# Young Lives: study components

Young Lives components

Household survey

- Two age cohorts in each country:
  - 2,000 children born in 2000-01
  - 1,000 children born in 1994-95

Qualitative study

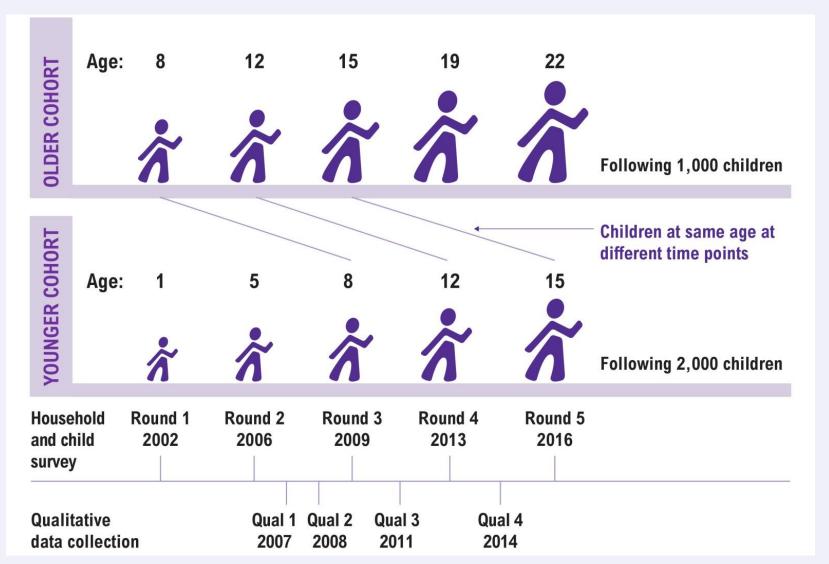
- 4 rounds, first round in 2002
- Nested sample of 50 children in each country

School Effectiveness Study

 All students in a selected sample of schools in the 20 YL sentinel sites



# Young Lives: Household survey set up





# Young Lives: sampling design

- One country from each major developing region:
  - Countries at different stage of economic development (& political condition)
  - External validity of Young Lives Research funding
  - Learning from the experience of the others
- Purposively over-sampled poor areas : 20 sites in each country, reflecting country diversity (rural-urban, diverse livelihoods, ethnicity)
- ☐ Sentinel site sampling: four stages (region, district/provinces, sentinel sites, random sampling of children of right age within sites)



## Young Lives: nice features of the data

- ☐ Longitudinal study covering a period of 15 years from early childhood to adulthood
  - Repeated measures of cognitive and soft-skills
  - Health, anthropometrics and education history
- A life-course approach, very relevant for policy design
  - Early childhood: ECD services, access & impact for poorer children
  - Middle childhood: Potential for learning and health remediation. Schools as delivery platform
  - Adolescence: under-recognised second critical window, particularly for gender differences.
- □ 5 generations: across cohorts comparison and intergenerational mobility
  - Parents, younger cohort, older cohort, younger sibling and new generation of babies
  - Younger cohort and Older cohort observed at  $\simeq$  same age (7 years gap)
  - Younger cohort and Younger siblings observed at ≃same age (3 years gap)
  - Enhance understanding of how outcomes are shaped and how countries changed over time



Challenge 1

Cohort maintenance



Challenge 1

Tracking; in-country field teams; reciprocity and trust

Low attrition: YC: 2.5% (VN)-8.2% (PE); OC: 7.6% (IN)-17.7%(ET)



Challenge 1

Cohort maintenance

Challenge 2

Getting comparable measures over time



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Challenge 2

Comparability over time; adapting survey to child age; tradeoff *new/old* questions

Panel variables; across cohort comparison (core base variable)



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Cohort maintenance

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Getting comparable measures over time

Challenge 3

Across countries coordination and comparability



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Challenge 3

Define research priorities; country specific modules; translation & back translation

External validity; measures usable in different contexts; what works in term of policy



Challenge 1

Cohort maintenance

Challenge 2

Getting comparable measures over time

Challenge 3

Across countries coordination and comparability

Challenge 4

Ensure high quality data and friendly access



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Challenge 4

Pilot; data validation and cleaning; limit interview burden; manual and protocols; training; ethics

