

NO EVIDENCE, NO EQUITY

HOW CAN WE DO MORE TO IDENTIFY WHO IS BEING LEFT BEHIND?

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EQUITY
in Health | Pelotas

Mega database

115 countries
349 surveys

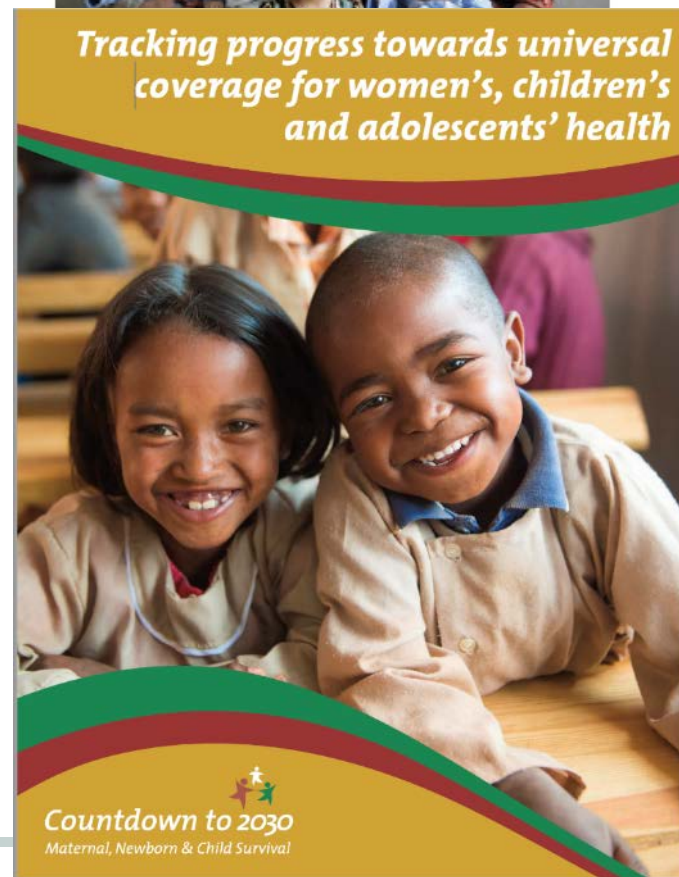
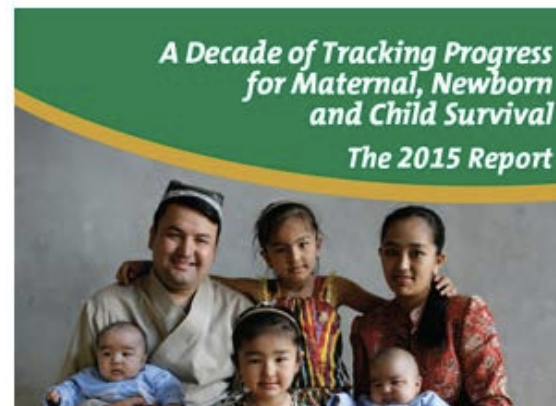
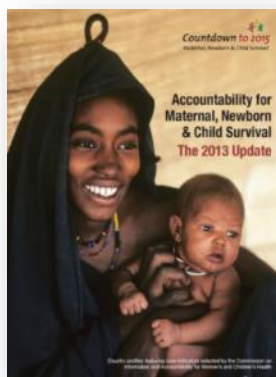
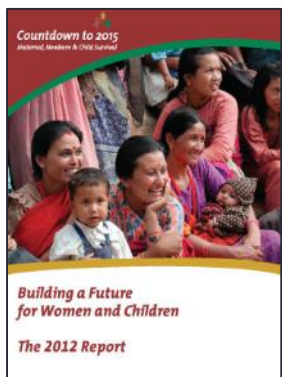
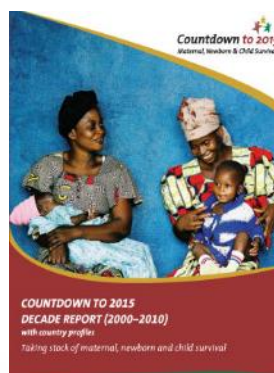
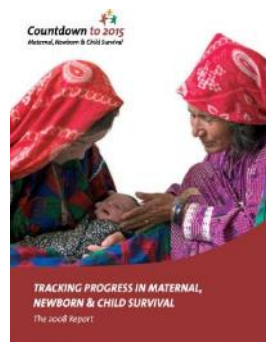
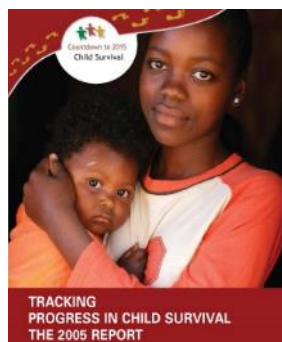
Dissemination
Monitoring
Accountability

Science
Patterns and trends
Determinants
Forecasting



Dissemination

Main partner: Countdown to 2030
(née to 2015)



www.countdown2015mnch.org

Equity database

Routine reanalysis of
national health surveys

- 115 countries
- 349 surveys
- > 5 million women
- > 10 million children
- Indicators
 - Preventive interventions, treatment of common illnesses
 - Mortality, nutrition, fertility
- Stratifiers
 - Wealth quintiles
 - Woman's education
 - Woman's age
 - Subnational units
 - Urban/rural residence
 - Child's sex
 - And more...



All estimates with std
errors & asymmetric CIs

Measuring Coverage in MNCH: Determining and Interpreting Inequalities in Coverage of Maternal, Newborn, and Child Health Interventions

Aluisio J. D. Barros^{*}, Cesar G. Victora

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The SWPER index for women's empowerment in Africa: development and validation of an index based on survey data

Fernanda Ewerling, John W Lynch, Cesar G Victora, Anouka van Eerdewijk, Marcelo Tyszler, Aluisio J D Barros



Countdown to 2015: a decade of tracking progress for maternal, newborn, and child survival

Cesar G Victora, Jennifer Harris Requejo, Aluisio J D Barros, Peter Berman, Zulfiqar Bhutta, Bernadette Daelmans, Elizabeth Hazel, Joy Lawn, Blerta Maliqi, Holly M



Summary indices for monitoring universal coverage in maternal and child health care
Fernando C Wehrmeister,^a Maria-Clara Restrepo-Mendez,^b Giovanny VA Franca,^a Cesar G Victora^a & Aluisio JD Barros^a

RESEARCH

Open Access

Coverage and equity in reproductive and maternal health interventions in Brazil: impressive progress following the implementation of the Unified Health System

Giovanny V. A. Franca¹, Maria Clara Restrepo-Mendez², Maria Fátima S. Maia, Cesar G. Victora and Aluisio J. D. Barros



Gender bias in careseeking practices in 57 low- and middle-income countries

Background Preventive and curative medical intervention for child mortality. It is important to assess whether there is access to these interventions, which can lead to preference



How to improve on equity analyses?

