Measuring the Effects of Social Policies on Child Health and Wellbeing in LMICs

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What Data Do We Need to Analyze the Link Between National Policies and Child Health in LMICs?

➢ **Some important interventions cannot/should not be randomized**

➢ **Very few quasi experimental studies on what works in LMICs**

➢ **Data gaps in carrying out multi-country quasi-experimental studies**

1. Policy data that is rigorous & comparable and longitudinal across countries
2. Outcomes data over that allows for analysis around policy implementation
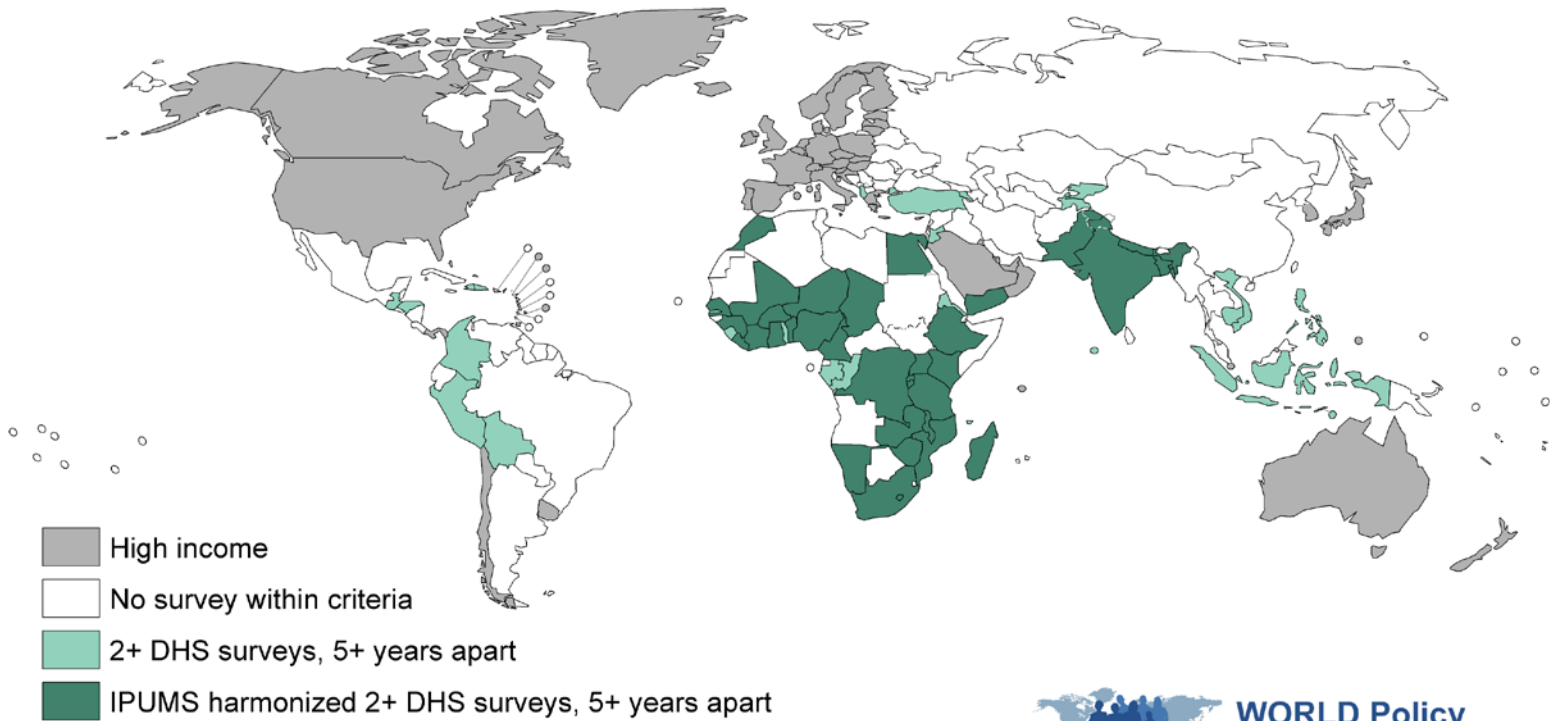
Principles Underlying WORLD's Policy Data

➢ **Actionable for Policymakers**

- ✓ Focus on capturing policy design features
- ✓ Understanding implementation and enforcement measures
- ✓ Availability of legislative text