Data publicly archived (raw & panel); technical notes; data visualizations; data management



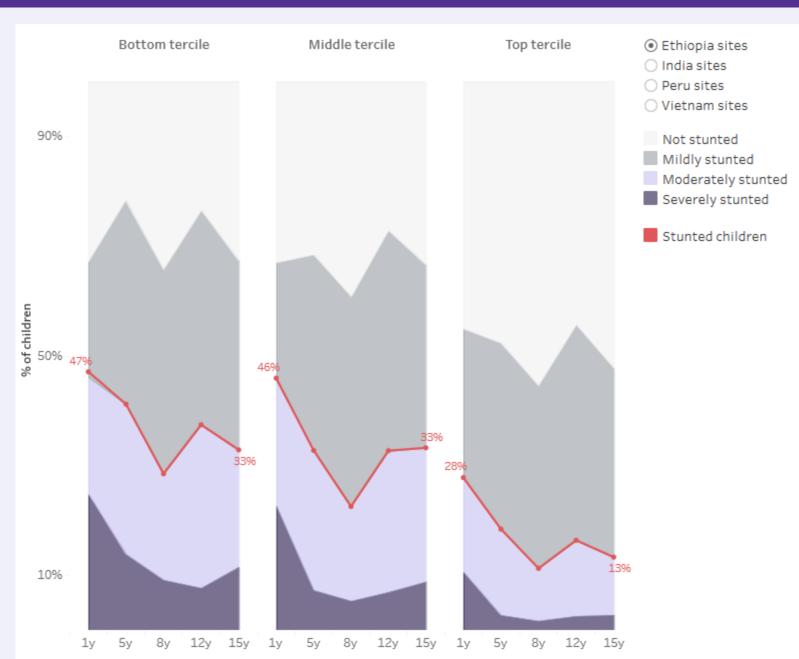
# Nutrition

## Stunting prevalence, trajectories and recovery

Significant socio-economic gradients in nutritional status and stunting prevalence



# Prevalence and severity of stunting: Ethiopia





# Nutrition

### Stunting prevalence, trajectories and recovery

- Significant socio-economic gradients in nutritional status and stunting prevalence
- Access to clean water and sanitation substantially improved over time (and dietary diversity as well) and it is associated with lower risk of stunting



# Unequal access to services: Sanitation in Ethiopia





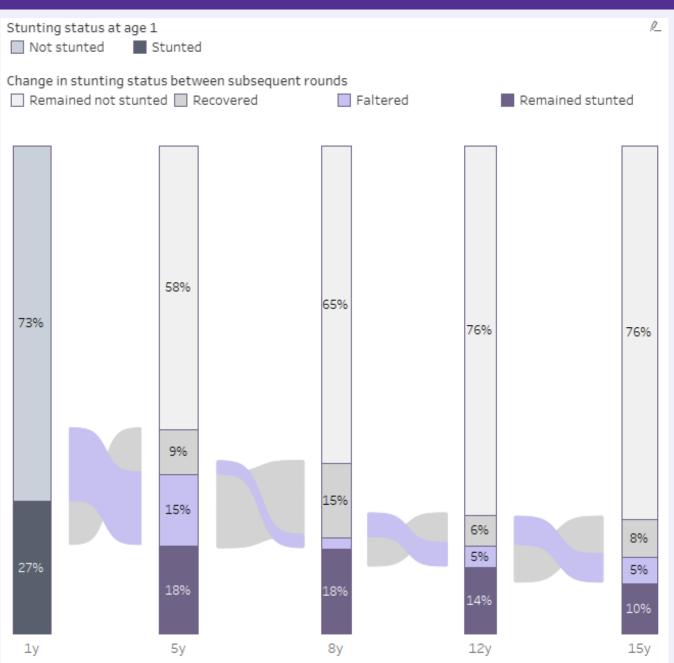
## **Nutrition**

#### Stunting prevalence, trajectories and recovery

- Significant socio-economic gradients in nutritional status and stunting prevalence
- Access to clean water and sanitation substantially improved over time (and dietary diversity as well) and it is associated with lower risk of stunting
- Recovery is possible: growth recovery and faltering continues during childhood throughout adolescence.



