



Laura Rodriguez Takeuchi
Overseas Development Institute (ODI)

**Inequality- Measurement, Trends, Impacts and Policies 5th Soptombor 2014** 

5<sup>th</sup> September 2014 UNU-WIDER Helsinki, Finland



#### Aim

- The neglect of intra-household inequalities conceals the outcomes of those children who fare below their household average.
- This paper attempts to measure the extent of inequality within households and to show how it contributes to overall inequality.





he main limitation to

#### **Approaches**

- Compare average outcomes for boys and girls.
- Regression with gender dummy.
- Inequality index (i.e. Gini or GE indices) using cardinal indicators (expenditure or nutrition Z-scores) (e.g. Sahn and Younger 2009).

### Methodology

- We use a L-Theil index and decompose total inequality into its within and between components, using <u>households</u> as the <u>defining</u> groups.
- We apply this methodology to a larger number of indicators, ordinal as well as cardinal, to give a broader overview of multidimensional intrahousehold inequalities in child wellbeing.

## Measuring intrahousehold inequalities



### **Inequality measures**

- 1. Share of households with a gender bias: Household ratios of achievement of girls to boys.
- 2. Aggregate measure of inequality and its decomposition: L-Theil Index

For ordinal indicators: Obtain two cardinal values for each household out of the original binary indicators, so that a GE index can be constructed E.g.

$$Stunting = \begin{cases} Stunting \ Girls_h = \frac{number \ of \ girls \ stunted_h}{total \ number \ of \ boys \ stunted_h} \\ Stunting \ Boys_h = \frac{number \ of \ boys \ stunted_h}{total \ number \ of \ boys_h} \end{cases}$$

for each household h

## Multidimensional child wellbeing



The dimensions relevant to measure child wellbeing are defined drawing from the Convention on the Rights of the Child (1989). Data was only available to analyse intrahousehold inequalities for 4 of the 17 dimensions:

- Stunting
- Birth registration
- School attendance
- Work and chores (Includes economic work, domestic work and of chores).

### Multidimensional approach:

- Dashboard
- 2. Joint distribution of inequalities (pairwise "P" statistic)

### Data



- Multiple Indicators Cluster Surveys (MICS) for 20 countries
- Two latest surveys available for each country (2000 and 2005-06 or 2005-06 and 2010-11).



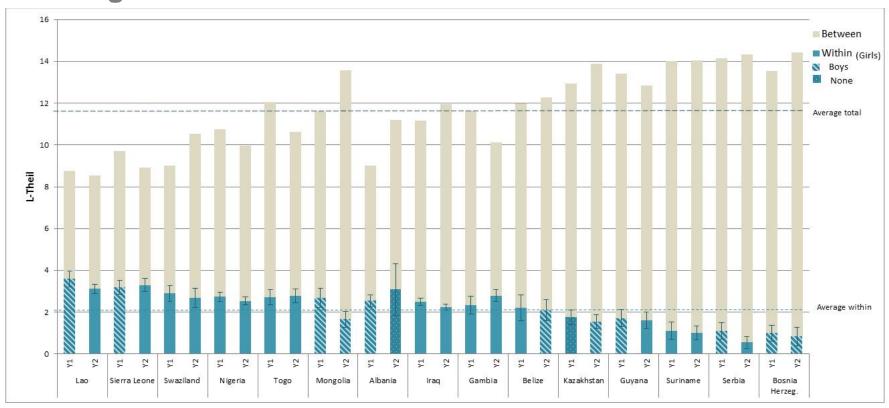
@dev\_progress

developmentprogress.org

# Country results



### **Stunting**



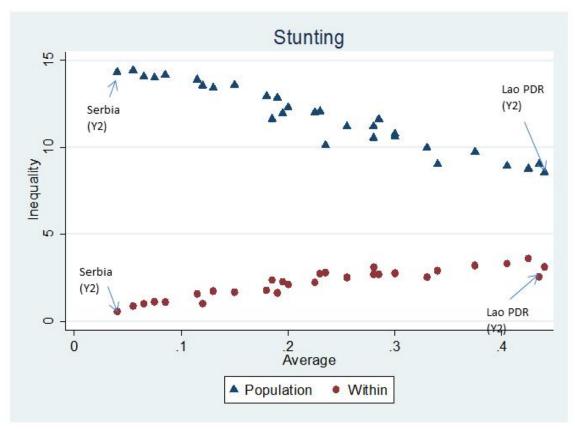


### Direction of inequalities with higher levels of wellbeing

| Indicator          | Average level of deprivation (all countries)      | Total<br>inequality | Within-<br>household<br>inequality<br>(absolute) | Share of within-household inequality (relative) |
|--------------------|---|---------------------|--|---|
| Stunting           | 24% for boys and 23% for girls                    | $\uparrow$          | $\downarrow$                                     | $\downarrow$                                    |
| Birth registration | 54% for boys and<br>53% for girls                 | $\downarrow$        | $\leftrightarrow$                                | $\uparrow$                                      |
| School attendance  | 82% for boys and<br>81% for girls                 | $\downarrow$        | $\downarrow$                                     | <b>↑</b>  |
| Working hours      | 11 hours per week for boys and 12 hours for girls | $\uparrow$          | $\leftrightarrow$                                | <b>\</b>  |



### **Direction of inequalities: Stunting**





### **Measures of association**

| Variables            | "P" stat. boys | "P" stat. girls |
|----------------------|----------------|-----------------|
| Stunting/ Birth reg. | <u>0.201</u>   | 0.184           |
| Stunting/ School     | <u>0.481</u>   | 0.322           |
| Stunting/ Work       | 0.275          | <u>0.556</u>    |
| Birth reg./ School   | <u>0.366</u>   | 0.240           |
| Birth reg./ Work     | 0.168          | <u>0.515</u>    |
| School/ Work         | 0.231          | <u>0.543</u>    |
| Average              | 0.287          | 0.393           |

# Conclusions

### Results headlines



- Inequalities between boys and girls within households can be pronounced, ranging between 9 and 63 percent of total gender based inequality. (With variability across countries and indicators)
- Even when total and within-household inequalities are not large in **absolute** terms, or when average child wellbeing is high, intrahousehold inequalities are large in **relative** terms.
- Disparities inside households do not show a clear bias across indicators. In school attendance more households tend to favour girls, while in work time, they tend to disadvantage them.
- In three of the six possible combinations of indicators, households show a preference for boys, and in the three other cases they show a preference for girls. (Again, results vary across countries)

@dev\_progress

### Conclusions



- Progress in improving child wellbeing has occurred in many dimensions. Development
- It is not possible to eliminate child poverty and secure the rights of all children unless disparities within households are addressed. These are harder gaps to address to realise progress.
- There is not a clear bias towards one or the other gender and the direction of the bias is not the same across indicators of wellbeing nor across countries.
- Biases respond to different social norms and household institutions in different countries



@dev\_progress

developmentprogress.org

# Thank you