Disability Benefit

Disability Benefit

Country:	Antigua and Barbuda
1. Is there a law guaranteeing disability benefits?	Yes
2. Type of benefits provided:	Social insurance system
Specification of type:	
di_disben_law_source:	SOCIAL SECURITY ACT 1972 (CAP. 408) (3/1972). 2. (1) In this Act- "insurable employment" means subject to subsection
di_disben_law_notes:	
3. Minimum age to receive benefits:	16
4. Maximum age to receive benefits:	59
5. Level of disablement required:	-1 Loss of working capacity (any work/occupation)
Specification of level of disablement required:	An Invalid means a person incapable of work as a result of a specific disease or bodily or mental disablement which is likely to remain permanent.
6. Way of assessment:	Assessment by the staff/medical board of a specific admin or SS-related admin, Medical examination/assessment by a recognized medical officer
Specification of way of assessment:	
7. Frequency of assessment:	every -9 Indeterminate
Specification of frequency of assessment:	
di_assess_sources:	SOCIAL SECURITY ACT 1972 (CAP. 408) (3/1972). 2. (1) In this Act-

Available Outcomes Data Over Time

High income

No survey within criteria

2+ DHS surveys, 5+ years apart

IPUMS harmonized 2+ DHS surveys, 5+ years apart

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# Policy and Outcomes Data Used in These Quasi-experimental Studies

➢ Using **1500+ policy years** of data for **51 African countries** on key policies that matter to ECD to identify **natural experiments**

➢ Using **Demographic and Health Surveys** from **32 African countries** on 1.5 million children and 1 million women

➢ **Difference-in-difference**

   ✓ Changes in countries that introduced policies compared to changes in countries that did not

   ✓ Controlling for differences at individual, household, country level, and over time

➢ To provide **causal** inferences about policy impact

Tuition-Free Secondary Education

➢Globally 122 million girls out of school – half of out of school children are in Africa.

• Financial barriers to education, such as tuition fees, compound discriminatory norms and attitudes that keep girls out of school.
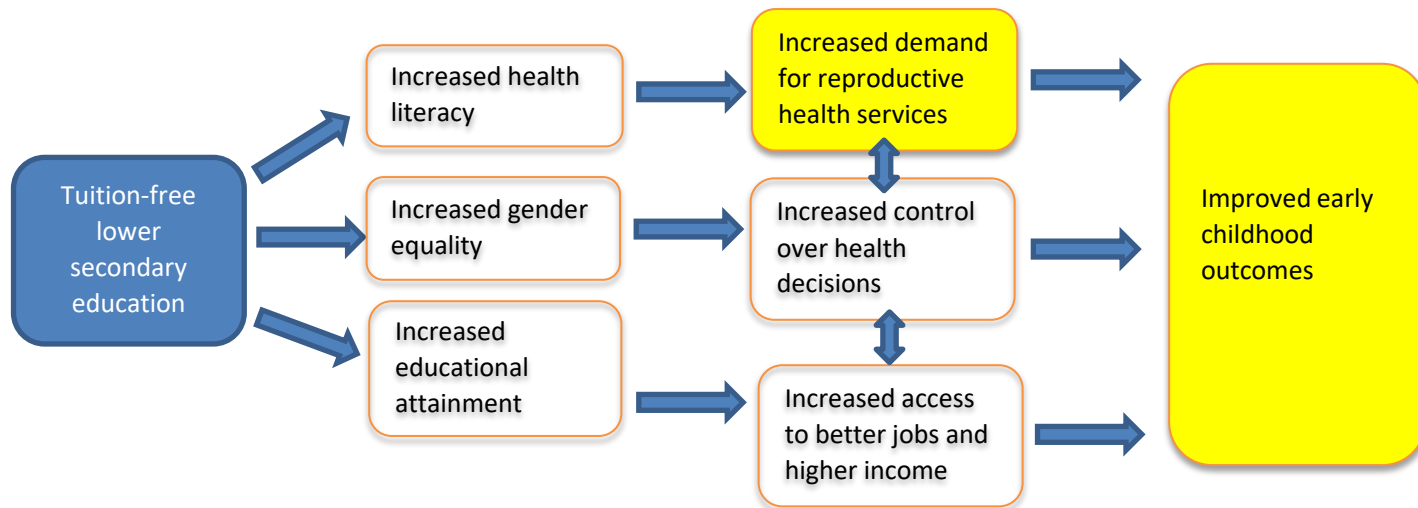
Who We Studied to Understand the Impact of Tuition-free Secondary Education on Wasting