# Stunting trajectories: Peru





## **Nutrition**

### Stunting prevalence, trajectories and recovery

- Significant socio-economic gradients in nutritional status and stunting prevalence
- Access to clean water and sanitation substantially improved over time (and dietary diversity as well) and it is associated with lower risk of stunting
- Growth recovery and faltering continues during childhood throughout adolescence.

#### The importance of the first 1,000 days

- ☐ The first 1,000 days play a crucial role for physical, cognitive and psychological development
  - ➤ Being stunted at early ages is associated with lower cognitive tests, schooling level, self-efficacy and self-esteem at age 12.
  - Growth recovery is associated with a reduction in cognitive performance deficiencies



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#### Intergenerational transmission of health

- ☐ Maternal nutrition plays a key role in child growth and development.
  - ➤ A child who was born to a malnourished mother is more likely likely to be malnourished and at increased risk for adverse cognitive outcomes.



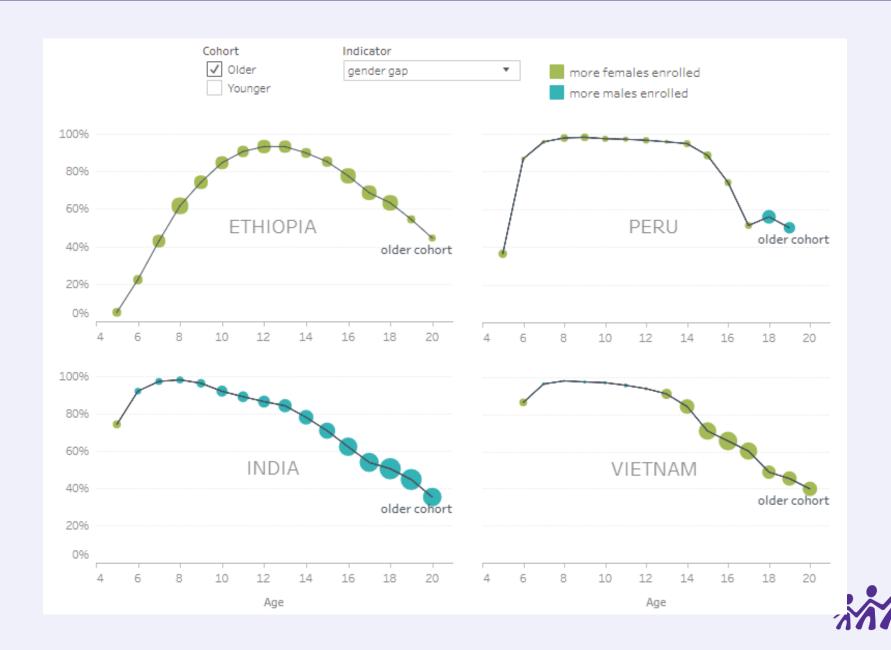
# Education and skills development

### **Education, learning and ECCE**

Education trajectories markedly differs across the four YL countries



# Enrolment rate: trajectories and gender gaps



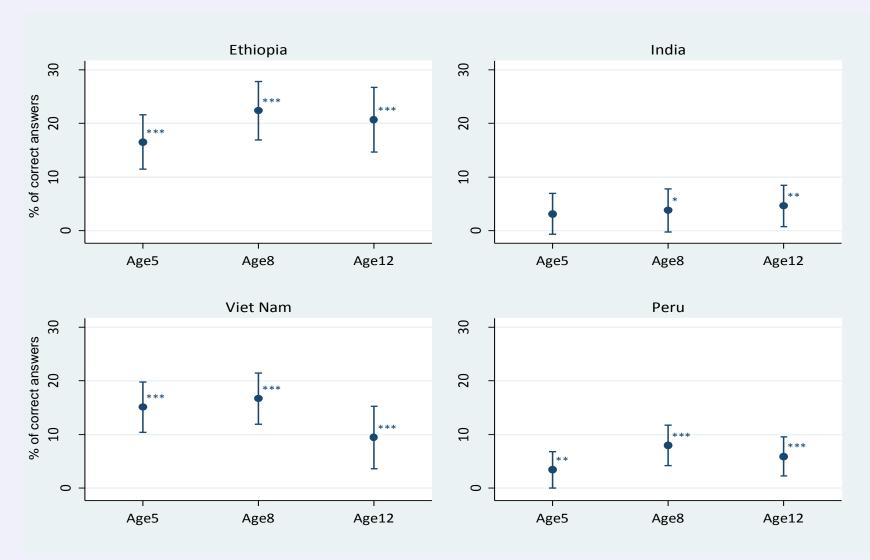