From survey data!

- Combined indicators
- Improved presentation
- Advance with stratifiers
→ SDG 17.18



Combined indicators - revised CCI

- Composite coverage index
 - Very useful for country comparisons and benchmarking
 - Time trend analyses
- The revised version includes new interventions and some existing ones were **replaced**

$$\frac{mDFPS + \frac{(ANC4 + SBA)}{2} + \frac{(MSL + BCG + 2 * DPT3)}{4} + \frac{(ORS + CAREP)}{2}}{5}$$

Family planning

Pregnancy care

Immunization

Treatment of illnesses

- For more finely stratified analyses, a more robust version

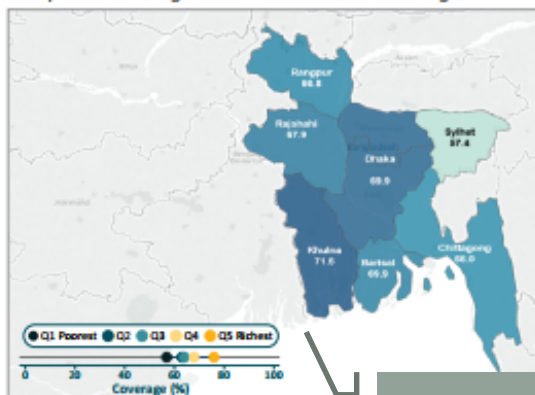
$$\frac{mDFPS + \frac{(ANC4 + SBA)}{2} + \frac{(MSL + BCG + 2 * DPT3)}{4} + CAREANY}{4}$$



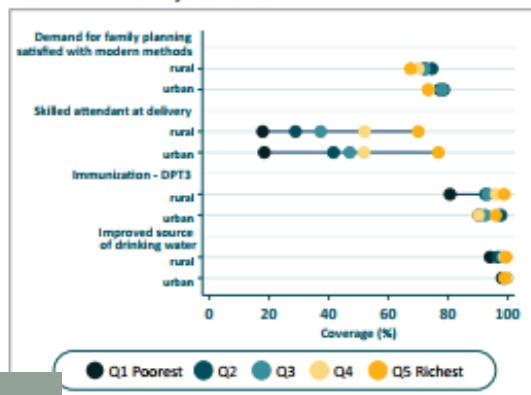
Totally revised country equity profile for Countdown

Coverage of essential RMNCH interventions

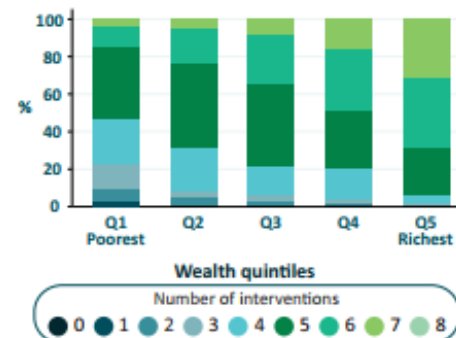
Composite coverage index - subnational coverage



Wealth and area of residence

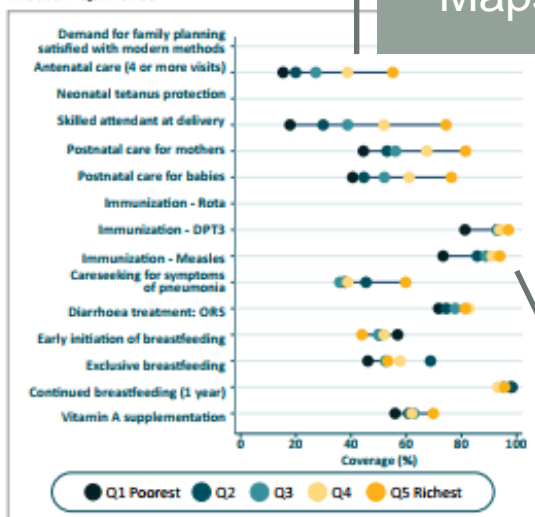


Co-coverage of essential interventions



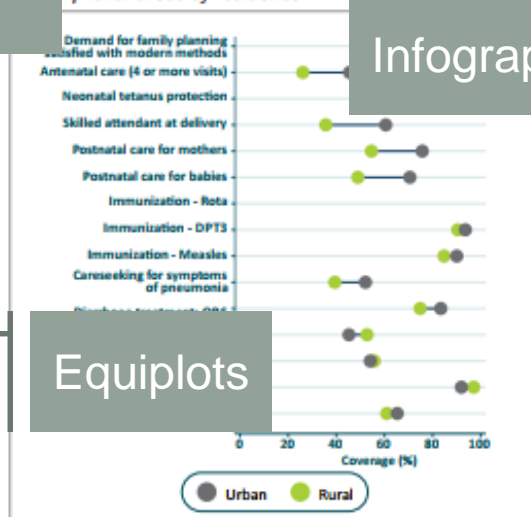
* antenatal care (4+ visits) + tetanus toxoid during pregnancy
* skilled attendant at delivery + child received vitamin A supplementation
* BCG (tuberculosis) vaccination + DPT3 (diphtheria-tetanus-pertussis) vaccination + measles vaccination + improved drinking water source

Wealth Quintiles



Maps

Urban and rural areas of residence



Infographs

Mothers & Children
4.3% received less than 3 interventions

Mothers & children with <3 interventions **X** All mothers & children

52% belong to poorest quintile **23%**

86% live in rural areas **74%**

31% Sylhet region **9%**

45% have mothers with no education **14%**

Equiplots

The last SDG – more stratifiers!