➤ **40,752 children under 36 months old** whose mothers are 15 – 30 years old

- **Treated**: children of mothers who were exposed to both tuition-free primary and secondary education as children
- **Compared to:** children of mothers who were exposed to (1) only tuition-free primary education or (2) no tuition-free education

Countries that Introduced Tuition-free Secondary in the Study Period
- Liberia (2011)
- Rwanda (2009)
- Zambia (2011)

Comparison Countries without Free Secondary in the Study Period
- Benin
- Burkina Faso
- Burundi
- Mozambique
- Niger
- Zimbabwe

➤Weight-for-height measured across 28 surveys from **2001 – 2020**

What is the Intergenerational Impact of Tuition-Free Secondary Education on Wasting?

➤ Introducing tuition-free secondary education led to a **18% reduction in wasting** compared to having no free education.

- – Rwanda: 27% reduction
- – Zambia: 19% reduction

➤ No statistically significant impact for free primary education alone.

Who We Studied to Understand the Impact of Tuition-free Secondary Education on ANC visits

➤ **67,738 women aged 15 to 30 years** who had given birth to a singleton child within the past 5 years

  – **Treated**: mothers who were exposed to both tuition-free primary and secondary education as children
  – **Compared to:** mothers who were exposed to no tuition-free education

Countries that Introduced Tuition-free Secondary in the Study Period
- Liberia (2011)
- Rwanda (2009)
- Zambia (2011)

Comparison Countries without Free Secondary in the Study Period
- Benin
- Burundi
- Democratic Republic of the Congo
- Mozambique
- Niger
- Zimbabwe

➤Number of ANC visits reported across 28 surveys from **2001 – 2020** (excluding women who would have been pregnant from March 2020 due to COVID impacts on ANC provision)
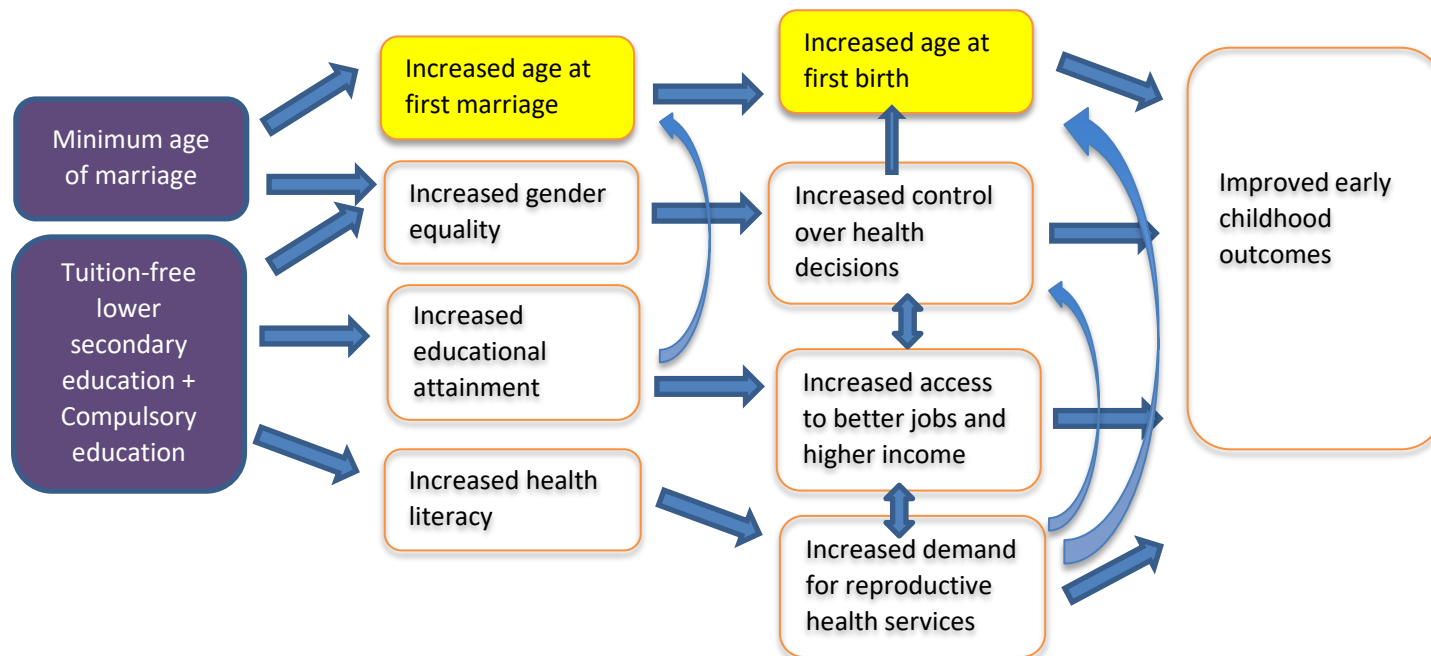
What is the Impact of Tuition-Free Secondary Education on Antenatal Care?