# Education and skills development

#### **Education, learning and ECCE**

- Education trajectories markedly differs across the four YL countries
- Quality) Education has the power to provide children from disadvantage backgrounds with better opportunities for the future.
- Achievement at age 5 predicts later learning outcomes
- Socio-economic gradients in learning indicators already exist since age 5
- ECCE can set a child on the right track



# ECCE (can) set a child on the right track: numeracy





# Education and skills development

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#### Cognition, personality and brain development

- ☐ The experience of poverty early in life and undernutrition have a negative effect on the development of foundational cognitive skills.
  - In utero shocks "possibly" affect brain development and shape personality
- Executive functions (working memory, inhibition) and other FCS (declarative memory, implicit learning) remain malleable during adolescence: second window of opportunity?



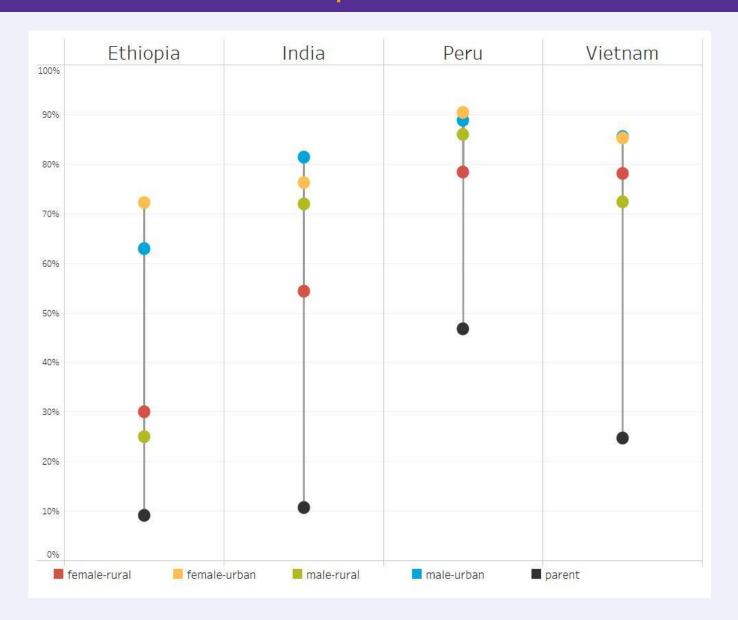
## Youth & Transition to the Labour market

#### Post-secondary and vocational education

- Access to post secondary education (and particularly university) is still largely limited to individuals who grown up in better off households
  - Cognitive skills and educational aspirations are two of the main predictors of post-secondary education enrolment
- Significant intergenerational improvements in education attainments happened in all YL countries