But not the least



17.18 Data, monitoring and accountability

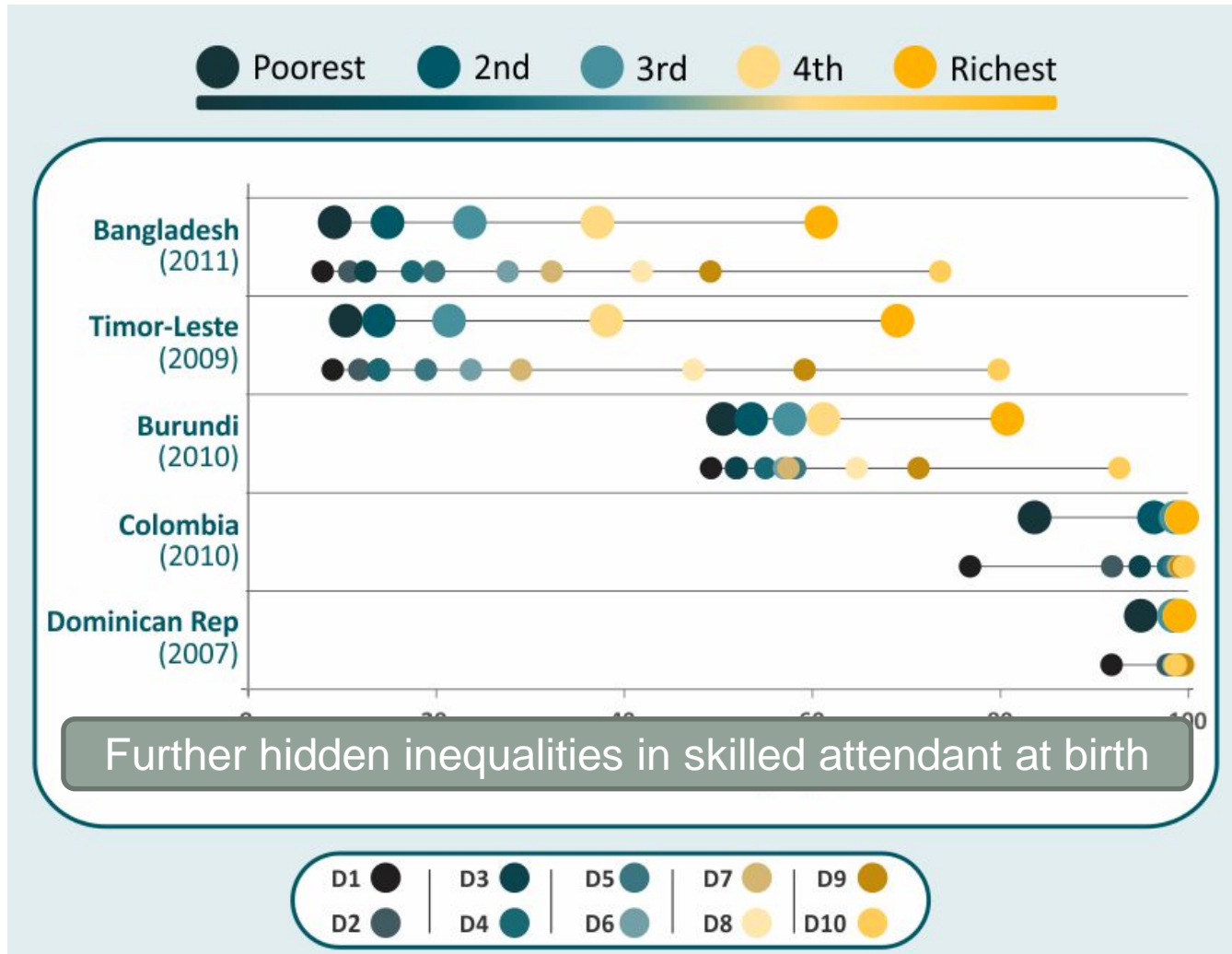
Calls for disaggregation by

- *Income* ✓
- *Gender* ✓
- *Age* ✓
- *Race/ethnicity* ...
- *Migratory status* !
- *Disability* !
- *Geographic location* ...
- *and other characteristics relevant in national contexts*



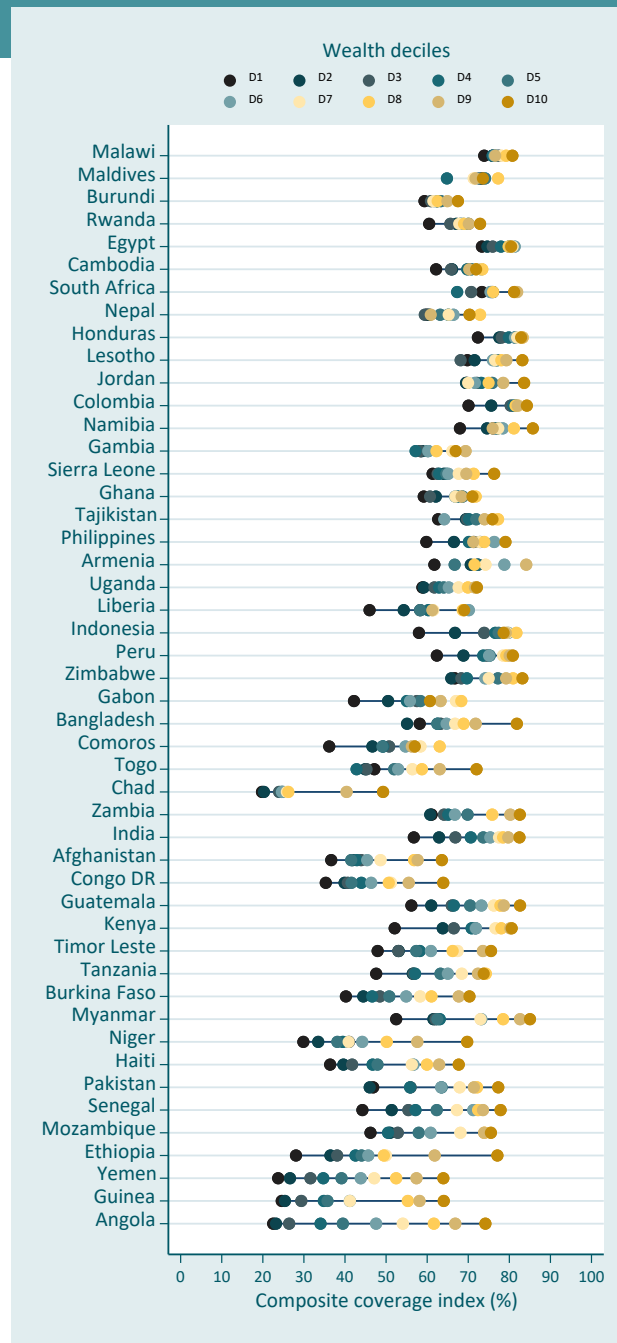
Improving on wealth inequalities

Wealth quintiles or deciles?