➢ Introducing free secondary education led to an increase in the share of women with 4+ ANC visits

- **Liberia**: 14%

- **Rwanda**: 6%

- **Zambia**: 11%

➢ The impact of free secondary is greater than free primary.

Child Marriage

➢ 1 in 3 African women marry before their 18th birthday with significant life-long health, educational, and economic consequences.

■ Infants born to mothers under age 18 are 60% more likely to die

➢ Existing evidence is **mixed** for whether child marriage laws work, but growing evidence on role of education in delaying marriage.

Who We Studied to Understand the Impact of Child Marriage Laws and Free Education

➢ **238,472 women** aged 15 to 26 years old
  – **Treated for education**: exposed to tuition-free secondary education as children
  – **Treated for marriage:** exposed to protective child marriage laws at age 10 (sensitivity test for age 16)

Countries that Introduced Both Policies in the Study Period
- Liberia (2011 – edu, 2012 - marr)
- Sierra Leone (2004 – edu; 2007 - marr)

Countries that Introduced One Policy in the Study Period
- Benin (2004 – marr)
- Chad (2006 – edu)
- Kenya (2008 - edu)
- Madagascar (2007 - marr)
- Senegal (2004 – edu)
- Zambia (2011 – edu)

Comparison Countries with Neither Policy in the Study Period
- Burkina Faso
- Cameroon
- Democratic Republic of the Congo
- Lesotho
- Mozambique
- Niger
- Tanzania
- Zimbabwe

➢Age at first marriage and age at first birth reported across 49 surveys from **2003 – 2021**

What are the Impacts of Free Education Alongside Prohibiting Child Marriage on Reducing Early Fertility and Early Marriage?

➤ Introducing **both** protective child marriage laws and tuition-free lower secondary education

  ✓ **Reduced the odds of early marriage**

    ✓ 55% reduction before age 15

  ✓ **Reduced the odds of early fertility**

    ✓ 37% reduction before age 15

➤ Impacts were smaller but still significant at age 18.

➤ Neither policy alone had a significant impact.

Source: Kidman, R., Raub, A, Martin, A, Bhuwania, P, Bose, B, Heymann, J. Reducing child marriage in sub-Saharan Africa: evaluating the joint potential of protective marriage and education policies. *Under Review.*

Prohibiting Domestic Violence

➤ Intimate partner violence affects ~641 million women and girls globally, including 37% of women and girls in Africa

➤ Countries **debate the effectiveness of DV laws** in reducing IPV

Who We Studied to Understand the Impact of Domestic Violence Laws

➢ **149,679 children** aged 0 – 23 months

  – **Treated**: children born after a domestic violence law passed

  – **Compared to:** children born before the passage of a DV law

Countries that Introduced a Domestic Violence Law in the Study Period
- Benin (2012)
- Ethiopia (2005)
- Ghana (2007)
- Lesotho (2010)
- Malawi (2006)
- Namibia (2003)
- Nigeria (2015)
- Rwanda (2008)
- Uganda (2010)
- Zambia (2011)
- Zimbabwe (2006)

Comparison Countries without a Domestic Violence Law in the Study Period
- Burkina Faso
- Cameroon
- Chad
- Democratic Republic of the Congo
- Egypt
- Guinea
- Kenya
- Liberia
- Mali
- Mozambique
- Niger
- Tanzania

➢Weight-for-height measured across 70 surveys from **2000 – 2020**

What Impact does Prohibiting Domestic Violence have on Improving Nutrition in Early Childhood?