# Intergenerational mobility: Lower secondary education completion rates





## Youth & Transition to the Labour market

#### Post-secondary and vocational education

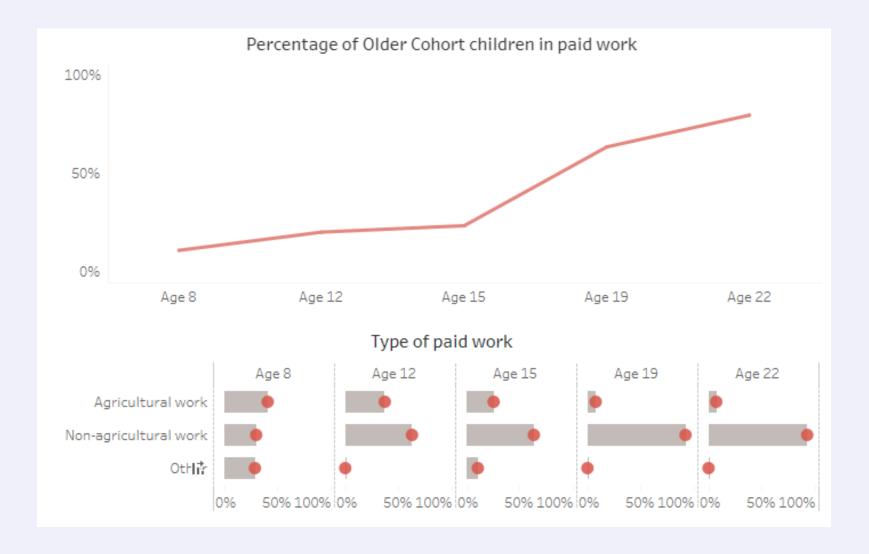
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#### **Labour market participation**

- A profile of jobs: who, where and when do young people start working?
- Children's involvement in economic activities starts at early ages
- The type of work accessible to young people changes with age, shifting from agricultural to non-agricultural work



# Working status and type of activity: Peru





## Youth & Transition to the Labour market

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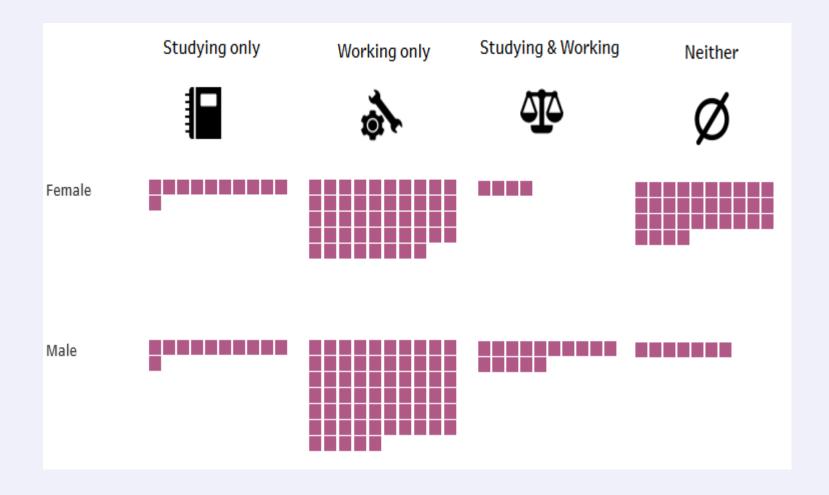
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- Low female labour market participation and intertwined transitions



# Work and study status: India





# Youth & Transition to the Labour market

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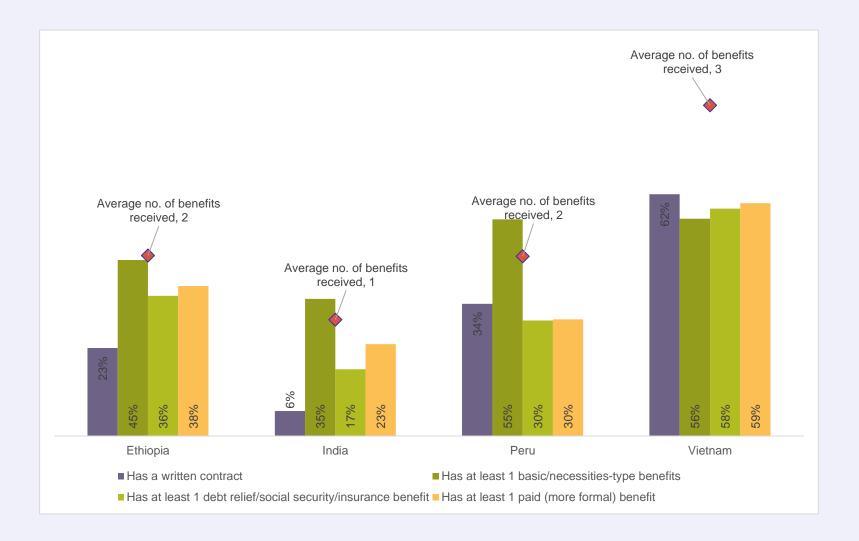
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- Informality, poor working conditions and working over-hours are quite common challenges that young people have to face in all study countries