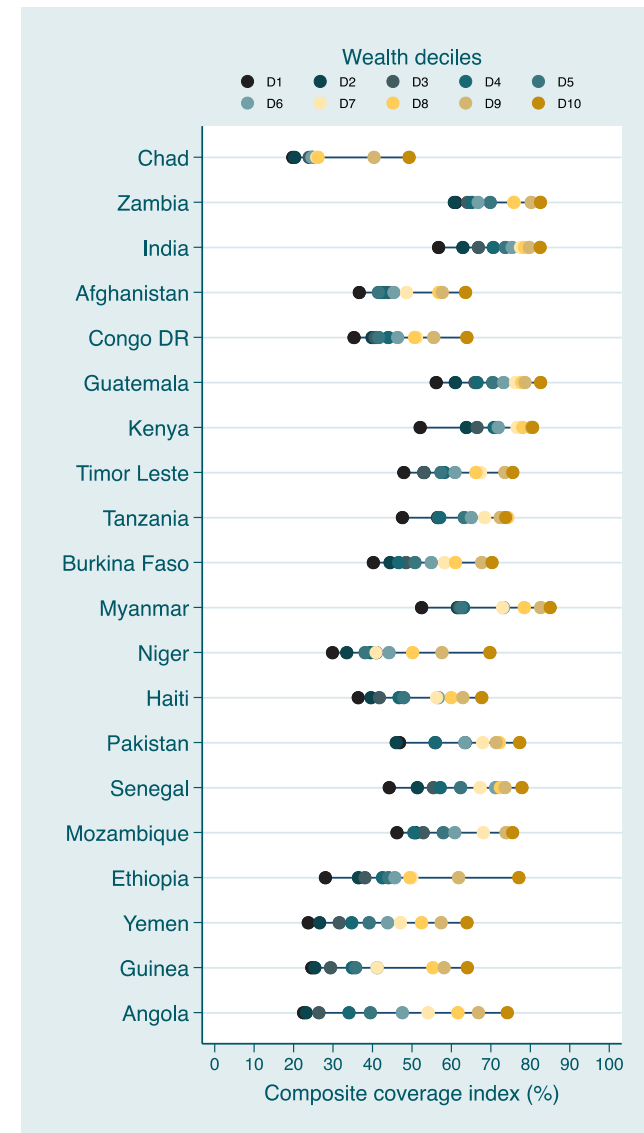
Deciles highlight differences between rich and poor more than quintiles