➢ Passing a domestic violence law reduced wasting by 5.4% points, **a 30.9% reduction from the mean.**

> ➢ Benin: 30%
> ➢ Ethiopia: 69%
> ➢ Malawi: 47%
> ➢ Nigeria: 29%
> ➢ Rwanda: 45%
> ➢ Uganda: 41%
> ➢ Zambia: 4%

➢ Zambia only had civil penalties. All other countries criminalized DV.

Source: Bhuwania P, Raub A, Sprauge A, Martin A, Bose B, Kidman R, Nandi A, Behrman J, Heymann J. (2024). Impact of laws prohibiting domestic violence on wasting in early childhood. *PLoSOne* 19(3): e0301224.

What Impact does Prohibiting Domestic Violence have on Family Planning?

*Preliminary results; please do not cite or distribute

Additional sources of data

➢ **Many rich sources of income and employment data in national household surveys**

- ✓ Somewhat comparable (e.g. done under programs such as the Living Standards Measurement Study or the Household Income and Expenditure Surveys)
- ✓ Standard variables comparable to some in DHS and MICS (e.g. years of education, level of education)
- ✓ Additional variables around income and employment

➢ **Some efforts to make them comparable in the past, with mixed results**

➢ **Relatively straightforward to harmonize into a common framework**

Additional sources of data
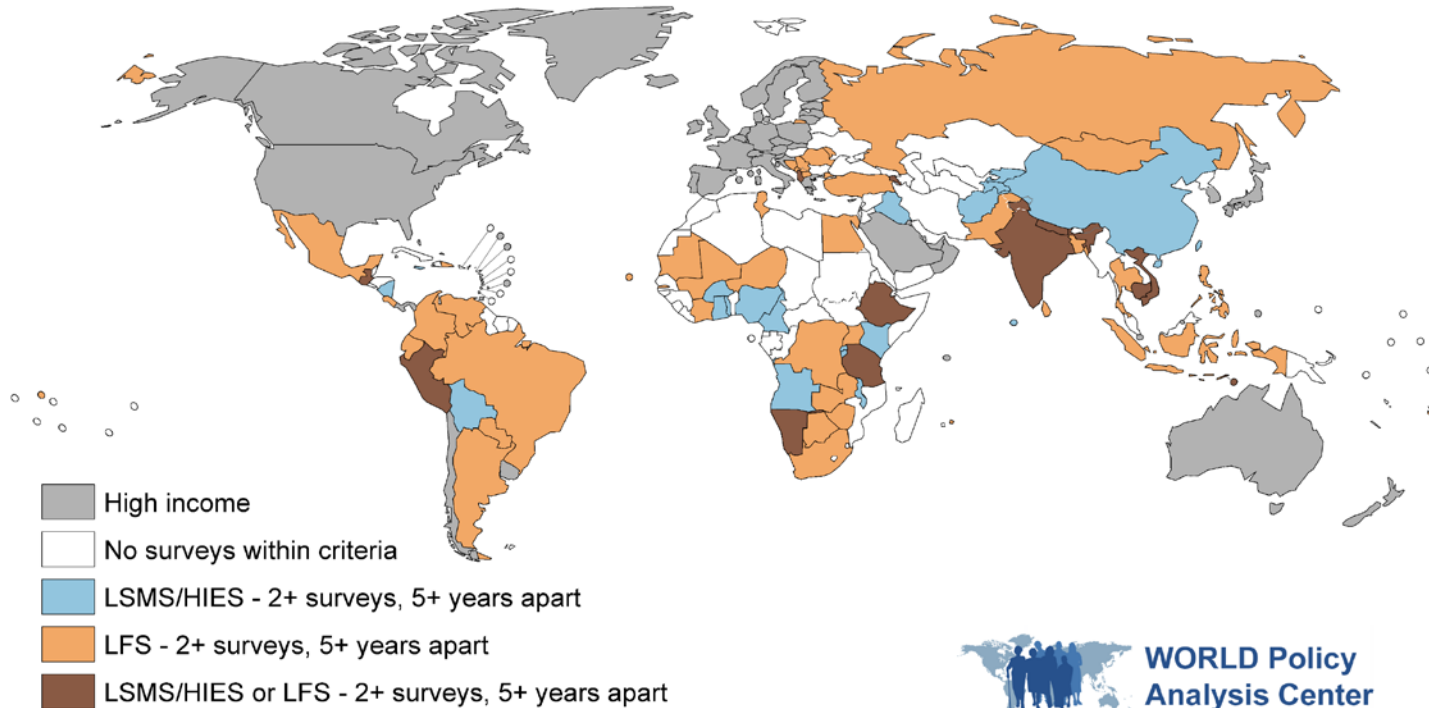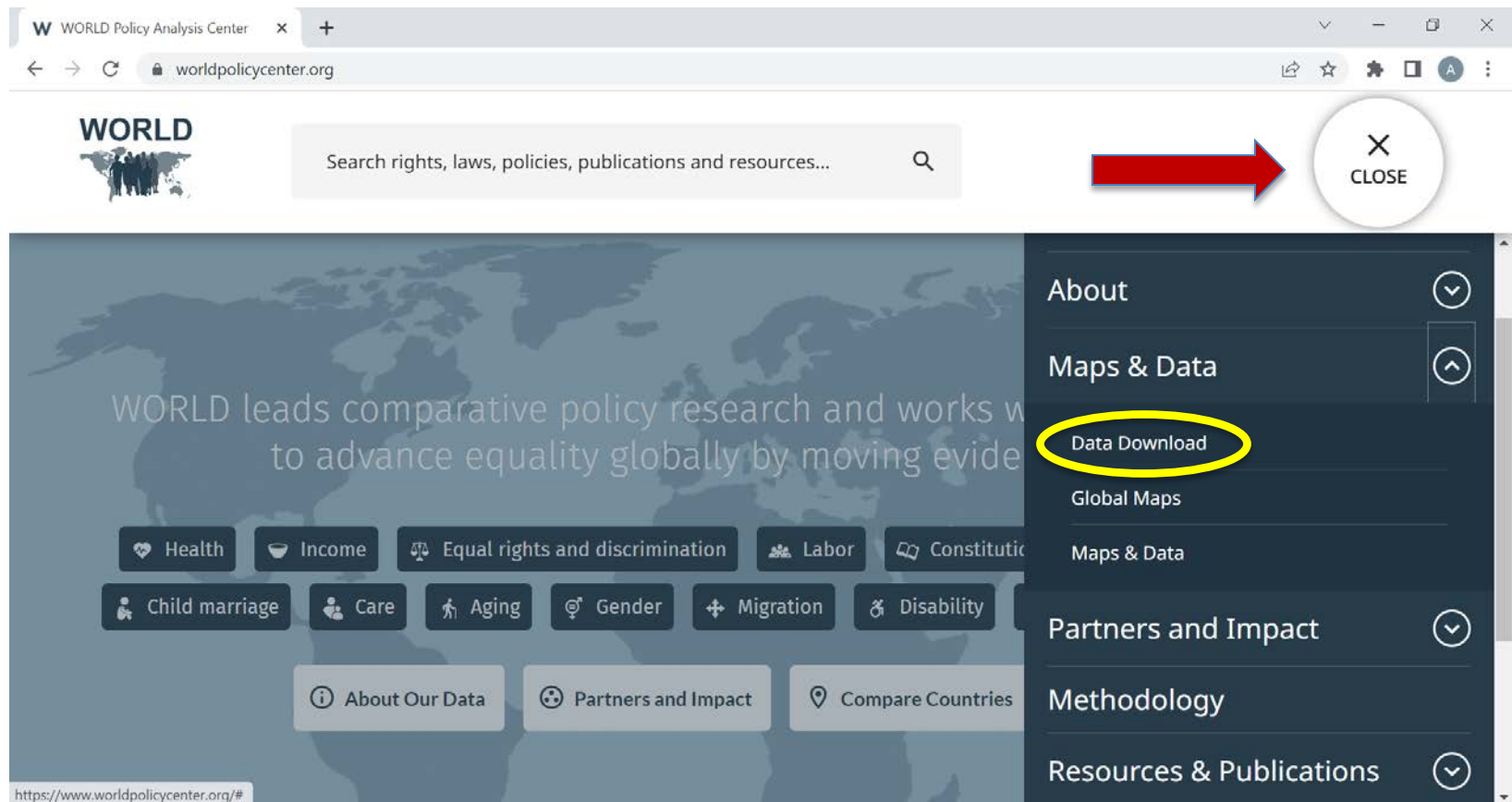
In Progress: Building the Strong Economic Case for Investing in ECD

➢ Using 64 economic surveys from 18 African countries, spanning from 1993 to 2020

➢ 920,000 women and 809,000 men

➢ Employment outcomes covered
  ➢ Labor force participation
  ➢ Employment status
  ➢ Type of employment: paid employee, unpaid worker, unpaid family worker, self-employed, causal worker

➢ Allows for investigating the effect of policies such as domestic violence, maternal/parental leave, pre-primary education on more complex employment outcomes.