# Quality of work: informality





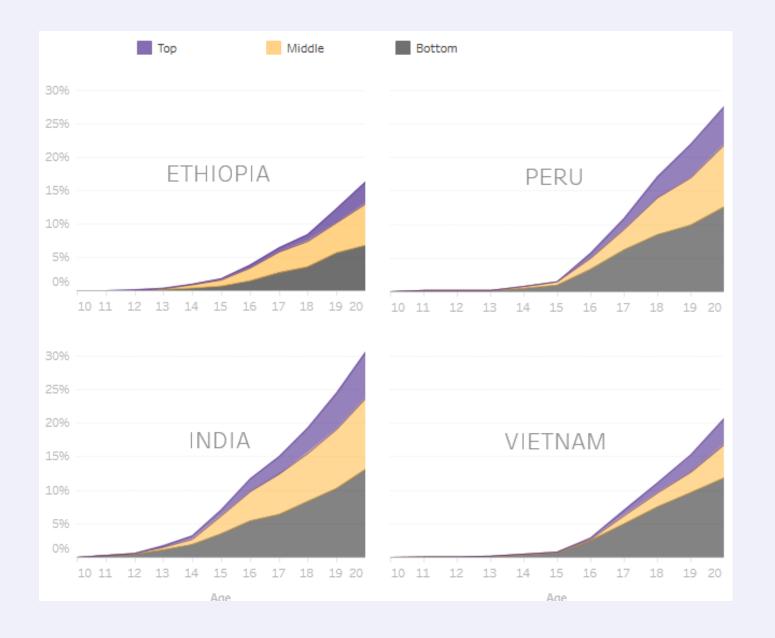
# Youth &gender

- Gender gaps and different trajectories increase significantly during adolescence
- ☐ Intertwined transitions and differences in gender roles and responsibilities are at the origin of increasing gender inequalities





# Early family formation (and fertility)





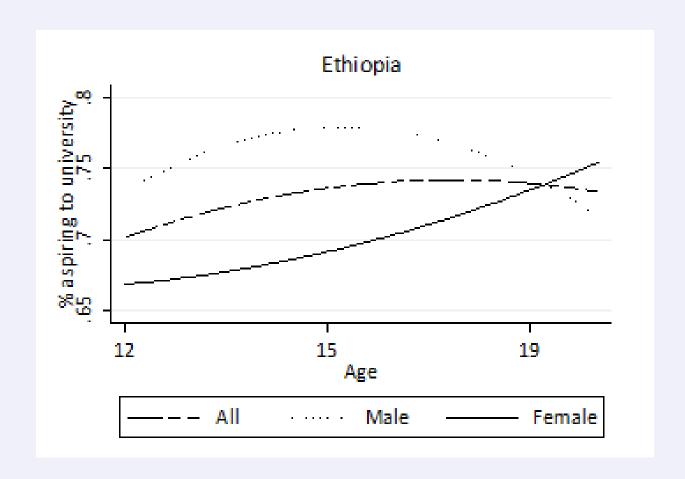
# Youth &gender

- Gender gaps and different trajectories increase significantly during adolescence
- Intertwined transitions and differences in gender roles and responsibilities are at the origin of increasing gender inequalities
- What predict early fertility and marriage?
- Growing up in a poor household
- School performance and dropping-out of school
- Parental expectations about marriage/fertility
- Educational aspirations
- Dreams and reality: males and females adjust their aspirations to the reality