Inequalities in the CCI looking at 10 groups of wealth

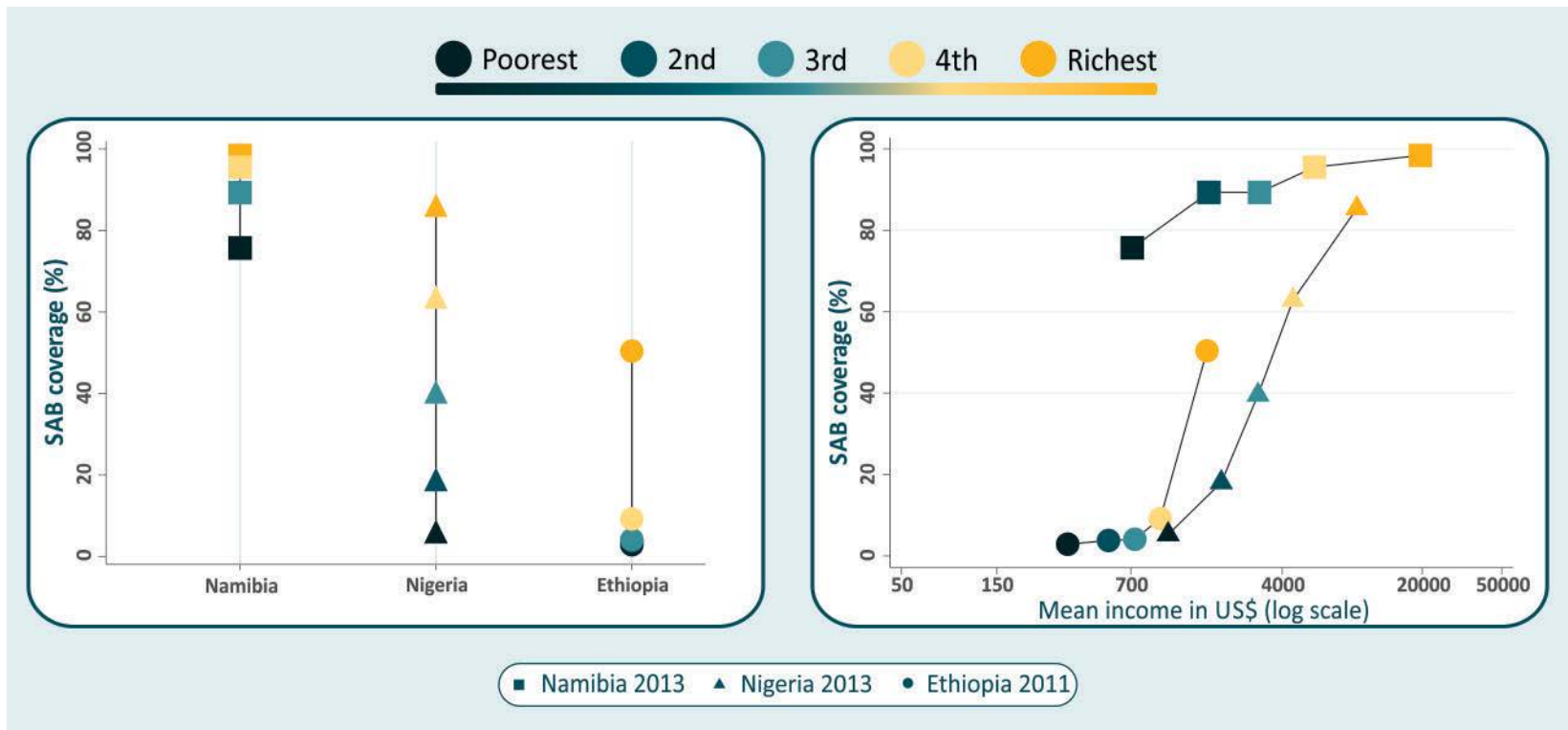


Focusing on countries with high inequality

- SII > 25 pct points
- CCI is an average
 - Attenuates differences and patterns
- Still some countries
 - Richer way ahead
 - Poorer way behind



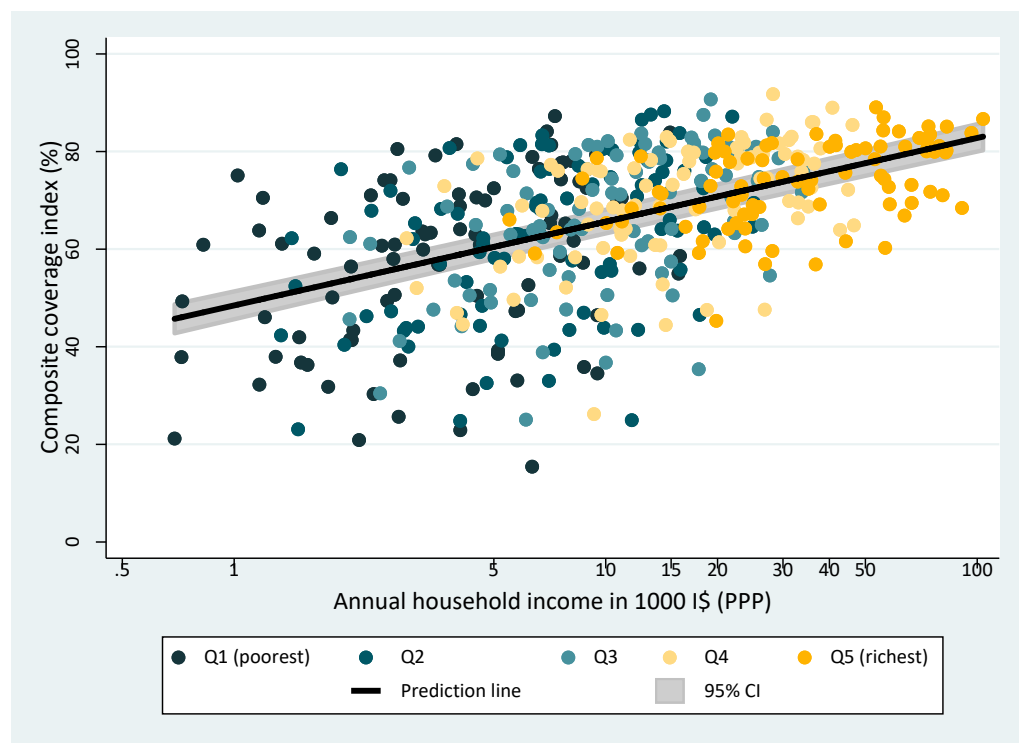
Absolute income in place of relative wealth



Comparing countries at different income levels



How CCI increases with income



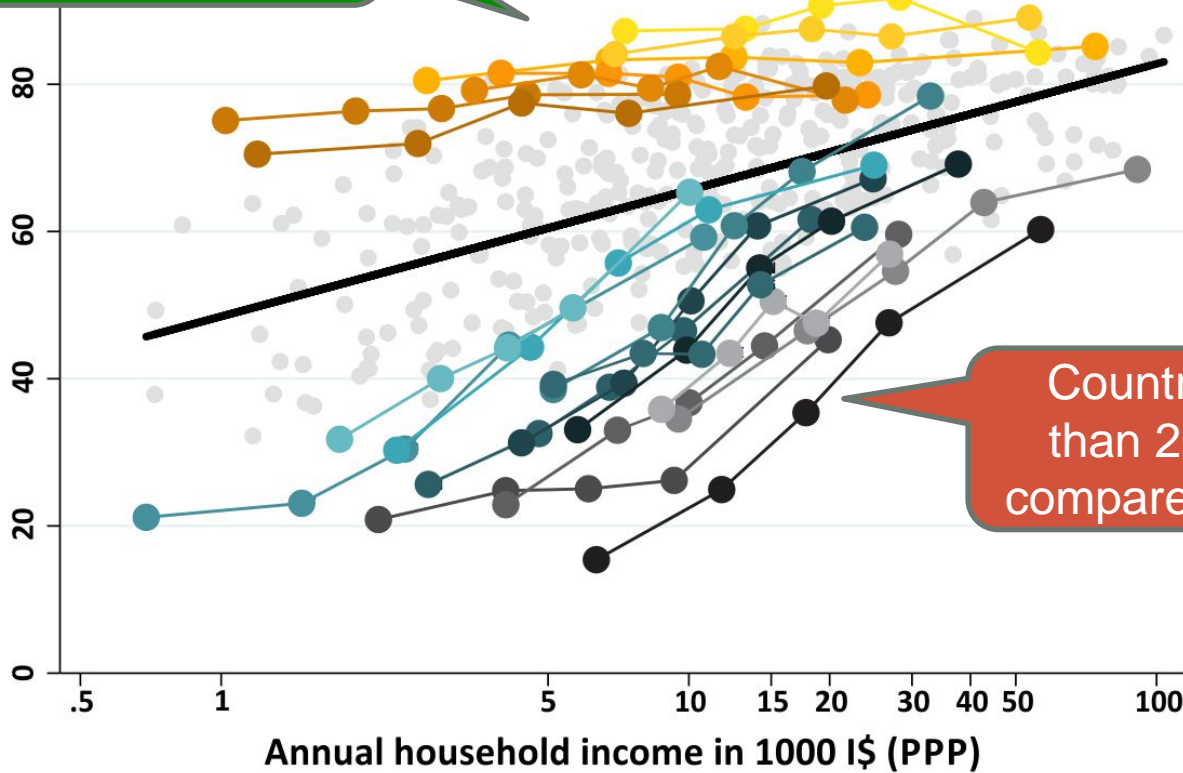
- 94 countries
- 470 quintiles
- Coverage increases with income
- Variability decreases
- Multilevel linear model to estimate expected coverage