Range of Ways to Use the Data and Collaborate

➢ Most recently launched policy data is freely available for public use and downloadable online

Deeper Conversations about Synergies across Research Centers

➢ We welcome exploring collaborations using longitudinal quasi-experimental or other advanced methods that use our data and others to advance the field of knowledge

➢ Building quantitatively comparable measures of laws and policies is a massive investment of time and resources, so there are many topics that are tremendously important that we haven't taken on.
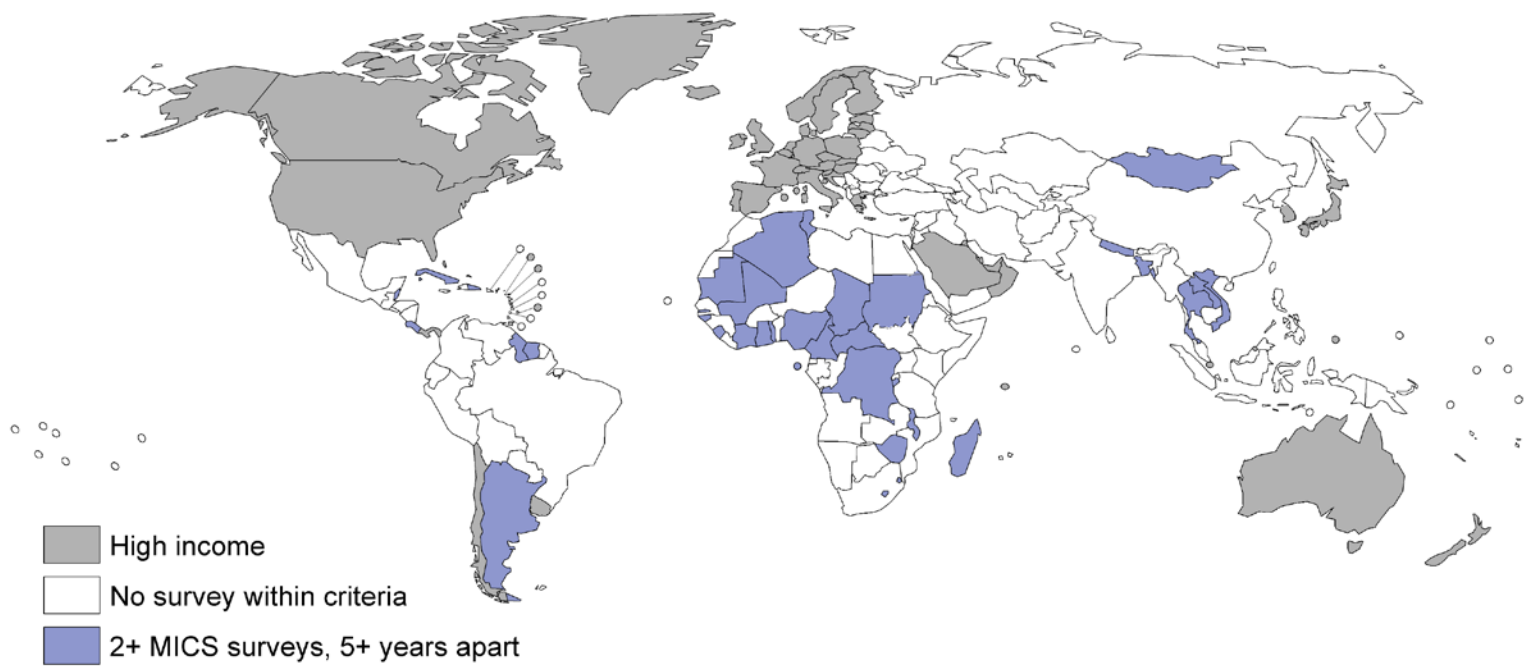
We welcome feedback & exploring ways we can work together!

Gonzalo Moreno (data collaboration): gmoreno@ph.ucla.edu
**Nick Perry (knowledge mobilization): nperry@ph.ucla.edu**

Available Outcomes Data Over Time

Heterogeneity Analyses: Do the impacts vary across sub-populations?

Domestic Violence Laws reduced childhood wasting across all wealth categories and urban/rural residents, but had larger impacts for wealthier and urban families.