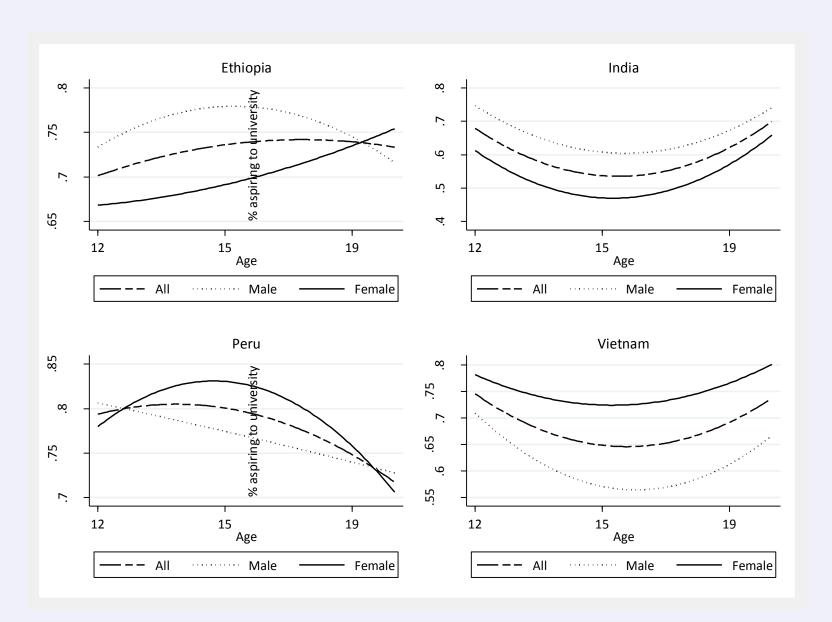


## Aspiring to post-secondary education: dream and reality



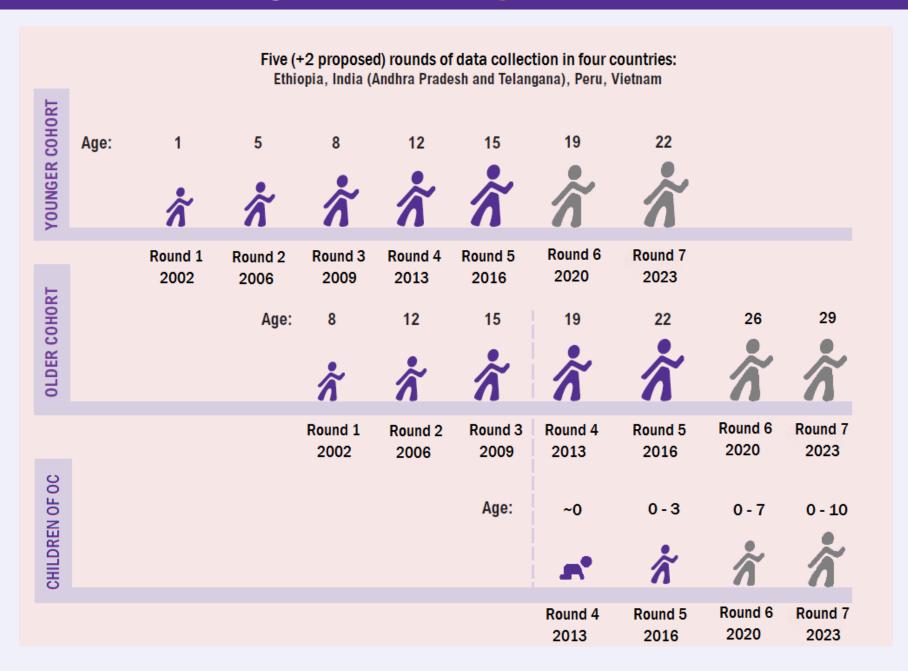


# Aspiring to post-secondary education: dream and reality





## Young Lives: looking at the future



# Thank you



Young Lives is a collaborative partnership between research institutes, universities and NGOs in the four study countries and the University of Oxford.

The study has been core-funded by UK aid from the Department for International Development (DFID).

We are hugely grateful to our collaborators, research teams, wider staff and funders.

Special thanks are owed to the children and families who participate in Young Lives, without whom this study would not exist.



# Finding out more

**Child profiles and photos** 

**Datasets** (access via the **UK Data Service**)

**Data visualization** (via YL website)

e-newsletter

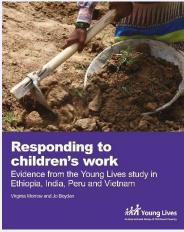
**Impact case studies** 

**Infographics** 



Methodology and research papers (including technical notes and survey documentation)





**Publications** (including summative reports)

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