Overachievers and underachievers

Countries with more than 20 p.p. for Q1 compared to prediction

Composite coverage index (%)



Countries with less than 20 p.p. for Q1 compared to prediction



New approach to gender - women's empowerment: the SWPER

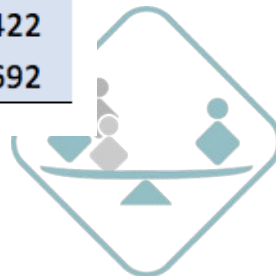
Table 4. Scoring coefficients of the women's empowerment index for Africa.

Label	Attitude to violence	Autonomy	Decision making
Beating not justified if wife goes out without telling husband	0.4561	-0.0053	-0.0011
Beating not justified if wife neglects the children	0.4668		
Beating not justified if wife argues with husband	0.4592		
Beating not justified if wife refuses to have sex with husband	0.4364	-0.0011	0.0233
Beating not justified if wife burns the food	0.4046	-0.0029	-0.0108
Frequency of reading newspaper or magazine	0.0358	0.3249	0.0906
Woman education	0.0740	0.4169	0.1211
Age of respondent at first birth		0.5615	-0.0775
Age at first cohabitation		0.5703	-0.0264
Age difference: woman – husband	0.0097	0.1939	0.0927
Education difference: woman - husband years of schooling	-0.0169	0.1932	-0.0353
Who usually decides on respondent's health care	0.0055	0.0017	0.5634
Who usually decides on large household purchases			0.5642
Who usually decides on visits to family or relatives			0.5422
Respondent worked in last 12 months	-0.0040	-0.0589	0.1692