Wealth

Location

Poorest Poor Middle Rich Richest

Rural Urban
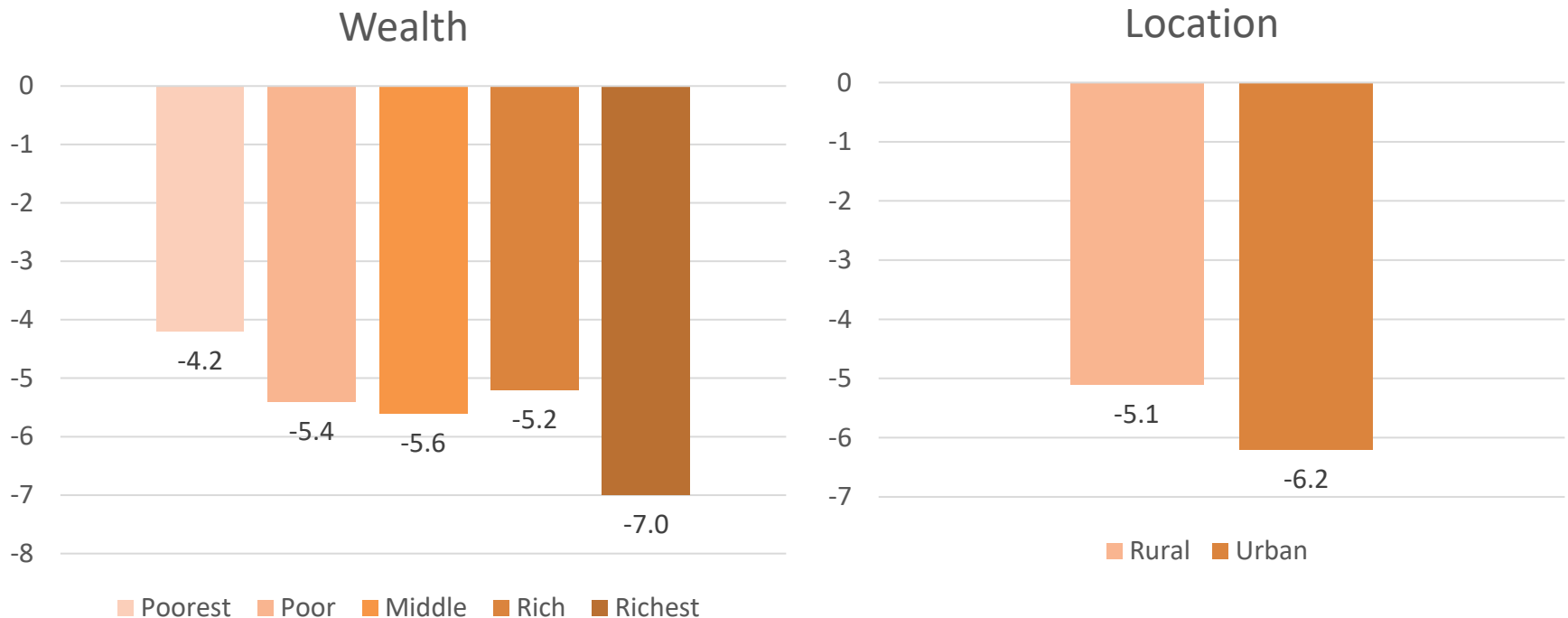
*All numbers indicate reductions in the probability of wasting in percentage points terms

Direct Data Sharing with the Millennium Challenge Corporation

- Using our data on areas relevant to early childhood and equal opportunity.

- The MCC is an independent U.S. Government agency with the mission to reduce poverty in developing countries through sustainable economic growth.

- The MCC scorecards measure policy performance on the eligibility criteria, and their **FY 2023 budget proposal includes $930 million** for the agency to continue its mission of reducing global poverty through economic growth.

Supporting the Work of UN Treaty Bodies to Strengthen Children's Rights

➢**58 reports submitted since the start of the grant** to UN treaty bodies working on children's rights, including:

  ➢the Committee on the Rights of the Child (CRC)

  ➢the Committee on the Elimination of All Forms of Discrimination Against Women (CEDAW),

  ➢the Committee on Economic, Social and Cultural Rights (CESCR)

➢Identifiable uptake of the data, including in the suggested lists of questions and text of concluding observations

➢Invited, in-person visit to the **CRC Committee in February 2023**, and to the **CESCR in October 2023**