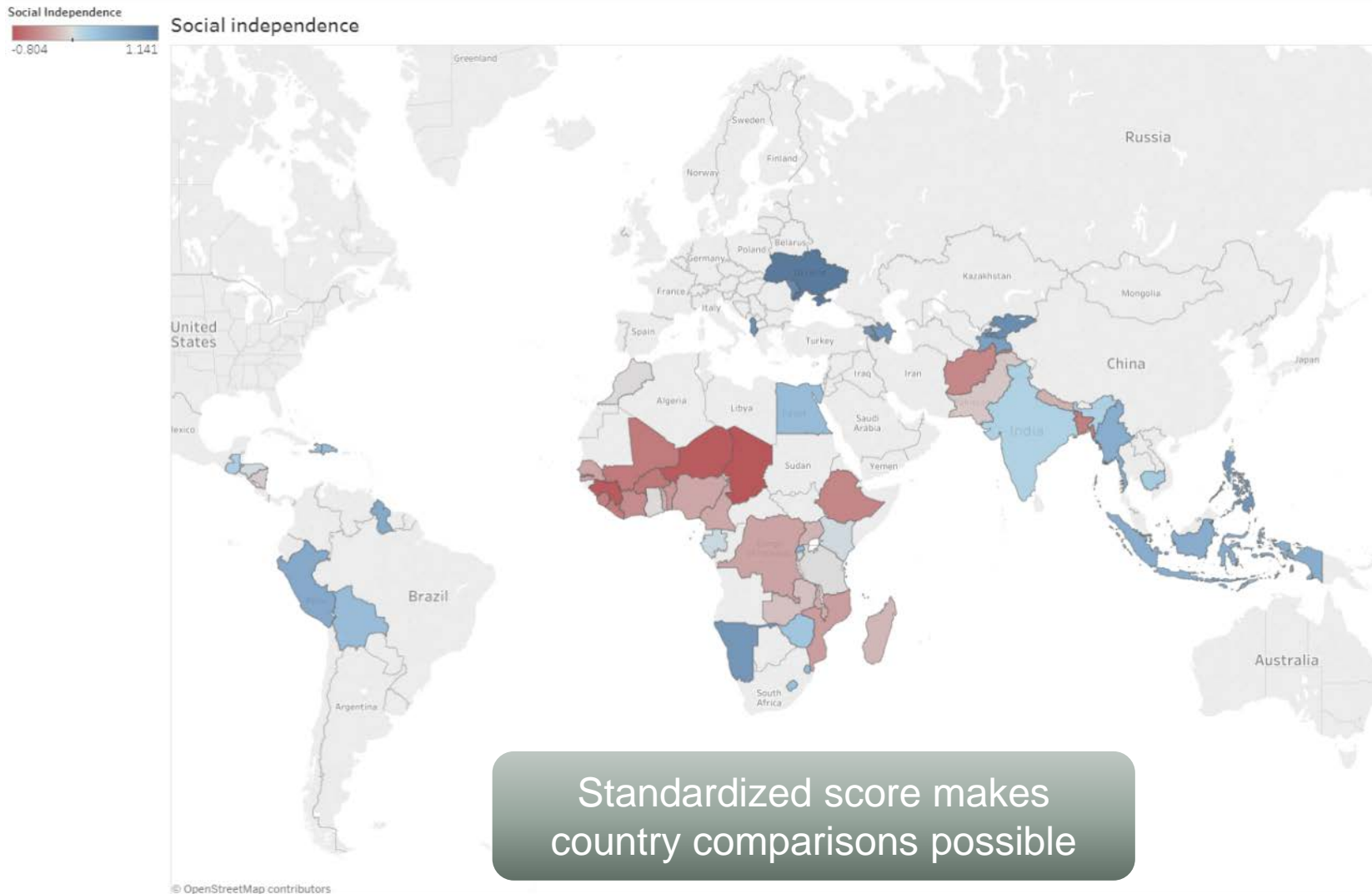
Attitude to violence

Social independence

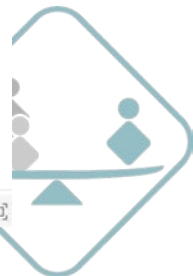
Decision making



SWPER World Map



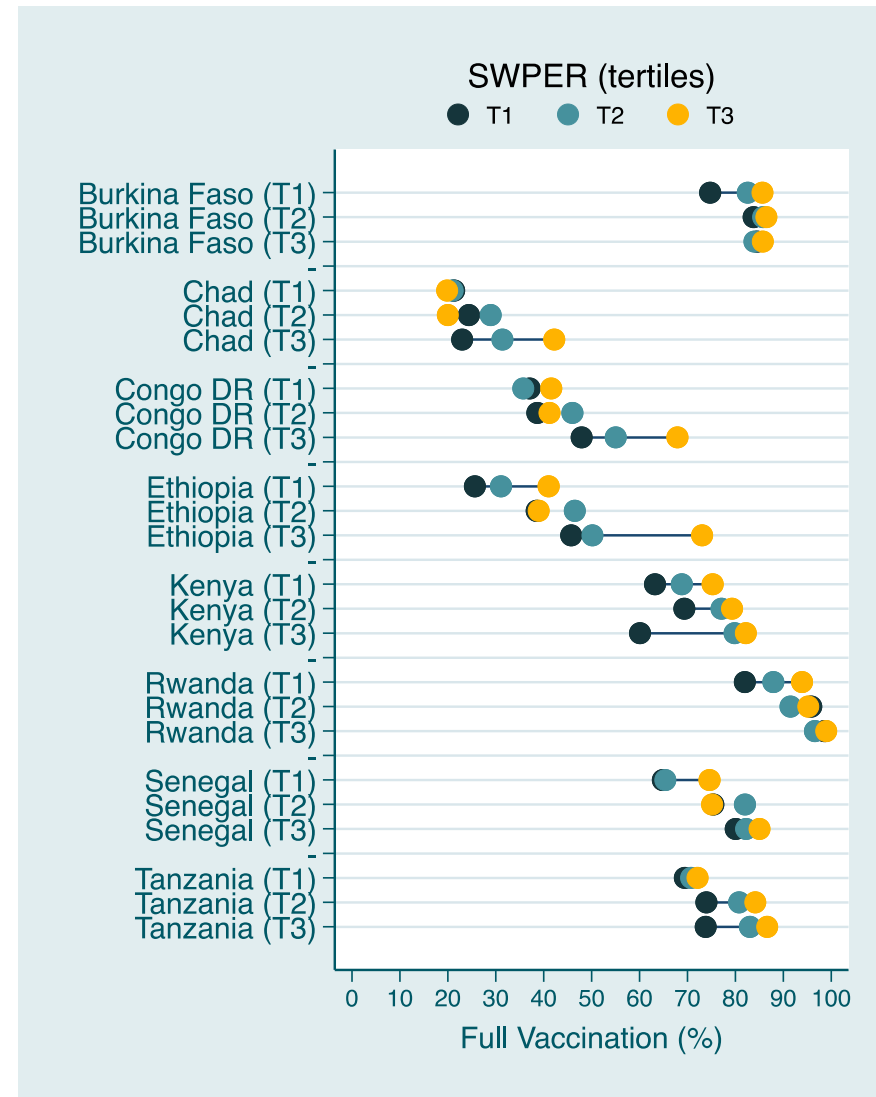
© OpenStreetMap contributors



Interseccionality: full vaccination by wealth and empowerment

Countries by wealth tertiles and empowerment tertiles

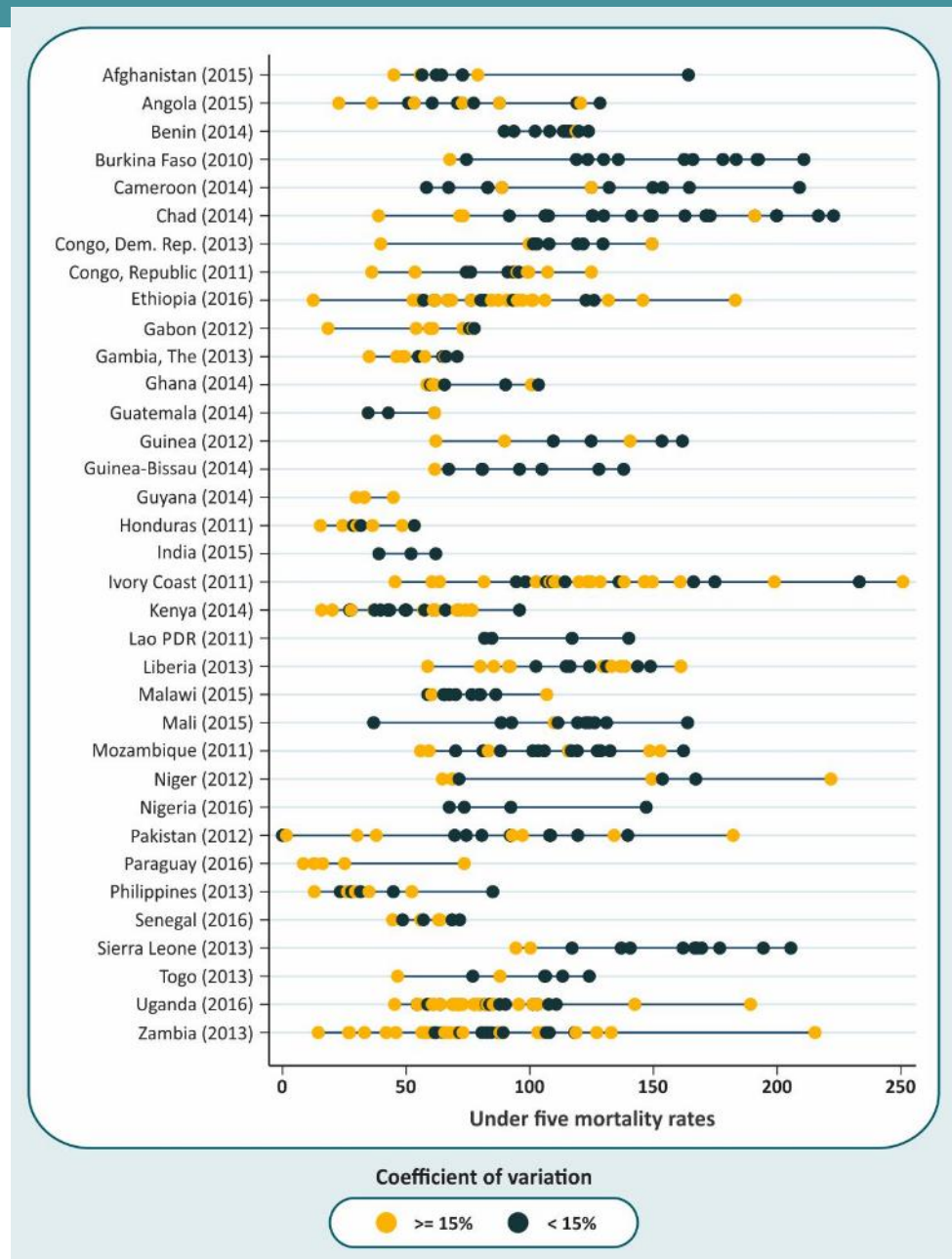
Children of more empowered women tend to present higher levels of full vaccination



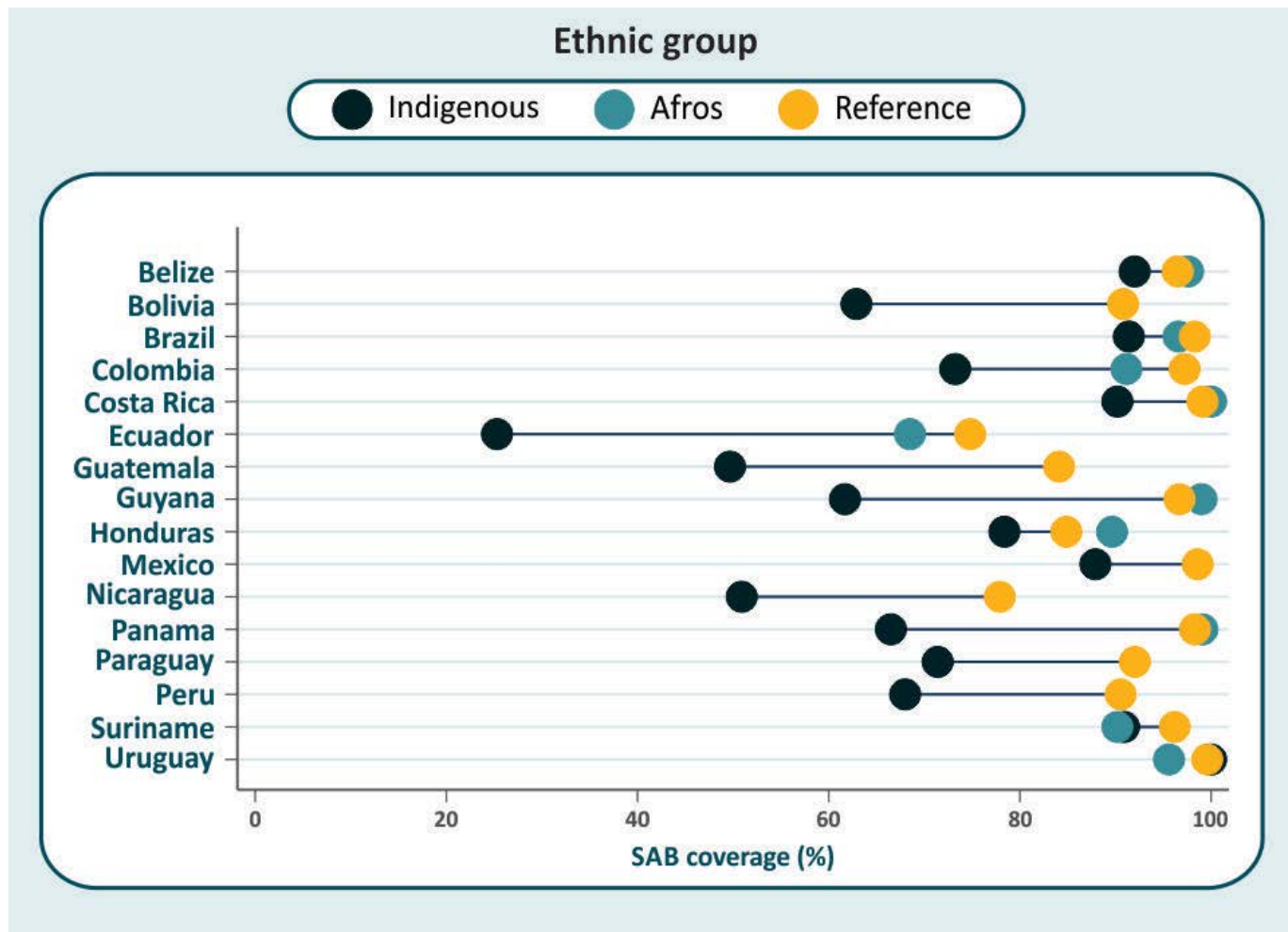
Under-5 mortality rates by ethnicity

Many groups are small and precision is low

But the spread in mortality rates is astounding in some countries



Ethnicity and skilled attendant at birth



What else?

- Intersectionality
 - Wealth x urban/rural
 - Wealth x subnational units, etc.
- Migration
 - Few surveys have information, analyses of specific situations
- Adolescents, age
 - More focus on adolescent health
 - Differences across age groups in RMNCH coverage
- Gender
 - Empowerment, violence, differential mortality, female headed households
- Disability
 - Seldom inquired in surveys, we need more info
- Geography
 - More focus on geospatial analyses
 - Changes in survey design needed for better precision



In summary

- Important advances regarding the use of a wider range of stratifiers
 - The increasing sizes of surveys with time help
- Income can give a fresh understanding of wealth inequalities
- Some stratifiers are easier than others
 - Ethnicity, migration, disability are complicated
 - Hard to classify
 - Limited data from surveys

Investment needed for more data
of better quality!





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Thank you!

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